

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

- | | | | |
|---|--------------------------|--------------------------|--------------------------|
| 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 |
| | <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 1)	Yes	No
	<input type="checkbox"/>	<input type="checkbox"/>

- | | | | |
|---|--------------------------|--------------------------|--------------------------|
| 2. TO APPROVE an amendments to Sections 5.3 and 5.4 of the Company’s Compensation Policy for Executives | FOR | AGAINST | ABSTAIN |
| | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

and Directors, relating to differential compensation for a Board chairperson, in the form attached as **Annex B** to the Proxy Statement.

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 equity compensation grant to Philip Serlin, the Company's Chief Executive Officer.

FOR	AGAINST	ABSTAIN	Name:
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

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

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**

- | | | | |
|---|--|---|--|
| 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
<input type="checkbox"/>
Yes | Against
<input type="checkbox"/>
No | Abstain
<input type="checkbox"/> |
| 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) | <input type="checkbox"/> | <input type="checkbox"/> | |
| 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. | For
<input type="checkbox"/>
Yes | Against
<input type="checkbox"/>
No | Abstain
<input type="checkbox"/> |
| 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) | <input type="checkbox"/> | <input type="checkbox"/> | |
| 3. To approve an equity compensation grant to Philip Serlin, the Company’s Chief Executive Officer. | For
<input type="checkbox"/>
Yes | Against
<input type="checkbox"/>
No | Abstain
<input type="checkbox"/> |
| 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) | <input type="checkbox"/> | <input type="checkbox"/> | |

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

Please Sign Here

Please Date Above

Please Sign Here

Please Date Above

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