## **BIOLINERX LTD.**

## For the Annual General Meeting of Shareholders to be held on July 5, 2016

## THIS PROXY IS SOLICITED ON BEHALF OF THE BOARD OF DIRECTORS

The undersigned shareholder of BioLineRx Ltd. (the "**Company**") hereby appoints Norman Kotler 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 July 5, 2016 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.

July 5, 2016

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 X 1. TO RE-ELECT the following nominees to FOR AGAINST ABSTAIN 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: Aharon Schwartz Michael Anghel B.J. Bormann d. Raphael Hofstein Sandra Panem 2. TO APPROVE the grant of options to each FOR AGAINST ABSTAIN of the director nominees as follows, subject to each such director's re-election as a member of the Board of Directors: A grant to Aharon Schwartz of options to purchase 90,000 Ordinary Shares as further described in the Proxy Statement. b. A grant to Michael Anghel of options to purchase 90,000 Ordinary Shares as further described in the Proxy Statement. c. A grant to B.J. Bormann of options to purchase 90,000 Ordinary Shares as further described in the Proxy Statement. d. A grant to Raphael Hofstein of options to purchase 90,000 Ordinary Shares as further described in the Proxy Statement. e. A grant to Sandra Panem of options to purchase 90,000 Ordinary Shares as further described in the Proxy Statement.

TO RE-ELECT Ms. Nurit Benjamini as an external director for a third three-year term commencing on July 6, 2016, and to approve the grant to her of options to purchase 90,000 Ordinary Shares, all as described in 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 3)	YES	NO	
TO RE-ELECT Dr. Avraham Molcho as an external director for a third three-year term commencing on July 6, 2016, and to approve the grant to him of options to purchase 90,000 Ordinary Shares, all as described in 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 4)	YES	NO	
TO APPROVE an increase in the annual salary of Dr. Kinneret Savitsky, the Company's Chief Executive Officer, to NIS 918,000.	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 5(a))	YES	NO	
TO AUTHORIZE the Board of Directors to approve the framework for the potential payment to Dr. Kinneret Savitsky, the Company's Chief Executive Officer, of an annual cash bonus for the fiscal year 2016 and thereafter and of a special cash bonus from time to time beginning 2016 and thereafter, all as described in 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?	YES	NO	
	external director for a third three-year term commencing on July 6, 2016, and to approve the grant to her of options to purchase 90,000 Ordinary Shares, all as described in 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 3)  TO RE-ELECT Dr. Avraham Molcho as an external director for a third three-year term commencing on July 6, 2016, and to approve the grant to him of options to purchase 90,000 Ordinary Shares, all as described in 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 4)  TO APPROVE an increase in the annual salary of Dr. Kinneret Savitsky, the Company's Chief Executive Officer, to NIS 918,000.  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 5(a))  TO AUTHORIZE the Board of Directors to approve the framework for the potential payment to Dr. Kinneret Savitsky, the Company's Chief Executive Officer, of an annual cash bonus for the fiscal year 2016 and thereafter and of a special cash bonus from time to time beginning 2016 and thereafter, all as described in the Proxy Statement.  Do you have a "Personal Interest" (as defined in the Proxy Statement) with respect	external director for a third three-year term commencing on July 6, 2016, and to approve the grant to her of options to purchase 90,000 Ordinary Shares, all as described in 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 3)  TO RE-ELECT Dr. Avraham Molcho as an external director for a third three-year term commencing on July 6, 2016, and to approve the grant to him of options to purchase 90,000 Ordinary Shares, all as described in 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 4)  TO APPROVE an increase in the annual salary of Dr. Kinneret Savitsky, the Company's Chief Executive Officer, to NIS 918,000.  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 5(a))  TO AUTHORIZE the Board of Directors to approve the framework for the potential payment to Dr. Kinneret Savitsky, the Company's Chief Executive Officer, of an annual cash bonus for the fiscal year 2016 and thereafter and of a special cash bonus from time to time beginning 2016 and thereafter, all as described in the Proxy Statement)  Do you have a "Personal Interest" (as defined in the Proxy Statement) with respect	external director for a third three-year term commencing on July 6, 2016, and to approve the grant to her of options to purchase 90,000 Ordinary Shares, all as described in 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 3)  TO RE-ELECT Dr. Avraham Molcho as an external director for a third three-year term commencing on July 6, 2016, and to approve the grant to him of options to purchase 90,000 Ordinary Shares, all as described in 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 4)  TO APPROVE an increase in the annual salary of Dr. Kinneret Savitsky, the Company's Chief Executive Officer, to NIS 918,000.  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 5(a))  TO AUTHORIZE the Board of Directors to approve the framework for the potential payment to Dr. Kinneret Savitsky, the Company's Chief Executive Officer, of an annual cash bonus for the fiscal year 2016 and thereafter and of a special cash bonus from time to time beginning 2016 and thereafter, all as described in the Proxy Statement.  Do you have a "Personal Interest" (as defined in the Proxy Statement) with respect

5(c)	TO APPROVE the grant to Dr. Kinneret Savitsky, the Company's Chief Executive Officer, (i) of options to purchase 186,200 Ordinary Shares and (ii) of 93,100 performance stock units, all as described in 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 5(c))	YES	NO		
					Name:
					Number of shares:
6.	TO APPROVE the amended BioLineRx Ltd. Compensation Policy for Executives and Directors in the form attached as Annex A to the Proxy Statement.	FOR	AGAINST	ABSTAIN	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 6)	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.
7.	TO REAPPOINT Kesselman & Kesselman, a member of PricewaterhouseCoopers International Limited, as the independent registered public accounting firm of the Company for the year ending December 31, 2016 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	