

**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, DC 20549**

SCHEDULE 13G/A

**Under the Securities Exchange Act of 1934
(Amendment No. 2)***

BioLineRx Ltd.

(Name of Issuer)

Ordinary Shares, NIS 0.01 par value

(Title of Class of Securities)

09071M106

(CUSIP Number)

December 31, 2014

(Date of Event Which Requires Filing of this Statement)

Check the appropriate box to designate the rule pursuant to which this Schedule is filed:

- Rule 13d-1(b)
- Rule 13d-1(c)
- Rule 13d-1(d)

*The remainder of this cover page shall be filled out for a reporting person's initial filing on this form with respect to the subject class of securities, and for any subsequent amendment containing information which would alter the disclosures provided in a prior cover page.

The information required in the remainder of this cover page shall not be deemed to be "filed" for the purpose of Section 18 of the Securities Exchange Act of 1934 ("Act") or otherwise subject to the liabilities of that section of the Act but shall be subject to all other provisions of the Act (however, see the Notes).

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| | |
|---|--|
| 1 | NAME OF REPORTING PERSONS OrbiMed Israel BioFund GP Limited Partnership |
| 2 | CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (a) <input type="checkbox"/> (b) <input type="checkbox"/> |

| | |
|---|---|
| 3 | SEC USE ONLY |
| 4 | CITIZENSHIP OR PLACE OF ORGANIZATION Israel |
| NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH | 5 SOLE VOTING POWER 0 |
| | 6 SHARED VOTING POWER 27,350,000 (1) |
| | 7 SOLE DISPOSITIVE POWER 0 |
| | 8 SHARED DISPOSITIVE POWER 27,350,000 (1) |
| 9 | AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON 27,350,000 (1) |
| 10 | CHECK IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES <input type="checkbox"/> |
| 11 | PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (9) 7.7% (2) |
| 12 | TYPE OF REPORTING PERSON PN |

(1) Evidenced by 1,135,000 American Depositary Shares ("ADS") (each ADS represents ten Ordinary Shares (as defined below)) and 1,600,000 ADSs issuable upon the exercise of warrants to purchase ADSs (the "Warrants") held by OrbiMed Partners (as defined below).

(2) This percentage is based upon 339,636,479 Ordinary Shares outstanding as of May 28, 2014, as disclosed in the Issuer's Prospectus filed with the Securities and Exchange Commission on June 13, 2014.

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| | |
|---|--|
| 1 | NAME OF REPORTING PERSONS OrbiMed Israel GP Ltd. |
| 2 | CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (a) <input type="checkbox"/> (b) <input type="checkbox"/> |
| 3 | SEC USE ONLY |
| 4 | CITIZENSHIP OR PLACE OF ORGANIZATION Israel |

| | | |
|---|---|--|
| NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH | 5 | SOLE VOTING POWER 0 |
| | 6 | SHARED VOTING POWER 27,350,000 (1) |
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| | 8 | SHARED DISPOSITIVE POWER 27,350,000 (1) |
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Item 1. (a) Name of Issuer:

BioLineRx Ltd.

(b) Address of Issuer's Principal Executive Offices:

P.O. Box 45158

19 Hartum Street

Jerusalem, 9777518

Israel

Item 2. (a) Name of Person Filing:

This Schedule 13G is being filed by each of the following persons (each, a "Reporting Person" and together, the "Reporting Persons"):

(i) OrbiMed Israel BioFund GP Limited Partnership ("OrbiMed BioFund"); and

(ii) OrbiMed Israel GP Ltd. ("OrbiMed Israel").

See Exhibit A for the Reporting Persons' agreement for a joint filing of a single statement on their behalf.

(b) Address of Principal Business Office:

The address of the principal business office of each of OrbiMed BioFund and OrbiMed Israel is 89 Medinat HaYehudim St., Build E, 11th Floor, Herzliya 46766, Israel.

(c) Citizenship:

Each Reporting Person was organized under the laws of the State of Israel

(d) Title of Class of Securities:

Ordinary Shares, NIS 0.01 par value (the "Ordinary Shares")

(e) CUSIP No.:

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Item 3.

Not Applicable

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Item 4. Ownership:

Provide the following information regarding the aggregate number and percentage of the class of securities of the issuer identified in Item 1.

OrbiMed Israel is the general partner of OrbiMed BioFund, which is the general partner of OrbiMed Israel Partners Limited Partnership, an Israel limited partnership ("OrbiMed Partners"), which holds the ADSs and Warrants. 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 ADSs and Warrants held by OrbiMed Partners.

(a) Amount beneficially owned: See the response(s) to Item 9 on the attached cover page(s).

(b) Percent of class: See the response(s) to Item 11 on the attached cover page(s).

(c) Number of shares as to which the person has:

(i) Sole power to vote or to direct the vote: See the response(s) to Item 5 on the attached cover page(s).

(ii) Shared power to vote or to direct the vote: See the response(s) to Item 6 on the attached cover page(s).

(iii) Sole power to dispose or to direct the disposition of: See the response(s) to Item 7 on the attached cover page(s).

(iv) Shared power to dispose or to direct the disposition of: See the response(s) to Item 8 on the attached cover page(s).

Item 5. Ownership of Five Percent or Less of a Class.

If this Statement is being filed to report the fact that as of the date hereof the reporting person has ceased to be the beneficial owner of more than five percent of the class of securities, check the following.

Item 6. Ownership of More Than Five Percent on Behalf of Another Person.

See Item 4.

Item 7. Identification and Classification of the Subsidiary which Acquired the Security Being Reported on by the Parent Holding Company or Control Person.

Not Applicable.

Item 8. Identification and Classification of Members of the Group

Not Applicable.

Item 9. Notice of Dissolution of Group.

Not Applicable.

Item 10. Certification.

By signing below I certify that, to the best of my knowledge and belief, the securities referred to above were acquired and held in the ordinary course of business and were not acquired and are not held for the purpose of or with the effect of changing or influencing the control of the issuer of the securities and were not acquired and are not held in connection with or as a participant in any transaction having that purpose or effect.

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SIGNATURES

After reasonable inquiry and to the best of my knowledge and belief, I certify that the information set forth in this statement is true, complete and correct.

Dated: February 17, 2015

ORBIMED ISRAEL BIOFUND GP LIMITED PARTNERSHIP

By: OrbiMed Israel GP Ltd., its General Partner

By: Nissim Darvish
Name: Nissim Darvish
Title: Director

ORBIMED ISRAEL GP LTD.

By: Nissim Darvish
Name: Nissim Darvish
Title: Director

CUSIP No. 09071M106

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**EXHIBIT A
JOINT FILING AGREEMENT**

Pursuant to Rule 13d-1(k)(1) under the Securities Exchange Act of 1934, as amended, the undersigned hereby consent to the joint filing on their behalf of a single Schedule 13G and any amendment thereto, with respect to the beneficial ownership by each of the undersigned of the Ordinary Shares of BioLineRx Ltd. The undersigned hereby further agree that this Joint Filing Agreement be included as an exhibit to such statement and any such amendment. The undersigned acknowledge that each shall be responsible for the timely filing of such amendments, and for the completeness and accuracy of the information concerning the others. The undersigned hereby further agree that this Joint Filing Agreement may be executed in any number of counterparts, each of which when so executed shall be deemed to be an original, but all of which counterparts shall together

constitute one and the same instrument.

IN WITNESS WHEREOF, the undersigned have executed this Agreement as of February 17, 2015.

ORBIMED ISRAEL BIOFUND GP LIMITED PARTNERSHIP

By: OrbiMed Israel GP Ltd., its General Partner

By: Nissim Darvish

Name: Nissim Darvish

Title: Director

ORBIMED ISRAEL GP LTD.

By: Nissim Darvish

Name: Nissim Darvish

Title: Director