

**FORM 4****UNITED STATES SECURITIES AND EXCHANGE COMMISSION**

Washington, D.C. 20549

**OMB APPROVAL**

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☒ Check this box if no longer subject to Section 16. Form 4 or Form 5 obligations may continue. See Instruction 1(b).

**STATEMENT OF CHANGES IN BENEFICIAL OWNERSHIP**

Filed pursuant to Section 16(a) of the Securities Exchange Act of 1934  
or Section 30(h) of the Investment Company Act of 1940

<p>1. Name and Address of Reporting Person*</p> <p><u>Polaris Venture Management Co. V.</u> <u>L.L.C.</u></p> <hr/> <p>(Last) (First) (Middle)</p> <p><u>C/O POLARIS VENTURE PARTNERS,</u> <u>1000 WINTER STREET, SUITE 3350</u></p> <hr/> <p>(Street)</p> <p><u>WALTHAM</u> <u>MA</u> <u>02541</u></p> <hr/> <p>(City) (State) (Zip)</p>	<p>2. Issuer Name and Ticker or Trading Symbol</p> <p><u>aTYR PHARMA INC [ LIFE ]</u></p> <hr/> <p>3. Date of Earliest Transaction (Month/Day/Year)</p> <p><u>05/12/2015</u></p> <hr/> <p>4. If Amendment, Date of Original Filed (Month/Day/Year)</p>	<p>5. Relationship of Reporting Person(s) to Issuer (Check all applicable)</p> <p>Director <input checked="" type="checkbox"/> 10% Owner</p> <p>Officer (give title below) Other (specify below)</p> <hr/> <p>6. Individual or Joint/Group Filing (Check Applicable Line)</p> <p>Form filed by One Reporting Person</p> <p><input checked="" type="checkbox"/> Form filed by More than One Reporting Person</p>
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**Table I - Non-Derivative Securities Acquired, Disposed of, or Beneficially Owned**

1. Title of Security (Instr. 3)	2. Transaction Date (Month/Day/Year)	2A. Deemed Execution Date, if any (Month/Day/Year)	3. Transaction Code (Instr. 8)		4. Securities Acquired (A) or Disposed Of (D) (Instr. 3, 4 and 5)			5. Amount of Securities Beneficially Owned Following Reported Transaction(s) (Instr. 3 and 4)	6. Ownership Form: Direct (D) or Indirect (I) (Instr. 4)	7. Nature of Indirect Beneficial Ownership (Instr. 4)
			Code	V	Amount	(A) or (D)	Price			
Common Stock	05/12/2015		C		1,674,825	A	(1)	1,674,825 <sup>(2)</sup>	I	By Polaris Venture Partners V, L.P. <sup>(3)(4)</sup>
Common Stock	05/12/2015		C		32,642	A	(1)	32,642 <sup>(2)</sup>	I	By Polaris Venture Partners Entrepreneurs' Fund V, L.P. <sup>(5)</sup>
Common Stock	05/12/2015		C		11,472	A	(1)	11,472 <sup>(2)</sup>	I	By Polaris Venture Partners Founders' Fund V, L.P. <sup>(6)</sup>
Common Stock	05/12/2015		C		16,748	A	(1)	16,748 <sup>(2)</sup>	I	Polaris Venture Partners Special Founders' Fund V, L.P. <sup>(7)</sup>
Common Stock	05/12/2015		C		89,069	A	(8)	1,763,894 <sup>(9)</sup>	I	By Polaris Venture Partners V, L.P. <sup>(3)(4)</sup>
Common Stock	05/12/2015		C		1,736	A	(8)	34,378 <sup>(9)</sup>	I	By Polaris Venture Partners Entrepreneurs' Fund V, L.P. <sup>(5)</sup>
Common Stock	05/12/2015		C		610	A	(8)	12,082 <sup>(9)</sup>	I	By Polaris Venture Partners Founders' Fund V, L.P. <sup>(6)</sup>

**Table I - Non-Derivative Securities Acquired, Disposed of, or Beneficially Owned**

1. Title of Security (Instr. 3)	2. Transaction Date (Month/Day/Year)	2A. Deemed Execution Date, if any (Month/Day/Year)	3. Transaction Code (Instr. 8)		4. Securities Acquired (A) or Disposed Of (D) (Instr. 3, 4 and 5)			5. Amount of Securities Beneficially Owned Following Reported Transaction(s) (Instr. 3 and 4)	6. Ownership Form: Direct (D) or Indirect (I) (Instr. 4)	7. Nature of Indirect Beneficial Ownership (Instr. 4)
			Code	V	Amount	(A) or (D)	Price			
Common Stock	05/12/2015		C		890	A	(8)	17,638 <sup>(9)</sup>	I	Polaris Venture Partners Special Founders' Fund V, L.P. <sup>(7)</sup>

**Table II - Derivative Securities Acquired, Disposed of, or Beneficially Owned  
(e.g., puts, calls, warrants, options, convertible securities)**

1. Title of Derivative Security (Instr. 3)	2. Conversion or Exercise Price of Derivative Security	3. Transaction Date (Month/Day/Year)	3A. Deemed Execution Date, if any (Month/Day/Year)	4. Transaction Code (Instr. 8)		5. Number of Derivative Securities Acquired (A) or Disposed of (D) (Instr. 3, 4 and 5)		6. Date Exercisable and Expiration Date (Month/Day/Year)		7. Title and Amount of Securities Underlying Derivative Security (Instr. 3 and 4)		8. Price of Derivative Security (Instr. 5)	9. Number of derivative Securities Beneficially Owned Following Reported Transaction(s) (Instr. 4)	10. Ownership Form: Direct (D) or Indirect (I) (Instr. 4)	11. Nature of Indirect Beneficial Ownership (Instr. 4)
				Code	V	(A)	(D)	Date Exercisable	Expiration Date	Title	Amount or Number of Shares				
Series B Redeemable Convertible Preferred Stock	(1)	05/12/2015		C			3,473,763	(1)	(1)	Common Stock	436,725 <sup>(2)</sup>	\$0.00	0	I	By Polaris Venture Partners V, L.P. <sup>(3)(4)</sup>
Series B Redeemable Convertible Preferred Stock	(1)	05/12/2015		C			67,704	(1)	(1)	Common Stock	8,512 <sup>(2)</sup>	\$0.00	0	I	By Polaris Venture Partners Entrepreneurs' Fund V, L.P. <sup>(5)</sup>
Series B Redeemable Convertible Preferred Stock	(1)	05/12/2015		C			23,796	(1)	(1)	Common Stock	2,992 <sup>(2)</sup>	\$0.00	0	I	By Polaris Venture Partners Founders' Fund V, L.P. <sup>(6)</sup>
Series B Redeemable Convertible Preferred Stock	(1)	05/12/2015		C			34,737	(1)	(1)	Common Stock	4,367 <sup>(2)</sup>	\$0.00	0	I	Polaris Venture Partners Special Founders' Fund V, L.P. <sup>(7)</sup>
Series B-2 Redeemable Convertible Preferred Stock	(1)	05/12/2015		C			4,168,683	(1)	(1)	Common Stock	524,090 <sup>(2)</sup>	\$0.00	0	I	By Polaris Venture Partners V, L.P. <sup>(3)(4)</sup>
Series B-2 Redeemable Convertible Preferred Stock	(1)	05/12/2015		C			81,248	(1)	(1)	Common Stock	10,214 <sup>(2)</sup>	\$0.00	0	I	By Polaris Venture Partners Entrepreneurs' Fund V, L.P. <sup>(5)</sup>
Series B-2 Redeemable Convertible Preferred Stock	(1)	05/12/2015		C			28,556	(1)	(1)	Common Stock	3,590 <sup>(2)</sup>	\$0.00	0	I	By Polaris Venture Partners Founders' Fund V, L.P. <sup>(6)</sup>
Series B-2 Redeemable Convertible Preferred Stock	(1)	05/12/2015		C			41,686	(1)	(1)	Common Stock	5,241 <sup>(2)</sup>	\$0.00	0	I	By Polaris Venture Partners Special Founders' Fund V, L.P. <sup>(7)</sup>
Series C Redeemable Convertible Preferred Stock	(1)	05/12/2015		C			4,208,756	(1)	(1)	Common Stock	529,128 <sup>(2)</sup>	\$0.00	0	I	By Polaris Venture Partners V, L.P. <sup>(3)(4)</sup>
Series C Redeemable Convertible Preferred Stock	(1)	05/12/2015		C			82,029	(1)	(1)	Common Stock	10,313 <sup>(2)</sup>	\$0.00	0	I	By Polaris Venture Partners Entrepreneurs' Fund V, L.P. <sup>(5)</sup>

**Table II - Derivative Securities Acquired, Disposed of, or Beneficially Owned  
(e.g., puts, calls, warrants, options, convertible securities)**

1. Title of Derivative Security (Instr. 3)	2. Conversion or Exercise Price of Derivative Security	3. Transaction Date (Month/Day/Year)	3A. Deemed Execution Date, if any (Month/Day/Year)	4. Transaction Code (Instr. 8)		5. Number of Derivative Securities Acquired (A) or Disposed of (D) (Instr. 3, 4 and 5)		6. Date Exercisable and Expiration Date (Month/Day/Year)		7. Title and Amount of Securities Underlying Derivative Security (Instr. 3 and 4)		8. Price of Derivative Security (Instr. 5)	9. Number of derivative Securities Beneficially Owned Following Reported Transaction(s) (Instr. 4)	10. Ownership Form: Direct (D) or Indirect (I) (Instr. 4)	11. Nature of Indirect Beneficial Ownership (Instr. 4)
				Code	V	(A)	(D)	Date Exercisable	Expiration Date	Title	Amount or Number of Shares				
Series C Redeemable Convertible Preferred Stock	(1)	05/12/2015		C			28,831	(1)	(1)	Common Stock	3,624 <sup>(2)</sup>	\$0.00	0	I	By Polaris Venture Partners Founders' Fund V, L.P. <sup>(6)</sup>
Series C Redeemable Convertible Preferred Stock	(1)	05/12/2015		C			42,087	(1)	(1)	Common Stock	5,291 <sup>(2)</sup>	\$0.00	0	I	By Polaris Venture Partners Special Founders' Fund V, L.P. <sup>(7)</sup>
Series D Redeemable Convertible Preferred Stock	(1)	05/12/2015		C			1,470,577	(1)	(1)	Common Stock	184,882 <sup>(2)</sup>	\$0.00	0	I	By Polaris Venture Partners V, L.P. <sup>(3)(4)</sup>
Series D Redeemable Convertible Preferred Stock	(1)	05/12/2015		C			28,661	(1)	(1)	Common Stock	3,603 <sup>(2)</sup>	\$0.00	0	I	By Polaris Venture Partners Entrepreneurs' Fund V, L.P. <sup>(5)</sup>
Series D Redeemable Convertible Preferred Stock	(1)	05/12/2015		C			10,074	(1)	(1)	Common Stock	1,266 <sup>(2)</sup>	\$0.00	0	I	By Polaris Venture Partners Founders' Fund V, L.P. <sup>(6)</sup>
Series D Redeemable Convertible Preferred Stock	(1)	05/12/2015		C			14,706	(1)	(1)	Common Stock	1,849 <sup>(2)</sup>	\$0.00	0	I	By Polaris Venture Partners Special Founders' Fund V, L.P. <sup>(7)</sup>
Series E Redeemable Convertible Preferred Stock	(8)	05/12/2015		C			862,318	(8)	(8)	Common Stock	89,069 <sup>(9)</sup>	\$0.00	0	I	By Polaris Venture Partners V, L.P. <sup>(3)(4)</sup>
Series E Redeemable Convertible Preferred Stock	(8)	05/12/2015		C			16,806	(8)	(8)	Common Stock	1,736 <sup>(9)</sup>	\$0.00	0	I	By Polaris Venture Partners Entrepreneurs' Fund V, L.P. <sup>(5)</sup>
Series E Redeemable Convertible Preferred Stock	(8)	05/12/2015		C			5,906	(8)	(8)	Common Stock	610 <sup>(9)</sup>	\$0.00	0	I	By Polaris Venture Partners Founders' Fund V, L.P. <sup>(6)</sup>
Series E Redeemable Convertible Preferred Stock	(8)	05/12/2015		C			8,623	(8)	(8)	Common Stock	890 <sup>(9)</sup>	\$0.00	0	I	By Polaris Venture Partners Special Founders' Fund V, L.P. <sup>(7)</sup>

1. Name and Address of Reporting Person\*

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

(Last) (First) (Middle)

C/O POLARIS VENTURE PARTNERS,  
1000 WINTER STREET, SUITE 3350

(Street)  
WALTHAM MA 02541

(City) (State) (Zip)

1. Name and Address of Reporting Person*		
<a href="#"><u>Polaris Venture Partners V, L.P.</u></a>		
(Last)	(First)	(Middle)
1000 WINTER STREET, SUITE 3350		
(Street)		
WALTHAM	MA	02451
(City) (State) (Zip)		

1. Name and Address of Reporting Person*		
<a href="#"><u>Polaris Venture Partners Entrepreneurs' Fund V, L.P.</u></a>		
(Last)	(First)	(Middle)
1000 WINTER STREET, SUITE 3350		
(Street)		
WALTHAM	MA	02451
(City) (State) (Zip)		

1. Name and Address of Reporting Person*		
<a href="#"><u>Polaris Venture Partners Founders' Fund V, L.P.</u></a>		
(Last)	(First)	(Middle)
1000 WINTER STREET, SUITE 3350		
(Street)		
WALTHAM	MA	02451
(City) (State) (Zip)		

1. Name and Address of Reporting Person*		
<a href="#"><u>Polaris Venture Partners Special Founders' Fund V, L.P.</u></a>		
(Last)	(First)	(Middle)
1000 WINTER STREET, SUITE 3350		
(Street)		
WALTHAM	MA	02451
(City) (State) (Zip)		

**Explanation of Responses:**

1. The aggregate number of shares of Issuer's Preferred Stock held by the Reporting Person converted into Common Stock immediately prior to the closing of the Issuer's initial public offering and has no expiration date. These shares converted into Common Stock on a 1-for-7.95413 basis.
2. Reflects a 1-for-7.95413 stock conversion of the Issuer's Preferred Stock into Common Stock which became effective immediately prior to the closing of the Issuer's initial public offering.
3. These shares are owned directly by Polaris Venture Partners V, L.P. ("Polaris V"), whose sole general partner is Polaris Venture Management Co. V, LLC ("Polaris Management"). Each of Jonathan A. Flint ("Flint") and Terrance G. McGuire ("McGuire") are the managing members of Polaris Management. Amir Nashat ("Nashat"), who is a member of the Issuer's Board of Directors, is a member of Polaris Management. Each of Flint, McGuire and Nashat, in their respective capacities with regard to Polaris Management, may be deemed to have shared voting and dispositive power over the shares held by each of Polaris V, Polaris Venture Partners Entrepreneurs' Fund V, L.P. ("Polaris Entrepreneurs' V"), Polaris Venture Partners Founders' Fund V, L.P. ("Polaris Founders' V") and Polaris Venture Partners Special Founders' Fund V, L.P. ("Polaris Special Founders' V", and together with Polaris V, Polaris Entrepreneurs' V and Polaris Founders' V, the "Polaris V Funds").
4. (Continued from Footnote 3) Each of Flint, McGuire, Nashat and Polaris Management disclaims beneficial ownership of these securities and this report shall not be deemed to be an admission that any one of them is the beneficial owner of such securities for purposes of Section 16 or any other purpose, except to the extent of their pecuniary interest therein.
5. These shares are owned directly by Polaris Entrepreneurs' V, whose sole general partner is Polaris Management. Each of Flint and McGuire are the managing members of Polaris Management. Nashat, who is a member of the Issuer's Board of Directors, is a member of Polaris Management. Each of Flint, McGuire and Nashat, in their respective capacities with regard to Polaris Management, may be deemed to have shared voting and dispositive power over the shares held by each of the Polaris V Funds. Each of Flint, McGuire, Nashat and Polaris Management disclaims beneficial ownership of these securities and this report shall not be deemed to be an admission that any one of them is the beneficial owner of such securities for purposes of Section 16 or any other purpose, except to the extent of their pecuniary interest therein.

6. These shares are owned directly by Polaris Founders' V, whose sole general partner is Polaris Management. Each of Flint and McGuire are the managing members of Polaris Management. Nashat, who is a member of the Issuer's Board of Directors, is a member of Polaris Management. Each of Flint, McGuire and Nashat, in their respective capacities with regard to Polaris Management, may be deemed to have shared voting and dispositive power over the shares held by each of the Polaris V Funds. Each of Flint, McGuire, Nashat and Polaris Management disclaims beneficial ownership of these securities and this report shall not be deemed to be an admission that any one of them is the beneficial owner of such securities for purposes of Section 16 or any other purpose, except to the extent of their pecuniary interest therein.

7. These shares are owned directly by Polaris Special Founders' V, whose sole general partner is Polaris Management. Each of Flint and McGuire are the managing members of Polaris Management. Nashat, who is a member of the Issuer's Board of Directors, is a member of Polaris Management. Each of Flint, McGuire and Nashat, in their respective capacities with regard to Polaris Management, may be deemed to have shared voting and dispositive power over the shares held by each of the Polaris V Funds. Each of Flint, McGuire, Nashat and Polaris Management disclaims beneficial ownership of these securities and this report shall not be deemed to be an admission that any one of them is the beneficial owner of such securities for purposes of Section 16 or any other purpose, except to the extent of their pecuniary interest therein.

8. The aggregate number of shares of Issuer's Preferred Stock held by the Reporting Person converted into Common Stock immediately prior to the closing of the Issuer's initial public offering and has no expiration date. These shares converted into Common Stock on a 1-for-9.6814 basis.

9. Reflects a 1-for 9.6814 stock conversion of the Issuer's Preferred Stock into Common Stock which became effective immediately prior to the closing of the Issuer's initial public offering.

**Remarks:**

/s/ John Gannon, Attorney-in-  
Fact for Polaris Venture 05/14/2015  
Management Co. V, L.L.C.

/s/ John Gannon, Attorney-in-  
Fact for Polaris Venture 05/14/2015  
Management Co. V, L.L.C.,  
the general partner of Polaris  
Venture Partners V, L.P.

/s/ John Gannon, Attorney-in-  
Fact for Polaris Venture 05/14/2015  
Management Co. V, L.L.C.,  
the general partner of Polaris  
Venture Partners  
Entrepreneurs' Fund V, L.P.

/s/ John Gannon, Attorney-in-  
Fact for Polaris Venture 05/14/2015  
Management Co. V, L.L.C.,  
the general partner of Polaris  
Venture Partners Founders'  
Fund V, L.P.

/s/ John Gannon, Attorney-in-  
Fact for Polaris Venture 05/14/2015  
Management Co. V, L.L.C.,  
the general partner of Polaris  
Venture Partners Special  
Founders' Fund V, L.P.

\*\* Signature of Reporting Person      Date

Reminder: Report on a separate line for each class of securities beneficially owned directly or indirectly.

\* If the form is filed by more than one reporting person, see Instruction 4 (b)(v).

\*\* Intentional misstatements or omissions of facts constitute Federal Criminal Violations See 18 U.S.C. 1001 and 15 U.S.C. 78ff(a).

Note: File three copies of this Form, one of which must be manually signed. If space is insufficient, see Instruction 6 for procedure.

**Persons who respond to the collection of information contained in this form are not required to respond unless the form displays a currently valid OMB Number.**