

-BIOLINERX LTD.

**For the Annual General Meeting of Shareholders
to be held on September 24, 2020**

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 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 24, 2020 at 3:00 p.m. (local time), and all adjournments and postponements thereof.

(CONTINUED AND TO BE SIGNED ON REVERSE SIDE)

SEE
REVERSE
SIDE

ANNUAL GENERAL MEETING OF SHAREHOLDERS OF

BIOLINERX LTD.

September 24, 2020

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

- | | FOR | AGAINST | ABSTAIN |
|---|-----|---------|---------|
| 1. TO RE-ELECT the following nominees to serve as directors of the Company for the coming year until the next annual general meeting of the Company's shareholders or until their respective successors are duly elected: | | | |

- a. Aharon Schwartz
- b. Michael Anghel
- c. B.J. Bormann
- d. Raphael Hofstein
- e. Sandra Panem

- | | | |
|--------------------------|--------------------------|--------------------------|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

- | | | | |
|--|--------------------------|--------------------------|--------------------------|
| 2. TO APPROVE amendments to the employment terms of Philip Serlin, the Company's Chief Executive Officer, all as described in the Proxy Statement. | FOR | AGAINST | ABSTAIN |
| | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

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 |
| <input type="checkbox"/> | <input type="checkbox"/> |

- | | | | |
|--|--------------------------|--------------------------|--------------------------|
| 3. TO APPROVE an increase in the Company's registered share capital from NIS 50,000,000 divided into 500,000,000 ordinary shares of a nominal value of NIS 0.10 each to NIS 150,000,000 divided into 1,500,000,000 ordinary shares of a nominal value of NIS 0.10 each, and a corresponding amendment to Article 4.1 of the Company's Articles of Association. | FOR | AGAINST | ABSTAIN |
| | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

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.

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|--|--------------------------|--------------------------|--------------------------|
| 4. TO RE-APPOINT Kesselman & Kesselman, a member of PricewaterhouseCoopers International Limited, as the independent public auditors of the Company for the year ending December 31, 2020 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 |
| | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

BIOLINERX LTD.

**Instructions to The Bank of New York Mellon, as Depositary
(Must be received prior to 12:00 p.m. EDT on September 18, 2020)**

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 **August 23, 2020** at the **Annual General Meeting** of the Shareholders of **BioLineRx Ltd.** to be held on **September 24, 2020** 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)

**Annual General Meeting of Shareholders of BIOLINERX LTD.
to be held on September 24, 2020
For Holders as of August 23, 2020**



- 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 September 18, 2020.

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



EVENT # ┌

CLIENT # └

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↓ Please separate carefully at the perforation and return just this portion in the envelope provided. ↓

**Annual General Meeting of Shareholders of
BIOLINERX LTD.**

Date: **September 24, 2020**
See Voting Instruction On Reverse Side.

Please make your marks like this: Use dark black pencil or pen only

- | | | | |
|---|--|--|--|
| <p>1. TO RE-ELECT the following nominees to serve as directors of the Company for the coming year until the next annual general meeting of the Company's shareholders or until their respective successors are duly elected:</p> <p style="margin-left: 20px;">a. Aharon Schwartz</p> <p style="margin-left: 20px;">b. Michael Anghel</p> <p style="margin-left: 20px;">c. B.J. Bormann</p> <p style="margin-left: 20px;">d. Raphael Hofstein</p> <p style="margin-left: 20px;">e. Sandra Panem</p> | <p>For</p> <input type="checkbox"/>
<input type="checkbox"/>
<input type="checkbox"/>
<input type="checkbox"/>
<input type="checkbox"/> | <p>Against</p> <input type="checkbox"/>
<input type="checkbox"/>
<input type="checkbox"/>
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<input type="checkbox"/> | <p>Abstain</p> <input type="checkbox"/>
<input type="checkbox"/>
<input type="checkbox"/>
<input type="checkbox"/>
<input type="checkbox"/> |
| <p>2. TO APPROVE amendments to the employment terms of Philip Serlin, the Company's Chief Executive Officer, all as described in the Proxy Statement.</p> <p style="margin-left: 20px;">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)</p> | <p><input type="checkbox"/></p> <p>Yes</p> <input type="checkbox"/> | <p><input type="checkbox"/></p> <p>No</p> <input type="checkbox"/> | <p><input type="checkbox"/></p> |
| <p>3. TO APPROVE an increase in the Company's registered share capital from NIS 50,000,000 divided into 500,000,000 ordinary shares of a nominal value of NIS 0.10 each to NIS 150,000,000 divided into 1,500,000,000 ordinary shares of a nominal value of NIS 0.10 each, and a corresponding amendment to Article 4.1 of the Company's Articles of Association.</p> | <p><input type="checkbox"/></p> <p>For</p> | <p><input type="checkbox"/></p> <p>Against</p> | <p><input type="checkbox"/></p> <p>Abstain</p> |
| <p>4. TO RE-APPOINT Kesselman & Kesselman, a member of PricewaterhouseCoopers International Limited, as the independent public auditors of the Company for the year ending December 31, 2020 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.</p> | <p><input type="checkbox"/></p> | <p><input type="checkbox"/></p> | <p><input type="checkbox"/></p> |

Authorized Signatures - This section must be completed for your instructions to be executed.

Please Sign Here

Please Sign Here

Please Date Above

Please Date Above