

SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549

SCHEDULE 13G

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

BioLineRx Ltd.
(Name of Issuer)

Ordinary Shares, NIS 0.01 par value
(Title of Class of Securities)

09071M106
(CUSIP Number)

February 12, 2013
(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*).

1	NAME OF REPORTING PERSONS OrbiMed Israel BioFund GP Limited Partnership	
2	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (see instructions) (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 26,666,670 (1)
	7	SOLE DISPOSITIVE POWER - 0 -
	8	SHARED DISPOSITIVE POWER 26,666,670 (1)
9	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON 26,666,670 (1)	
10	CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES (SEE INSTRUCTIONS) <input type="checkbox"/>	
11	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (9) 12.4% (2)	
12	TYPE OF REPORTING PERSON (SEE INSTRUCTIONS) PN	

- (1) Evidenced by 2,666,667 American Depositary Shares (“ADSs”); each ADS represents ten Ordinary Shares (as defined below). Does not include 16,000,000 Ordinary Shares underlying ADSs issuable upon the exercise of warrants to purchase ADSs (the “Warrants”) held by OrbiMed Partners (as defined below). The Warrants contain an issuance limitation that prohibits the holder from exercising the Warrants to the extent that after giving effect to such issuance after exercise the holder (together with the holder’s affiliates, and any other persons acting as a group together with the holder or any of the holder’s affiliates), would beneficially own in excess of 9.99% of the Ordinary Shares outstanding immediately after giving effect to the issuance of the ADSs issuable upon exercise of the Warrants (the “Blocker”). As a result of the Blocker, as of the date hereof, no ADSs are issuable upon exercise of the Warrants and such ADSs are not included in the beneficial ownership calculations reported herein.
- (2) Based on 214,357,168 Ordinary Shares outstanding as of February 12, 2013, as disclosed in the Issuer’s prospectus dated February 6, 2013, filed with the Securities and Exchange Commission (“SEC”) on such date, and excludes 16,000,000 Ordinary Shares represented by ADSs issuable upon exercise of the Warrants.

1	NAME OF REPORTING PERSONS OrbiMed Israel GP Ltd.	
2	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (see instructions) (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 26,666,670 (1)
	7	SOLE DISPOSITIVE POWER - 0 -
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10	CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES (SEE INSTRUCTIONS) <input type="checkbox"/>	
11	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (9) 12.4% (2)	
12	TYPE OF REPORTING PERSON (SEE INSTRUCTIONS) CO	

- (1) Evidenced by 2,666,667 ADSs. Does not include 16,000,000 Ordinary Shares underlying ADSs issuable upon the exercise of Warrants held by OrbiMed Partners. As a result of the Blocker, as of the date hereof, no ADSs are issuable upon exercise of such Warrants and such ADSs are not included in the beneficial ownership calculations reported herein.
- (2) Based on 214,357,168 Ordinary Shares outstanding as of February 12, 2013, as disclosed in the Issuer's prospectus dated February 6, 2013, filed with the SEC on such date, and excludes 16,000,000 Ordinary Shares represented by ADSs issuable upon exercise of the Warrants.

Item 1 (a). Name of Issuer:

BioLineRX Ltd.

Item 1 (b). Address of Issuer's Principal Executive Offices:

P.O. Box 45158
19 Hartum Street
Jerusalem 91450, 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.

Item 2 (b). Address of Principal Business Office:

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

Item 2 (c). Citizenship:

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

Item 2 (d). Title of Class of Securities:

Ordinary Shares, par value NIS 0.01 per share ("Ordinary Shares").

Item 2 (e). CUSIP Number:

09071M106

Item 3. If this statement is filed pursuant to §§ 240.13d-1(b) or 240.13d-2(b) or (c), check whether the person filing is a:

Not applicable.

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 such 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. Certifications.

By signing below I certify that, to the best of my knowledge and belief, the securities referred to above 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, other than activities solely in connection with a nomination under § 240.14a-11.

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.

February 15, 2013

ORBIMED ISRAEL BIOFUND GP LIMITED PARTNERSHIP

By: OrbiMed Israel GP Ltd., its General Partner

By: /s/ Nissim Darvish

Nissim Darvish
Director

ORBIMED ISRAEL GP LTD.

By: /s/ Nissim Darvish

Nissim Darvish
Director

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 amendments 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 it contained herein and therein, but shall not be responsible 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.

February 15, 2013

ORBIMED ISRAEL BIOFUND GP LIMITED PARTNERSHIP

By: OrbiMed Israel GP Ltd., its General Partner

By: /s/ Nissim Darvish

Nissim Darvish

Director

ORBIMED ISRAEL GP LTD.

By: /s/ Nissim Darvish

Nissim Darvish

Director