

**UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION**  
Washington, D.C. 20549

**SCHEDULE 13G/A**

**Under the Securities Exchange Act of 1934  
(Amendment No. 1)\***

**ALCOBRA LTD.**  
(Name of Issuer)

**ORDINARY SHARES**  
(Title of Class of Securities)

**M2239P109**  
(CUSIP Number)

**December 31, 2015**  
(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 Venrock Healthcare Capital Partners, L.P.	
2.	Check the appropriate box if a member of a group (see instructions) (a) <input checked="" 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 1,615,000 <sup>2</sup>
	7.	Sole dispositive power 0
	8.	Shared dispositive power 1,615,000 <sup>2</sup>
9.	Aggregate amount beneficially owned by each reporting person 1,615,000 <sup>2</sup>	
10.	Check 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) 5.9% <sup>3</sup>	
12.	Type of reporting person (see instructions) PN	

1 Venrock Healthcare Capital Partners, L.P., VHCP Co-Investment Holdings, LLC, Venrock Healthcare Capital Partners II, L.P., VHCP Co-Investment Holdings II, LLC, VHCP Management, LLC, VHCP Management II, LLC, Bong Koh and Anders Hove are members of a group for the purposes of this Schedule 13G/A.

2 Consists of 409,577 ordinary shares owned by Venrock Healthcare Capital Partners, L.P., 74,923 ordinary shares owned by VHCP Co-Investment Holdings, LLC, 940,234 ordinary shares owned by Venrock Healthcare Capital Partners II, L.P. and 190,266 ordinary shares owned by VHCP Co-Investment Holdings II, LLC.

3 This percentage is calculated based upon 27,356,722 ordinary shares outstanding as of the closing of the Issuer's public offering in November 2015, as set forth in Issuer's prospectus supplement dated November 16, 2015 filed with the Securities and Exchange Commission pursuant to Rule 424(b)(5) under the Securities Act of 1933, as amended, on November 16, 2015.

1.	Name of reporting persons VHCP Co-Investment Holdings, LLC
2.	Check the appropriate box if a member of a group (see instructions) (a) <input checked="" 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 1,615,000 <sup>2</sup>
	7. Sole dispositive power 0
	8. Shared dispositive power 1,615,000 <sup>2</sup>
9.	Aggregate amount beneficially owned by each reporting person 1,615,000 <sup>2</sup>
10.	Check 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) 5.9% <sup>3</sup>
12.	Type of reporting person (see instructions) OO

1 Venrock Healthcare Capital Partners, L.P., VHCP Co-Investment Holdings, LLC, Venrock Healthcare Capital Partners II, L.P., VHCP Co-Investment Holdings II, LLC, VHCP Management, LLC, VHCP Management II, LLC, Bong Koh and Anders Hove are members of a group for the purposes of this Schedule 13G/A.

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1.	Name of reporting persons Venrock Healthcare Capital Partners II, L.P.
2.	Check the appropriate box if a member of a group (see instructions) (a) <input checked="" 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 1,615,000 <sup>2</sup>
	7. Sole dispositive power 0
	8. Shared dispositive power 1,615,000 <sup>2</sup>
9.	Aggregate amount beneficially owned by each reporting person 1,615,000 <sup>2</sup>
10.	Check 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) 5.9% <sup>3</sup>
12.	Type of reporting person (see instructions) PN

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1.	Name of reporting persons VHCP Co-Investment Holdings II, LLC
2.	Check the appropriate box if a member of a group (see instructions) (a) <input checked="" 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 1,615,000 <sup>2</sup>
	7. Sole dispositive power 0
	8. Shared dispositive power 1,615,000 <sup>2</sup>
9.	Aggregate amount beneficially owned by each reporting person 1,615,000 <sup>2</sup>
10.	Check 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) 5.9% <sup>3</sup>
12.	Type of reporting person (see instructions) OO

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1.	Name of reporting persons VHCP Management, LLC
2.	Check the appropriate box if a member of a group (see instructions) (a) <input checked="" 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 1,615,000 <sup>2</sup>
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	8. Shared dispositive power 1,615,000 <sup>2</sup>
9.	Aggregate amount beneficially owned by each reporting person 1,615,000 <sup>2</sup>
10.	Check 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) 5.9% <sup>3</sup>
12.	Type of reporting person (see instructions) OO

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1.	Name of reporting persons VHCP Management II, LLC
2.	Check the appropriate box if a member of a group (see instructions) (a) <input checked="" 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 1,615,000 <sup>2</sup>
	7. Sole dispositive power 0
	8. Shared dispositive power 1,615,000 <sup>2</sup>
9.	Aggregate amount beneficially owned by each reporting person 1,615,000 <sup>2</sup>
10.	Check 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) 5.9% <sup>3</sup>
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1.	Name of reporting persons Hove, Anders
2.	Check the appropriate box if a member of a group (see instructions) (a) <input checked="" 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 1,615,000 <sup>2</sup>
	7. Sole dispositive power 0
	8. Shared dispositive power 1,615,000 <sup>2</sup>
9.	Aggregate amount beneficially owned by each reporting person 1,615,000 <sup>2</sup>
10.	Check 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) 5.9% <sup>3</sup>
12.	Type of reporting person (see instructions) IN

1 Venrock Healthcare Capital Partners, L.P., VHCP Co-Investment Holdings, LLC, Venrock Healthcare Capital Partners II, L.P., VHCP Co-Investment Holdings II, LLC, VHCP Management, LLC, VHCP Management II, LLC, Bong Koh and Anders Hove are members of a group for the purposes of this Schedule 13G/A.

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3 This percentage is calculated based upon 27,356,722 ordinary shares outstanding as of the closing of the Issuer's public offering in November 2015, as set forth in Issuer's prospectus supplement dated November 16, 2015 filed with the Securities and Exchange Commission pursuant to Rule 424(b)(5) under the Securities Act of 1933, as amended, on November 16, 2015.



1.	Name of reporting persons Koh, Bong
2.	Check the appropriate box if a member of a group (see instructions) (a) <input checked="" 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 1,615,000 <sup>2</sup>
	7. Sole dispositive power 0
	8. Shared dispositive power 1,615,000 <sup>2</sup>
9.	Aggregate amount beneficially owned by each reporting person 1,615,000 <sup>2</sup>
10.	Check 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) 5.9% <sup>3</sup>
12.	Type of reporting person (see instructions) IN

1 Venrock Healthcare Capital Partners, L.P., VHCP Co-Investment Holdings, LLC, Venrock Healthcare Capital Partners II, L.P., VHCP Co-Investment Holdings II, LLC, VHCP Management, LLC, VHCP Management II, LLC, Bong Koh and Anders Hove are members of a group for the purposes of this Schedule 13G/A.

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3 This percentage is calculated based upon 27,356,722 ordinary shares outstanding as of the closing of the Issuer's public offering in November 2015, as set forth in Issuer's prospectus supplement dated November 16, 2015 filed with the Securities and Exchange Commission pursuant to Rule 424(b)(5) under the Securities Act of 1933, as amended, on November 16, 2015.

**Introductory Note:** This Schedule 13G/A is filed on behalf of Venrock Healthcare Capital Partners, L.P., a limited partnership organized under the laws of the State of Delaware (“VHCP LP”), VHCP Co-Investment Holdings, LLC, a limited liability company organized under the laws of the State of Delaware (“VHCP Co-Investment”), Venrock Healthcare Capital Partners II, L.P., a limited partnership organized under the laws of the State of Delaware (“VHCP II LP”), VHCP Co-Investment Holdings II, LLC, a limited liability company organized under the laws of the State of Delaware (“VHCP Co-Investment II”), VHCP Management, LLC, a limited liability company organized under the laws of the State of Delaware (“VHCP Management”), VHCP Management II, LLC, a limited liability company organized under the laws of the State of Delaware (“VHCP Management II” and collectively with VHCP LP, VHCP II LP, VHCP Co-Investment II, VHCP Management and VHCP Co-Investment, the “Venrock Entities”), Anders Hove (“Hove”) and Bong Koh (“Koh”) in respect of ordinary shares of Alcobra Ltd.

**Item 1.**

(a) Name of Issuer

Alcobra Ltd.

(b) Address of Issuer’s Principal Executive Offices

Azrieli Triangle Building  
132 Derech Menachem Begin 39th Floor  
Tel Aviv 6701101 Israel

**Item 2.**

(a) Name of Person Filing

Venrock Healthcare Capital Partners, L.P.  
VHCP Co-Investment Holdings, LLC  
Venrock Healthcare Capital Partners II, L.P.  
VHCP Co-Investment Holdings II, LLC  
VHCP Management, LLC  
VHCP Management II, LLC  
Anders Hove  
Bong Koh

(b) Address of Principal Business Office or, if none, Residence

New York Office:

Palo Alto Office:

Boston Office:

530 Fifth Avenue

3340 Hillview Avenue

470 Atlantic Avenue

22nd Floor

Palo Alto, CA 94304

4th Floor

New York, NY 10036

Boston, MA 02210

(c) Citizenship

Each of the Venrock Entities was organized in Delaware. Hove and Koh are both United States citizens.

(d) Title of Class of Securities

Ordinary shares, par value NIS 0.01 per share

(e) CUSIP Number

M2239P109

**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**

## (a) Amount Beneficially Owned as of December 31, 2015:

Venrock Healthcare Capital Partners, L.P.	1,615,000(1)
VHCP Co-Investment Holdings, LLC	1,615,000(1)
Venrock Healthcare Capital Partners II, L.P.	1,615,000(1)
VHCP Co-Investment Holdings II, LLC	1,615,000(1)
VHCP Management, LLC	1,615,000(1)
VHCP Management II, LLC	1,615,000(1)
Anders Hove	1,615,000(1)
Bong Koh	1,615,000(1)

## (b) Percent of Class as of December 31, 2015:

Venrock Healthcare Capital Partners, L.P.	5.9%
VHCP Co-Investment Holdings, LLC	5.9%
Venrock Healthcare Capital Partners II, L.P.	5.9%
VHCP Co-Investment Holdings II, LLC	5.9%
VHCP Management, LLC	5.9%
VHCP Management II, LLC	5.9%
Anders Hove	5.9%
Bong Koh	5.9%

## (c) Number of shares as to which the person has, as of December 31, 2015:

## (i) Sole power to vote or to direct the vote

Venrock Healthcare Capital Partners, L.P.	0
VHCP Co-Investment Holdings, LLC	0
Venrock Healthcare Capital Partners II, L.P.	0
VHCP Co-Investment Holdings II, LLC	0
VHCP Management, LLC	0
VHCP Management II, LLC	0
Anders Hove	0
Bong Koh	0

## (ii) Shared power to vote or to direct the vote

Venrock Healthcare Capital Partners, L.P.	1,615,000(1)
VHCP Co-Investment Holdings, LLC	1,615,000(1)
Venrock Healthcare Capital Partners II, L.P.	1,615,000(1)
VHCP Co-Investment Holdings II, LLC	1,615,000(1)
VHCP Management, LLC	1,615,000(1)
VHCP Management II, LLC	1,615,000(1)
Anders Hove	1,615,000(1)
Bong Koh	1,615,000(1)

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## (iii) Sole power to dispose or to direct the disposition of

Venrock Healthcare Capital Partners, L.P.	0
VHCP Co-Investment Holdings, LLC	0
Venrock Healthcare Capital Partners II, L.P.	0
VHCP Co-Investment Holdings II, LLC	0
VHCP Management, LLC	0
VHCP Management II, LLC	0
Anders Hove	0
Bong Koh	0

## (iv) Shared power to dispose or to direct the disposition of

Venrock Healthcare Capital Partners, L.P.	1,615,000(1)
VHCP Co-Investment Holdings, LLC	1,615,000(1)
Venrock Healthcare Capital Partners II, L.P.	1,615,000(1)
VHCP Co-Investment Holdings II, LLC	1,615,000(1)
VHCP Management, LLC	1,615,000(1)
VHCP Management II, LLC	1,615,000(1)
Anders Hove	1,615,000(1)
Bong Koh	1,615,000(1)

- (1) These shares are owned directly as follows: 409,577 ordinary shares are owned by Venrock Healthcare Capital Partners, L.P., 74,923 ordinary shares are owned by VHCP Co-Investment Holdings, LLC, 940,234 ordinary shares are owned by Venrock Healthcare Capital Partners II, L.P. and 190,266 ordinary shares are owned by VHCP Co-Investment Holdings II, LLC. VHCP Management, LLC is the general partner of Venrock Healthcare Capital Partners, L.P. and the manager of VHCP Co-Investment Holdings, LLC. VHCP Management II, LLC is the general partner of Venrock Healthcare Capital Partners II, L.P. and the manager of VHCP Co-Investment Holdings II, LLC. Messrs. Hove and Koh are the managing members of VHCP Management, LLC and VHCP Management II, LLC.

**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**

Not Applicable

**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

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**Item 9. Notice of Dissolution of a 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 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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**SIGNATURE**

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 16, 2016

**Venrock Healthcare Capital Partners, L.P.**

By: VHCP Management, LLC,  
its General Partner

By: /s/ David L. Stepp  
Name: David L. Stepp  
Title: Authorized Signatory

**VHCP Co-Investment Holdings, LLC**

By: VHCP Management, LLC,  
its Manager

By: /s/ David L. Stepp  
Name: David L. Stepp  
Title: Authorized Signatory

**VHCP Management, LLC**

By: /s/ David L. Stepp  
Name: David L. Stepp  
Title: Authorized Signatory

/s/ David L. Stepp, as attorney-in-fact

**Anders Hove**

/s/ David L. Stepp, as attorney-in-fact

**Bong Koh**

**Venrock Healthcare Capital Partners II, L.P.**

By: VHCP Management II, LLC,  
its General Partner

By: /s/ David L. Stepp  
Name: David L. Stepp  
Title: Authorized Signatory

**VHCP Co-Investment Holdings II, LLC**

By: VHCP Management II, LLC,  
its Manager

By: /s/ David L. Stepp  
Name: David L. Stepp  
Title: Authorized Signatory

**VHCP Management II, LLC**

By: /s/ David L. Stepp  
Name: David L. Stepp  
Title: Authorized Signatory

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**EXHIBITS**

- A: Joint Filing Agreement (Incorporated by reference from Exhibit A to Schedule 13G filed on January 26, 2015)
- B: Power of Attorney for Anders Hove (Incorporated by reference from Exhibit B to Schedule 13G filed on January 26, 2015)
- C: Power of Attorney for Bong Koh (Incorporated by reference from Exhibit C to Schedule 13G filed on January 26, 2015)