

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 ☑

- | | 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. | 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.