

INSPIREMD, INC.
Filed by
ORBIMED ADVISORS LLC

FORM SC 13G
(Statement of Ownership)

Filed 04/23/13

Address 321 COLUMBUS AVENUE
BOSTON, MA 02116
Telephone (857) 453-6553
CIK 0001433607
Symbol NSPR
Fiscal Year 12/31

SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549

SCHEDULE 13G

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

InspireMD, Inc.

(Name of Issuer)

Common Stock, par value \$0.0001 per share
(Title of Class of Securities)

45779A101
(CUSIP Number)

April 10, 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 1,018,500
	7	SOLE DISPOSITIVE POWER - 0 -
	8	SHARED DISPOSITIVE POWER 1,018,500
9	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON 1,018,500	
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) 2.99 %(1)	
12	TYPE OF REPORTING PERSON (SEE INSTRUCTIONS) PN	

(1) This percentage is calculated based upon the sum of (i) 31,098,229 shares of the Issuer's common stock expected to be outstanding at the closing of the common stock offering as described in the Issuer's final prospectus dated April 10, 2013, filed with the Securities and Exchange Commission on April 11, 2013 and (ii) 2,914,781 additional shares of the Issuer's common stock issued at the closing of such common stock offering, as set forth in the Issuer's Form 8-K dated April 16, 2013, filed with the Securities and Exchange Commission on April 18, 2013.

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 1,018,500
	7	SOLE DISPOSITIVE POWER - 0 -
	8	SHARED DISPOSITIVE POWER 1,018,500
9	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON	
	1,018,500	
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)	
	2.99 %(1)	
12	TYPE OF REPORTING PERSON (SEE INSTRUCTIONS)	
	CO	

(1) This percentage is calculated based upon the sum of (i) 31,098,229 shares of the Issuer's common stock expected to be outstanding at the closing of the common stock offering as described in the Issuer's final prospectus dated April 10, 2013, filed with the Securities and Exchange Commission on April 11, 2013 and (ii) 2,914,781 additional shares of the Issuer's common stock issued at the closing of such common stock offering, as set forth in the Issuer's Form 8-K dated April 16, 2013, filed with the Securities and Exchange Commission on April 18, 2013.

1	NAME OF REPORTING PERSONS	
	OrbiMed Advisors LLC	
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	
	Delaware	
NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH	5	SOLE VOTING POWER - 0 -
	6	SHARED VOTING POWER 2,376,500
	7	SOLE DISPOSITIVE POWER - 0 -
	8	SHARED DISPOSITIVE POWER 2,376,500
9	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON	
	2,376,500	
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)	
	6.99% (1)	
12	TYPE OF REPORTING PERSON (SEE INSTRUCTIONS)	
	IA	

(1) This percentage is calculated based upon the sum of (i) 31,098,229 shares of the Issuer's common stock expected to be outstanding at the closing of the common stock offering as described in the Issuer's final prospectus dated April 10, 2013, filed with the Securities and Exchange Commission on April 11, 2013 and (ii) 2,914,781 additional shares of the Issuer's common stock issued at the closing of such common stock offering, as set forth in the Issuer's Form 8-K dated April 16, 2013, filed with the Securities and Exchange Commission on April 18, 2013.

1	NAME OF REPORTING PERSONS	
	OrbiMed Capital GP IV LLC	
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	
	Delaware	
NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH	5	SOLE VOTING POWER - 0 -
	6	SHARED VOTING POWER 2,376,500
	7	SOLE DISPOSITIVE POWER - 0 -
	8	SHARED DISPOSITIVE POWER 2,376,500
9	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON	
	2,376,500	
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)	
	6.99%(1)	
12	TYPE OF REPORTING PERSON (SEE INSTRUCTIONS)	
	OO	

(1) This percentage is calculated based upon the sum of (i) 31,098,229 shares of the Issuer's common stock expected to be outstanding at the closing of the common stock offering as described in the Issuer's final prospectus dated April 10, 2013, filed with the Securities and Exchange Commission on April 11, 2013 and (ii) 2,914,781 additional shares of the Issuer's common stock issued at the closing of such common stock offering, as set forth in the Issuer's Form 8-K dated April 16, 2013, filed with the Securities and Exchange Commission on April 18, 2013.

1	NAME OF REPORTING PERSONS	
	Samuel D. Isaly	
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	
	United States	
NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH	5	SOLE VOTING POWER - 0 -
	6	SHARED VOTING POWER 2,376,500
	7	SOLE DISPOSITIVE POWER - 0 -
	8	SHARED DISPOSITIVE POWER 2,376,500
9	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON	
	2,376,500	
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)	
	6.99% (1)	
12	TYPE OF REPORTING PERSON (SEE INSTRUCTIONS)	
	IN	

(1) This percentage is calculated based upon the sum of (i) 31,098,229 shares of the Issuer's common stock expected to be outstanding at the closing of the common stock offering as described in the Issuer's final prospectus dated April 10, 2013, filed with the Securities and Exchange Commission on April 11, 2013 and (ii) 2,914,781 additional shares of the Issuer's common stock issued at the closing of such common stock offering, as set forth in the Issuer's Form 8-K dated April 16, 2013, filed with the Securities and Exchange Commission on April 18, 2013.

- Item 1** (a). **Name of Issuer:**
- InspireMD, Inc.
- Item 1** (b). **Address of Issuer's Principal Executive Offices:**
- 4 Menorat Hamaor St.
Tel Aviv, Israel
67448
- 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");
 - (ii) OrbiMed Israel GP Ltd. ("OrbiMed Israel");
 - (iii) OrbiMed Capital GP IV LLC ("GP IV")
 - (iv) OrbiMed Advisors LLC ("Advisors")
 - (v) Samuel D. Isaly ("Isaly")
- 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 of OrbiMed BioFund and OrbiMed Israel is 89 Medinat HaYehudim St., Build E, 11th Floor, Herzliya 46766, Israel.
- The address of the principal business office of each of GP IV, Advisors and Isaly is 601 Lexington Avenue, 54th Floor, New York, New York 10022.
- Item 2** (c). **Citizenship:**
- Please refer to Item 4 on each cover sheet for each filing person.
- Item 2** (d). **Title of Class of Securities:**
- Common Stock, par value \$0.0001 per share (the "Common Stock").
- Item 2** (e). **CUSIP Number:**
- 45779A101
- 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:

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 Israel Partners”), which beneficially owns 1,018,500 shares of Common Stock. OrbiMed Israel, as the general partner of OrbiMed BioFund, and OrbiMed BioFund, as the general partner of OrbiMed Israel Partners, may be deemed to share beneficial ownership of the shares of the Issuer's Common Stock directly owned by OrbiMed Israel Partners. Each of OrbiMed Israel and OrbiMed BioFund disclaims any beneficial ownership over the shares of the other Reporting Persons. GP IV is the General Partner of OrbiMed Private Investments IV, LP (“OPI IV”), which beneficially owns 2,376,500 shares of Common Stock. Advisors is an investment advisor in accordance with §240.13d-1(b)(1)(ii)(E) and the Managing Member of GP IV. Isaly is the Managing Member of Advisors and a control person in accordance with §240.13d-1(b)(1)(ii)(G). On the basis of these relationships, GP IV, Advisors and Isaly may be deemed to share beneficial ownership of the shares of Common Stock directly owned by OPI IV. Each of GP IV, Advisors and Isaly disclaims any beneficial ownership over the shares of the other Reporting Persons.

- (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 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.

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.

April 22, 2013

ORBIMED ISRAEL BIOFUND GP LIMITED PARTNERSHIP

By: OrbiMed Israel GP Ltd., its General Partner

By: /s/ Jonathan T. Silverstein
Name: Jonathan T. Silverstein
Title: Director

ORBIMED ISRAEL GP LTD.

By: /s/ Jonathan T. Silverstein
Name: Jonathan T. Silverstein
Title: Director

ORBIMED CAPITAL GP IV LLC

By: OrbiMed Advisors LLC, its Managing Member

By: /s/ Samuel D. Isaly
Name: Samuel D. Isaly
Title: Managing Member

ORBIMED ADVISORS LLC

By: /s/ Samuel D. Isaly
Name: Samuel D. Isaly
Title: Managing Member

SAMUEL D. ISALY

By: /s/ Samuel D. Isaly

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 common stock of InspireMD, Inc. 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.

April 22, 2013

ORBIMED ISRAEL BIOFUND GP LIMITED PARTNERSHIP

By: OrbiMed Israel GP Ltd., its General Partner

By: /s/ Jonathan T. Silverstein
Name: Jonathan T. Silverstein
Title: Director

ORBIMED ISRAEL GP LTD.

By: /s/ Jonathan T. Silverstein
Name: Jonathan T. Silverstein
Title: Director

ORBIMED CAPITAL GP IV LLC

By: OrbiMed Advisors LLC, its Managing Member

By: /s/ Samuel D. Isaly
Name: Samuel D. Isaly
Title: Managing Member

ORBIMED ADVISORS LLC

By: /s/ Samuel D. Isaly
Name: Samuel D. Isaly
Title: Managing Member

SAMUEL D. ISALY

By: /s/ Samuel D. Isaly
