SECURITIES AND EXCHANGE COMMISSION

WASHINGTON, D.C. 20549

FORM 6-K

REPORT OF FOREIGN PRIVATE ISSUER PURSUANT TO RULE 13a-16 OR 15d-16 OF THE SECURITIES EXCHANGE ACT OF 1934

For the month of February 2021

Commission file number: 001-35223
BioLineRx Ltd. (Translation of registrant's name into English)
2 HaMa'ayan Street Modi'in 7177871, Israel (Address of Principal Executive Offices)
Indicate by check mark whether the registrant files or will file annual reports under cover of Form 20-F or Form 40-F: Form 20-F ☑ Form 40-F □
Indicate by check mark if the registrant is submitting the Form 6-K in paper as permitted by Regulations S-T Rule 101(b) (1):
Indicate by check mark if the registrant is submitting the Form 6-K in paper as permitted by Regulations S-T Rule 101(b) (7):

The Registrant announces that it will hold an Extraordinary General Meeting of Shareholders on April 5, 2021, at 3:00 p.m. (Israel time) at the Registrant's office, 2 HaMa'ayan Street, Modi'in, Israel. Attached hereto as Exhibit 1, Exhibit 2 and Exhibit 3, are, respectively, the Notice of Extraordinary General Meeting and Proxy Statement, Proxy Card and Voting Instruction Card for holders of American Depositary Shares.

This Form 6-K, including all exhibits hereto, is hereby incorporated by reference into all effective registration statements filed by the registrant under the Securities Act of 1933.

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

BioLineRx Ltd.

By: /s/ Philip Serlin

Philip Serlin

Chief Executive Officer

Dated: February 26, 2021

BIOLINERX LTD.

NOTICE OF EXTRAORDINARY GENERAL MEETING OF SHAREHOLDERS ON APRIL 5, 2021

Notice is hereby given that an Extraordinary General Meeting of Shareholders (the "**Meeting**") of BioLineRx Ltd. (the "**Company**") will be held at the offices of the Company at Modi'in Technology Park, 2 HaMa'ayan Street, Modi'in 7177871, Israel, on April 5, 2021 at 3:00 p.m. for the following purposes:

- 1. To approve an amendment to Section 4.3 of the Company's Compensation Policy for Executives and Directors, relating to Directors' and Officers' ("**D&O**") insurance, in the form attached as **Annex A** to the Proxy Statement.
- 2. To approve amendments to Sections 5.3 and 5.4 of the Company's Compensation Policy for Executives and Directors, relating to differential compensation for a Board chairperson, in the form attached as **Annex B** to the Proxy Statement.
- 3. To approve an equity compensation grant to Philip Serlin, the Company's Chief Executive Officer.

Shareholders of record at the close of business on March 4, 2021 (the "**Record Date**") are entitled to notice of and to vote at the Meeting. All shareholders are cordially invited to attend the Meeting in person.

Whether or not you plan to attend the Meeting, you are urged to promptly complete, date and sign the enclosed proxy and to mail it in the enclosed envelope, which requires no postage if mailed in the United States. A proxy from the holder of ordinary shares must be received by the Company no later than 3:00 p.m. on April 1, 2021 to be validly included in the tally of ordinary shares voted at the Meeting; a proxy from the holder of the Company's American Depositary Shares must be received by The Bank of New York Mellon as Depositary no later than 12:00 p.m. EDT on April 1, 2021 to be validly included in the tally of votes for the Meeting. Return of your proxy does not deprive you of your right to attend the Meeting, to revoke the proxy or to vote your shares in person.

Beneficial owners who hold their shares through members of the Tel Aviv Stock Exchange ("TASE") may (i) vote their shares in person at the Meeting by presenting a certificate signed by a member of the TASE which complies with the Israel Companies Regulations (Proof of Ownership for Voting in General Meetings), 5760-2000 as proof of ownership of the shares, (ii) send such certificate along with a duly executed proxy to the Company at 2 HaMa'ayan Street, Modi'in 7177871, Israel, Attention: Chief Financial Officer, or (iii) complete the Internet voting process via the electronic voting system of the Israel Securities Authority the ("ISA") after receiving a personal identifying number, an access code and additional information regarding this Meeting from the member of the TASE and after carrying out a secured identification process, up to six hours before the time set for the Meeting.

By Order of the Board of Directors,

BioLineRx Ltd.

February 26, 2021

PROXY STATEMENT

BIOLINERX LTD.
Modi'in Technology Park
2 HaMa'ayan Street
Modi'in 7177871
Israel

EXTRAORDINARY GENERAL MEETING OF SHAREHOLDERS ON APRIL 5, 2021

The enclosed proxy is being solicited by our Board of Directors for use at our Special Meeting of shareholders (the "**Meeting**") to be held on April 5, 2021 at 3:00 p.m., or at any adjournment thereof, at the offices of the Company at Modi'in Technology Park, 2 HaMa'ayan Street, Modi'in 7177871, Israel. The record date for determining which of our shareholders is entitled to notice of, and to vote at, the Meeting is established as of the close of trade on March 4, 2021 (the "**Record Date**"). On the date hereof, we have outstanding and entitled to vote 638,017,180 of our ordinary shares, nominal value New Israeli Shekels ("**NIS**") 0.10 each (the "**Ordinary Shares**").

INFORMATION CONCERNING SOLICITATION AND VOTING

Record Date and Shares Outstanding

You are entitled to vote at the Meeting if you were a shareholder at the close of trade on the Record Date. Subject to the terms described herein, you are also entitled to vote at the Meeting if you held Ordinary Shares (including Ordinary Shares represented by ADSs) through a bank, broker or other nominee which was a shareholder of record of the Company at the close of trade on the Record Date or which appeared in the participant listing of a securities depository on that date.

Quorum, Voting, Solicitation and Revocation of Proxies.

At least two shareholders who attend the Meeting in person, by proxy or by means of voting via the electronic voting system of the Israel Securities Authority (the "ISA Electronic Voting System") who hold or represent together at least 25% of the voting rights of our issued share capital will constitute a quorum for the Meeting. If a quorum is not present within half an hour from the time scheduled for the Meeting, the Meeting will be adjourned to the following week, at the same time and place, without it being necessary to notify our shareholders. A quorum at such adjourned meeting shall be any number of participants. Each outstanding Ordinary Share held by a shareholder is entitled to one vote.

Shareholders entitled to vote at the Meeting may attend the Meeting in person and vote thereat, appoint a proxy, vote by written ballot or, if they hold Ordinary Shares through a TASE member, may vote electronically via the ISA Electronic Voting System after receiving a personal identifying number, an access code and additional information regarding the Meeting from the relevant member of the TASE and after carrying out a secured identification process, up to six hours before the time set for the Meeting. A proxy from the holder of Ordinary Shares must be received by the Company no later than 3:00 p.m. on April 1, 2021 to be validly included in the tally of Ordinary Shares voted at the Meeting; a proxy from the holder of the Company's American Depositary Shares ("ADSs") must be received by The Bank of New York Mellon as Depositary no later than 12:00 p.m. EST on April 1, 2021 to be validly included in the tally of votes for the Meeting.

Shareholders are permitted to express their position on the proposals to be voted on at the Meeting by submitting a written statement, through the Company, to the other shareholders (a "**Position Statement**"). Position Statements should be submitted to the Company at its registered offices at 2 HaMa'ayan Street, Modi'in 7177871, Israel, Attn: Chief Financial Officer. Any Position Statement received will be furnished to the SEC in a Report of Foreign Private Issuer on Form 6-K and will be made available to the public on the SEC's website at http://www.sec.gov, and in addition at http://www.magna.isa.gov.il or http://maya.tase.co.il. Position Statements must be submitted no later than March 26, 2021.

Each member of the TASE (a "**Member**") is required to e-mail a link to the Proxy Statement and any Position Statements published on the websites of the TASE and the ISA (http://www.tase.co.il/tase/ and http://www.magna.isa.gov.il, respectively) to each shareholder who is not listed in the Company's shareholder register and whose shares are held through the Member; except in cases in which a shareholder has notified the Member that he/she/it is not interested in receiving such links and has submitted the notice (a) with respect to a specific securities account, and (b) prior to the Record Date.

A shareholder whose shares are held through a Member may obtain, upon request from the Member, a certification of ownership regarding his/her/its shares. Such certification may be obtained in the Member's offices or may be sent to the shareholder by mail (subject to payment of the cost of mailing), at the election of the shareholder, on condition that the shareholder's request be submitted with respect to a specific securities account.

Pursuant to the Israeli Companies Law, 1999-5759 (the "**Companies Law**"), Proposals 1, 2 and 3 require the affirmative vote of a simple majority of shares present at the Meeting, in person or by proxy, and voting thereon, or voting via the ISA Electronic Voting System, as long as either:

- the majority of shares that voted for the approval of the respective proposal includes at least a majority of the shares held by noncontrolling and non-interested shareholders voted at the Meeting (excluding abstaining votes) and via the ISA Electronic Voting
 System; or
- the total number of shares of non-controlling and non-interested shareholders that voted against the approval of the respective proposal does not exceed two percent of the aggregate voting rights in the company ("Disinterested Majority").

Shareholders are requested to notify us whether or not they have a "Personal Interest" in connection with each of Proposals 1, 2 and 3. If any shareholder casting a vote in connection with the foregoing proposal does not notify us as to whether or not he, she or it has a Personal Interest with respect to a given proposal, that shareholder's vote with respect to such proposal will be disqualified and will not be counted in determining whether the above Disinterested Majority approval requirements are satisfied.

For the purpose of determining whether the Disinterested Majority approval requirements have been satisfied, "Personal Interest" is defined as: (1) a shareholder's personal interest in the approval of an act or a transaction of the company, including (i) the personal interest of his or her relative (which includes for these purposes any members of his/her (or his/her spouse's) immediate family or the spouses of any such members of his or her (or his/her spouse's) immediate family); and (ii) a personal interest of a body corporate in which a shareholder or any of his/her aforementioned relatives serves as a director or the chief executive officer, owns at least 5% of its issued share capital or its voting rights or has the right to appoint a director or chief executive officer, but (2) excluding a personal interest arising solely from the fact of holding shares in the company or in a body corporate. Under the Companies Law, in the case of a person voting by proxy for another person, "Personal Interest" includes a personal interest of either of the proxy holder or the shareholder granting the proxy, whether or not the proxy holder has discretion how to vote. If you do not have a Personal Interest in the above matter being presented to the shareholders, you may assume that using the form of proxy enclosed herewith will not create a Personal Interest.

As of the date of this Proxy Statement, the Company has no controlling shareholders within the meaning of the Companies Law. In addition, the Company believes that the vast majority of its shareholders should not have a Personal Interest in each of Proposals 1, 2 and 3.

You may change your mind and cancel your proxy card by filing a written notice of revocation with the Company, by completing and returning a duly executed proxy card bearing a later date or by voting in person at the Meeting. Attendance at the Meeting will not in and of itself constitute revocation of proxy. Subject to the foregoing paragraph, shares represented by a valid proxy card will be voted in favor of the proposed resolution to be presented at the Meeting, unless you clearly vote against a specific resolution.

Under the terms of the Deposit Agreement among the Company, The Bank of New York Mellon, as Depositary, and the holders of the Company's ADSs, the Depositary shall endeavor (insofar as is practicable and in accordance with the applicable law and the articles of association of the Company) to vote or cause to be voted the number of Ordinary Shares represented by ADSs in accordance with the instructions provided by the holders of ADSs to the Depositary. If no instructions are received by the Depositary from any holder of ADSs with respect to any of the Ordinary Shares represented by the ADSs evidenced by such

holder's receipts on or before the date established by the Depositary for such purpose (as set forth above), then the Depositary will deem the holder of the Ordinary Shares to have instructed the Depositary to give a discretionary proxy to a person designated by the Company with respect to the Ordinary Shares represented by such ADSs, and the Depositary will give such instruction. In such case, the restrictions of the Companies Law with respect to "Personal Interest" as described above, would apply as well.

PROPOSAL ONE

APPROVAL OF AMENDMENT TO SECTION 4.3 OF THE COMPENSATION POLICY FOR EXECUTIVES AND DIRECTORS, RELATING TO DIRECTORS' AND OFFICERS' INSURANCE

Compensation for our executive officers, based on each officer's employment agreement and personal contribution to our management, operations and success, will be determined in accordance with our Compensation Policy for Executives and Directors (the "Compensation Policy"). As required by the Companies Law, our shareholders approved the Compensation Policy for our office holders at our extraordinary general meeting in December 2013, and have subsequently approved the renewal and amendment of the Compensation Policy a number of times, most recently an amendment approved in March 2020. The Compensation Policy provides a framework for establishing the terms of office and employment of the Company's office holders, a recoupment policy and guidelines with respect to the structure of the variable pay of office holders. The term "office holder," as defined in the Companies Law, includes directors, executive officers and any manager directly subordinate to the chief executive officer.

The Compensation Policy must be reviewed from time to time by our Compensation Committee and Board of Directors, to ensure its alignment with the Company's compensation philosophy and to consider its appropriateness for the Company.

Accordingly and in light of the experience gained in the implementation of the Compensation Policy as well as the changes in the Company's environment since the full renewal and amendment of the Compensation Policy in 2019, certain changes are proposed to be included in the current Compensation Policy. Following the recommendation of the Compensation Committee, the Board of Directors has approved, and recommends that shareholders approve, certain amendments to our Compensation Policy, set out in Proposals 1 and 2.

When considering amendments to the Compensation Policy, the Compensation Committee and the Board of Directors considered a number of factors, including the relevant matters and provisions set forth in the Companies Law and best practice recommendations issued by the Israeli Securities Authority, and reviewed other information they deemed relevant, with the advice of the Company's legal advisors.

- In 2020, the Israel Securities Authority (the "ISA") determined in a published position paper, that in light of current trends in the market for directors and officers liability insurance, the Compensation Policies of Israeli publicly traded companies, are no longer required to fix limits on the premiums for, or the deductible required in, such policies; provided that Compensation Policies relate to the maximum scope of the coverage, the cost of such policy is not material to the Company and the cost of the premium and amount of deductible are consistent with market conditions at the time of the purchase of the policy.
- Our Compensation Committee determined that in light of current trends in the market for directors' and officers' liability insurance in which insurance premiums have increased over the last year by almost 100%, it has become virtually impossible to renew such polices within the limitations set forth in our Compensation Policy. As a result our Compensation Committee and Board of Directors have approved an amendment to the final paragraph of Section 4.3 of our Compensation Policy, such that the final paragraph of Section 4.3 shall read as follows:

"The Company is authorized to purchase insurance policies (including run-off policies) to cover the liability of directors and Executives that are currently in office and that shall be in office from time to time, including directors and Executives that may have a controlling interest in the Company (if such becomes applicable in the future), within the following limit the maximum aggregate limit of liability pursuant to the policies shall be not more than \$20 million for each insurance. The Compensation Committee shall be authorized to increase the coverage purchased, by up to 20% in any year, as compared to the previous year, or cumulatively for a number of years, without an additional shareholders' approval to the extent permitted under the Companies Law. The authority to enter into such insurance policies shall be held by the Compensation Committee, provided that the premium for each policy, the maximum deductible and the terms of the contract are consistent with market conditions and will not materially affect the Company's profits, property or liabilities."

Annex A to this proxy statement provides a redline version of the final paragraph of Section 4.3, indicating the specific amendments to Section 4.3 of the Compensation Policy.

Our Board of Directors will present the following resolution for adoption at the Meeting:

"RESOLVED, to approve the amendment to the final paragraph of Section 4.3 of the BioLineRx Ltd. Compensation Policy for Executives and Directors, relating to Directors' and Officers' insurance, in the form attached as Annex A to the Company's proxy statement dated February 26, 2021."

Pursuant to the Companies Law, approval of this proposal requires the affirmative vote of a Disinterested Majority of shares present at the meeting, in person or by proxy, and voting thereon.

Our Board of Directors recommends a vote "FOR" approval of the amendment to the final paragraph of Section 4.3 of the Compensation Policy.

The Companies Law allows our Board of Directors to approve this proposal even if it was not approved by our shareholders, provided that our Compensation Committee and thereafter the Board of Directors have determined that the proposal is for the good of the Company and decide to reapprove the proposal, based on detailed reasoning, and after having re-examined the proposed Compensation Policy as amended and taken, inter alia, the shareholder rejection into consideration.

PROPOSAL TWO

APPROVAL OF AMENDMENTS TO SECTIONS 5.3 AND 5.4 OF THE COMPENSATION POLICY FOR EXECUTIVES AND DIRECTORS, RELATING TO DIFFERENTIAL COMPENSATION FOR A BOARD CHAIRPERSON

While under the current Compensation Policy, all non-executive directors, receive the same compensation as our external directors, other than in exceptional circumstances (e.g., in the case of a key opinion leader or globally recognized expert), our Compensation Committee and Board of Directors have determined that it is in the best interests of the Company to also provide differential compensation for a chairperson of the board who is determined by our Board of Directors to be an active chairperson. Consequently, our Compensation Committee and Board of Directors approved an amendment to our Compensation Policy which permits a non-executive chairperson to receive a gross salary that is not identical to that of our external directors, in certain circumstances.

Consequently, our Compensation Committee and Board of Directors have approved amendments to Section 5.3 and Section 5.4 of the Compensation Policy, such that the amended Sections shall read as follows:

"5.3 In exceptional circumstances (e.g., a key opinion leader or globally recognized expert), higher compensation may be paid to a director candidate in accordance with this Policy and applicable law. Notwithstanding the above, in the case of a chairperson determined by the Board to be an active chairperson the financial compensation may be up to 50% higher than for other directors (other than those directors who may receive greater compensation due to the exceptional circumstances as described in this paragraph).

5.4 The Compensation Committee may propose, and Board may approve, the grant of equity to directors, in accordance with the provisions set forth in Section 4.2 to this Policy, which shall apply mutatis mutandis, taking into consideration compliance with this Policy and applicable law."

Annex B to this proxy statement provides a redline version of the final paragraphs of Sections 5.3 and 5.4, indicating the specific amendments to Sections 5.3 and 5.4 of the Compensation Policy.

Our Board of Directors will present the following resolution for adoption at the Meeting:

"RESOLVED, to approve the amendments to Sections 5.3 and 5.4 of the BioLineRx Ltd. Compensation Policy for Executives and Directors, relating to differential compensation for a Board chairman, in the form attached as Annex B to the Company's proxy statement dated February 26, 2021."

Pursuant to the Companies Law, approval of this proposal requires the affirmative vote of a Disinterested Majority of shares present at the meeting, in person or by proxy, and voting thereon.

Our Board of Directors recommends a vote "FOR" approval of the amendments to Sections 5.3 and 5.4 of the Compensation Policy.

The Companies Law allows our Board of Directors to approve this proposal even if it not approved by our shareholders, provided that our Compensation Committee and thereafter the Board of Directors have determined that the proposal is for the good of the Company and decide to reapprove the proposal, based on detailed reasoning, and after having re-examined the proposed Compensation Policy as amended and taken, inter alia, the shareholder rejection into consideration.

PROPOSAL THREE APPROVAL OF AN EQUITY COMPENSATION GRANT TO PHILIP SERLIN, CEO

Mr. Philip Serlin has been the Company's Chief Executive Officer since October 2016. Prior to becoming our CEO, Mr. Serlin served as our Chief Financial and Operating Officer beginning in 2009. Pursuant to the Companies Law, arrangements regarding the compensation of the Company's Chief Executive Officer require the approval of the Compensation Committee, the Board of Directors and the shareholders, in that order.

Grants of Options and Performance Stock Units ("PSUs")

The Company's Amended and Restated 2003 Share Incentive Plan (the "**Incentive Plan**") provides for the grant of equity compensation to our officers in the form of options to purchase Ordinary Shares and Performance Stock Units ("**PSUs**"), among other instruments. Equity-based compensation is intended to reward for future performance and is used to foster a long-term link between our officers' interests and the interests of the Company and its shareholders as well as to attract, motivate and retain officers for the long term. Options create a direct link to share performance, compensating officers if the price of our Ordinary Shares rises in relation to the exercise price of the options.

The PSUs under our Incentive Plan have a vesting mechanism which is based on pre-determined, significant Company business milestones and are intended to attract, motivate and retain officers by linking compensation closely to Company performance. Each PSU is comprised of one of our Ordinary Shares.

Following approval by our Compensation Committee, on November 17, 2020, our Board of Directors approved, subject to shareholder approval, the grant to Mr. Serlin of (1) options to purchase 3,301,100 of our Ordinary Shares (the equivalent of 220,074 of our ADSs). The exercise price of the options is NIS 0.505 per share (the equivalent of \$2.33 per ADS), which was the closing market price of the Ordinary Shares on November 17, 2020. The options will vest over a period of four years (25% of which shall vest on November 17, 2021, and 6.25% of which shall vest at the end of each three-month period thereafter) from the date the grant was approved by the Board, for so long as Mr. Serlin continues to serve as an employee of the Company at the time of vesting; and (2) 2,177,100 PSUs (the equivalent of 145,140 ADSs) to Mr. Serlin.

It is the view of our Board of Directors that a significant portion of the equity compensation of our officers should be aligned with performance, and therefore the proposed grant of PSUs to Mr. Serlin constitutes one third of the total proposed equity compensation. The vesting of such PSUs will occur in equal installments if the Company achieves certain milestones over the next several years. This grant of options and PSUs was part of a Company-wide equity compensation grant approved by the Board on November 17, 2020.

The grant to Mr. Serlin contains provisions for the acceleration of the vesting of the options and the PSUs on the occurrence of both (i) a change of control of the Company, and (ii) following such change of control, either the termination of Mr. Serlin's employment or a significant demotion in his new job or position.

The Compensation Committee and the Board of Directors have determined that the grant of the options and the PSUs described above is (i) for the good of the Company, (ii) in accordance with the Compensation Policy and (iii) reasonable and appropriate in light of Mr. Serlin's role as CEO, his qualifications and experience and his past and anticipated contributions to the advancement of the Company's activities. As of the date of this proxy statement, Mr. Serlin is the beneficial holder of 2,436,817 Ordinary Shares (equivalent of 162,454 ADSs) (approximately 0.38% of the Company's outstanding shares), all of which are options to purchase our Ordinary Shares or PSUs. The total fair value of Mr. Serlin's proposed equity compensation does not exceed the limits provided for in the Compensation Policy.

Our Board of Directors will present the following resolution for adoption at the Meeting:

"RESOLVED, to approve the grant to Mr. Philip Serlin, the Chief Executive Officer of the Company, of (1) options to purchase 3,301,100 Ordinary Shares (equivalent to 220,074 ADSs), and (2) 2,177,100 PSUs (equivalent to 145,140 ADSs), all as described in the Proxy Statement dated February 26, 2021."

Pursuant to the Companies Law, approval of this proposal requires the affirmative vote of a Disinterested Majority of shares present at the meeting, in person or by proxy, and voting thereon.

Our Board of Directors recommends a vote "FOR" approval of the proposed grant of options to Mr. Serlin.

The Companies Law allows our Board of Directors to approve this proposal even if it not approved by our shareholders, provided that our Compensation Committee and thereafter the Board of Directors have determined that the proposal is for the

good of the Company and decide to reapprove the proposal, based on detailed reasoning, and after having re-examined the proposed option grant and taken, inter alia, the shareholder rejection into consideration.

Where to Find More Information

We are subject to the information reporting requirements of the U.S. Securities Exchange Act of 1934, as amended (the "Exchange Act"), applicable to foreign private issuers and we fulfill the obligations with respect to those requirements by filing reports with the SEC. Our SEC filings are available to the public on the SEC's website at www.sec.gov, the ISA's website at www.magna.isa.gov.il and the Company's website at www.biolinerx.com. Shareholders may obtain information directly from the Company, whose registered office is at 2 HaMa'ayan Street, Modi'in 7177871, Israel and whose telephone number is +972-8-642-9100.

As a foreign private issuer, we are exempt from the rules under the Exchange Act related to the furnishing and content of proxy statements. The circulation of this proxy statement and related notice should not be taken as an admission that we are subject to those proxy rules. Furthermore, our officers, directors and principal shareholders are exempt from the reporting and "short-swing" profit recovery provisions contained in Section 16 of the Exchange Act and the rules thereunder, with respect to their purchases and sales of securities. Lastly, we are not required under the Exchange Act to file periodic reports and financial statements with the SEC as frequently or as promptly as United States companies whose securities are registered under the Exchange Act.

YOU SHOULD RELY ONLY ON THE INFORMATION CONTAINED IN THIS PROXY STATEMENT OR THE INFORMATION FURNISHED TO YOU IN CONNECTION WITH THIS PROXY STATEMENT WHEN VOTING ON THE MATTERS SUBMITTED TO SHAREHOLDER APPROVAL HEREUNDER. WE HAVE NOT AUTHORIZED ANYONE TO PROVIDE YOU WITH INFORMATION THAT IS DIFFERENT FROM WHAT IS CONTAINED IN THIS DOCUMENT. THIS PROXY STATEMENT IS DATED FEBRUARY 26, 2021. YOU SHOULD NOT ASSUME THAT THE INFORMATION CONTAINED IN THIS DOCUMENT IS ACCURATE AS OF ANY DATE OTHER THAN FEBRUARY 26, 2021, AND THE MAILING OF THIS DOCUMENT TO SHAREHOLDERS SHOULD NOT CREATE ANY IMPLICATION TO THE CONTRARY.

Shareholders are urged to complete and return their proxies promptly in order to, among other things, ensure the presence of a quorum at the Meeting and to avoid the expense of additional solicitation. If the accompanying proxy is properly executed (including the indication of a vote on the proposed matters) and returned in time for voting, the shares represented thereby will be voted as indicated thereon. IF NO SPECIFICATION IS MADE, AND EXCEPT AS OTHERWISE MENTIONED IN THIS PROXY STATEMENT, THE ORDINARY SHARES REPRESENTED BY THE PROXY WILL BE VOTED IN FAVOR OF THE PROPOSALS DESCRIBED IN THIS PROXY STATEMENT.

By Order of the Board of Directors

BioLineRx Ltd.

February 26, 2021

Annex A

[final paragraph Section 3.4]

The Company is authorized to purchase insurance policies (including run-off policies) to cover the liability of directors and Executives that are currently in office and that shall be in office from time to time, including directors and Executives that may have a controlling interest in the Company (if such becomes applicable in the future), within the following limits

:-_(a) the premium for each policy period shall be not more than \$250,000; (b) the maximum aggregate limit of liability pursuant to the policies shall be not more than \$20 million for each insurance. period; and (c) the maximum deductible shall be not more than

\$250,000. The Compensation Committee shall be authorized to increase the coverage purchased, and/or the premium paid for such policies, by up to 20% in any year, as compared to the previous year, or cumulatively for a number of years, without an additional shareholders' approval to the extent permitted under the Companies Law.

The authority to enter into such insurance policies shall be held by the Compensation Committee, provided that the premium for each policy, the maximum deductible and the terms of the contract are consistent with market conditions and will not materially affect the Company's profits, property or liabilities.

Annex B

- 5.3 In exceptional circumstances (e.g., a key opinion leader or globally recognized expert), higher compensation may be paid to a director candidate in accordance with this Policy and applicable law. Notwithstanding the above, in the case of a chairperson determined by the Board to be an active chairperson the financial compensation may be up to 50% higher than for other directors (other than those directors who may receive greater compensation due to the exceptional circumstances as described in this paragraph).
- 5.4 The Compensation Committee may propose, and Board may approve, the grant of equity to directors, <u>in accordance with the provisions set</u> <u>forth in Section 4.2 to this Policy, which shall apply mutatis mutandis,</u> taking into consideration compliance with this Policy and applicable law.

BIOLINERX LTD.

For the Extraordinary General Meeting of Shareholders to be held on April 5, 2021

THIS PROXY IS SOLICITED ON BEHALF OF THE BOARD OF DIRECTORS

The undersigned shareholder of BioLineRx Ltd. (the "**Company**") hereby appoints Mali Ze'evi and/or Raziel Fried, and each or either of them, the true and lawful attorney, agent and proxy of the undersigned, with full power of substitution, to vote, as designated below, all of the ordinary shares of the Company which the undersigned is entitled in any capacity to vote at the Extraordinary General Meeting of the shareholders of the Company which will be held at the offices of the Company at Modi'in Technology Park, 2 HaMa'ayan Street, Modi'in 7177871, Israel, on April 5, 2021 at 3:00 p.m. (local time), and all adjournments and postponements thereof.

(CONTINUED AND TO BE SIGNED ON REVERSE SIDE)

See	
REVERSE	
SIDE	

EXTRAORDINARY GENERAL MEETING OF SHAREHOLDERS OF

BIOLINERX LTD.

April 5, 2021

	THIS PROXY WHEN PROPERLY EXECUTED WILL BE VOTED AS DIRECTED HEREIN.							
	IF NO DIRECTION IS INDICATED, THIS PROXY WILL BE VOTED "FOR" THE PROPOSALS HEREIN.							
	Please mark your vote for the following resolutions as in this example $oximes$							
1.	TO APPROVE an amendment to Section 4.3 of the Company's Compensation Policy for Executives and Directors, relating to Directors' and Officers' insurance, in the form attached as Annex A to the Proxy Statement.	FOR	AGAINST	ABSTAIN				
	Do you have a "Personal Interest" (as defined in the Proxy Statement) with respect to the subject matter of this proposal? (Please note: if you do not mark either "Yes" or "No" your shares will not be voted on Proposal 1)	Yes □	No □					
2.	TO APPROVE an amendments to Sections 5.3 and 5.4 of the Company's Compensation Policy for Executives and Directors, relating to differential compensation for a Board chairperson, in the form attached as Annex B to the Proxy Statement.	FOR	AGAINST	ABSTAIN				
	Do you have a "Personal Interest" (as defined in the Proxy Statement) with respect to the subject matter of this proposal? (Please note: if you do not mark either "Yes" or "No" your shares will not be voted on Proposal 2)	Yes □	No □					
3.	TO APPROVE an equity compensation grant to Philip Serlin, the Company's Chief Executive Officer.	FOR	AGAINST	ABSTAIN	Name:			
					Number of shares:			
					Signature:			
					Date:			
	Do you have a "Personal Interest" (as defined in the Proxy Statement) with respect to the subject matter of this proposal? (Please note: if you do not mark either "Yes" or "No" your shares will not be voted on Proposal 3)	Yes □	No □		NOTE: Please mark date and sign exactly as the name(s) appear on this proxy. If the signer is a corporation, please sign the full corporate name by a duly authorized officer. Executors, administrators, trustees, etc. should state their			

full title or capacity. Joint owners should each sign.

Extraordinary General Meeting of Shareholders of BIOLINERX LTD.

Date: April 5, 2021
See Voting Instruction On Reverse Side.
Please make your marks like this: ⊠ Use dark black pencil or pen only

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1.	To approve an amendment to Section 4.3 of the Company's Compensation Policy for Executives and Directors, relating to Directors' and Officers' insurance, in the form attached as Annex A to the Proxy Statement.			
		Yes	No	
	1a. Do you have a "Personal Interest" (as defined in the Proxy Statement) with respect to the subject matter of this proposal? (Please note: if you do not mark either "Yes" or "No" your shares will not be voted on Proposal 1)			
	110p00tt 1)	For	Against	Abstain
2.	To approve amendments to Sections 5.3 and 5.4 of the Company's Compensation Policy for Executives and		8	
	Directors, relating to differential compensation for a Board chairperson, in the form attached as Annex B to the Proxy Statement.			
		Yes	No	
	2a. Do you have a "Personal Interest" (as defined in the Proxy Statement) with respect to the subject matter of			
	this proposal? (Please note: if you do not mark either "Yes" or "No" your shares will not be voted on Proposal 2)			
		For	Against	Abstain
3.	To approve an equity compensation grant to Philip Serlin, the Company's Chief Executive Officer.			
		Yes	No	
	3a. Do you have a "Personal Interest" (as defined in the Proxy Statement) with respect to the subject matter of this proposal? (Please note: if you do not mark either "Yes" or "No" your shares will not be voted on Proposal 3)			
	Authorized Signatures - This section must be			
	completed for your instructions to be executed.			
	Please Sign Here Please Date A Please Sign Here Please Date A Please Sign Here			

Extraordinary General Meeting of Shareholders of BIOLINERX LTD. to be held on April 5, 2021 For Holders as of March 4, 2021

MAIL

- $\bullet\,$ Mark, sign and date your Voting Instruction Form.
- Detach your Voting Instruction Form.
- Return your Voting Instruction Form in the postage-paid envelope provided.

All votes must be received prior to 12:00 pm, Eastern Time April 1, 2021.

PROXY TABULATOR FOR BIOLINERX LTD. P.O. BOX 8016 CARY, NC 27512-9903

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BIOLINERX LTD.

Instructions to The Bank of New York Mellon, as Depositary (Must be received prior to 12:00 p.m. EDT on April 1, 2021)

The undersigned registered owner of American Depositary Shares hereby requests and instructs The Bank of New York Mellon, as Depositary, to endeavor, in so far as practicable, to vote or cause to be voted the amount of Shares or other Deposited Securities represented by such Shares of BioLineRx Ltd. registered in the name of the undersigned on the books of the Depositary as of the close of business on **March 4, 2021** at the **Extraordinary General Meeting** of the Shareholders of **BioLineRx Ltd.** to be held on **April 5, 2021** or any postponement or adjournment thereof in respect of the resolutions specified on the reverse.

NOTES:

- 1. Please direct the Depositary how it is to vote by placing an "X" in the appropriate box opposite each agenda item. It is understood that, if this form is signed and returned but no instructions are indicated in the boxes, then a discretionary proxy will be given to a person designated by the Company.
- 2. It is understood that, if this form is not signed and returned, the Depositary will deem such holder to have instructed the Depositary to give a discretionary proxy to a person designated by the Company.

(Continued and to be marked, dated and signed, on the other side)

PROXY TABULATOR FOR BIOLINERX LTD. P.O. Box 8016 CARY, NC 27512-9903