FORM 4

UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

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

OMB APPROVAL OMB Number: Estimated average burden hours per response: 0.5

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

1. Name and Address of Reporting Person* <u>EcoR1 Capital Fund Qualified</u> , <u>L.P.</u>						2. Issuer Name and Ticker or Trading Symbol aTYR PHARMA INC [LIFE]									lationshi ck all app Dired	,		s) to Is	
(Last) 409 ILLI	ast) (First) (Middle) 09 ILLINOIS STREET					3. Date of Earliest Transaction (Month/Day/Year) 05/14/2018								Offic belo	er (give title w)	Other below		(specify	
(Street) SAN FRANCISCO CA 94158 (City) (State) (Zip)				4. If	4. If Amendment, Date of Original Filed (Month/Day/Year) 6. Individual Line) X										ual or Joint/Group Filing (Check Applicable Form filed by One Reporting Person Form filed by More than One Reporting Person				
Table I - Non-Derivative Securities Acquired, Disposed of, or Beneficially Owned																			
1. Title of Security (Instr. 3) 2. Transac Date					saction 2A. D Exec /Day/Year) if any		A. Deemed Execution Date,		3. Transaction Code (Instr. 8)		4. Securities Acquired (A) of Disposed Of (D) (Instr. 3, 4			or	5. Am Secur Benef	ount of ities icially d Following	6. Ownership Form: Direct (D) or Indirect (I) (Instr. 4)		7. Nature of Indirect Beneficial Ownership (Instr. 4)
									Code	v	Amount	(A (D	or F	rice	Trans	action(s) 3 and 4)			(111311. 4)
Common Stock 05/14/2					2018	018			S		354,791	1 :	D \$	1.716	7 2,	354,525	D		
Common Stock 05/15/2					2018	018			S		121,294	1	D \$	1.426	3 2,	2,733,231		D	
Common Stock 05/16/2					2018	.018			S		2,733,23	1	D \$	0.811		0			
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) (Month/Day/Year) 3. A. Deemed Execution Date, if any (Month/Day/Year)		4. Transa Code (8)	Instr.	of Derivative Securities Acquired (A) or Disposed of (D) (Instr. 3, 4 and 5)		6. Date Expirati (Month/	on Da Day/Y		7. Title and Amount of Securities Underlying Derivative Security (Instr. and 4) Amount or Numbe of Title Shares		De Se (In	Price of rivative curity str. 5)	9. Number of derivative Securities Beneficially Owned Following Reported Transaction (Instr. 4)	Owne Form Direct or Ind (I) (Ins	(D) irect	11. Nature of Indirect Beneficial Ownership (Instr. 4)		

Explanation of Responses:

EcoR1 Capital Fund Qualified,

L.P., by Oleg Nodelman, Manager of EcoR1 Capital,

LLC, General Partner ** Signature of Reporting Person Date

05/16/2018

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.