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 August 2026

Commission file number: 001-35223

BioLineRx Ltd.

(Translation of registrant's name into English)

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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** ☐

BioLineRx Ltd. (the "Registrant") announces that it will hold an Annual Meeting of Shareholders on September 23, 2026, at 3:00 p.m. (Israel time), at the Registrant's office, Modi'in Technology Park, 2 HaMa'ayan Street, Modi'in 7177871, Israel. The Notice of Annual General Meeting and Proxy Statement, the related proxy card and the voting instruction form for holders of American Depositary Shares are attached to this Report on Form 6-K as Exhibit 99.1, Exhibit 99.2 and Exhibit 99.3, respectively, and incorporated herein by reference.

Exhibit No.	
99.1	BioLineRx Ltd. Notice and Proxy Statement for the Annual General Meeting of Shareholders to be held on September 23, 2026
99.2	Form of Proxy Card
99.3	Form of Voting Instruction Form

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.

SIGNATURES

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 A. Serlin
Philip A. Serlin
Chief Executive Officer

Dated: August 18, 2026

Exhibit 99.1

BIOLINERX LTD.

NOTICE OF ANNUAL GENERAL MEETING OF SHAREHOLDERS

To be held on September 23, 2026

Notice is hereby given that the Annual General Meeting of the 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 Wednesday, September 23, 2026, at 3:00 p.m. (Israel time), for the following purposes:

1. To approve the re-election of Dr. Aharon Schwartz, Dr. Sandra Panem and Dr. Shaoyu Yan as Class III directors, each to serve until the Company's annual general meeting of shareholders to be held in 2029, and until their respective successors have been duly elected and qualified;

2. To approve an increase in the Company's authorized share capital, and to amend the Company's Articles of Association accordingly;

3. To approve the grant of equity-based compensation, in the form of options and performance stock units, to Philip Serlin, the Company's Chief Executive Officer;

4. To approve the grant of equity-based compensation, in the form of options, to certain directors of the Company; and

5. To approve the reappointment of Kesselman & Kesselman, Certified Public Accountants (Isr.), a member firm of PricewaterhouseCoopers International Limited, as the Company's independent registered public accounting firm for the year ending December 31, 2026, and until the Company's next annual general meeting of shareholders, and to authorize the Audit Committee of the Board of Directors to fix the compensation of said auditors in accordance with the scope and nature of their services.

In addition, at the Meeting, representatives of the Company's management will be available to review and discuss with shareholders the Company's financial statements for the year ended December 31, 2025.

You are entitled to receive notice of, and vote at, the Meeting and any adjournments or postponements thereof if you are a holder of record of the Company's ordinary shares or American Depositary Shares ("**ADSs**"), each representing 600 ordinary shares of the Company, at the close of business on Monday, August 24, 2026 (the "**Record Date**"). You are also entitled to notice of, and to vote at the Meeting, and any adjournments or postponements thereof if you are a beneficial owner who holds ordinary shares or ADSs through a broker, bank or other nominee as of the Record Date, and if you hold ordinary shares through a member of the Tel Aviv Stock Exchange ("**TASE**") as of the Record Date. All shareholders are cordially invited to attend the Meeting in person.

Whether or not you plan to attend the Meeting, it is important that your ordinary shares (including those represented by ADSs) be represented at the Meeting.

A holder of ordinary shares at the close of business on the Record Date shall also be entitled to participate in the Meeting by proxy, which proxy shall be in writing and signed by the appointing party or its authorized attorney, and if the appointing party is a corporation, the appointment shall be in writing signed by authorized corporate signatories together with the company stamp or by an authorized attorney. A proxy from the holder of ordinary shares must be received by the Company at its registered offices to the address provided above no later than 3:00 p.m., Israel time (8:00 a.m. ET), on September 21, 2026, to be validly included in the tally of ordinary shares voted at 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.

Holders of ADSs (whether registered in their name or in "street name") will receive voting instruction forms from the Bank of New York Mellon (which acts as the Depositary for the ADSs) in order to instruct their banks, brokers or other nominees on how to vote, and they are kindly requested to complete, date, sign and mail the voting instruction form in the envelope provided at the earliest convenience so that it will be received no later than the date and time indicated on the voting instruction form.

Shareholders who hold ordinary shares through members of the TASE may vote their shares (i) in person at the Meeting by presenting a certificate signed by the member of the TASE through which the shares are held, which complies with the Israel Companies Regulations (Proof of Ownership for Voting in General Meetings), 5760-2000 as proof of ownership of the shares (an "**Ownership Certificate**"), (ii) via proxy, by sending a duly executed proxy (in the form to be filed by us on MAGNA, the distribution site of the Israeli Securities Authority (the "**ISA**"), at www.magna.isa.gov.il) together with an Ownership Certificate to the Company at its registered offices to the address provided above, to be received by the Company no later than 3:00 p.m. Israel time (8:00 a.m. ET), on September 21, 2026; or (iii) electronically via the electronic voting system of 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.

The last date for submitting a request to include a proposal in accordance with Section 66(b) of the Companies Law, is August 25, 2026. The full version of the proposed resolutions may be viewed in the proxy statement, which together with the accompanying voting instruction form and proxy card (collectively, the "**Proxy Materials**"), are being furnished to the U.S. Securities and Exchange Commission under cover of Form 6-K and will be publicly available via its website at http://www.sec.gov. This Notice of Annual General Meeting of Shareholders and the Proxy Materials will also be submitted to the ISA and TASE and will be available on their respective websites at http://www.magna.isa.gov.il and http://www.tase.co.il, respectively. The Proxy Materials will also be made available on the *Investors* portion of our website at https://biolinerx.com and may also be viewed at our offices, upon prior coordination during regular business hours (+972-8-642-9100), at 2 HaMa'ayan Street, Modi'in 7177871, Israel, until the date of the Meeting. Detailed voting instructions are provided in the proxy statement, the voting instruction form and the proxy card.

By Order of the Board of Directors,

Dr. Aharon Schwartz
Chairman of the Board of Directors

August 18, 2026

PROXY STATEMENT

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

ANNUAL GENERAL MEETING OF SHAREHOLDERS

To be held on September 23, 2026

This Proxy Statement is being furnished to the holders of ordinary shares, par value NIS 0.10 per share (the "**Ordinary Shares**"), and to holders of American Depositary Shares ("**ADSs**"), each representing 600 Ordinary Shares, issued by the Bank of New York Mellon ("**BNY Mellon**"), in connection with the solicitation of proxies on behalf of the Board of Directors of BioLineRx Ltd. ("**we**," "**us**," "**our**," or the "**Company**") to be voted at the Annual General Meeting of Shareholders (the "**Meeting**") to be held on September 23, 2026, at 3:00 p.m. Israel time, and at any adjournment or postponement thereof, at the offices of the Company at Modi'in Technology Park, 2 HaMa'ayan Street, Modi'in 7177871, Israel.

You are entitled to receive notice of, and vote at, the Meeting and any adjournments or postponements thereof if you are a holder of record of Ordinary Shares or ADSs at the close of business on Monday, August 24, 2026 (the "**Record Date**"). You are also entitled to notice of, and to vote at the Meeting, and any adjournments or postponements thereof if you are a beneficial owner who holds ordinary shares or ADSs through a broker, bank or other nominee as of the Record Date, and if you hold ordinary shares through members of the Tel Aviv Stock Exchange ("**TASE**") as of the Record Date.

Purpose of the Meeting

At the Meeting, shareholders will be asked to consider and vote upon on the following items:

1. The re-election of Dr. Aharon Schwartz, Dr. Sandra Panem and Dr. Shaoyu Yan as Class III directors, each to serve until the Company's annual general meeting of shareholders to be held in 2029, and until their respective successors have been duly elected and qualified;

2. An increase in the Company's authorized share capital, and to amend the Company's Articles of Association accordingly;

3. The approval of a grant of equity-based compensation, in the form of options and performance stock units ("**PSUs**"), to Philip Serlin, the Company's Chief Executive Officer;

4. The approval of a grant of equity-based compensation, in the form of options, to certain directors of the Company; and

5. The reappointment of Kesselman & Kesselman, Certified Public Accountants (Isr.), a member firm of PricewaterhouseCoopers International Limited, as the Company's independent registered public accounting firm for the year ending December 31, 2026, and until the Company's next annual general meeting of shareholders, and to authorize the Audit Committee of the Board of Directors to fix the compensation of said auditors in accordance with the scope and nature of their services.

In addition to the foregoing agenda items, at the Meeting, representatives of the Company's management will be available to review and discuss with shareholders the Company's financial statements for the year ended December 31, 2025.

Board Recommendation

The Board of Directors recommends that you vote "FOR" each of the proposals on the agenda.

Quorum and Adjournment

At least two holders of Ordinary Shares (or ADSs representing Ordinary Shares) who are present at the Meeting, in person, by proxy, voting instruction form or voting via the electronic voting system of the Israel Securities Authority (the "**ISA**" and the "**ISA Electronic Voting System**"), who hold Ordinary Shares (or ADSs representing Ordinary Shares) that represent in the aggregate at least 25% of the Company's voting rights 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. Abstentions and "broker non-votes," as well as any abstentions by holders of ADSs representing our Ordinary Shares held by BNY Mellon, are counted as present and entitled to vote for purposes of determining a legal quorum.

How You Can Vote

- ***Holders of Record of Ordinary Shares***. Shareholders registered in the Company's shareholders' register in Israel as of the Record Date are entitled to vote at the Meeting (i) by attending and voting in person at the Meeting. In order to attend and vote in person at the Meeting, all such shareholders must have a form of government-issued photograph identification (e.g., passport or certificate of incorporation (as the case may be)); or (ii) by proxy. A proxy from the holder of Ordinary Shares must be received by the Company no later than 3:00 p.m. Israel (8:00 a.m. ET), on September 21, 2026, to be validly included in the tally of Ordinary Shares voted at the Meeting.

- ***Holders of Ordinary Shares Traded on TASE***. A shareholder whose Ordinary Shares are registered with a TASE member as of the Record Date may vote at the Meeting (i) by attending the Meeting and voting in person, upon presenting an ownership certificate, as of the Record Date, from the applicable TASE member through which the Ordinary Shares are held, in accordance with the Israeli Companies Regulations (Proof of Ownership of Shares for Voting at General Meeting) of 5760-2000, as amended (an "**Ownership Certificate**"); (ii) by proxy, by sending the duly executed proxy together with the Ownership Certificate to the Company at its registered offices at the address provided above, to be received by the Company no later than 3:00 p.m. Israel time (8:00 a.m. ET) on September 21, 2026. An Ownership Certificate may be obtained, upon request, at the TASE 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, provided that the shareholder's request is submitted with respect to a specific securities account; and (iii) by voting 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 secure identification process, up to six hours before the time set for the Meeting.

- ***Holders of ADSs***. Holders of ADSs (whether registered in their name or in "street name") will receive from BNY Mellon (which acts as the Depositary for the ADSs) a voting instruction form in order to instruct their banks, brokers or other nominees on how to vote. For ADSs that are held in "street name" through a bank, broker or other nominee, the voting process will be based on the underlying beneficial holder of the ADSs directing the bank, broker or other nominee to arrange for BNY Mellon to vote the Ordinary Shares represented by the ADSs in accordance with the beneficial holder's voting instructions. ADS holders should return their BNY Mellon voting instruction form by no later than the date and time set forth on such voting instruction form. Under the terms of the Deposit Agreement among the Company, BNY 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, 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.

Vote Required for Approval of the Proposals

Each outstanding Ordinary Share (including Ordinary Shares represented by ADSs) held by a shareholder is entitled to one vote.

Pursuant to the Companies Law, the approval of each of the proposals requires the affirmative vote of the holders of a majority of the Ordinary Shares (including those represented by ADSs) represented at the Meeting, in person, by proxy or voting instruction form, or via the ISA Electronic Voting System, and voting thereon.

In addition, the approval of Proposal 3 is also subject to the fulfillment of one of the following additional voting requirements (the "**Special Majority**"): (i) at least a majority of the shares (including those represented by ADSs) held by shareholders (including ADS holders) who are non-controlling shareholders and shareholders (including ADS holders) who do not have a personal interest (within the meaning of the Israeli Companies Law) in the proposal, present person, by proxy or voting instruction form, or via the ISA Electronic Voting System and voting on the matter at the Meeting (excluding abstentions), voted in favor of the proposal; or (ii) the total number of shares (including those represented by ADSs) voted against the proposal by shareholders and ADS holders (as applicable) referred to in clause (i), does not exceed two-percent (2%) of the outstanding voting power in the Company.

We are not aware of any shareholder or holder of ADSs that would be deemed to be a controlling shareholder of our Company as of the current time for purposes of Proposal 3. The Companies Law requires that each shareholder and ADS holder voting on Proposal 3 inform the Company, prior to voting on the proposal at the Meeting, if the shareholder or ADS holder has a personal interest in the proposal; otherwise, a shareholder of ADS holder's vote will not be counted for the purposes of the proposal. **In accordance with regulations promulgated under the Companies Law, a shareholder who votes via proxy, and an ADS holder who signs and returns a voting instruction form, will be deemed to have confirmed that such shareholder or ADS holder (as applicable), and any related party thereof, does not have a personal interest in Proposal 3, unless such shareholder or ADS holder has delivered a written notice to the Company notifying of the existence of a personal interest no later than 10:00 a.m. (Israel time) on Wednesday, September 23, 2026. Any such written notice must be sent to the Company via registered mail at the Company's Offices; Attention: Chief Financial Officer.** All other shareholders voting on Proposal 3 are required to indicate via the ISA Electronic Voting System, or, if voting in person at the Meeting, inform us prior to voting on the matter at the Meeting, whether or not the shareholder has a personal interest in the proposal; otherwise, any such shareholder's vote will not be counted for the purposes of such proposal.

Under the Companies Law, a "personal interest" of a shareholder (including ADS holder) in an act or transaction of a company (i) includes a personal interest of (a) any relative (i.e., spouse, sibling, parent, grandparent or descendant of the shareholder (including ADS holder), any descendant, sibling or parent of a spouse of the shareholder (including ADS holder) and the spouse of any of the foregoing); and (b) a company with respect to which the shareholder (including ADS holder) or any of the foregoing relatives of the shareholder or ADS holder, owns at least 5% of the outstanding shares or voting rights, serves as a director or chief executive officer or has the right to appoint one or more directors or the chief executive officer; and (ii) excludes a personal interest arising solely from the ownership of shares. Under the Companies Law, in the case of a person voting by proxy, "personal interest" includes the personal interest of either the proxy holder or the shareholder granting the proxy, whether or not the proxy holder has discretion how to vote.

Change or Revocation of Vote

- ***Holders of Record of Ordinary Shares***. If you are a holder of record of Ordinary Shares who has executed and delivered a proxy, you may change your mind and cancel your proxy vote (i) by filing a written notice of revocation with the Company before the applicable deadline, (ii) by completing and returning a duly executed proxy card bearing a later date before the applicable deadline, or (iii) by voting in person at the Meeting. Attendance at the Meeting will not in and of itself constitute revocation of proxy.

- ***Holders of Ordinary Shares Traded on TASE***. If you hold Ordinary Shares through a member of the TASE, you may change your vote (i) by attending the Meeting and voting in person, by presenting a valid Ownership Certificate as of the Record Date, (ii) by delivering a later-dated duly executed proxy, together with a valid Ownership Certificate as of the Record Date, to the Company's registered offices to the address provided above at least 48 hours prior to the designated time for the Meeting, or (iii) by following the relevant instructions for changing your vote via the ISA Electronic Voting System by no later than six hours before the time set for the Meeting.

- ***Holders of ADSs***. A holder of ADSs (whether registered in their name or in "street name") who has executed and returned a voting instruction form may revoke its voting instructions at any time before the applicable deadline by filing with BNY Mellon a written notice of revocation or a duly executed voting instruction form bearing a later date. If your ADSs are held in "street name," you may change your vote by submitting new voting instructions to your broker, bank, trustee, or nominee or, if you have obtained a legal proxy from your broker, bank, trustee or nominee giving you the right to vote your shares, by attending the Meeting and voting in person.

Solicitation of Proxies

We may bear the reasonable and actual cost of solicitation of proxies, including preparation, assembly, printing, and mailing of the BNY Mellon voting instruction form and any additional information furnished to holders of Ordinary Shares or ADSs. The Notice of Annual General Meeting of the Shareholders, the Proxy Statement, and the proxy card will not be mailed to holders of Ordinary Shares traded on TASE. We may reimburse brokerage firms and other persons representing beneficial owners of Ordinary Shares or ADSs only for reasonable expenses incurred by them in forwarding proxy soliciting materials to such beneficial owners. In addition to solicitation by mail, certain of our directors, officers and employees, without additional remuneration, may solicit proxies by telephone, facsimile, email or personal contact.

SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT

As of August 10, 2026, (i) no person was known by us to be the owner of more than 5% of our outstanding Ordinary Shares, based on public filings or information provided to us; (ii) no officer or director individually beneficially owned 1% or more of our outstanding Ordinary Shares; and (iii) all of our officers and directors as a group (11 persons) beneficially owned 54,589,800, or 2.01%, of our outstanding Ordinary Shares. Such number of Ordinary Shares includes 50,884,400 Ordinary Shares issuable under outstanding options and PSUs held by our officers and directors that are currently exercisable or exercisable or expected to satisfy their vesting conditions within 60 days of August 10, 2026.

Beneficial ownership is determined in accordance with SEC rules. Under SEC rules, a person is deemed to be a 'beneficial' owner of a security if that person has or shares voting power or investment power, which includes the power to dispose of or to direct the disposition of such security. A person is also deemed to be a beneficial owner of any securities of which that person has a right to acquire beneficial ownership within 60 days. Accordingly, Ordinary Shares underlying options currently exercisable or exercisable within 60 days as of August 10, 2026, and Ordinary Shares underlying PSUs that are subject to vesting conditions expected to occur within 60 days as of August 10, 2026, are deemed outstanding for computing the percentage of the person holding such securities but are not deemed outstanding for computing the percentage of any other person. The percentage of Ordinary Shares beneficially owned is based on 2,620,977,190 Ordinary Shares issued and outstanding as of August 10, 2026.

EXECUTIVE OFFICER COMPENSATION

For information regarding the compensation incurred by the Company in relation to our five most highly compensated office holders (within the meaning of the Israeli Companies Law) for the year ended December 31, 2025, see "Item 6B. Directors, Senior Management and Employees — Compensation — Compensation of Directors and Senior Management" of the Company's Annual Report on Form 20-F for the year ended December 31, 2025, which was filed with the SEC on March 23, 2026, as amended by Amendment No. 1 to Annual Report on Form 20-F filed with the SEC on March 27, 2026 (together, the "**2025 Form 20-F**"). Additional information regarding our Board of Directors, its committees and our corporate governance practices may be found in "Item 6C. Directors, Senior Management and Employees — Compensation — Board Practices" of the 2025 Form 20-F. We encourage you to review those portions of our 2025 Form 20-F to obtain additional information.

PROPOSAL 1
RE-ELECTION OF DIRECTORS
(Item 1 on the Proxy Card)

Background

Our Articles of Association specify that the number of directors will be at least five but not more than ten. Under our Articles of Association, our directors are divided into three classes with staggered three-year terms. The term of one class of directors expires at each annual general meeting, at which the election (or re-election) of directors of the class whose term expired at such annual general meeting shall be for a term that expires on the date of the third annual general meeting following such election (or re-election) and until his or her respective successor has been elected and qualified, unless the tenure of such director expires earlier pursuant to the Companies Law, or unless removed from office.

Our Board of Directors currently consists of eight members and is divided into three classes with staggered three-year terms, as follows:

- the Class I directors, consisting of Dr. Avraham Molcho, Mr. Gal Cohen and Mr. Rami Dar, will hold office until our annual general meeting of shareholders to be held in 2027;

- the Class II directors, consisting of Dr. B.J. Bormann and Dr. Raphael Hofstein, will hold office until our annual general meeting of shareholders to be held in 2028; and

- the Class III directors, consisting of Dr. Sandra Panem, Dr. Aharon Schwartz and Dr. Shaoyu Yan, will hold office until the Meeting.

We rely on the exemption available to foreign private issuers under the Nasdaq Listing Rules and follow Israeli law and practice with regard to the process of nominating directors, in accordance with which our Board of Directors is authorized to recommend to our shareholders director nominees for election.

At the Meeting, the term of the members of our Class III directors, Dr. Aharon Schwartz, Dr. Sandra Panem and Dr. Shaoyu Yan, expires. Our Board of Directors has nominated each of Dr. Aharon Schwartz, Dr. Sandra Panem and Dr. Shaoyu Yan for re-election at the Meeting as Class III directors for an additional term to expire at our 2029 annual general meeting of shareholders, and until his or her successor has been duly elected and qualified or until his or her office is vacated in accordance with our Articles of Association and the Companies Law. Subject to shareholder approval of the re-election of the above director nominees, our Board of Directors will consist of eight members, seven of whom satisfy the independence requirements of the Nasdaq Listing Rules.

In accordance with the Companies Law, each of the director nominees has certified to us that he or she meets all the requirements of the Companies Law for election as a director of a public company and possesses the necessary qualifications and has sufficient time to fulfill his or her duties as a director of our Company, taking into account the Company’s size and special needs.

We are not aware of any reason why the nominees, if elected, would be unable or unwilling to serve as directors. If any of the director nominees is unable to serve, the persons named in the proxy shall vote the Ordinary Shares for the election of such other director nominees as the Board of Directors may propose. The following nominees have advised the Company that they will serve as directors upon election.

The following provides certain relevant information concerning the director nominees, including their principal occupations during at least the past five years.

Director	Age	Principal Occupation
Aharon Schwartz, Ph.D.	84	Dr. Schwartz has served as the Chairman of our board of directors since 2004. Dr. Schwartz served in a number of positions at Teva from 1975 through 2011, the most recent being Vice President, Head of Teva Innovative Ventures from 2008. Dr. Schwartz is currently a member of the board of directors of Protalix Ltd. (NYSE American:PLX). Dr. Schwartz also works as an independent consultant. Dr. Schwartz received his Ph.D. in organic chemistry from the Weizmann Institute of Science, an M.Sc. degree in organic chemistry from the Technion - Institute of Technology and a B.Sc. degree in chemistry and physics from the Hebrew University of Jerusalem. In addition, Dr. Schwartz holds a Ph.D. from the Hebrew University of Jerusalem in the history and philosophy of science.
Sandra Panem, Ph.D.	80	Dr. Panem has served on our board of directors since February 2014 and on our Investment Monitoring Committee since 2010. Dr. Panem served as a managing partner at Cross Atlantic Partners from 2000 to 2023. Dr. Panem is also co-founder and President of NeuroNetworks Fund, a not-for-profit venture capital fund focusing on epilepsy, schizophrenia and autism. From 1994 to 1999, Dr. Panem was President of Vector Fund Management, the then asset management affiliate of Vector Securities International. Prior thereto, Dr. Panem served as Vice President and Portfolio Manager for the Oppenheimer Global BioTech Fund, a mutual fund that invested in public and private biotechnology companies. Previously, Dr. Panem was Vice President at Salomon Brothers Venture Capital, a fund focused on early and later-stage life sciences and technology investments. Dr. Panem was also a Science and Public Policy Fellow in economic studies at the Brookings Institution, and an Assistant Professor of Pathology at the University of Chicago. Previously, Dr. Panem served on numerous boards of public and private companies, including Acorda Therapeutics, Inc. (Nasdaq:ACOR), Martek Biosciences (Nasdaq:MATK), IBAH Pharmaceuticals (Nasdaq:IBAH), Confluent Surgical, Molecular Informatics and Labcyte, Inc. Dr. Panem received a B.S. degree in biochemistry and a Ph.D. in microbiology from the University of Chicago.
Shaoyu Yan, Ph.D.	61	Dr. Yan has served on our board of directors since November 2023. Dr. Yan has over 30 years of experience in drug research and development, manufacturing, and management, including more than 15 years working with pharmaceutical companies, contract research organizations, and marketing authorization holders under the regulation of the National Medical Products Administration of China (NMPA). Since March 2020, Dr. Yan has served as an executive vice president and head of R&D and manufacturing at Auspex Bioscience (Guangzhou) Co., Ltd. (formerly Guangzhou Gloria Biosciences Co., Ltd.) From February 2014 to December 2019, Dr. Yan served as the senior director and senior research fellow of the oncology and immunology business unit at WuXi AppTec (Shanghai) Co., Ltd. (SHA: 603259). Prior to these roles, Dr. Yan held positions, including various academic institutions, such as: senior research scientist at the department of thoracic and cardio surgery and pharmaceutical development center of the University of Texas's MD Anderson Cancer Center from June 2006 to December 2013; visiting scholar and research scientist of the faculty of pharmaceutical sciences at Kyushu University from August 2001 to August 2002; deputy director in the institute of medical raw materials at Tianjin Pharmaceutical Group Corp. and director and co-founder at the Shenyang Huiming Institute of Chinese Traditional Medicine from May 1995 to August 1998. Dr. Yan received a Ph.D. in pharmaceutical science and an M.Sc. degree in pharmaceutics from Shenyang Pharmaceutical University, and a B.Sc. degree from Jilin University in polymer chemistry. Dr. Yan completed his postdoctoral training in the field of pharmacology and biochemistry from Michael E. DeBakey Department of Surgery at Baylor College of Medicine from February 2003 to June 2006. Dr. Yan was appointed to serve as a Class III director by our board of directors pursuant to the securities purchase agreement that the Company entered into with HST and Auspex Bioscience (Guangzhou) Co., Ltd. (formerly Guangzhou Gloria Biosciences Co., Ltd.) in August 2023.

If re-elected at the Meeting, each of the director nominees shall continue to be entitled to the same cash compensation approved by the shareholders at our annual general meeting held in 2022, of $30,000 per annum, $1,200 for each board or committee meeting attended in person, $720 for each board or committee meeting attended via telephone or videoconference, $600 for participation by written consent and $3,000 for membership of each committee of the Board of Directors, and in the case of the Chairman of the Board of Directors, such fees in amounts that are 50% higher than the foregoing fees, in each case provided that such fees do not exceed the maximum amounts payable to external directors from time to time by us under the Israeli Companies Regulations (Rules Regarding Compensation and Expense Reimbursement of External Directors), 2000 and the Israeli Companies Regulations (Relief for Companies who Securities are Listed for Trading Outside of Israel), 2000. In addition, if re-elected at this Meeting, each director will continue to be party to an indemnification agreement with the Company in the form of indemnification letter previously approved by the shareholders on November 17, 2011 to be entered into by the Company with directors serving from time to time in such capacity and shall continue to be insured under the Company's directors' and officers' liability insurance coverage policy, as in effect from time to time, which provides coverage for all directors of the Company.

Proposal

The shareholders are being asked to re-elect each of Dr. Aharon Schwartz, Dr. Sandra Panem and Dr. Shaoyu Yan as Class III directors for a term to expire at the 2029 annual general meeting of our shareholders, and until his or her successor has been duly elected and qualified, or until his or her office is vacated in accordance with our Articles of Association or the Companies Law. Each director nominee shall be voted on separately.

Approval Required

See "Vote Required for Approval of the Proposals" above.

Board Recommendation

Our Board of Directors recommends a vote "FOR" the re-election of each director nominee named above as a Class III director for a term to expire at the 2029 annual general meeting of shareholders, on the terms described in Proposal 1.

PROPOSAL 2
APPROVAL OF AN INCREASE IN THE COMPANY'S AUTHORIZED SHARE CAPITAL AND TO AMEND THE ARTICLES OF ASSOCIATION ACCORDINGLY
(Item 2 on the Proxy Card)

Background

The Company's authorized share capital is currently NIS 2,000,000,000 divided into 20,000,000,000 ordinary shares, with a nominal value of NIS 0.10 each (equivalent to 33,333,333 ADSs). As of August 10, 2026, 2,620,977,190 Ordinary Shares (or 4,368,295 ADSs representing Ordinary Shares) were issued and outstanding. In addition, as of such date, 313,240,800 Ordinary Shares (equivalent to 522,068 ADSs) were reserved for issuance under the Company's Amended and Restated 2003 Share Incentive Plan (the "**Plan**") (including shares underlying outstanding options, restricted stock units ("**RSUs**") and PSUs) and 1,250,498,679 Ordinary Shares (equivalent to 2,084,165 ADSs) were reserved for issuance upon exercise of outstanding warrants. Consequently, as of such date, 15,815,283,331 authorized Ordinary Shares (equivalent to 26,358,805 ADSs) remain unissued and unreserved and available for future issuances.

Under the Companies Law, a company may not issue shares in excess of its authorized share capital. The Company wishes to have sufficient authorized share capital available for corporate purposes and to meet its future business needs as they arise including (without limitation) for potential future strategic transactions (such as licensing agreements, acquisitions of other companies or assets or other transactions that may involve issuances of shares or ADSs), public and private offerings of the Company's shares or ADSs in the ordinary course to fund operations, and additional grants of equity-based compensation under the Plan or any other equity-based incentive plan that may be adopted by the Company in the future.

Accordingly, we are seeking approval of the shareholders to increase the Company's share capital from NIS 2,000,000,000 divided into 20,000,000,000 ordinary shares, with a nominal value of NIS 0.10 each (equivalent to 33,333,333 ADSs), to NIS 10,000,000,000 divided into 100,000,000,000 ordinary shares, with a nominal value of NIS 0.10 each (equivalent to 166,666,667 ADSs), and to amend Article 4.1 of our Articles of Association accordingly.

The possible future issuance of equity securities consisting of Ordinary Shares, ADSs or securities exercisable or convertible into Ordinary Shares or ADSs could affect our current shareholders in a number of ways, including the following: (i) diluting the voting power of the current holders of Ordinary Shares or ADSs; (ii) diluting the market price of the Ordinary Shares or ADSs, to the extent that the new Ordinary Shares or ADSs are issued and sold at prices below current trading prices of the existing Ordinary Shares or ADSs, or if the issuance consists of equity securities exercisable or convertible into Ordinary Shares or ADSs, to the extent that the securities provide for the exercise or conversion into Ordinary Shares or ADSs at prices that could be below current trading prices of the Ordinary Shares or ADSs; and (iii) diluting the book value per share of the outstanding Ordinary Shares or ADSs.

Proposal

It is proposed that the following resolution be adopted at the Meeting:

RESOLVED, to approve an increase of the Company's authorized share capital from NIS 2,000,000,000 divided into 20,000,000,000 ordinary shares, with a nominal value of NIS 0.10 each, to NIS 10,000,000,000 divided into 100,000,000,000 ordinary shares, with a nominal value of NIS 0.10 each (equivalent to 166,666,667 ADSs), and to amend Article 4.1 of our Articles of Association accordingly.

Approval Required

See "Vote Required for Approval of the Proposals" above.

Board Recommendation

Our Board of Directors recommends a vote "FOR" approval of the increase in the Company's authorized share capital and to amend our Articles of Association accordingly.

PROPOSAL 3
APPROVAL OF GRANT OF EQUITY-BASED COMPENSATION TO PHILIP SERLIN, THE COMPANY'S CHIEF EXECUTIVE OFFICER
(Item 3 on the Proxy Card)

Background

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 by the Special Majority, in that order.

Our Compensation Committee and Board of Directors conducted an annual review of the compensation, including equity-based compensation, of our employees and executives, including that of Mr. Serlin, who has served as the Company's Chief Executive Officer since October 2016. In considering the equity-based compensation, the Compensation Committee and Board of Directors reviewed comparative market data relating to equity compensation at a peer group of Israeli Nasdaq-listed and dual-listed companies, which had previously been prepared by an external compensation consultant, together with such consultant's advice regarding market developments since that time. The market data and advice reflected that the equity compensation levels of our employees and executives were significantly below prevailing market practice. In this regard, the Compensation Committee and Board of Directors noted that the last grant of equity-based awards to employees and executives (including our Chief Executive Officer) was made in 2023 and that the equity holdings of employees and management have been significantly diluted since such time. For information regarding the beneficial ownership of our executives, see "Security Ownership of Certain Beneficial Owners and Management" above.

In light of these findings, the Compensation Committee and Board of Directors determined that it would be appropriate and in the best interests of the Company to grant equity-based compensation, in the form of options and RSUs, to our employees and, in the form of options and PSUs, to executives, including Mr. Serlin, as an incentive for their continued activities and efforts in the Company. It is the view of our Compensation Committee and Board of Directors that a significant portion of the equity compensation of our executive officers should be aligned with performance, and therefore the proposed grant of PSUs to our executives constitutes 44% of the total proposed equity-based compensation granted to each of them.

Accordingly, our Compensation Committee and Board of Directors approved, subject to shareholder approval, the grant to Mr. Serlin of the following equity-based awards:

(i) Options to purchase 94,900 ADSs (representing 56,940,000 Ordinary Shares). The exercise price of the options is $3.33 per ADS, which is equal to the closing price of the ADSs on the Nasdaq Stock Market on the date the option grant was approved by the Board of Directors. The options will vest over a period of four years, such that 25% will vest on the first anniversary of the grant date and 6.25% will vest each quarter thereafter, provided that Mr. Serlin continues to serve as an employee of the Company on the applicable vesting date. The options will be exercisable for a period of 10 years following the date of grant, and all unexercised options will expire immediately thereafter.

(ii) PSUs for 73,500 ADSs (representing 44,100,000 Ordinary Shares). The vesting of the PSUs shall be contingent upon the achievement of two strategic clinical milestones (each representing 50% of the award) within prescribed time periods, as determined by the Compensation Committee and the Board of Directors. If a milestone has not been achieved by its target date, there is a grace period of one year to achieve the milestone, after which the applicable PSUs shall expire.

The vesting of the options and PSUs will accelerate upon the occurrence of both (i) a change of control of the Company (as will be defined in Mr. Serlin's award agreements) and (ii) following such change of control, either the termination of Mr. Serlin's employment by the Company or a significant demotion in his new job or position.

If approved at the Meeting, the options and PSUs will be granted under and shall be subject to the Plan and the applicable award agreement(s) to be entered into with Mr. Serlin and will be granted pursuant to the capital gains track of Section 102 of the Israeli Income Tax Ordinance [New Version] 5721-1961 (the "**Ordinance**").

The Compensation Committee and the Board of Directors each determined that the proposed equity-based compensation award to Mr. Serlin, as described above, is (i) in the best interests of the Company, (ii) in accordance with the Company's Compensation Policy for Executive Officers and Directors (the "**Compensation Policy**"), and (iii) reasonable and appropriate in light of Mr. Serlin's role as Chief Executive Officer, his qualifications and experience, and his past and anticipated contributions to the advancement of the Company's activities. The total fair value of Mr. Serlin's proposed equity compensation does not exceed the limits provided for in our Compensation Policy, and the proposed options and PSUs and their terms are consistent with our Compensation Policy.

Proposal

It is proposed that the following resolution be adopted at the Meeting:

RESOLVED, to approve the grant to Mr. Philip Serlin, the Chief Executive Officer of the Company, of equity-based compensation, in the form of options and PSUs, in the amounts and with such terms as described in Proposal 3 of the Proxy Statement.

Approval Required

See "Vote Required for Approval of the Proposals" above.

Board Recommendation

The Board of Directors recommends a vote "FOR" the approval of the proposed equity-based award to Mr. Serlin.

PROPOSAL 4
APPROVAL OF GRANT OF OPTIONS TO CERTAIN DIRECTORS OF THE COMPANY
(Item 4 on the Proxy Card)

Background

Under the Companies Law, the payment of compensation, including equity-based compensation, to a director that is consistent with a company's compensation policy must be approved by the compensation committee, board of directors and shareholders, in that order.

In connection with the annual compensation review conducted by our Compensation Committee and Board of Directors (see Proposal 3), the Compensation Committee and Board of Directors also conducted a review of the equity-based compensation of our directors. In connection with such review, the Compensation Committee and Board of Directors reviewed comparative market data relating to equity compensation of directors at a peer group of Israeli Nasdaq-listed and dual-listed companies, which had previously been prepared by the external compensation consultant, together with such consultant's advice regarding market developments since that time. In considering the proposed equity-based awards to directors, the Compensation Committee and Board of Directors also considered the Company's policy, as advised by its external compensation consultant, of aligning Board equity compensation with the grant levels received by C-level executives.

Accordingly, based on such review, our Compensation Committee and Board of Directors approved, subject to shareholder approval, the grant to each of our directors who shall serve in such capacity immediately following the Meeting (other than Shaoyu Yan, a nominee of Hong Seng Technology Limited, who was appointed to our board of directors in November 2023) of options to purchase 10,000 ADSs (representing 6,000,000 Ordinary Shares), at an exercise price of $3.33 per ADS, which is equal to the closing price of the ADSs on the Nasdaq Stock Market on the date the grant of the options to the certain directors was approved by the Board of Directors. The options will vest over a period of three years, such that 8.33% of the options shall vest on each three-month anniversary of the date of grant during the three-year period, subject to the respective director's continued service in such capacity on each applicable vesting date. The options will be exercisable for a period of 10 years following the date of grant, and all unexercised options will expire immediately thereafter. The options shall accelerate on the occurrence of both (a) a change of control (as such term shall be defined in the option agreement to be entered into with the directors) and (b) the termination of such director's membership on the Board of Directors following such change of control.

If approved at the Meeting, the options will be granted under and shall be subject to the Plan and the applicable award agreements to be entered into with each such director. The options to be granted to the Israeli-resident directors (namely, Aharon Schwartz, Rami Dar, Raphael Hofstein, Avraham Molcho and Gal Cohen) are intended to be granted pursuant to the capital gains track under Section 102 of the Ordinance, and the options to be granted to the U.S.-resident directors (namely, Dr. Sandra Panem and Dr. B.J. Bormann) are intended to qualify as incentive stock options within the meaning of Section 422 of the Internal Revenue Code of 1986. With respect to each of Dr. Aharon Schwartz and Dr. Sandra Panem, the option grant is subject to their respective individual election as a Class III director at the Meeting under Proposal 1 (such that if either is not so elected at the Meeting, he or she shall not be entitled to the options).

Each of our Compensation Committee and Board of Directors determined that the fair value of the options proposed to be granted to such directors and the terms of the proposed options are consistent with the Company's Compensation Policy.

In considering the grant of the options, the Compensation Committee and Board of Directors considered the need to retain its current directors and attract additional, qualified directors, our compensation philosophies and the provisions of the Compensation Policy, as well as internal consistency and market trends. Our Compensation Committee and Board of Directors believe that the amount and terms of the proposed option grant are reasonable and appropriate and in the Company's best interest considering the directors' roles on the Board of Directors, taking into consideration the directors' respective qualifications and experience and their anticipated contributions to the advancement of the Company's activities. Our compensation philosophy encourages the grant of equity-based compensation to our officers and directors in order to further align their compensation with the long-term interests of our shareholders. For information regarding our directors' current beneficial ownership, see "Security Ownership of Certain Beneficial Owners and Management" above.

Proposal

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

"**RESOLVED**, to approve the grant of options to purchase 10,000 ADSs, representing 6,000,000 Ordinary Shares, to certain directors of the Company who shall serve in such capacity immediately following the Meeting, with such terms as described in Proposal 4 of the Company's Proxy Statement for the Meeting."

Approval Required

See "Vote Required for Approval of the Proposals" above.

Board Recommendation

Our Board of Directors recommends a vote "FOR" approval of the grant of options to certain of the directors of the Company.

PROPOSAL 5
RE-APPOINTMENT OF INDEPENDENT PUBLIC AUDITOR
AND AUTHORIZATION OF THE AUDIT COMMITTEE TO FIX THEIR REMUNERATION
(Item 5 on the Proxy Card)

Background

Kesselman & Kesselman, a member firm of PricewaterhouseCoopers International Limited, have audited the Company's financial statements beginning with the financial statements for the year ended December 31, 2003. Except as the Company's auditors, and, from time to time and to a limited extent, as tax consultants and providers of some audit-related and other services, there is no other affiliation between such firm and the Company.

The Companies Law requires shareholder approval of the appointment of the Company's independent public accountants for the fiscal year ending December 31, 2026. Our Board of Directors recommended, pursuant to the recommendation of our Audit Committee, the re-appointment of the accounting firm of Kesselman & Kesselman as our independent registered public accounting firm to perform the audit of our consolidated financial statements for the fiscal year ending December 31, 2026, and for such additional period until the next annual general meeting. In addition, our shareholders are being asked to authorize the Audit Committee of the Board of Directors to fix the compensation of Kesselman & Kesselman in accordance with the scope and nature of its services to the Company.

The following table sets forth, for each of the years indicated, the fees billed by Kesselman & Kesselman, a member firm of PricewaterhouseCoopers International Ltd., our independent registered public accounting firm.

	Year Ended December 31,	
	2024	**2025**
Services Rendered	*(in thousands of U.S. dollars)*	
Audit Fees[(1)]	160	140
Audit-Related Fees[(2)]	40	26
Tax Fees[(3)]	41	22
Total	241	188

(1) Audit fees consist of services that would normally be provided in connection with statutory and regulatory filings or engagements, including services that generally only the independent accountant can reasonably provide.

(2) Audit-related services relate to reports to the Israel Innovation Authority and services in connection with a public listing or offering.

(3) Tax fees relate to tax planning and advice in connection with certain transactions.

Proposal

It is proposed that the following resolution be adopted at the Meeting:

RESOLVED, to reappoint Kesselman & Kesselman, Certified Public Accountants (Isr.), a member firm of PricewaterhouseCoopers International Limited, as the independent registered public accounting firm of the Company for the year ending December 31, 2026, and for such additional period until the next annual general meeting, and to authorize the Audit Committee of the Board of Directors to fix the compensation of said auditors in accordance with the scope and nature of their services.

Approval Required

See "Vote Required for Approval of the Proposals" above.

Board Recommendation

Our Board of Directors recommends a vote "FOR" approval of the re-appointment of Kesselman & Kesselman, a member firm of PricewaterhouseCoopers International Limited, as the independent public auditors of the Company for the year ending December 31, 2026, and for such additional period until the next annual general meeting, and the authorization of the Audit Committee of the Board of Directors to fix their compensation.

PRESENTATION AND DISCUSSION OF THE COMPANY'S AUDITED FINANCIAL STATEMENTS

At the Meeting, our audited consolidated financial statements for the fiscal year ended December 31, 2025, will be presented. The Company's audited consolidated financial statements for the fiscal year ended December 31, 2025, which form part of the 2025 Form 20-F, were filed with the SEC on March 23, 2026, and are available for viewing and downloading on the SEC's website at www.sec.gov and on the Magna website of the ISA at www.magna.isa.gov.il, as well as on the *Investors* portion of our website at https://biolinerx.com. None of the audited financial statements, the 2025 Form 20-F nor the contents of our website form part of the proxy solicitation material. This item does not involve a vote of the shareholders.

OTHER BUSINESS

The Board of Directors is not aware of any other matters that may be presented at the Meeting other than those described in this Proxy Statement. If any other matters do properly come before the Meeting, it is intended that the persons named as proxies will vote, pursuant to their discretionary authority, according to their best judgment in the interest of the Company.

ADDITIONAL INFORMATION

The 2025 Annual Report filed with the SEC is available for viewing and downloading on the SEC's website at www.sec.gov and on the Magna website of the ISA at www.magna.isa.gov.il, as well as on the *Investors* portion of our website at https://biolinerx.com.

We are subject to the information reporting requirements of the U.S. Securities Exchange Act of 1934, as amended (the "**Exchange Act**"), as 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 and the ISA's website at www.magna.isa.gov.

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

By Order of the Board of Directors

Dr. Aharon Schwartz
Chairman of the Board of Directors

August 18, 2026

Exhibit 99.2

BIOLINERX LTD.

For the Annual General Meeting of Shareholders
to be held on September 23, 2026

THIS PROXY IS SOLICITED ON BEHALF OF THE BOARD OF DIRECTORS

The undersigned shareholder of BioLineRx Ltd. (the "**Company**") hereby appoints Mali Zeevi 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 on the reverse side, all of the ordinary shares of the Company which the undersigned is entitled in any capacity to vote at the Annual General Meeting of 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 September 23, 2026 at 3:00 p.m. (Israel time) (the "**Meeting**"), and all adjournments and postponements thereof.

Each shareholder voting on Proposal 3 who votes via proxy, will be deemed to have confirmed that such shareholder, and any related party thereof, does not have a personal interest (as defined in the Proxy Statement for the Meeting) in Proposal 3, unless such shareholder has delivered a written notice to the Company notifying of the existence of a personal interest no later than 10:00 a.m. (Israel time) on Wednesday, September 23, 2026. Any such written notice must be sent to the Company via registered mail at the Company's Offices; Attention: Chief Financial Officer.

(CONTINUED AND TO BE SIGNED ON REVERSE SIDE)

SEE REVERSE SIDE

ANNUAL GENERAL MEETING OF SHAREHOLDERS OF

BIOLINERX LTD.

September 23, 2026

THIS PROXY, WHEN PROPERLY EXECUTED, WILL BE VOTED AS DIRECTED HEREIN. IF NO DIRECTION IS INDICATED, THIS PROXY WILL BE VOTED "FOR" THE ELECTION OF THE DIRECTORS NAMED IN ITEM 1 AND "FOR" ALL OTHER PROPOSALS.

Please mark your vote for the following resolutions as in this example ☒

1	TO APPROVE the re-election of the following persons as Class III directors, each to serve until the Company's annual general meeting of shareholders to be held in 2029, and until their respective successors have been duly elected and qualified.	**FOR**	**AGAINST**	**ABSTAIN**
	Dr. Aharon Schwartz	☐	☐	☐
	Dr. Sandra Panem	☐	☐	☐
	Dr. Shaoyu Yan	☐	☐	☐
2.	TO APPROVE an increase in the Company's authorized share capital, and to amend the Company's Articles of Association accordingly.	**FOR** ☐	**AGAINST** ☐	**ABSTAIN** ☐
3.	TO APPROVE the grant of equity-based compensation, in the form of options and performance stock units, to Philip Serlin, the Company's Chief Executive Officer.	**FOR** ☐	**AGAINST** ☐	**ABSTAIN** ☐
4.	TO APPROVE the grant of equity-based compensation in the form of options to certain directors of the Company.	**FOR** ☐	**AGAINST** ☐	**ABSTAIN** ☐
5.	TO APPROVE the reappointment of Kesselman & Kesselman, Certified Public Accountants (Isr.), a member firm of PricewaterhouseCoopers International Limited, as the Company's independent registered public accounting firm for the year ending December 31, 2026, and until the Company's next annual general meeting of shareholders, and to authorize the Audit Committee of the Board of Directors to fix the compensation of said auditors in accordance with the scope and nature of their services.	**FOR** ☐	**AGAINST** ☐	**ABSTAIN** ☐

Name:

Number of shares:

Signature:

Date:

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.

Exhibit 99.3

BNY: PO BOX 505006, Louisville, KY 40233-5006

Your vote matters!

Have your ballot ready and please use one of the methods below for **easy voting:**

Your control number

Have the 12 digit control number located in the box above available when you access the website and follow the instructions.

BioLineRx, Ltd.

Annual General Meeting of Shareholders

For Shareholders of record as of August 24, 2026
Wednesday, September 23, 2026 3:00 PM, Local Time
Modi'in Technology Park, 2 HaMa'ayan Street, Modi'in 7177871, Israel

Mail:

- Mark, sign and date your Proxy Card
- Fold and return your Proxy Card in the postage-paid envelope provided

YOUR VOTE IS IMPORTANT!
PLEASE VOTE BY: 12:00 p.m. EST on September 18, 2026

BIOLINERX LTD.

Instructions to The Bank of New York Mellon, as Depositary
(Must be received prior to 12:00 p.m. EST on September 18, 2026)

The undersigned shareholder of BioLineRx Ltd. (the "Company") hereby appoints Mali Zeevi 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 Annual 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 September 23, 2026 at 3:00 p.m. (Israel time), and all adjournments and postponements thereof.

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.

To view the notice and proxy statement, please visit:
https://ir.biolinerx.com/events/event-details/2026-annual-meeting-shareholders

PLEASE BE SURE TO SIGN AND DATE THIS PROXY CARD AND MARK ON THE REVERSE SIDE

Please make your marks like this: ☒

PROPOSAL	YOUR VOTE		
	FOR	AGAINST	ABSTAIN
1. TO APPROVE the re-election of the following persons as Class III directors, each to serve until the Company's annual general meeting of shareholders to be held in 2029, and until their respective successors have been duly elected and qualified.			
Dr. Aharon Schwartz	☐	☐	☐
Dr. Sandra Panem	☐	☐	☐
Dr. Shaoyu Yan	☐	☐	☐
2. TO APPROVE an increase in the Company's authorized share capital, and to amend the Company's Articles of Association accordingly.	☐	☐	☐
3. TO APPROVE the grant of equity-based compensation, in the form of options and performance stock units, to Philip Serlin, the Company's Chief Executive Officer.	☐	☐	☐
4. TO APPROVE the grant of equity-based compensation in the form of options to certain directors of the Company.	☐	☐	☐
5. TO APPROVE the reappointment of Kesselman & Kesselman, Certified Public Accountants (Isr.), a member firm of PricewaterhouseCoopers International Limited, as the Company's independent registered public accounting firm for the year ending December 31, 2026, and until the Company's next annual general meeting of shareholders, and to authorize the Audit Committee of the Board of Directors to fix the compensation of said auditors in accordance with the scope and nature of their services.	☐	☐	☐