SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

Schedule 13G

(Rule 13d-102)

INFORMATION TO BE INCLUDED IN STATEMENTS FILED PURSUANT TO RULES 13d-1 (b), (c) AND (d) AND AMENDMENTS THERETO FILED PURSUANT TO 13d-2 (b) (Amendment No.)*

Ocular Therapeautix, Inc.

(Name of Issuer)

Common Stock (Title of Class of Securities)

> 67576A 100 (CUSIP Number)

July 30, 2014
(Date of Event Which Requires Filing of this Statement)

☐ Rule 13d-1(b)

☑ Rule 13d-1(c)

☐ Rule 13d-1(d)

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

* 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 disclosures provided in a prior cover page.

The information required on 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).

(Continued on following pages)

CUSIP No: 67576 A100 Page 2 of 15 NAME OF REPORTING SS OR I.R.S. IDENTIFICATION NO. OF ABOVE PERSON Polaris Venture Partners V, L.P. ("PVP V") CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP* 2 3 SEC USE ONLY CITIZENSHIP OR PLACE OF ORGANIZATION 4 Delaware SOLE VOTING POWER 2,441,293 shares, except that (i) Polaris Venture Management Co. V, L.L.C. ("PVM V"), the general partner of PVP V, may be deemed to have sole power to vote these shares, and (ii) Jonathan A. Flint ("Flint"), a managing member of PVM V, may be deemed to have shared power to vote these shares, and Terrance G. McGuire ("McGuire"), a managing member of PVM V, may be NUMBER OF deemed to have shared power to vote these shares. **SHARES** SHARED VOTING POWER BENEFICIALLY OWNED BY See response to row 5 **EACH** SOLE DISPOSITIVE POWER REPORTING **PERSON** 2,441,293 shares, except that (i) PVM V, the general partner of PVP V, may be deemed to have sole power to dispose of these WITH shares, and (ii) Flint, a managing member of PVM V, may be deemed to have shared power to dispose of these shares, and McGuire, a managing member of PVM V, may be deemed to have shared power to dispose of these shares. SHARED DISPOSITIVE POWER See response to row 7 9 AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON 2,441,293 CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES* 10

11

12

PN

PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW 9

TYPE OF REPORTING PERSON*

CUSIP No: 67576 A100 Page 3 of 15 NAME OF REPORTING SS OR I.R.S. IDENTIFICATION NO. OF ABOVE PERSON Polaris Venture Partners Entrepreneurs' Fund V, L.P. ("PVPE V") 2 CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP* (b) 🗵 3 SEC USE ONLY CITIZENSHIP OR PLACE OF ORGANIZATION 4 Delaware SOLE VOTING POWER 47,581 shares, except that (i) PVM V, the general partner of PVPE V, may be deemed to have sole power to vote these shares, and (ii) Flint, a managing member of PVM V, may be deemed to have shared power to vote these shares, and McGuire, a managing member of PVM V, may be deemed to have shared power to vote these shares. NUMBER OF 6 SHARED VOTING POWER **SHARES** BENEFICIALLY See response to row 5 OWNED BY **EACH** SOLE DISPOSITIVE POWER REPORTING **PERSON** 47,581 shares, except that (i) PVM V, the general partner of PVPE V, may be deemed to have sole power to dispose of these shares, WITH and (ii) Flint, a managing member of PVM V, may be deemed to have shared power to dispose of these shares, and McGuire, a managing member of PVM V, may be deemed to have shared power to dispose of these shares. SHARED DISPOSITIVE POWER See response to row 7 AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON 9 10 CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES* 11 PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW 9

0.2%

PN

12

TYPE OF REPORTING PERSON*

CUSIP No: 67576 A100 Page 4 of 15 NAME OF REPORTING SS OR I.R.S. IDENTIFICATION NO. OF ABOVE PERSON Polaris Venture Partners Founders' Fund V, L.P. ("PVPFF V") 2 CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP* (b) 🗵 3 SEC USE ONLY CITIZENSHIP OR PLACE OF ORGANIZATION 4 Delaware SOLE VOTING POWER 16,723 shares, except that (i) PVM V, the general partner of PVPFF V, may be deemed to have sole power to vote these shares, and (ii) Flint, a managing member of PVM V, may be deemed to have shared power to vote these shares, and McGuire, a managing member of PVM V, may be deemed to have shared power to vote these shares. NUMBER OF 6 SHARED VOTING POWER **SHARES** BENEFICIALLY See response to row 5 OWNED BY **EACH** SOLE DISPOSITIVE POWER REPORTING **PERSON** 16,723 shares, except that (i) PVM V, the general partner of PVPFF V, may be deemed to have sole power to dispose of these WITH shares, and (ii) Flint, a managing member of PVM V, may be deemed to have shared power to dispose of these shares, and McGuire, a managing member of PVM V, may be deemed to have shared power to dispose of these shares. SHARED DISPOSITIVE POWER See response to row 7 AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON 9 10 CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES* 11 PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW 9 0.1%

TYPE OF REPORTING PERSON*

12

PN

CUSIP No: 67576 A100 Page 5 of 15 NAME OF REPORTING SS OR I.R.S. IDENTIFICATION NO. OF ABOVE PERSON Polaris Venture Partners Special Founders' Fund V, L.P. ("PVPSFF V") CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP* 2 (b) 🗵 3 SEC USE ONLY CITIZENSHIP OR PLACE OF ORGANIZATION 4 Delaware SOLE VOTING POWER 24,412 shares, except that (i) PVM V, the general partner of PVPSFF V, may be deemed to have sole power to vote these shares, and (ii) Flint, a managing member of PVM V, may be deemed to have shared power to vote these shares, and McGuire, a managing member of PVM V, may be deemed to have shared power to vote these shares. NUMBER OF 6 SHARED VOTING POWER **SHARES** BENEFICIALLY See response to row 5 OWNED BY **EACH** SOLE DISPOSITIVE POWER REPORTING **PERSON** 24,412 shares, except that (i) PVM V, the general partner of PVPSFF V, may be deemed to have sole power to dispose of these WITH shares, and (ii) Flint, a managing member of PVM V, may be deemed to have shared power to dispose of these shares, and McGuire, a managing member of PVM V, may be deemed to have shared power to dispose of these shares. SHARED DISPOSITIVE POWER See response to row 7 AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON 9 10 CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES* 11 PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW 9

0.1%

PN

12

TYPE OF REPORTING PERSON*

CUSIP N	Io: 67576 <i>I</i>)0 Page (6 of 15	
1	SS OR I.R.S. IDENTIFICATION NO. OF ABOVE PERSON			
2	Polaris Venture Management Co. V, L.L.C. CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP*			
	(a) □	0	(b) ⊠	
		EC USE ONLY		
4	CITIZENSHIP OR PLACE OF ORGANIZATION			
	Delaware			
		5	SOLE VOTING POWER	
NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH		6 7	See response to row 5 SOLE DISPOSITIVE POWER 2,530,009 shares, of which 2,441,293 shares are directly owned by PVP V, 47,581 shares are directly owned by PVPE V, 16,723 shares are directly owned by PVPFF V and 24,412 shares are directly owned by PVPSFF V, except that Flint, a managing mem of PVM V (which is general partner of each of PVP V, PVPFE V, PVPFF V and PVPSFF V and may be deemed to have sole power to vote these shares), may be deemed to have shared power to dispose of these shares, and McGuire, a managing member of PV V, may be deemed to have shared power to dispose of these shares. SHARED DISPOSITIVE POWER	nber wer may
9	See response to row 7 AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON			
	2,530,009			
10	CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES*			
11	1 PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW 9			
	12.3%			
12	TYPE OF REPORTING PERSON*			

CUSIP No: 67576 A100 Page 7 of 15 NAME OF REPORTING SS OR I.R.S. IDENTIFICATION NO. OF ABOVE PERSON Terrance G. McGuire CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP* 2 3 SEC USE ONLY CITIZENSHIP OR PLACE OF ORGANIZATION 4 USA SOLE VOTING POWER 2,530,009 shares, of which 2,441,293 shares are directly owned by PVP V, 47,581 shares are directly owned by PVPE V, 16,723 shares are directly owned by PVPFF V and 24,412 shares are directly owned by PVPSFF V. McGuire is a managing member of PVM V, which is the general partner of PVP V, PVPE V, PVPFF V and PVPSFF V, and may be deemed to have shared power to vote these shares. NUMBER OF 6 SHARED VOTING POWER **SHARES** BENEFICIALLY OWNED BY See response to row 5 **EACH** SOLE DISPOSITIVE POWER REPORTING **PERSON** 2,530,009 shares, of which 2,441,293 shares are directly owned by PVP V, 47,581 shares are directly owned by PVPE V, 16,723 WITH shares are directly owned by PVPFF V and 24,412 shares are directly owned by PVPSFF V. McGuire is a managing member of PVM V, which is the general partner of PVP V, PVPE V, PVPFF V and PVPSFF V, and may be deemed to have shared power to dispose of these shares. SHARED DISPOSITIVE POWER See response to row 7 9 AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON

CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES*

PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW 9

2,530,009

12.3%

IN

TYPE OF REPORTING PERSON*

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12

CUSIP No: 67576 A100 Page 8 of 15 NAME OF REPORTING SS OR I.R.S. IDENTIFICATION NO. OF ABOVE PERSON Jonathan A. Flint CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP* 2 3 SEC USE ONLY CITIZENSHIP OR PLACE OF ORGANIZATION 4 USA SOLE VOTING POWER 2,530,009 shares, of which 2,441,293 shares are directly owned by PVP V, 47,581 shares are directly owned by PVPE V, 16,723 shares are directly owned by PVPFF V and 24,412 shares are directly owned by PVPSFF V. Flint is a managing member of PVM V, which is the general partner of PVP V, PVPE V, PVPFF V and PVPSFF V, and may be deemed to have shared power to vote these shares. NUMBER OF 6 SHARED VOTING POWER **SHARES** BENEFICIALLY OWNED BY See response to row 5 **EACH** SOLE DISPOSITIVE POWER REPORTING **PERSON** 2,530,009 shares, of which 2,441,293 shares are directly owned by PVP V, 47,581 shares are directly owned by PVPE V, 16,723 WITH shares are directly owned by PVPFF V and 24,412 shares are directly owned by PVPSFF V. Flint is a managing member of PVM V, which is the general partner of PVP V, PVPE V, PVPFF V and PVPSFF V, and may be deemed to have shared power to dispose of these shares. SHARED DISPOSITIVE POWER See response to row 7 9 AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON 2,530,009 CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES* 10 PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW 9 11

12.3%

IN

TYPE OF REPORTING PERSON*

12

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ITEM 1(A). NAME OF ISSUER

Ocular Therapeutix, Inc.

ITEM 1(B). ADDRESS OF ISSUER'S PRINCIPAL EXECUTIVE OFFICES

36 Crosby Drive, Suite 101 Bedford, MA 01730, United States

ITEM 2(A). NAME OF PERSONS FILING

PVP V, PVPE V, PVPFF V, PVPSFF V, PVM V, Flint and McGuire. The foregoing entities and individuals are collectively referred to as the "Reporting Persons."

Flint and McGuire are the sole managing members of PVM V (the sole general partner of each of PVP V, PVPE V, PVPFF V, PVPSFF V). To the extent feasible, PVPE V, PVPFF V and PVPSFF V invests alongside PVP V.

ITEM 2(B). ADDRESS OF PRINCIPAL OFFICE

The address for each of the Reporting Persons is:

c/o Polaris Venture Partners 1000 Winter Street Suite 3350 Waltham, MA 02451

ITEM 2(C). <u>CITIZENSHIP</u>

Flint and McGuire are United States citizens. PVP V, PVPE V, PVPFF V and PVPSFF V are limited partnerships organized under the laws of the State of Delaware. PVM V is a limited liability company organized under the laws of the State of Delaware.

ITEM 2(D). TITLE OF CLASS OF SECURITIES

Common Stock, \$0.0001 par value per share.

ITEM 2(E). <u>CUSIP NUMBER</u>

67576A 100

ITEM 3. <u>Not Applicable</u>

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ITEM 4. OWNERSHIP

The approximate percentages of Common Stock reported as beneficially owned by the Reporting Persons is based upon 20,569,490 shares of Common Stock outstanding as of June 30, 2014, as reported on Ocular Therapeutix, Inc.'s Prospectus filed on July 25, 2014.

The following information with respect to the ownership of Common Stock of the issuer by the Reporting Persons filing this Statement is provided as of July 30, 2014:

(a) Amount beneficially owned:

See Row 9 of cover page for each Reporting Person.

(b) Percent of Class:

See Row 11 of cover page for each Reporting Person.

- (c) Number of shares as to which such person has:
 - (i) <u>Sole power to vote or to direct the vote</u>:See Row 5 of cover page for each Reporting Person.
 - (ii) Shared power to vote or to direct the vote:See Row 6 of cover page for each Reporting Person.
 - (iii) Sole power to dispose or to direct the disposition of:

 See Row 7 of cover page for each Reporting Person.
 - (iv) Shared power to dispose or to direct the disposition of:See Row 8 of cover page for each Reporting Person.

ITEM 5. OWNERSHIP OF FIVE PERCENT OR LESS OF A CLASS

Not applicable.

ITEM 6. OWNERSHIP OF MORE THAN FIVE PERCENT ON BEHALF OF ANOTHER PERSON.

Under certain circumstances set forth in the limited partnership agreements of PVP V, PVPE V, PVPFF V and PVPSFF V, and the limited liability company agreement of PVM V, the general and limited partners or members of each such entity, as applicable, may be deemed to have the right to receive dividends from, or the proceeds from, the sale of shares of the Issuer owned by each such entity of which they are a partner or member, as applicable.

ITEM 7. IDENTIFICATION AND CLASSIFICATION OF THE SUBSIDIARY WHICH ACQUIRED THE SECURITY BEING REPORTED ON BY THE PARENT HOLDING COMPANY

Not applicable.

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ITEM 8. <u>IDENTIFICATION AND CLASSIFICATION OF MEMBERS OF THE GROUP</u>.

Not applicable.

ITEM 9. <u>NOTICE OF DISSOLUTION OF GROUP</u>.

Not applicable.

ITEM 10. <u>CERTIFICATION</u>.

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.

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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.

Date: August 11, 2014

POLARIS VENTURE PARTNERS V, L.P.

By: Polaris Venture Management Co. V, L.L.C.

By: /s/ John Gannon

John Gannon, Authorized Signatory

POLARIS VENTURE PARTNERS ENTREPRENEURS' V, L.P.

By: Polaris Venture Management Co. V, L.L.C.

By: /s/ John Gannon

John Gannon, Authorized Signatory

POLARIS VENTURE PARTNERS FOUNDERS' FUND V, L.P.

By: Polaris Venture Management Co. V, L.L.C.

By: /s/ John Gannon

John Gannon, Authorized Signatory

POLARIS VENTURE PARTNERS SPECIAL FOUNDERS' FUND V, L.P.

By: Polaris Venture Management Co. V, L.L.C.

By: /s/ John Gannon

John Gannon, Authorized Signatory

POLARIS VENTURE MANAGEMENT CO. V, L.L.C.

By: /s/ John Gannon

John Gannon, Authorized Signatory

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JONATHAN A. FLINT

By: /s/ Jonathan A. Flint

Jonathan A. Flint

TERRANCE G. MCGUIRE

By: _/s/ Terrance G. McGuire

Terrance G. McGuire

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EXHIBIT I

Pursuant to Rule 13d-1(k)(1) under the Securities Exchange Act of 1934, the undersigned hereby agree that only one statement containing the information required on Schedule 13G need be filed with respect to ownership by each of the undersigned of shares of Common Stock of Ocular Therapeautix, Inc.

This Agreement may be executed in any number of counterparts, each of which shall be deemed an original.

Date: August 11, 2014

POLARIS VENTURE PARTNERS V, L.P.

By: Polaris Venture Management Co. V, L.L.C.

By: /s/ John Gannon

John Gannon, Authorized Signatory

POLARIS VENTURE PARTNERS ENTREPRENEURS' V, I P

By: Polaris Venture Management Co. V, L.L.C.

By: /s/ John Gannon

John Gannon, Authorized Signatory

POLARIS VENTURE PARTNERS FOUNDERS' FUND V, L.P.

By: Polaris Venture Management Co. V, L.L.C.

By: /s/ John Gannon

John Gannon, Authorized Signatory

POLARIS VENTURE PARTNERS SPECIAL FOUNDERS' FUND V, L.P.

By: Polaris Venture Management Co. V, L.L.C.

By: /s/ John Gannon

John Gannon, Authorized Signatory

POLARIS VENTURE MANAGEMENT CO. V, L.L.C.

By: /s/ John Gannon

John Gannon, Authorized Signatory

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JONATHAN A. FLINT

By: /s/ Jonathan A. Flint

Jonathan A. Flint

TERRANCE G. MCGUIRE

By: /s/ Terrance G. McGuire
Terrance G. McGuire