

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 February 2015

BioLineRx Ltd.

(Translation of Registrant's name into English)

**P.O. Box 45158
19 Hartum Street
Jerusalem 9777518, 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

Indicate by check mark whether the registrant by furnishing the information contained in this form is also thereby furnishing the information to the Commission pursuant to Rule 12g3-2(b) under the Securities Exchange Act of 1934:

Yes

No

The Registrant announces that it will hold the 2015 Annual General Meeting of Shareholders on March 24, 2015 at 11:00 a.m. (Israel time) at the Registrant's office, 19 Hartum Street, Jerusalem, Israel. Attached hereto as Exhibits 1 and 2 are, respectively, the Notice of Annual General Meeting and Proxy Statement, and Proxy Card.

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 Serlin
Philip Serlin
Chief Financial and Operating Officer

Dated: February 9, 2015

BIOLINERX LTD.

**NOTICE OF
2015 ANNUAL GENERAL MEETING OF SHAREHOLDERS**

March 24, 2015

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 19 Hartum St., Har Hotzvim, Jerusalem, Israel, on March 24, 2015 at 11:00 a.m. for the following purposes:

1. TO VOTE ON THE PROPOSAL TO RE-ELECT five directors to serve until the next Annual General Meeting of shareholders.
2. TO VOTE ON THE PROPOSAL TO APPROVE the grant of options to all the directors currently standing for re-election, as further described in the Proxy Statement.
3. TO VOTE ON THE PROPOSAL TO APPROVE the grant of options to Dr. Kinneret Savitsky, the Company’s Chief Executive Officer, as further described in the Proxy Statement.
4. TO VOTE ON THE PROPOSAL TO RE-APPOINT Kesselman & Kesselman, Certified Public Accountants (Isr.), a member firm of PricewaterhouseCoopers International Limited, as the independent public auditors of the Company for the year ending December 31, 2015 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.
5. TO REVIEW the Company’s Annual Report and financial statements for the year ended December 31, 2014, and to transact such other business as may properly come before the Meeting.

Shareholders of record at the close of business on February 15, 2015 (the “**Record Date**”) are entitled to notice of and to vote at the Meeting. All shareholders are cordially invited to attend the Meeting in person.

Whether or not you plan to attend the Meeting, you are urged to promptly complete, date and sign the enclosed proxy and to mail it in the enclosed envelope, which requires no postage if mailed in the United States. A proxy from the holder of ordinary shares must be received by the Company no later than close of business on March 22, 2015 to be validly included in the tally of ordinary shares voted at the Meeting; a proxy from the holder of the Company’s American Depositary Shares must be received by The Bank of New York Mellon as Depositary no later than 12:00 p.m. EDT on March 18, 2015 to be validly included in the tally of votes for 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.

Beneficial owners who hold their shares through members of the Tel Aviv Stock Exchange (“**TASE**”) may either vote their shares in person at the Meeting by presenting a certificate signed by a member of the TASE which complies with the Israel Companies Regulations (Proof of Ownership for Voting in General Meetings), 5760-2000 as proof of ownership of the shares, or send such certificate along with a duly executed proxy to the Company at 19 Hartum St., Har Hotzvim, Jerusalem 9777518, Israel, Attention: General Counsel.

By Order of the Board of Directors,

BioLineRx Ltd.

February 9, 2015

PROXY STATEMENT

BIOLINERX LTD.
19 Hartum St.
Post Office Box 45158
Har Hotzvim, Jerusalem 9777518
Israel

2015 ANNUAL GENERAL MEETING OF SHAREHOLDERS

March 24, 2015

The enclosed proxy is being solicited by our Board of Directors for use at our Annual General Meeting of shareholders (the “**Meeting**”) to be held on March 24, 2015 at 11:00 a.m., or at any adjournment thereof, at the offices of the Company at 19 Hartum St., Har Hotzvim, Jerusalem, Israel. The record date for determining which of our shareholders is entitled to notice of, and to vote at, the Meeting is established as of the close of trade on February 15, 2015 (the “**Record Date**”). On the date hereof, we have outstanding and entitled to vote 391,150,507 of our ordinary shares, nominal value New Israeli Shekels (“**NIS**”) 0.01 each (the “**Ordinary Shares**”).

INFORMATION CONCERNING SOLICITATION AND VOTING

Record Date and Shares Outstanding

You are entitled to vote at the Meeting if you were a shareholder at the close of trade on the Record Date. Subject to the terms described herein, you are also entitled to vote at the Meeting if you held Ordinary Shares through a bank, broker or other nominee which was a shareholder of record of the Company at the close of trade on the Record Date or which appeared in the participant listing of a securities depository on that date.

Quorum, Voting, Solicitation and Revocation of Proxies.

At least two shareholders who attend the Meeting in person or by proxy who hold or represent together at least 25% of the voting rights of our issued share capital 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. Each outstanding Ordinary Share held by a shareholder is entitled to one vote.

Shareholders entitled to vote at the Meeting may attend the Meeting in person and vote thereat, appoint a proxy or vote by written ballot. A proxy from the holder of Ordinary Shares must be received by the Company no later than close of business on March 22, 2015 to be validly included in the tally of Ordinary Shares voted at the Meeting; a proxy from the holder of the Company’s American Depositary Shares (“**ADSs**”) must be received by The Bank of New York Mellon as Depositary no later than 12:00 p.m. EDT on March 18, 2015 to be validly included in the tally of votes for the Meeting.

Each of the Proposals 1, 2 and 4, pursuant to the Israeli Companies Law, 1999-5759 (the “**Companies Law**”), requires the affirmative vote of a simple majority of shares present at the Meeting, in person or by proxy, and voting thereon.

Pursuant to the Companies Law, Proposal 3 requires the affirmative vote of a simple majority of shares present at the Meeting, in person or by proxy, and voting thereon, as long as either:

- the majority of shares that voted for the approval of the respective proposal includes at least majority of the shares held by non-controlling and non-interested shareholders voted at the Meeting (excluding abstaining votes); or
- the total number of shares of non-controlling and non-interested shareholders that voted against the approval of the respective proposal does not exceed two percent of the aggregate voting rights in the company.

Shareholders are requested to notify us whether or not they have a “Personal Interest” in connection with Proposal 3 (please see the definition of the term “Personal Interest” under Proposal 3). If any shareholder casting a vote in connection with Proposal 3 does not notify us as to whether or not he, she or it has a Personal Interest with respect to with Proposal 3, that shareholder’s vote with respect to such proposal will be disqualified.

You may change your mind and cancel your proxy card by filing a written notice of revocation with the Company, by completing and returning a duly executed proxy card bearing a later date or by voting in person at the Meeting. Attendance at the Meeting will not in and of itself constitute revocation of proxy. Subject to the foregoing paragraph, shares represented by a valid proxy card will be voted in favor of the proposed resolution to be presented at the Meeting, unless you clearly vote against a specific resolution.

Under the terms of the Deposit Agreement among the Company, The Bank of New York 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 (as set forth above), 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. In such case, the restrictions of the Israeli Companies Law with respect to “Personal Interest” as described above, would apply as well.

PRINCIPAL SHAREHOLDERS

The following table sets forth certain information regarding the beneficial ownership of our outstanding Ordinary Shares as of February 9, 2015, by each person who we know beneficially owns 5.0% or more of the outstanding Ordinary Shares. Each of our shareholders has identical voting rights with respect to its shares. All of the information with respect to beneficial ownership of the Ordinary Shares is given to the best of our knowledge.

The beneficial ownership of Ordinary Shares is based on the 391,150,507 Ordinary Shares outstanding as of February 9, 2015, and is determined in accordance with the rules of the Securities and Exchange Commission (the “SEC”) and generally includes any Ordinary Shares over which a person exercises sole or shared voting or investment power. For purposes of the table below, we deem shares subject to options or warrants that are currently exercisable or exercisable within 60 days of February 9, 2015, to be outstanding and to be beneficially owned by the person holding the options or warrants for the purposes of computing the percentage ownership of that person but we do not treat them as outstanding for the purpose of computing the percentage ownership of any other person. To our knowledge, none of our shareholders of record are U.S. holders. Our principal shareholders do not have different or special voting rights.

	Number of Shares Beneficially Held	Percent of Class
Novartis Pharma AG ⁽¹⁾	50,000,000	12.8
Pan Atlantic Bank and Trust Limited ⁽²⁾	34,803,965	8.7
OrbiMed Israel Partners Limited Partnership ⁽³⁾	27,350,000	6.7
Rima Senvest Management, L.L.C. ⁽⁴⁾	26,286,450	6.7

- (1) Based upon information provided by the shareholder in its Schedule 13G filed with the SEC on December 22, 2014. Novartis AG is the parent of Novartis Pharma AG and may be deemed to share voting and investment power with respect to the ordinary shares underlying the securities held by Novartis Pharma AG. The address of the principal business office of each of Novartis Pharma AG and Novartis AG is Lichtstrasse 35, 4056 Basel, Switzerland.
- (2) Includes 7,000,000 ordinary shares issuable upon exercise of outstanding warrants within 60 days of February 9, 2015. Based upon information provided by the shareholder in its Schedule 13D/A filed with the SEC on March 10, 2014. Pan Atlantic Bank and Trust Limited is a wholly owned subsidiary of FCMI Financial Corporation (FCMI). All of the outstanding shares of FCMI are owned by Albert D. Friedberg, members of his family and trusts for the benefit of members of his family. Mr. Friedberg retains possession of the voting and dispositive power over the FCMI shares held by members of the Friedberg family and trusts for the benefit of members of his family and, as a result, controls and may be deemed the beneficial owner of 100% of the outstanding shares of and sole controlling person of FCMI. By virtue of his control of FCMI, Mr. Friedberg may be deemed to possess voting and dispositive power over the shares owned directly by its wholly-owned subsidiary, Pan Atlantic Bank and Trust Limited. The address of the principal business office of Pan Atlantic Bank and Trust Limited is “Whitepark House,” 1st Floor, Whitepark Road, St. Michael BB11135, Barbados, West Indies.
- (3) Includes 16,000,000 ordinary shares issuable upon exercise of outstanding options within 60 days of February 9, 2015. Based upon information provided by the shareholder in its Schedule 13G/A filed with the SEC on February 13, 2014. OrbiMed Israel GP Ltd. (“OrbiMed Israel”) is the general partner of OrbiMed Israel BioFund GP Limited Partnership (“OrbiMed BioFund”), which is the general partner of the shareholder, OrbiMed Israel Partners Limited Partnership, an Israel limited partnership (“OrbiMed Partners”). OrbiMed Israel, as the general partner of OrbiMed BioFund, and OrbiMed BioFund, as the general partner of OrbiMed Partners, may be deemed to share voting and investment power with respect to the ordinary shares underlying the securities held by OrbiMed Partners. The principal business office of OrbiMed Partners is 89 Medinat HaYehudim St., Building E, 11th Floor, Herzliya 46766, Israel.
- (4) Includes 3,496,500 ordinary shares issuable upon exercise of outstanding warrants within 60 days of February 9, 2015. Based upon information provided by the shareholder in its Schedule 13G filed with the SEC on January 7, 2015. In such filing, Richard Mashaal is indicated as having shared voting and investment power with respect to the ordinary shares held by Rima Senvest Management LLC and is deemed to have beneficial ownership of such securities. Richard Mashaal disclaims beneficial ownership in the shares reported in the Schedule 13G except to the extent of his pecuniary interest therein. The address of the principal business office of Rima Senvest Management LLC is 540 Madison Avenue, 32nd Floor, New York, New York 10022.

COMPENSATION OF OFFICERS

Our compensation for our executive officers is derived from employment agreements and each executive officer's personal contribution to our management, operations and our success, and will be determined in accordance with our Executive Compensation Policy (the "**Compensation Policy**"), which was approved by our shareholders at our extraordinary general meeting of shareholders on December 19, 2013.

In accordance with the Companies Law and regulations promulgated thereunder, the following table presents information regarding compensation actually received by our five most highly paid executive officers during the year ended December 31, 2014.

Name and Position	Salary	Social benefits ⁽¹⁾	Bonuses	Value of Options Granted ⁽²⁾	All Other Compensation ⁽³⁾	Total
<i>(in thousands of U.S. dollars)</i>						
Kinneret Savitsky, Chief Executive Officer	231	56	135	102	20	544
Philip Serlin, Chief Financial and Operating Officer	170	53	99	84	23	429
David Malek, Vice President of Business Development	143	33	98	59	18	351
Leah Klapper, Chief Scientific Officer	156	33	59	73	20	341
Amnon Aharon, Vice President of Medical Affairs	139	31	46	22	15	253

- (1) "Social Benefits" include payments to the National Insurance Institute, advanced education funds, managers' insurance and pension funds; vacation pay; and recuperation pay as mandated by Israeli law.
- (2) Consists of amounts recognized as share-based compensation expense on the Company's statement of comprehensive loss for the year ended December 31, 2014.
- (3) "All Other Compensation" includes automobile-related expenses pursuant to the Company's automobile leasing program, telephone, basic health insurance and holiday presents.

PROPOSAL ONE RE-ELECTION OF DIRECTORS

Our Board of Directors has designated the persons named below for election to serve until the next Annual General Meeting of our shareholders. In the absence of instructions to the contrary, the persons named in the enclosed proxy will vote the Ordinary Shares represented thereby "For" the election of the directors listed below as a group. If any of such directors is unable to serve, the persons named in the proxy shall vote the Ordinary Shares for the election/re-election of such other nominee/director 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 directors, including their principal occupations during at least the past five years.

<u>Director</u>	<u>Age</u>	<u>Principal Occupation</u>
Aharon Schwartz, Ph.D.	72	Dr. Schwartz has served as the Chairman of our Board of Directors since 2004. He served in a number of positions in Teva from 1975 through 2011, the most recent being Vice President, Head of Teva Innovative Ventures from 2008. Dr. Schwartz is currently chairman of the boards of numerous life science companies, including Yissum, DPharm Ltd., BioCancell Ltd., CureTech Ltd. and Biomas Ltd. Dr. Schwartz also serves on the board of directors of Protalix Ltd. and as a consultant to Clal Biotechnology Industries Ltd. Dr. Schwartz received his Ph.D. in organic chemistry from the Weizmann Institute, his M.Sc. in organic chemistry from the Technion and a B.Sc. in chemistry and physics from the Hebrew University of Jerusalem. Dr. Schwartz recently received a second Ph.D. from the Hebrew University of Jerusalem in the history and philosophy of science.
Michael Anghel, Ph.D.	75	Dr. Anghel has served on our Board of Directors since 2010 and on our Investment Monitoring Committee since 2010. From 1977 to 1999, he led the Discount Investment Corporation Ltd. (of the IDB Group) activities in the fields of technology and communications. Dr. Anghel was instrumental in founding Tevel, one of the first Israeli cable television operators and later in founding Cellcom Israel Ltd. (NYSE:CEL), the second Israeli cellular operator. In 1999, he founded CAP Ventures, an advanced technology investment company. From 2004 to 2005, Dr. Anghel served as CEO of DCM, the investment banking arm of the Israel Discount Bank (TASE:DSCT). He has been involved in various technology enterprises and has served on the Boards of Directors of various major Israeli corporations and financial institutions including Elron Electronic Industries Ltd. (TASE:ELRN), Elbit Systems Ltd. (Nasdaq:ESLT, TASE:ESLT), Nice Systems (Nasdaq:NICE), Gilat Satellite Networks Ltd. (Nasdaq:GILT), American Israeli Paper Mills (now Hadera Paper Ltd. (AMEX:AIP)), Maalot (the Israeli affiliate of Standard and Poor's) and Hapoalim Capital Markets. He currently serves on the Boards of Directors of Partner Communications Company, Ltd. (Nasdaq:PTNR, TASE:PTNR), Syneron Medical Ltd. (Nasdaq:ELOS), Evogene Ltd. (Nasdaq:EVGN, TASE:EVGN), Dan Hotels Ltd. (TASE:DANH), Orbotech Ltd. (Nasdaq:ORBK, GSM:ORBK) and the Strauss Group Ltd. (TASE:STRS). He is also the chairman of the Center for Educational Technology. Prior to launching his business career, Dr. Anghel served as a full-time member of the Recanati Graduate School of Business Administration of the Tel Aviv University, where he taught finance and corporate strategy. He currently serves as Chairman of the Tel Aviv University's Executive Program. Dr. Anghel holds a B.A. (Economics) from the Hebrew University in Jerusalem and an MBA and Ph.D. (Finance) from Columbia University, New York.
B.J. Bormann, Ph.D.	56	Dr. Bormann has served on our Board of Directors since August 2013. Beginning January 2015, Dr. Bormann has served as the CEO of Supportive Therapeutics, LLC, a company that is developing an effective product for the prevention and treatment of advanced oral mucositis. Dr. Bormann also serves as the Chief Business Advisor for NanoMedical Systems, Inc. of Austin, Texas that licenses a unique, implantable drug delivery device. During 2013 and 2014, she served as the CEO and a director of Harbour Antibodies BV, a Netherlands based company that licenses transgenic mice that generate human antibodies. Prior to that, Dr. Bormann was Senior Vice President responsible for world-wide alliances, licensing and business development at Boehringer Ingelheim Pharmaceuticals, Inc. from 2007 to 2013. From 1996 to 2007, she served in a number of positions at Pfizer, Inc., the last one being Vice President of Pfizer Global Research and Development and world-wide Head of Strategic Alliances. Dr. Bormann serves on the board of directors of Supportive Therapeutics, LLC and the Institute for Pediatric Innovation. Dr. Bormann received her Ph.D. in biomedical science from the University of Connecticut Health Center and her B.Sc. from Fairfield University in biology. Dr. Bormann completed postdoctoral training at Yale Medical School in the department of pathology.

- Raphael Hofstein,65
Ph.D.
- Dr. Hofstein has served on our Board of Directors since 2003, our Audit Committee since 2007 and our Compensation Committee since 2012. Dr. Hofstein has served as the President and Chief Executive Officer of MaRS Innovation (a commercialization company of the University of Toronto and 10 affiliated hospitals) since June 2009. From 2000 through June 2009, Dr. Hofstein was the President and Chief Executive Officer of Hadasit Ltd., or Hadasit, the technology transfer company of Hadassah Hospital. He has served as chairman of the board of directors of Hadasit since 2006. Prior to joining Hadasit, Dr. Hofstein was the President of Mindsense Biosystems Ltd. and the Business Unit Director of Ecogen Inc. and has held a variety of other positions, including manager of R&D and chief of immunochemistry at the International Genetic Science Partnership. Dr. Hofstein serves on the board of directors of numerous companies, including Hadasit Bio-Holdings Ltd. (TASE:HDST). Dr. Hofstein received his Ph.D. and M.Sc. from the Weizmann Institute of Science, and his B.Sc. in chemistry and physics from the Hebrew University of Jerusalem. Dr. Hofstein completed postdoctoral training at Harvard Medical School in both the departments of biological chemistry and neurobiology.
- Sandra Panem,68
Ph.D.
- Dr. Panem has served on our Board of Directors since February 2014. She is currently a managing partner at Cross Atlantic Partners, which she joined in 2000. 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, she 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. Dr. Panem currently serves on the boards of directors of Acorda Therapeutics, Inc. (NASDAQ:ACOR), Labcyte, Inc., GenomeQuest, Inc. and MDx Medical, Inc. Previously, Dr. Panem served on numerous boards of public and private companies, including Martek Biosciences (Nasdaq:MATK), IBAH Pharmaceuticals (Nasdaq:IBAH), Confluent Surgical and Molecular Informatics. Dr. Panem received a B.S. in biochemistry and a Ph.D. in microbiology from the University of Chicago.

Our Articles of Association specify that the number of directors will be at least five but not more than ten. The current Board of Directors consists of seven members.

If re-elected, each of the directors listed above will continue to be party to an indemnification agreement with the Company in the form of indemnification letter approved by the shareholders in November, 2011 to be entered into by the Company with directors serving from time to time in such capacity, and will continue to be insured under the Company's directors and officers insurance coverage which provides coverage for all directors of the Company.

Our Board of Directors will present the following resolution for adoption at the Meeting:

“RESOLVED, to re-elect Aharon Schwartz, Michael Anghel, B.J. Bormann, Raphael Hofstein and Sandra Panem as directors of the Company until the next Annual General Meeting of Shareholders.”

The affirmative vote of the holders of a majority of the voting power represented at the Meeting is necessary for the approval of the foregoing resolution.

**PROPOSAL TWO
APPROVAL OF GRANT OF OPTIONS TO ALL DIRECTORS
CURRENTLY STANDING FOR RE-ELECTION**

Pursuant to the Companies Law, our shareholders approved the Compensation Policy for our directors and officers in December 2013. A copy of the Compensation Policy is attached to our proxy statement for that meeting, which was filed as Exhibit 1 to our Report on Form 6-K furnished to the SEC on November 13, 2013. The Compensation Policy permits the grant of options to our directors, and any such grant requires the prior approval of our Compensation Committee, Board of Directors and shareholders, in that order.

Following approval by our Compensation Committee, our Board of Directors resolved, subject to shareholder approval, to approve the option grants described below. The Compensation Committee and the Board of Directors are of the view that the activities of each of the directors on the Board and its committees bring value to the Company and contribute greatly to the Company and its activities. The Compensation Committee and the Board of Directors determined that the proposed grants are (i) reasonable and appropriate, (ii) in accordance with the Compensation Policy and (iii) for the good of the Company and its shareholders, in light of each director's role on the Board of Directors, his or her qualifications and experience and his or her past and anticipated contributions to the advancement of the Company's activities.

Shareholders are now being asked to approve such option grants as follows:

- Subject to his re-election as a member of the Board of Directors under Proposal 1, a grant to Aharon Schwartz of options to purchase 100,000 of the Company's Ordinary Shares (equivalent to 10,000 of the Company's ADSs);
- Subject to his re-election as a member of the Board of Directors under Proposal 1, a grant to Michael Anghel of options to purchase 100,000 of the Company's Ordinary Shares (equivalent to 10,000 of the Company's ADSs);
- Subject to her re-election as a member of the Board of Directors under Proposal 1, a grant to B.J. Bormann of options to purchase 100,000 of the Company's Ordinary Shares (equivalent to 10,000 of the Company's ADSs);
- Subject to his re-election as a member of the Board of Directors under Proposal 1, a grant to Raphael Hofstein of options to purchase 100,000 of the Company's Ordinary Shares (equivalent to 10,000 of the Company's ADSs); and
- Subject to her re-election as a member of the Board of Directors under Proposal 1, a grant to Sandra Panem of options to purchase 100,000 of the Company's Ordinary Shares (equivalent to 10,000 of the Company's ADSs);

With regard to each grant, the options will vest in equal one-twelfth portions each quarter over the three-year period beginning on the date of approval by the shareholders, provided in each case that the grantee is still a director of the Company at the time of vesting. The exercise price will be equal to 100% of the closing price of the Ordinary Shares on the TASE on the date of the Meeting. The option grants will be made in accordance with terms of the Company's 2003 Share Incentive Plan.

Our Board of Directors will present the following resolutions for adoption at the Meeting:

“RESOLVED, subject to his re-election as a member of the Board of Directors, to approve the grant of options under the Company's 2003 Share Incentive Plan to Aharon Schwartz to purchase 100,000 of the Company's Ordinary Shares (equivalent to 10,000 of the Company's ADSs) which shall have an exercise price equal to 100% of the closing price of the Ordinary Shares on the TASE on the date of the Meeting and which shall vest in equal one-twelfth portions over a three-year period commencing on the date of adoption of this resolution for so long as Dr. Schwartz continues to serve as a director of the Company at the time of vesting.

“RESOLVED, subject to his re-election as a member of the Board of Directors, to approve the grant of options under the Company’s 2003 Share Incentive Plan to Michael Anghel to purchase 100,000 of the Company’s Ordinary Shares (equivalent to 10,000 of the Company’s ADSs) which shall have an exercise price equal to 100% of the closing price of the Ordinary Shares on the TASE on the date of the Meeting and which shall vest in equal one-twelfth portions over a three-year period commencing on the date of adoption of this resolution for so long as Dr. Anghel continues to serve as a director of the Company at the time of vesting.

“RESOLVED, subject to her re-election as a member of the Board of Directors, to approve the grant of options under the Company’s 2003 Share Incentive Plan to B. J. Bormann to purchase 100,000 of the Company’s Ordinary Shares (equivalent to 10,000 of the Company’s ADSs) which shall have an exercise price equal to 100% of the closing price of the Ordinary Shares on the TASE on the date of the Meeting and which shall vest in equal one-twelfth portions over a three-year period commencing on the date of adoption of this resolution for so long as Dr. Bormann continues to serve as a director of the Company at the time of vesting.

“RESOLVED, subject to his re-election as a member of the Board of Directors, to approve the grant of options under the Company’s 2003 Share Incentive Plan to Raphael Hofstein to purchase 100,000 of the Company’s Ordinary Shares (equivalent to 10,000 of the Company’s ADSs) which shall have an exercise price equal to 100% of the closing price of the Ordinary Shares on the TASE on the date of the Meeting and which shall vest in equal one-twelfth portions over a three-year period commencing on the date of adoption of this resolution for so long as Dr. Hofstein continues to serve as a director of the Company at the time of vesting.

“RESOLVED, subject to her re-election as a member of the Board of Directors, to approve the grant of options under the Company’s 2003 Share Incentive Plan to Sandra Panem to purchase 100,000 Ordinary Shares (equivalent to 10,000 of the Company’s ADSs) which shall have an exercise price equal to 100% of the closing price of the Ordinary Shares on the TASE on the date of the Meeting and which shall vest in equal one-twelfth portions over a three-year period commencing on the date of adoption of this resolution for so long as Dr. Panem continues to serve as a director of the Company at the time of vesting.”

Pursuant to the Companies Law, approval of the foregoing resolution requires the affirmative vote of a simple majority of shares present at the meeting, in person or by proxy, and voting thereon.

PROPOSAL THREE APPROVAL OF GRANT OPTIONS TO DR. KINNERET SAVITSKY

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, in that order.

Following approval by our Compensation Committee, on November 12, 2014 our Board of Directors approved, subject to shareholder approval, the grant to Dr. Kinneret Savitsky, our Chief Executive Officer, of options to purchase 1,511,000 of our Ordinary Shares (equivalent to 151,100 of the Company’s ADSs) (the **“Options”**). The Compensation Committee and the Board of Directors determined that the proposed grant to Dr. Savitsky is (i) reasonable and appropriate, (ii) in accordance with the Compensation Policy and (iii) for the good of the Company and its shareholders. The exercise price of the Options is NIS 0.567 per share (equivalent to approximately \$1.44 per ADS), which is equal to 110% of the closing price of the Ordinary Shares on the TASE on the date the grant was approved by the Board. The options will vest over a period of 4 years, for so long as Dr. Savitsky continues to serve as an employee of the Company or otherwise provide services to the Company at the time of vesting. The grant of options to Dr. Savitsky is in compliance with the provisions of our Compensation Policy. As of the date of this proxy statement, Dr. Savitsky is the beneficial holder of 3,472,202 Ordinary Shares, of which 2,556,170 are options to purchase our Ordinary Shares.

Our Board of Directors will present the following resolution for adoption at the Meeting:

“RESOLVED, to approve the grant of options under the Company’s 2003 Share Incentive Plan to Dr. Kinneret Savitsky, the Chief Executive Officer of the Company, to purchase 1,511,000 Ordinary Shares (equivalent to 151,100 of the Company’s ADSs) with an exercise price of NIS 0.567 per share (which is equivalent to approximately \$1.44 per ADS and which is equal to 110% of the closing price of the Ordinary Shares on the TASE on the date the grant was approved by the Board) and vesting over a period of 4 years for so long as Dr. Savitsky continues to serve as an employee of the Company or otherwise provide services to the Company at the time of vesting.”

Pursuant to the Companies Law, approval of this Proposal 3 requires the affirmative vote of a simple majority of shares present at the Meeting, in person or by proxy, and voting thereon, as long as one of the following conditions is met:

- the majority of shares voted for the proposal includes at least a majority of the shares held by non-controlling and non-interested shareholders voted at the Meeting (excluding abstaining votes); or
- the total number of shares of non-controlling and non-interested shareholders voted against the proposal does not exceed two percent of the aggregate voting rights in the company.

As of the date hereof, the Company has no controlling shareholders within the meaning of the Companies Law.

Each shareholder voting at the Meeting or prior thereto by means of the accompanying proxy card is requested to notify us if he, she or it has a Personal Interest in connection with this Proposal 3 as a condition for the vote to be counted with respect to this Proposal 3. If any shareholder casting a vote in connection hereto does not notify us if he, she or it has a Personal Interest with respect to this Proposal 3, the vote with respect to this Proposal 3 will be disqualified.

For this purpose, “Personal Interest” is defined as: (1) a shareholder’s personal interest in the approval of an act or a transaction of the Company, including (i) the personal interest of his or her relative (which includes for these purposes any members of his/her (or his/her spouse’s) immediate family or the spouses of any such members of his or her (or his/her spouse’s) immediate family); and (ii) a personal interest of a body corporate in which a shareholder or any of his/her aforementioned relatives serves as a director or the chief executive officer, owns at least 5% of its issued share capital or its voting rights or has the right to appoint a director or chief executive officer, but (2) excluding a personal interest arising solely from the fact of holding shares in the Company or in a body corporate. Under the Companies Law, in the case of a person voting by proxy for another person, “Personal Interest” includes a personal interest of either of the proxy holder or the shareholder granting the proxy, whether or not the proxy holder has discretion how to vote. If you do not have a Personal Interest in the above matter being presented to the shareholders, you may assume that using the form of proxy enclosed herewith will not create a Personal Interest.

Our Board of Directors recommends a vote “FOR” approval of the proposed grant of options to Dr. Savitsky.

The Companies Law allows our Board of Directors to approve Proposal 3 even if it was not approved by our shareholders, provided that our Compensation Committee and thereafter the Board of Directors have determined that Proposal 3 is for the good of the Company and decided to reapprove Proposal 3, based on detailed reasoning, and after having re-examined the proposal, and taken, inter alia, the shareholder rejection into consideration.

PROPOSAL FOUR APPOINTMENT OF INDEPENDENT PUBLIC AUDITOR

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, 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, 2015. Our Board of Directors recommended and upon such recommendation, at the last Annual General Meeting, the Company's shareholders appointed 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, 2014. The Board of Directors believes that the appointment of Kesselman & Kesselman as the Company's independent registered public accounting firm to perform the audit of the Company's consolidated financial statements for the fiscal year ending December 31, 2015 is appropriate and in the interests of the Company and its shareholders. Subject to the approval of this proposal, the Audit Committee of the Board of Directors will fix the compensation of Kesselman & Kesselman in accordance with the scope and nature of their services to the Company.

In compliance with the Companies Law, our Board of Directors will present the following resolution for adoption at the Meeting:

“RESOLVED, to appoint Kesselman & Kesselman, Certified Public Accountants (Isr.), a member firm of PricewaterhouseCoopers International Limited, as the independent public auditors of the Company for the year ending December 31, 2015 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.”

The affirmative vote of the holders of a majority of the voting power represented at the Meeting is necessary for the approval of the foregoing resolution.

Our Board of Directors recommends a vote “FOR” approval of the proposed appointment of Kesselman & Kesselman as the independent public auditors of the Company for the year ending December 31, 2015 and the authorization of the Audit Committee of the Board of Directors to fix their compensation.

**ITEM FIVE
REVIEW OF THE COMPANY'S ANNUAL REPORT AND FINANCIAL STATEMENTS FOR THE
YEAR ENDED DECEMBER 31, 2014, AND TRANSACTION OF SUCH OTHER BUSINESS AS MAY
PROPERLY COME BEFORE THE MEETING**

The audited financial statements of the Company for the fiscal year ended December 31, 2014 will be filed together with the Company's Annual Report on Form 20-F, which we plan on filing with the SEC during March 2015 and which will be available before the date of the Meeting at the SEC's website, www.sec.gov, and at the Magna website of the Israel Securities Authority (“ISA”) at www.magna.isa.gov.il. We will hold a discussion with respect to the Annual Report and financial statements at the Meeting. This item will not involve a vote by the shareholders.

The Company's management is not aware of any other business to be transacted at the Meeting. However, if any other matters are properly presented to the Meeting, the persons named as proxies in the enclosed form of proxy will vote upon such matters in accordance with their best judgment.

Where to Find More Information

We are subject to the information reporting requirements of the U.S. Securities Exchange Act of 1934, as amended (the “Exchange Act”), applicable to foreign private issuers and we fulfill the obligations with respect to those requirements by filing reports with the SEC. Our filings with the SEC may be inspected without charge at the SEC's Public Reference Room at 100 F Street, N.E., Washington, D.C. 20549. Information on the operation of the Public Reference Room can be obtained by calling the SEC at 1-800-SEC-0330. Our SEC filings are also available to the public from the SEC's website at www.sec.gov and the ISA's website at www.magna.isa.gov.il. Shareholders may obtain information directly from the Company, whose registered office is at 19 Hartum St., Har Hotzvim, Jerusalem 9777518, Israel and whose telephone number is +972-2-548-9100.

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. Furthermore, our officers, directors and principal shareholders are exempt from the reporting and “short-swing” profit recovery provisions contained in Section 16 of the Exchange Act and the rules thereunder, with respect to their purchases and sales of securities. Lastly, we are not required under the Exchange Act to file periodic reports and financial statements with the SEC as frequently or as promptly as United States companies whose securities are registered under the Exchange Act.

YOU SHOULD RELY ONLY ON THE INFORMATION CONTAINED IN THIS PROXY STATEMENT OR THE INFORMATION FURNISHED TO YOU IN CONNECTION WITH THIS PROXY STATEMENT WHEN VOTING ON THE MATTERS SUBMITTED TO SHAREHOLDER APPROVAL HEREUNDER. WE HAVE NOT AUTHORIZED ANYONE TO PROVIDE YOU WITH INFORMATION THAT IS DIFFERENT FROM WHAT IS CONTAINED IN THIS DOCUMENT. THIS PROXY STATEMENT IS DATED FEBRUARY 9, 2015. YOU SHOULD NOT ASSUME THAT THE INFORMATION CONTAINED IN THIS DOCUMENT IS ACCURATE AS OF ANY DATE OTHER THAN FEBRUARY 9, 2015, AND THE MAILING OF THIS DOCUMENT TO SHAREHOLDERS SHOULD NOT CREATE ANY IMPLICATION TO THE CONTRARY.

Shareholders are urged to complete and return their proxies promptly in order to, among other things, ensure the presence of a quorum at the Meeting and to avoid the expense of additional solicitation. If the accompanying proxy is properly executed (including the indication of a vote on the proposed matters) and returned in time for voting, the shares represented thereby will be voted as indicated thereon. IF NO SPECIFICATION IS MADE, AND EXCEPT AS OTHERWISE MENTIONED IN THIS PROXY STATEMENT, THE ORDINARY SHARES REPRESENTED BY THE PROXY WILL BE VOTED IN FAVOR OF THE PROPOSALS DESCRIBED IN THIS PROXY STATEMENT.

By Order of the Board of Directors

BioLineRx Ltd.

February 9, 2015

BIOLINERX LTD.

**For the Annual General Meeting of Shareholders
to be held on March 24, 2015**

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 Raziell 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 19 Hartum St., Har Hotzvim, Jerusalem, Israel, on March 24, 2015 at 11 a.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.

March 24, 2015

**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 as in this example

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:

FOR AGAINST ABSTAIN

- | | | | |
|---------------------|--------------------------|--------------------------|--------------------------|
| a. Aharon Schwartz | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b. Michael Anghel | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| c. B.J. Bormann | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| d. Raphael Hofstein | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| e. Sandra Panem | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

2. TO APPROVE the grant of options to each of the director nominees as follows:

FOR AGAINST ABSTAIN

- | | | | |
|---|--------------------------|--------------------------|--------------------------|
| a. A grant to Aharon Schwartz of options to purchase 100,000 Ordinary Shares (equivalent to 10,000 ADSs), as further described in the Proxy Statement. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b. A grant to Michael Anghel of options to purchase 100,000 Ordinary Shares (equivalent to 10,000 ADSs), as further described in the Proxy Statement. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| c. A grant to B.J. Bormann of options to purchase 100,000 Ordinary Shares (equivalent to 10,000 ADSs), as further described in the Proxy Statement. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| d. A grant to Raphael Hofstein of options to purchase 100,000 Ordinary Shares (equivalent to 10,000 ADSs), as further described in the Proxy Statement. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| e. A grant to Sandra Panem of options to purchase 100,000 Ordinary Shares (equivalent to 10,000 ADSs), as further described in the Proxy Statement. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

FOR AGAINST ABSTAIN

3. TO APPROVE the grant to Dr. Kinneret Savitsky, the Company's Chief Executive Officer, of options to purchase 1,511,000 Ordinary Shares (equivalent to 151,100 ADSs), as further described in the Proxy Statement.

YES NO

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)**

Name: _____

Number of shares: _____

Signature: _____

Date: _____

FOR AGAINST ABSTAIN

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, 2015 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.

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