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

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**FORM 8-K**

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**CURRENT REPORT**  
Pursuant to Section 13 or 15(d)  
of the Securities Exchange Act of 1934

August 28, 2017  
Date of Report (Date of earliest event reported)

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**ATYR PHARMA, INC.**

(Exact name of registrant as specified in its charter)

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Delaware  
(State or other jurisdiction  
of incorporation)

001-37378  
(Commission  
File Number)

20-3435077  
(IRS Employer  
Identification No.)

3545 John Hopkins Court, Suite #250  
San Diego, California 92121  
(Address of principal executive offices, including zip code)

(858) 731-8389  
(Registrant's telephone number, including area code)

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Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligations of the registrant under any of the following provisions:

- Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)
- Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)
- Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))
- Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))

Indicate by check mark whether the registrant is an emerging growth company as defined in Rule 405 of the Securities Act of 1933 or Rule 12b-2 of the Securities Exchange Act of 1934.

Emerging growth company

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act.

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**Item 5.03 Amendments to Articles of Incorporation or Bylaws.**

On August 31, 2017, aTyr Pharma, Inc. (the “Company”) closed a private placement (the “Private Placement”) in accordance with the Securities Purchase Agreement that the Company entered into on August 27, 2017 with a select group of institutional investors, including Viking Global Investors, EcoR1 Capital, Redmile Group, and other accredited investors, certain of whom are affiliated with the directors and officers of the Company.

In connection with the closing of the Private Placement, the Company filed a Certificate of Designation of Preferences, Rights and Limitations of Class X Convertible Preferred Stock with the Secretary of State of Delaware on August 28, 2017, pursuant to which the Company designated 2,285,952 shares of its authorized and unissued undesignated preferred stock as Class X Convertible Preferred Stock. The Certificate of Designation is filed hereto as Exhibit 3.1 and incorporated by reference herein. A summary of the rights, preferences and privileges of the Class X Convertible Preferred Stock is contained under “Item 1.01 Entry into a Material Definitive Agreement,” in the Company’s Form 8-K filed with the Securities and Exchange Commission on August 28, 2017, which is incorporated by reference herein.

**Item 9.01. Financial Statements and Exhibits.**

(d) Exhibits.

<b>Exhibit No.</b>	<b>Description</b>
3.1	Certificate of Designation of Preferences, Rights and Limitations of Class X Convertible Preferred Stock

**SIGNATURE**

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned hereunto duly authorized.

**ATYR PHARMA, INC.**

By: /s/ John T. Blake  
John T. Blake  
Senior Vice President, Finance

Date: August 31, 2017

**INDEX TO EXHIBITS**

<b>Exhibit No.</b>	<b>Description</b>
3.1	Certificate of Designation of Preferences, Rights and Limitations of Class X Convertible Preferred Stock

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**ATYR PHARMA, INC.  
CERTIFICATE OF DESIGNATION OF PREFERENCES,  
RIGHTS AND LIMITATIONS**

**OF**

**CLASS X CONVERTIBLE PREFERRED STOCK**

PURSUANT TO SECTION 151 OF THE  
DELAWARE GENERAL CORPORATION LAW

ATYR PHARMA, INC., Delaware corporation (the “**Corporation**”), in accordance with the provisions of Section 103 of the Delaware General Corporation Law (the “**DGCL**”) does hereby certify that, in accordance with Sections 141(c) and 151 of the DGCL, the following resolution was duly adopted by a committee of the Board of Directors of the Corporation acting upon authority delegated by the Board of Directors, on August 27, 2017:

**RESOLVED**, pursuant to authority expressly set forth in the Restated Certificate of Incorporation of the Corporation (the “**Certificate of Incorporation**”), the issuance of a series of Preferred Stock designated as the Class X Convertible Preferred Stock, par value \$0.001 per share, of the Corporation is hereby authorized and the designation, number of shares, powers, preferences, rights, qualifications, limitations and restrictions thereof (in addition to any provisions set forth in the Certificate of Incorporation that are applicable to the Preferred Stock of all classes and series) are hereby fixed, and the Certificate of Designation of Preferences, Rights and Limitations of Class X Convertible Preferred Stock is hereby approved as follows:

**CLASS X CONVERTIBLE PREFERRED STOCK**

Section 1.        Definitions. For the purposes hereof, the following terms shall have the following meanings:

“**Affiliate**” means any person or entity that, directly or indirectly through one or more intermediaries, controls or is controlled by or is under common control with a person or entity, as such terms are used in and construed under Rule 144 under the Securities Act of 1933. With respect to a Holder, any investment fund or managed account that is managed on a discretionary basis by the same investment manager as such Holder will be deemed to be an Affiliate of such Holder.

“**Business Day**” means any day except Saturday, Sunday, any day which shall be a federal legal holiday in the United States or any day on which banking institutions in the State of New York are authorized or required by law or other governmental action to close.

“**Commission**” means the U.S. Securities and Exchange Commission.

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“**Common Stock**” means the Corporation’s common stock, par value \$0.001 per share, and stock of any other class of securities into which such securities may hereafter be reclassified into.

“**Conversion Price**” for the Class X Preferred Stock shall be \$2.65, subject to adjustment as provided herein.

“**Conversion Shares**” means, collectively, the shares of Common Stock issuable upon conversion of the shares of Class X Preferred Stock in accordance with the terms hereof.

“**DGCL**” shall mean the Delaware General Corporation Law.

“**Exchange Act**” means the Securities Exchange Act of 1934, as amended, and the rules and regulations promulgated thereunder.

“**Holder**” means any holder of Class X Preferred Stock.

“**Issuance Date**” means the first date on which any shares of Class X Preferred Stock are issued by the Corporation.

“**Person**” means any individual or corporation, partnership, trust, incorporated or unincorporated association, joint venture, limited liability company, joint stock company, government (or an agency or subdivision thereof) or other entity of any kind.

“**Purchase Agreement**” means the Securities Purchase Agreement, dated as of August 27, 2017 by and among aTyr Pharma, Inc., a Delaware corporation, and each purchaser identified on the signature pages thereto.

“**Stated Value**” means \$13.25 per share, subject to increase as set forth in Section 3 below.

“**Threshold Amount**” means 19.99% of the number of shares of the Common Stock outstanding immediately after giving effect to the issuance of shares of Common Stock pursuant to an applicable Notice of Conversion.

“**Trading Day**” means a day on which the Common Stock is traded for any period on a principal securities exchange or if the Common Stock is not traded on a principal securities exchange, on a day that the Common Stock is traded on another securities market on which the Common Stock is then being traded.

Section 2. Designation, Amount and Par Value; Assignment.

(a) The series of preferred stock designated by this Certificate of Designation shall be designated as the Corporation’s Class X Convertible Preferred Stock (the “**Class X Preferred Stock**”) and the number of shares so designated shall be 2,285,952. The Class X Preferred Stock shall have a par value of \$0.001 per share.

(b) The Corporation shall register shares of the Class X Preferred Stock, upon records to be maintained by the Corporation for that purpose (the “**Class X Preferred Stock Register**”), in the name of the Holders thereof from time to time. The Corporation may deem and treat the registered Holder of shares of Class X Preferred Stock as the absolute owner thereof for the purpose of any conversion thereof and for all other purposes. Shares of Class X Preferred Stock may be issued solely in book-entry form or, if requested by any Holder, such Holder’s shares may be issued in certificated form. The Corporation shall register the transfer of any shares of Class X Preferred Stock in the Class X Preferred Stock Register, upon surrender of the certificates (if applicable) evidencing such shares to be transferred, duly endorsed by the Holder thereof, to the Corporation at its address specified herein. Upon any such registration or transfer, a new certificate (or book-entry notation, if applicable) evidencing the shares of Class X Preferred Stock so transferred shall be issued to the transferee and a new certificate (or book-entry notation, if applicable) evidencing the remaining portion of the shares not so transferred, if any, shall be issued to the transferring Holder, in each case, within three Business Days. The provisions of this Certificate of Designation are intended to be for the benefit of all Holders from time to time and shall be enforceable by any such Holder.

Section 3. Dividends. Holders shall be entitled to receive, and the Corporation shall pay, dividends on shares of Class X Preferred Stock equal (on an as-if-converted-to-Common-Stock basis) to and in the same form as dividends (other than dividends in the form of Common Stock, which shall be made in accordance with Section 7(a)) actually paid on shares of the Common Stock when, as and if such dividends (other than dividends in the form of Common Stock, which shall be made in accordance with Section 7(a)) are paid on shares of the Common Stock. Other than as set forth in the previous sentence, no other dividends shall be paid on shares of Class X Preferred Stock; and the Corporation shall pay no dividends (other than dividends in the form of Common Stock) on shares of the Common Stock unless it simultaneously complies with the previous sentence. All declared but unpaid dividends on shares of Class X Preferred Stock shall increase the Stated Value of such shares, but when such dividends are actually paid any such increase in the Stated Value shall be rescinded.

Section 4. Voting Rights. Except as otherwise provided herein or as otherwise required by the DGCL, the Class X Preferred Stock shall have no voting rights. However, as long as any shares of Class X Preferred Stock are outstanding, the Corporation shall not, without the affirmative vote of the Holders of a majority of the then outstanding shares of the Class X Preferred Stock, (i) alter or change adversely the powers, preferences or rights given to the Class X Preferred Stock or alter or amend this Certificate of Designation, amend or repeal any provision of, or add any provision to, the Certificate of Incorporation or bylaws of the Corporation, or file any articles of amendment, certificate of designations, preferences, limitations and relative rights of any series of preferred stock, if such action would adversely alter or change the preferences, rights, privileges or powers of, or restrictions provided for the benefit of the Class X Preferred Stock in a manner materially different than the effect on the Common Stock, regardless of whether any of the foregoing actions shall be by means of amendment to the Certificate of Incorporation or by merger, consolidation or otherwise, (ii) issue further shares of Class X Preferred Stock or increase or decrease (other than

by conversion) the number of authorized shares of Class X Preferred Stock, or (iii) enter into any agreement with respect to any of the foregoing.

Section 5. Liquidation. Upon any liquidation, dissolution or winding up of the Corporation, whether voluntary or involuntary (a "**Liquidation**"), the assets of the Corporation available for distribution to its stockholders shall be distributed *pari passu* among the holders of the shares of Common Stock and Class X Preferred Stock, pro rata based on the number of shares held by each such holder, treating for this purpose all such securities as if they had been converted to Common Stock pursuant to the terms of the Certificate of Incorporation (without regard to the Beneficial Ownership Limitation) immediately prior to such Liquidation. The Corporation shall mail written notice of any such Liquidation not less than 45 days prior to the payment date stated therein, to each Holder of shares of Class X Preferred Stock.

Section 6. Conversion.

(a) Conversions at Option of Holder. Each share of Class X Preferred Stock shall be convertible, at any time and from time to time from and after the Issuance Date, at the option of the Holder thereof, into a number of shares of Common Stock equal to the product of the Conversion Ratio and the number of shares of Class X Preferred Stock to be converted. Holders shall effect conversions by providing the Corporation with the form of conversion notice attached hereto as **Annex A** (a "**Notice of Conversion**"), duly completed and executed. Other than a conversion following a Fundamental Transaction or following a notice provided for under Section 7(d)(ii) hereof, the Notice of Conversion must specify at least a number of shares of Class X Preferred Stock to be converted equal to the lesser of (x) 100 shares (such number subject to appropriate adjustment following the occurrence of an event specified in Section 7(a) hereof) and (y) the number of shares of Class X Preferred Stock then held by the Holder. Provided the Corporation's transfer agent is participating in the Depository Trust Company ("**DTC**") Fast Automated Securities Transfer program, the Notice of Conversion may specify, at the Holder's election, whether the applicable Conversion Shares shall be credited to the DTC participant account nominated by the Holder through DTC's Deposit Withdrawal Agent Commission system (a "**DWAC Delivery**"). The "**Conversion Date**", or the date on which a conversion shall be deemed effective, shall be defined as the Trading Day that the Notice of Conversion, completed and executed, is sent by facsimile or other electronic transmission to, and received during regular business hours by, the Corporation; provided that the original certificate(s) (if any) representing such shares of Class X Preferred Stock being converted, duly endorsed, and the accompanying Notice of Conversion, are received by the Corporation within three (3) Trading Days thereafter. In all other cases, the Conversion Date shall be defined as the Trading Day on which the original shares of Class X Preferred Stock being converted, duly endorsed, and the accompanying Notice of Conversion, are received by the Corporation. The calculations set forth in the Notice of Conversion shall control in the absence of manifest or mathematical error.

(b) Conversion Ratio. The "**Conversion Ratio**" for each share of Class X Preferred Stock shall be equal to the Stated Value divided by the Conversion Price.

(c) **Beneficial Ownership Limitation.** Notwithstanding anything herein to the contrary, the Corporation shall not effect any conversion of the Class X Preferred Stock, and a Holder shall not have the right to convert, and shall be deemed not to have converted, any portion of the Class X Preferred Stock, to the extent that, after giving effect to an attempted conversion set forth on an applicable Notice of Conversion, such Holder (together with any other Persons whose beneficial ownership of Common Stock would be aggregated with the Holder's for purposes of Section 13(d) or Section 16 of the Exchange Act and the applicable regulations of the Commission, including any "group" of which the Holder is a member (the foregoing, "**Attribution Parties**")) would beneficially own a number of shares of Common Stock in excess of the Beneficial Ownership Limitation (as defined below). For purposes of the foregoing sentence, the number of shares of Common Stock beneficially owned by such Holder and its Attribution Parties shall include the number of shares of Common Stock issuable upon conversion of the Class X Preferred Stock subject to the Notice of Conversion with respect to which such determination is being made, but shall exclude the number of shares of Common Stock which are issuable upon (A) conversion of the remaining, unconverted shares of Class X Preferred Stock beneficially owned by such Holder or any of its Attribution Parties, and (B) exercise or conversion of the unexercised or unconverted portion of any other securities of the Corporation (including any warrants) beneficially owned by such Holder or any of its Attribution Parties that, in the case of both (A) and (B), are subject to a limitation on conversion or exercise similar to the limitation contained herein. For purposes of this Section 6(c), beneficial ownership shall be calculated in accordance with Section 13(d) of the Exchange Act and the applicable regulations of the Commission. In addition, for purposes hereof, "group" has the meaning set forth in Section 13(d) of the Exchange Act and the applicable regulations of the Commission. In order to ensure that a Holder and its Attribution Parties do not exceed the Beneficial Ownership Limitation in connection with any Notice of Conversion, upon delivery of any Notice of Conversion, such Holder shall inform the Company in such Notice of Conversion of the number of shares of Common Stock then beneficially owned by such Holder and its Attribution Parties as determined in accordance with Section 13(d) of the Exchange Act and the applicable regulations of the Commission, and such notice shall be deemed not to be delivered to the extent (and only to the extent) such Beneficial Ownership Limitation would be exceeded. The Corporation shall be entitled to rely on representations made to it by the Holder in any Notice of Conversion regarding beneficial ownership of shares of Common Stock. Upon the written request of a Holder (which may be by email), the Corporation shall, within three (3) Trading Days thereof, confirm in writing to such Holder (which may be via email) the number of shares of Common Stock then outstanding. The "**Beneficial Ownership Limitation**" shall initially be 9.50% of the number of shares of the Common Stock outstanding immediately after giving effect to the issuance of shares of Common Stock pursuant to such Notice of Conversion (to the extent permitted pursuant to this Section 6(c)). Notwithstanding the foregoing, by written notice to the Corporation, which will not be effective until the sixty-first (61<sup>st</sup>) day after such notice is delivered to the Corporation, the Holder may reset the Beneficial Ownership Limitation percentage to a higher or lower percentage, not to exceed 19.99% of the number of shares of the Common Stock outstanding immediately after giving effect to the issuance of shares of Common Stock pursuant to such Notice of Conversion unless the Proposal (as defined in the Purchase Agreement) has been approved by the stockholders of the Corporation, in which case the Beneficial Ownership Limitation percentage may exceed 19.99%. Upon such a change by a Holder of the Beneficial

Ownership Limitation, the Beneficial Ownership Limitation may not be further amended by such Holder without first providing the minimum 61-day notice required by this Section 6(c). Notwithstanding the foregoing, at any time following notice of a Fundamental Transaction, the Holder may waive and/or change the Beneficial Ownership Limitation effective immediately upon written notice to the Corporation and may reinstitute a Beneficial Ownership Limitation at any time thereafter effective immediately upon written notice to the Corporation.

(d) Nasdaq Conversion Limits; Solicitation of Stockholder Approval. Notwithstanding Section 6(a) and 6(c) of this Certificate of Designation, the Corporation shall not be required to issue any shares of Common Stock to a given Holder upon conversion by such Holder (or its assigns) of any shares of Class X Preferred Stock to the extent (and only to the extent) that such conversion would result in a given Holder (including its predecessors-in-interest) beneficially owning a number of shares of Common Stock in excess of the applicable Threshold Amount that has been approved by the Corporation's stockholders in accordance with the stockholder approval requirements of Nasdaq Marketplace Rule 5635 (a "**Blocked Conversion**"). The Corporation shall solicit the approval required under Nasdaq Marketplace Rule 5635 of its stockholders for the issuance of the full amount of shares of Common Stock otherwise issuable upon the conversion of all shares of Class X Preferred Stock authorized and designated under this Certificate of Designation in the absence of the Beneficial Ownership Limitation and without regard to the Blocked Conversion (the "**Requisite Approval**") at its first annual meeting of stockholders after the Issuance Date and at each annual meeting of the Corporation's stockholders thereafter to the extent the Requisite Approval has not then been obtained.

(e) Mechanics of Conversion

(i) Delivery of Certificate or Electronic Issuance Upon Conversion. Not later than two (2) Trading Days after the applicable Conversion Date, or if the Holder requests the issuance of physical certificate(s), two (2) Trading Days after receipt by the Corporation of the original certificate(s) representing such shares of Class X Preferred Stock being converted, duly endorsed, and the accompanying Notice of Conversion (the "**Share Delivery Date**"), the Corporation shall (a) deliver, or cause to be delivered, to the converting Holder a physical certificate or certificates representing the number of Conversion Shares being acquired upon the conversion of shares of Class X Preferred Stock, or (b) in the case of a DWAC Delivery (if so requested by the Holder), electronically transfer such Conversion Shares by crediting the DTC participant account nominated by the Holder through DTC's DWAC system. If in the case of any Notice of Conversion such certificate or certificates are not delivered to or as directed by or, in the case of a DWAC Delivery, such shares are not electronically delivered to or as directed by, the applicable Holder by the Share Delivery Date, the applicable Holder shall be entitled to elect to rescind such Conversion Notice by written notice to the Corporation at any time on or before its receipt of such certificate or certificates for Conversion Shares or electronic receipt of such shares, as applicable, in which event the Corporation shall promptly return to such Holder any original Class X Preferred Stock certificate delivered to the Corporation and such Holder shall promptly return to the Corporation any Common Stock certificates or otherwise direct the return of any shares of Common Stock delivered to the Holder through the DWAC system,

representing the shares of Class X Preferred Stock unsuccessfully tendered for conversion to the Corporation.

(ii) Obligation Absolute. Subject to Sections 6(c) and 6(d) hereof and subject to Holder's right to rescind a Conversion Notice pursuant to Section 6(e)(i) above, the Corporation's obligation to issue and deliver the Conversion Shares upon conversion of Class X Preferred Stock in accordance with the terms hereof are absolute and unconditional, irrespective of any action or inaction by a Holder to enforce the same, any waiver or consent with respect to any provision hereof, the recovery of any judgment against any Person or any action to enforce the same, or any setoff, counterclaim, recoupment, limitation or termination, or any breach or alleged breach by such Holder or any other Person of any obligation to the Corporation or any violation or alleged violation of law by such Holder or any other Person, and irrespective of any other circumstance which might otherwise limit such obligation of the Corporation to such Holder in connection with the issuance of such Conversion Shares. Subject to Sections 6(c) and 6(d) hereof and subject to Holder's right to rescind a Conversion Notice pursuant to Section 6(e)(i) above, in the event a Holder shall elect to convert any or all of its Class X Preferred Stock, the Corporation may not refuse conversion based on any claim that such Holder or anyone associated or affiliated with such Holder has been engaged in any violation of law, agreement or for any other reason, unless an injunction from a court, on notice to Holder, restraining and/or enjoining conversion of all or part of the Class X Preferred Stock of such Holder shall have been sought and obtained by the Corporation, and the Corporation posts a surety bond for the benefit of such Holder in the amount of 150% of the value of the Conversion Shares into which would be converted the Class X Preferred Stock which is subject to such injunction, which bond shall remain in effect until the completion of arbitration/litigation of the underlying dispute and the proceeds of which shall be payable to such Holder to the extent it obtains judgment. In the absence of such injunction, the Corporation shall, subject to Sections 6(c) and 6(d) hereof and subject to Holder's right to rescind a Conversion Notice pursuant to Section 6(e)(i) above, issue Conversion Shares upon a properly noticed conversion. Nothing herein shall limit a Holder's right to pursue actual damages for the Corporation's failure to deliver Conversion Shares within the period specified herein and such Holder shall have the right to pursue all remedies available to it hereunder, at law or in equity including, without limitation, a decree of specific performance and/or injunctive relief; provided that Holder shall not receive duplicate damages for the Corporation's failure to deliver Conversion Shares within the period specified herein. The exercise of any such rights shall not prohibit a Holder from seeking to enforce damages pursuant to any other Section hereof or under applicable law.

(iii) Reservation of Shares Issuable Upon Conversion. The Corporation covenants that it will at all times reserve and keep available out of its authorized and unissued shares of Common Stock for the sole purpose of issuance upon conversion of the Class X Preferred Stock, free from preemptive rights or any other actual contingent purchase rights of Persons other than the Holders of the Class X Preferred Stock, not less than such aggregate number of shares of the Common Stock as shall be issuable (taking into account the adjustments of Section 7) upon the conversion of all outstanding shares of Class X Preferred Stock. The Corporation covenants that

all shares of Common Stock that shall be so issuable shall, upon issue, be duly authorized, validly issued, fully paid and non-assessable.

(iv) Fractional Shares. No fractional shares or scrip representing fractional shares of Common Stock shall be issued upon the conversion of the Class X Preferred Stock. As to any fraction of a share which a Holder would otherwise be entitled to receive upon such conversion, the Corporation shall pay a cash adjustment in respect of such final fraction in an amount equal to such fraction multiplied by the Conversion Price.

(v) Transfer Taxes. The issuance of certificates (or book entry notations) for shares of the Common Stock upon conversion of the Class X Preferred Stock shall be made without charge to any Holder for any documentary stamp or similar taxes that may be payable in respect of the issue or delivery of such certificates (or such book entry notation), provided that the Corporation shall not be required to pay any tax that may be payable in respect of any transfer involved in the issuance and delivery of any such certificate (or such book entry notation) upon conversion in a name other than that of the registered Holder(s) of such shares of Class X Preferred Stock and the Corporation shall not be required to issue or deliver such certificates (or such book entry notation) unless or until the Person or Persons requesting the issuance thereof shall have paid to the Corporation the amount of such tax or shall have established to the satisfaction of the Corporation that such tax has been paid.

(f) Status as Stockholder. Upon each Conversion Date: (i) the shares of Class X Preferred Stock being converted shall be deemed converted into shares of Common Stock; and (ii) the Holder's rights as a holder of such converted shares of Class X Preferred Stock shall cease and terminate, excepting only the right to receive certificates (or book entry notations) for such shares of Common Stock and to any remedies provided herein or otherwise available at law or in equity to such Holder because of a failure by the Corporation to comply with the terms of this Certificate of Designation. In all cases, the holder shall retain all of its rights and remedies for the Corporation's failure to convert Class X Preferred Stock.

#### Section 7. Certain Adjustments.

(a) Stock Dividends and Stock Splits. If the Corporation, at any time while any shares of Class X Preferred Stock are outstanding: (i) pays a stock dividend or otherwise makes a distribution or distributions payable in shares of Common Stock with respect to the then outstanding shares of Common Stock; (ii) subdivides outstanding shares of Common Stock into a larger number of shares; or (iii) combines (including by way of a reverse stock split) outstanding shares of Common Stock into a smaller number of shares, then the Conversion Price shall be multiplied by a fraction of which the numerator shall be the number of shares of Common Stock (excluding any treasury shares of the Corporation) outstanding immediately before such event and of which the denominator shall be the number of shares of Common Stock outstanding immediately after such event (excluding any treasury shares of the Corporation). Any adjustment made pursuant to this Section 7(a) shall become effective immediately after the record date for the determination of stockholders entitled to receive such dividend or distribution and shall become effective immediately after the effective date in the case of a subdivision or combination.

(b) Fundamental Transaction. If, at any time while any shares of Class X Preferred Stock are outstanding, (i) the Corporation effects any merger or consolidation of the Corporation with or into another Person, in which the Corporation is not the survivor or the stockholders of the Corporation immediately prior to such merger or consolidation do not own, directly or indirectly, at least 50% of the voting securities of the surviving entity, (ii) the Corporation effects any sale of all or substantially all of its assets or a majority of its Common Stock is acquired by a third party, in each case, in one or a series of related transactions, (iii) any tender offer or exchange offer (whether by the Corporation or another Person) is completed pursuant to which all or substantially all of the holders of Common Stock are permitted to tender or exchange their shares for other securities, cash or property, or (iv) the Corporation effects any reclassification of the Common Stock or any compulsory share exchange pursuant to which the Common Stock is effectively converted into or exchanged for other securities, cash or property (other than as a result of a subdivision or combination of shares of Common Stock covered by Section 7(a) above) (each, a “**Fundamental Transaction**”), then (X) if the Requisite Approval has previously been obtained, each share of Class X Preferred Stock outstanding immediately prior to such Fundamental Transaction shall, without any further action of the Holders thereof, automatically convert into shares of Common Stock at the applicable Conversion Ratio, upon the effective date and time (“**Fundamental Transaction Effective Time**”) of such Fundamental Transaction, and (Y) if the Requisite Approval has not previously been obtained, then as of the Fundamental Transaction Effective Time, each outstanding share of Class X Preferred Stock shall be canceled without any further action on the part of the Corporation or the Holder thereof, and in consideration for such cancellation, each Holder shall automatically receive, for each Conversion Share that would have been issuable had such cancelled shares of Class X Preferred Stock been converted immediately prior to the occurrence of such Fundamental Transaction, the same kind and amount of securities, cash and other property receivable upon the effectiveness of such Fundamental Transaction (the “**Exchange Property**”) as it would have been entitled to receive upon the occurrence of such Fundamental Transaction if it had been, immediately prior to such Fundamental Transaction, the holder of one share of Common Stock (the “**Alternate Consideration**”). The amount of Exchange Property receivable upon any Fundamental Transaction shall be determined based upon the Conversion Ratio in effect on such Fundamental Transaction Effective Time.

If holders of Common Stock are given any choice as to the securities, cash or property to be received in a Fundamental Transaction, then the Holders shall be given the same choice as to the Alternate Consideration it receives upon any conversion of their shares of Class X Preferred Stock following such Fundamental Transaction should such shares of Class X Preferred Stock remain outstanding after such Fundamental Transaction. To the extent necessary to effectuate the foregoing provisions should any shares of Class X Preferred Stock remain outstanding after a Fundamental Transaction, any successor to the Corporation or surviving entity in such Fundamental Transaction shall file a new Certificate of Designation with the same terms and conditions and issue to the Holders new preferred stock consistent with the foregoing provisions and evidencing the Holders’ right to convert such preferred stock into Alternate Consideration. The terms of any agreement to which the Corporation is a party and pursuant to which a Fundamental Transaction is effected shall include terms requiring any such successor or surviving entity to comply with the provisions of this Section 7(b) and ensuring that the outstanding shares

of Class X Preferred Stock (or any such replacement security) will be similarly adjusted upon any subsequent transaction analogous to a Fundamental Transaction.

The Corporation (or any successor) shall, within 20 days of the Effective Time of any Fundamental Transaction, provide written notice to the Holders of the occurrence of such event and of the kind and amount of the cash, securities or other property that constitute the Exchange Property. Failure to deliver such notice shall not affect the operation of this Section 7.

The Corporation shall not enter into any agreement for a transaction constituting a Fundamental Transaction that would interfere with or prevent (as applicable) conversion of the Class X Preferred Stock into the Exchange Property in a manner that is consistent with and gives effect to this Section 7.

(c) Calculations. All calculations under this Section 7 shall be made to the nearest cent or the nearest 1/100th of a share, as the case may be. For purposes of this Section 7, the number of shares of Common Stock deemed to be issued and outstanding as of a given date shall be the number of shares of Common Stock issued and outstanding (excluding any treasury shares of the Corporation).

(d) Notice to the Holders.

(i) Adjustment to Conversion Price. Whenever the Conversion Price is adjusted pursuant to any provision of this Section 7, the Corporation shall promptly deliver to each Holder a notice setting forth the Conversion Ratio after such adjustment and setting forth a brief statement of the facts requiring such adjustment.

(ii) Other Notices. If (A) the Corporation shall declare a dividend (or any other distribution in whatever form) on the Common Stock, (B) the Corporation shall declare a special nonrecurring cash dividend on or a redemption of the Common Stock, (C) the Corporation shall authorize the granting to all holders of the Common Stock of rights or warrants to subscribe for or purchase any shares of capital stock of any class or of any rights, (D) the approval of any stockholders of the Corporation shall be required in connection with any reclassification of the Common Stock, any consolidation or merger to which the Corporation is a party, any sale or transfer of all or substantially all of the assets of the Corporation, or any compulsory share exchange whereby the Common Stock is converted into other securities, cash or property, or (E) the Corporation shall authorize the voluntary or involuntary dissolution, liquidation or winding up of the affairs of the Corporation, then, in each case, the Corporation shall cause to be filed at each office or agency maintained for the purpose of conversion of the shares of Class X Preferred Stock, and shall cause to be delivered to each Holder at its last address as it shall appear upon the stock books of the Corporation, at least 20 calendar days prior to the applicable record or effective date hereinafter specified, a notice stating (x) the date on which a record is to be taken for the purpose of such dividend, distribution, redemption, rights or warrants, or if a record is not to be taken, the date as of which the holders of the Common Stock of record to be entitled to such dividend, distributions, redemption, rights or warrants are to be determined or (y) the date on which such reclassification, consolidation,

merger, sale, transfer or share exchange is expected to become effective or close, and the date as of which it is expected that holders of the Common Stock of record shall be entitled to exchange their shares of the Common Stock for securities, cash or other property deliverable upon such reclassification, consolidation, merger, sale, transfer or share exchange, provided that the failure to deliver such notice or any defect therein or in the delivery thereof shall not affect the validity of the corporate action required to be specified in such notice. To the extent that any notice provided hereunder constitutes, or contains, material, non-public information regarding the Company or any of its subsidiaries, the Company shall simultaneously file such notice with the Commission on a Current Report on Form 8-K.

Section 8. Miscellaneous.

(a) Notices. Any and all notices or other communications or deliveries to be provided by the Holders hereunder including, without limitation, any Notice of Conversion, shall be in writing and delivered personally, by facsimile, via email, or sent by a nationally recognized overnight courier service, addressed to the Corporation, at 3545 John Hopkins Court, Suite #250, San Diego, California 92121, Attention: Nancy Krueger, Vice President, Legal Affairs, email: nkrueger@atypharma.com, with a copy (which shall not constitute notice) to: Goodwin Procter LLP, Three Embarcadero Center, 28<sup>th</sup> Floor, San Francisco, California 94111, Attention: Mitzi Chang, email: mchang@goodwinlaw.com, fax: (415) 384-6006; or such other facsimile number, email address, or mailing address as the Corporation may specify for such purposes by notice to the Holders delivered in accordance with this Section. Any and all notices or other communications or deliveries to be provided by the Corporation hereunder shall be in writing and delivered personally, by facsimile, email, or sent by a nationally recognized overnight courier service addressed to each Holder at the facsimile number, email address or mailing address of such Holder appearing on the books of the Corporation, or if no such facsimile number, email address, or mailing address appears on the books of the Corporation, at the principal place of business of such Holder. Any notice or other communication or deliveries hereunder shall be deemed given and effective on the earliest of: (i) the date of transmission, if such notice or communication is delivered via facsimile or email prior to 5:30 p.m. (New York City time) on any date, (ii) the date immediately following the date of transmission, if such notice or communication is delivered via facsimile or email between 5:30 p.m. and 11:59 p.m. (New York City time) on any date, (iii) the second Business Day following the date of mailing, if sent by nationally recognized overnight courier service, or (iv) upon actual receipt by the party to whom such notice is required to be given.

(b) Lost or Mutilated Class X Preferred Stock Certificate. If a Holder's Class X Preferred Stock certificate, if applicable, shall be mutilated, lost, stolen or destroyed, the Corporation shall execute and deliver, if requested by the Holder, in exchange and substitution for and upon cancellation of a mutilated certificate, or in lieu of or in substitution for a lost, stolen or destroyed certificate, a new certificate for the shares of Class X Preferred Stock so mutilated, lost, stolen or destroyed, but only upon receipt of evidence of such loss, theft or destruction of such certificate, and of the ownership thereof, reasonably satisfactory to the Corporation and, in each case, customary and reasonable indemnity, if requested. Applicants for a new certificate under such

circumstances shall also comply with such other reasonable regulations and procedures and pay such other reasonable third-party costs as the Corporation may prescribe.

(c) Waiver. Any waiver by the Corporation or a Holder of a breach of any provision of this Certificate of Designation shall not operate as or be construed to be a waiver of any other breach of such provision or of any breach of any other provision of this Certificate of Designation or a waiver by any other Holders. The failure of the Corporation or a Holder to insist upon strict adherence to any term of this Certificate of Designation on one or more occasions shall not be considered a waiver or deprive that party (or any other Holder) of the right thereafter to insist upon strict adherence to that term or any other term of this Certificate of Designation. Any waiver by the Corporation or a Holder must be in writing. Notwithstanding any provision in this Certificate of Designation to the contrary, any provision contained herein and any right of the Holders of Class X Preferred Stock granted hereunder may be waived as to all shares of Class X Preferred Stock (and the Holders thereof) upon the written consent of the Holders of a majority of the shares of Class X Preferred Stock then outstanding, unless a higher percentage is required by the DGCL, in which case the written consent of the Holders of not less than such higher percentage shall be required.

(d) Severability. If any provision of this Certificate of Designation is invalid, illegal or unenforceable, the balance of this Certificate of Designation shall remain in effect, and if any provision is inapplicable to any Person or circumstance, it shall nevertheless remain applicable to all other Persons and circumstances. If it shall be found that any interest or other amount deemed interest due hereunder violates the applicable law governing usury, the applicable rate of interest due hereunder shall automatically be lowered to equal the maximum rate of interest permitted under applicable law.

(e) Next Business Day. Whenever any payment or other obligation hereunder shall be due on a day other than a Business Day, such payment shall be made on the next succeeding Business Day.

(f) Headings. The headings contained herein are for convenience only, do not constitute a part of this Certificate of Designation and shall not be deemed to limit or affect any of the provisions hereof.

(g) Status of Converted Class X Preferred Stock. If any shares of Class X Preferred Stock shall be converted by the Corporation, such shares shall resume the status of authorized but unissued shares of preferred stock and shall no longer be designated as Class X Preferred Stock.

(h) Redemption by the Corporation. The Class X Preferred Stock shall not be redeemable by the Corporation.

(i) Transfer Agent, Registrar and Conversion Agent. The duly appointed transfer agent, registrar, conversion and dividend paying agent for shares of Class X Preferred Stock shall be American Stock Transfer & Trust Company, LLC (the “**Transfer Agent**”). The Corporation may, in its sole discretion, remove the Transfer Agent in accordance with the agreement between the Corporation and the Transfer Agent; *provided that* the Corporation shall appoint a successor transfer agent who shall accept such appointment prior to the effectiveness of such removal.

(j) Form. To the extent issued in certificated form, the Class X Preferred Stock shall be issued in the form of one or more definitive shares in fully registered form in substantially the form attached hereto as Exhibit A (each, a “**Class X Preferred Stock Certificate**”), which is hereby incorporated in and expressly made a part of this Certificate of Designation. Each Class X Preferred Stock Certificate shall reflect the number of shares of Class X Preferred Stock represented thereby, and may have notations, legends or endorsements required by law, stock exchange rules, agreements to which the Corporation is subject, if any, or usage (provided that any such notation, legend or endorsement is in a form acceptable to the Corporation). Each Class X Preferred Stock Certificate shall be registered in the name or names of the Person or Persons specified by the depositary in a written instrument to the registrar.

The Chairman of the Board, President or Vice President and either the Treasurer or the Secretary of the Corporation shall sign each Class X Preferred Stock Certificate for the Corporation, in accordance with the Corporation’s bylaws and applicable law, by manual or facsimile signature. If an officer whose signature is on a Class X Preferred Stock Certificate no longer holds that office at the time the Transfer Agent countersigned the Class X Preferred Stock Certificate, the Class X Preferred Stock Certificate shall be valid nevertheless. A Class X Preferred Stock Certificate shall not be valid until an authorized signatory of the Transfer Agent manually countersigns Class X Preferred Stock Certificate. Each Class X Preferred Stock Certificate shall be dated the date of its countersignature.

\*\*\*\*\*

**IN WITNESS WHEREOF**, aTyr Pharma, Inc. has caused this Certificate of Designation of Preferences, Rights and Limitations of Class X Convertible Preferred Stock to be executed by its duly authorized officer this 28<sup>th</sup> day of August, 2017.

/s/ John Blake

\_\_\_\_\_  
John Blake

Senior Vice President, Finance

ANNEX A

NOTICE OF CONVERSION

(TO BE EXECUTED BY THE REGISTERED HOLDER  
IN ORDER TO CONVERT SHARES OF CLASS X PREFERRED STOCK)

The undersigned Holder hereby irrevocably elects to convert the number of shares of Class X Preferred Stock indicated below, represented by stock certificate No(s) \_\_\_\_\_ or book entry notation (the "**Preferred Stock Certificates**"), into shares of common stock, par value \$0.001 per share (the "**Common Stock**"), of aTyr Pharma, Inc., a Delaware corporation (the "**Corporation**"), as of the date written below. If securities are to be issued in the name of a person other than the undersigned, the undersigned will pay all transfer taxes payable with respect thereto. Capitalized terms utilized but not defined herein shall have the meaning ascribed to such terms in that certain Certificate of Designation of Preferences, Rights and Limitations of Class X Convertible Preferred Stock (the "**Certificate of Designation**") filed by the Corporation with the Delaware Secretary of State on August 28, 2017.

The Holder and its Attribution Parties (as defined in the Certificate of Designation) together beneficially own an aggregate of \_\_\_\_\_ shares of Common Stock, as determined in accordance with Section 13(d) of the Securities Exchange Act of 1934, as amended, and the applicable regulations of the Securities and Exchange Commission.

Conversion calculations:

Date to Effect Conversion:

\_\_\_\_\_

Number of shares of Class X Preferred Stock owned prior to Conversion:

\_\_\_\_\_

Number of shares of Class X Preferred Stock to be Converted:

\_\_\_\_\_

Number of shares of Common Stock to be Issued:

\_\_\_\_\_

\_\_\_\_\_

Address for delivery of physical certificates:

Or

for DWAC Delivery:

DWAC Instructions:

Broker no:

Account no:

HOLDER

By:

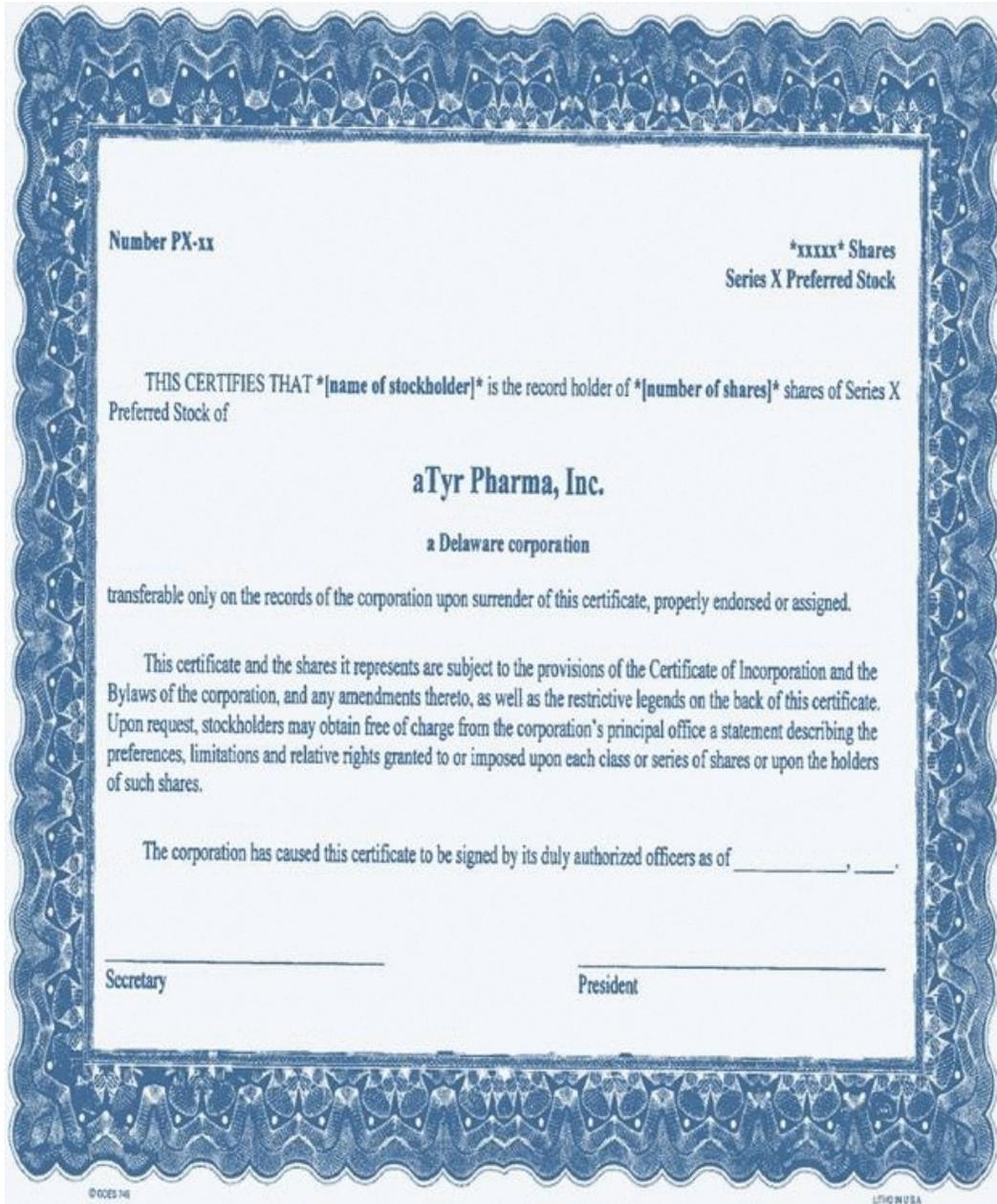
Name:

Title:

Date:

**EXHIBIT A**

**FORM OF CLASS X CONVERTIBLE PREFERRED STOCK CERTIFICATE**



Number PX-xx

\*xxxxx\* Shares  
Series X Preferred Stock

THIS CERTIFIES THAT \*[name of stockholder]\* is the record holder of \*[number of shares]\* shares of Series X Preferred Stock of

**a Tyr Pharma, Inc.**  
a Delaware corporation

transferable only on the records of the corporation upon surrender of this certificate, properly endorsed or assigned.

This certificate and the shares it represents are subject to the provisions of the Certificate of Incorporation and the Bylaws of the corporation, and any amendments thereto, as well as the restrictive legends on the back of this certificate. Upon request, stockholders may obtain free of charge from the corporation's principal office a statement describing the preferences, limitations and relative rights granted to or imposed upon each class or series of shares or upon the holders of such shares.

The corporation has caused this certificate to be signed by its duly authorized officers as of \_\_\_\_\_, \_\_\_\_\_.

\_\_\_\_\_  
Secretary

\_\_\_\_\_  
President

© 0025 146 LITHO IN U.S.A.

FOR VALUE RECEIVED \_\_\_\_\_ HEREBY SELL, ASSIGN, AND TRANSFER UNTO  
SHARES REPRESENTED BY THE WITHIN CERTIFICATE AND DO HEREBY  
IRREVOCABLY CONSTITUTE AND APPOINT \_\_\_\_\_, ATTORNEY TO TRANSFER THE SAID SHARES ON  
THE  
SHARE REGISTER OF THE WITHIN NAMED CORPORATION WITH FULL POWER OF SUBSTITUTION IN THE  
PREMISES.

DATED, \_\_\_\_\_, 20

IN PRESENCE OF

(Witness)

\_\_\_\_\_  
(Shareholder)

\_\_\_\_\_  
(Shareholder)

NOTICE: THE SIGNATURE ON THIS ASSIGNMENT MUST CORRESPOND WITH THE NAME AS WRITTEN UPON  
THE FACE  
OF THIS CERTIFICATE, IN EVERY PARTICULAR, WITHOUT ALTERATION OR ENLARGEMENT, OR ANY CHANGE  
WHATSOEVER.

NEITHER THESE SECURITIES NOR THE SECURITIES ISSUABLE UPON EXERCISE OR CONVERSION OF THESE  
SECURITIES  
HAVE BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED (THE "SECURITIES ACT"), OR  
APPLICABLE  
STATE SECURITIES LAWS. THE SECURITIES MAY NOT BE OFFERED FOR SALE, SOLD, TRANSFERRED OR  
ASSIGNED (I) IN  
THE ABSENCE OF (A) AN EFFECTIVE REGISTRATION STATEMENT FOR THE SECURITIES UNDER THE  
SECURITIES ACT OR (B)  
AN AVAILABLE EXEMPTION FROM, OR IN A TRANSACTION NOT SUBJECT TO, THE REGISTRATION  
REQUIREMENTS OF THE  
SECURITIES ACT AND IN ACCORDANCE WITH APPLICABLE STATE SECURITIES LAWS OR BLUE SKY LAWS AS  
EVIDENCED  
BY A LEGAL OPINION OF COUNSEL REASONABLY SATISFACTORY TO THE COMPANY AND ITS TRANSFER  
AGENT OR (II)  
UNLESS SOLD PURSUANT TO RULE 144 UNDER THE SECURITIES ACT.

THE CORPORATION IS AUTHORIZED TO ISSUE MORE THAN ONE CLASS OR SERIES OF STOCK. A COPY OF THE  
POWERS,  
DESIGNATIONS, PREFERENCES AND RELATIVE, PARTICIPATING, OPTIONAL, OR OTHER SPECIAL RIGHTS OF  
EACH CLASS OF  
STOCK OR SERIES THEREOF AND THE QUALIFICATIONS, LIMITATIONS OR RESTRICTIONS OF SUCH  
PREFERENCES AND/OR  
RIGHTS WILL BE FURNISHED BY THE CORPORATION TO THE HOLDER HEREOF UPON REQUEST AND  
WITHOUT CHARGE.