

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549
SCHEDULE 14C INFORMATION

Information Statement Pursuant to Section 14(c)
of the
Securities Exchange Act of 1934

Check the appropriate box:

- ☐ Preliminary Information Statement
☐ Confidential, for Use of the Commission Only (as permitted by Rule 14c-5(d)(2))
☒ Definitive Information Statement

Xenetic Biosciences, Inc.
(Name of Registrant as Specified in Its Charter)

Payment of Filing Fee (Check the appropriate box):

- ☒ No fee required.
☐ Fee computed on table below per Exchange Act Rules 14c-5(g)

- (1) Title of each class of securities to which transaction applies:
(2) Aggregate number of securities to which transaction applies:
(3) Per unit price or other underlying value of transaction computed pursuant to Exchange Act Rule 0-11 (set forth the amount on which the filing fee is calculated and state how it was determined):
(4) Proposed maximum aggregate value of transaction:
(5) Total fee paid:

- ☐ Fee paid previously with preliminary materials.
☐ Check box if any part of the fee is offset as provided by Exchange Act Rule 0-11(a)(2) and identify the filing for which the offsetting fee was paid previously. Identify the previous filing by registration statement number, or the Form or Schedule and the date of its filing.

- (1) Amount previously paid:
(2) Form, Schedule, or Registration Statement No.:
(3) Filing Party:
(4) Date Filed:
-



Xenetic Biosciences, Inc.
Ledgemont Research Ctr
Hayden Avenue
Lexington, MA 02421
United States
t 781-778-7722
e info@xeneticbio.com

May 1, 2017

NOTICE OF STOCKHOLDER ACTION BY WRITTEN CONSENT

Dear Stockholders:

The enclosed Information Statement is being furnished to the holders of record of shares of the common stock of Xenetic Biosciences, Inc., a Nevada corporation (the "Company"), as of the close of business on February 10, 2017 (the "Record Date"). The purpose of this Information Statement is to notify the Company's stockholders of actions being taken by the Company in connection with the prior receipt by the Company's Board of Directors of approval by written consent in lieu of a meeting of stockholders from the holder of a majority of the Company's voting securities of the following action.

On February 17, 2017, the Board of Directors of the Company approved a provision set forth in the Company's Second Amended and Restated Certificate of Designation for its Series B Preferred Stock (the "Series B Certificate") which provides for an adjustment in the conversion rate of the Series B Preferred Stock in certain circumstances (the "Down-Ratchet Protection"). On March 10, 2017, the Company received a written consent which adopted resolutions for the adoption, ratification and approval of a provision of the Certificate of Designation of the Series B Preferred Stock which allows for the Down-Ratchet Protection. This written consent was provided by PJSC Pharmsynthez, the record owner of 4,543,888 shares of common stock, representing 52.5% of voting power of the voting securities of the Company.

The approval of the Down-Ratchet Protection will become effective on May 22, 2017, which is the date that is twenty-one (21) calendar days after the date this Information Statement is first mailed to stockholders.

THE COMPANY IS NOT ASKING YOU FOR A PROXY AND YOU ARE REQUESTED NOT TO SEND A PROXY. Because the written consent of the holder of a majority of our voting power satisfies all applicable stockholder voting requirements, we are not asking for a consent or proxy: please do not send us one.

Only stockholders of record at the close of business on the Record Date shall be mailed or given a copy of this Information Statement. The date on which this Information Statement will be sent to stockholders will be on or about May 1, 2017.

This Information Statement is for information purposes only. All necessary corporate approvals have been obtained, and this Information Statement is furnished solely for the purpose of advising stockholders of the actions taken by written consent and giving stockholders advance notice of the actions taken. Please read it carefully.

Sincerely,

/s/ M. Scott Maguire

M. Scott Maguire

Chief Executive Officer and Chairman of the Board of Directors

**INFORMATION STATEMENT
PURSUANT TO SECTION 14(C)
OF THE SECURITIES EXCHANGE ACT OF 1934
AND RULE 14C-2 THEREUNDER**

NO VOTE OR OTHER ACTION OF THE COMPANY'S SHAREHOLDERS IS REQUIRED IN CONNECTION WITH THIS
INFORMATION STATEMENT.

**THE COMPANY IS NOT ASKING YOU FOR A PROXY AND
YOU ARE REQUESTED NOT TO SEND A PROXY.**

This Information Statement is being furnished by the Board of Directors of Xenetic Biosciences, Inc., a Nevada corporation (the "Company") to the holders of record as of the close of business on February 10, 2017 (the "Record Date") of the Company's outstanding securities to notify stockholders of the proposed action by written consent in lieu of a meeting.

On February 17, 2017, the Company's board of directors unanimously adopted resolutions for the approval of a provision of the Certificate of Designation of the Series B Preferred Stock which allows for an adjustment in the conversion rate of the Series B Preferred Stock under certain circumstances (the "Down-Ratchet Protection").

On March 10, 2017, the Company received a written consent from PJSC Pharmsynthez, a stockholder owning approximately 52.5% of the outstanding common stock of the Company as of the Record Date (the "Majority Shareholder"), which adopted, ratified and approved the Down-Ratchet Protection provision. Because a stockholder holding at least a majority of the voting power of the Company's securities has voted in favor of the foregoing action and has sufficient voting power to approve such action through its ownership of voting securities, no other votes are required or necessary to effectuate the proposed action. See the caption "Vote Required for Approval" below. Such action by the Majority Shareholder will be effective on May 22, 2017, which is the date that is twenty-one (21) calendar days after the date this Information Statement is first mailed to stockholders.

The Annual Report on Form 10-K for the year ended December 31, 2016, and any subsequent reports on Form 8-K and Form 10-Q filed by the Company during the past year with the Securities and Exchange Commission (the "SEC") may be viewed on the SEC's website at www.sec.gov. See the caption "Where You Can Find More Information" below.

DISTRIBUTION AND COSTS; DELIVERY OF DOCUMENTS TO SECURITY HOLDERS SHARING AN ADDRESS

The Company will pay all costs associated with the distribution of this Information Statement, including the costs of printing and mailing. In addition, the Company will only deliver one Information Statement to multiple security holders sharing an address, unless the Company has received contrary instructions from one or more of the security holders. Also, the Company will promptly deliver a separate copy of this Information Statement and future shareholder communication documents to any security holder at a shared address to which a single copy of this Information Statement was delivered, or deliver a single copy of this Information Statement and future shareholder communication documents to any security holder or holders sharing an address to which multiple copies are now delivered, upon written request to the Company at its address noted above.

Shareholders may also address future requests regarding delivery of information statements by contacting the Company at the address noted above.

VOTE REQUIRED FOR APPROVAL

The Board of Directors and the Majority Shareholder of the Company have adopted, ratified and approved the proposal to authorize the Down-Ratchet Protection provision of the Certificate of Designation of the Series B Preferred Stock.

DISSENTERS' RIGHT OF APPRAISAL

Under Nevada law, there are no rights of appraisal or similar rights of dissenters with respect to the approval of the Down-Ratchet Protection provision.

SHAREHOLDERS ARE URGED TO READ AND CAREFULLY CONSIDER THE INFORMATION PRESENTED IN THIS INFORMATION STATEMENT.

APPROVAL OF ADJUSTMENT IN THE CONVERSION RATE OF THE SERIES B PREFERRED STOCK

On February 17, 2017, the Board of Directors of the Company approved a provision set forth in the Company's Second Amended and Restated Certificate of Designation for its Series B Preferred Stock (the "Series B Certificate") which provides for an adjustment in the conversion rate of the Series B Preferred Stock in certain circumstances (the "Down-Ratchet Protection"). On March 10, 2017, the Majority Shareholder, who holds the requisite voting power of the Company as of the Record Date, adopted, ratified and approved the provision.

The Company currently has 2,500,000 shares of non-voting Series B Preferred Stock authorized and 2,185,742 issued and outstanding, of which the Majority Shareholder currently holds 1,454,545 non-voting shares of Series B Preferred Stock, which are convertible into 1,454,545 shares of common stock within 60 days of the Record Date.

The Series B Certificate provides that each share of Series B Preferred Stock is convertible, at any time and from time to time at the option of the holder thereof, into that number of shares of common stock of the Company determined by dividing the Stated Value (defined below) of such share of Series B Preferred Stock by the Conversion Price (defined below). The stated value of each share of Series B Preferred Stock is currently set at \$4.00 per share (the "Stated Value") and the Conversion Price for each share of Series B Preferred Stock is currently set at \$4.00 (subject to stock splits and stock dividends).

Section 7(b) of the Series B Certificate provides, that if approved by the shareholders as set forth therein ("Shareholder Approval"), then holders of Series B Preferred Stock will receive Down-Ratchet Protection with respect to such shares. "Down-Ratchet Protection" means that if, at any time while the Series B Preferred Stock is outstanding, the Company or any subsidiary of the Company, sells common stock, or securities that are convertible or exercisable into shares of common stock, at an effective price per share of common stock that is lower than the then-Conversion Price (such lower price, the "Base Conversion Price" and such issuances, collectively, a "Dilutive Issuance"), then the Conversion Price will be reduced to the Base Conversion Price. The Down-Ratchet Protection does not apply to any Dilutive Issuance that qualifies as an "Exempt Issuance" (as defined in the Series B Certificate). A copy of the Series B Certificate is included herewith as Exhibit A.

Reasons for Board Approval of the Proposal

The Down-Ratchet Protection was incorporated into the Series B Certificate as an inducement to attract investors. In connection with its review of the Company's application to list its common stock on The Nasdaq Capital Market, the Listing Qualifications Department of The Nasdaq Stock Market LLC has requested the Company to seek shareholder approval of the Down-Ratchet Protection before it becomes effective.

Effects of the Proposal

Upon approval of the proposal, holders of Series B Convertible Preferred Stock, including the Majority Shareholder, will receive Down-Ratchet Protection. If there is a Dilutive Issuance, the Conversion Price will be reduced to match the new price of common stock or securities that are convertible or exercisable into shares of common stock sold in the Dilutive Issuance. Therefore, if Down-Ratchet Protection is triggered, holders of Series B Convertible Preferred Stock will be able to convert their shares of Series B Convertible Preferred Stock into additional shares of common stock than if a Dilutive Issuance had not occurred.

Therefore, assuming a Dilutive Issuance has occurred prior to the conversion, the conversion of the Series B Convertible Preferred Stock would result in a dilutive impact on the ownership currently held by existing common stockholders due to the increase in the number of shares of common stock each share of Series B Convertible Preferred Stock is convertible into and the issuance of additional shares of common stock to the holders of Series B Convertible Preferred Stock without consideration. The ownership percentage of common stock held by individuals other than the Series B Convertible Preferred Stock holders will also decrease. In addition, where stockholders vote on as-converted basis, the holders of Series B Convertible Preferred Stock will have an increased ownership percentage over the Company's voting securities.

If Down-Ratchet Protection is triggered, the level of dilution and overall dilutive impact on the ownership currently held by existing common stockholders cannot be measured presently, but it could be material. Further, these anti-dilution provisions may affect the Company's ability to secure future equity financing.

VOTING SECURITIES AND PRINCIPAL HOLDERS THEREOF

The Company's board of directors has fixed the close of business on February 10, 2017 as the record date for the determination of the stockholders entitled to notice of the action by written consent.

As of the Record Date, the Company has no class of voting stock outstanding other than its common stock. On the Record Date, the Company had 8,652,541 shares of common stock outstanding, and each share of common stock is entitled to one vote.

On the Record Date, the Company had 970,000 shares of Series A Convertible Preferred Stock, and each share of Series A Convertible Preferred Stock is convertible, at any time and from time to time at the option of the holder thereof, with a minimum of 61 days' advance notice to the Company, into one share of common stock. No voting rights are attributable to the Series A Convertible Preferred Stock.

On the Record Date, the Company had 2,185,742 shares of Series B Convertible Preferred Stock outstanding, and each share of Series B Preferred Stock is convertible, at any time at the option of the holder thereof, into one share of common stock. No voting rights are attributable to the Series B Convertible Preferred Stock.

SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT

The following table sets forth, as of February 10, 2017, the beneficial ownership of the Company's capital stock by:

- each person known by the Company to be the beneficial owner of more than 5% of its capital stock;
- the Company's named executive officers;
- each of the Company's directors; and
- all executive officers and directors as a group.

The number of shares beneficially owned by each entity, person, director or executive officer is determined in accordance with the rules of the SEC, and the information is not necessarily indicative of beneficial ownership for any other purpose. Under such rules, beneficial ownership includes any shares over which the individual has sole or shared voting power or investment power as well as any shares that the individual has the right to acquire within 60 days through the exercise of any stock option, warrants or other rights. Except as otherwise indicated, and subject to applicable community property laws, the persons named in the table have sole voting and investment power with respect to all shares of common stock held by that person or entity.

The percentage of shares of common stock beneficially owned is calculated in accordance with Rule 13d-3(d)(1) under the Exchange Act. Shares of the Company's capital stock that a person has the right to acquire within 60 days after February 10, 2017 are deemed outstanding for purposes of computing the percentage ownership of the person or entity holding such rights, but are not deemed outstanding for purposes of computing the percentage ownership of any other person or entity, except with respect to the percentage ownership of all directors and executive officers as a group. Unless otherwise indicated below, the address for each beneficial owner listed is c/o Xenetic Biosciences, Inc., 99 Hayden Ave, Suite 230, Lexington, Massachusetts 02421.

| Name of Beneficial Owner | Number of Shares Beneficially Owned | Percentage of Outstanding Common Stock Beneficially Owned on an As- Converted Basis |
|--|--|--|
| M. Scott Maguire | 531,863 ⁽¹⁾ | 5.8% |
| Firdaus J. Dastoor | 78,788 ⁽⁵⁾ | * |
| Darlene Deptula-Hicks | 31,416 ⁽⁵⁾ | * |
| Dr. Roger Kornberg | 25,000 ⁽⁵⁾ | * |
| Jeffrey Eisenberg | 4,700 ⁽⁵⁾ | * |
| Dr. Edward Benz | 6,250 ⁽⁵⁾ | * |
| Roman Kynazev ⁽²⁾ | 25,253 ⁽⁵⁾ | * |
| All executive officers and directors as a group | 703,270 ⁽¹⁰⁾ | 7.6 |
| PJSC Pharmsynthez ⁽²⁾ | 8,463,081 ⁽³⁾ | 67.3% |
| SynBio LLC | 821,567 ⁽⁴⁾ | 9.5% |
| Serum Institute of India Private Limited | 842,519 ⁽⁶⁾ | 9.5% |
| OPKO Health, Inc. ⁽⁷⁾ | 794,063 ⁽⁸⁾ | 8.7% |
| Alpha Capital | 738,011 ⁽⁹⁾ | 7.9% |

- (1) The total beneficial ownership consists of (i) 73,953 shares of common stock owned directly or through nominee trusts, (ii) 264,124 JSOP award shares and (iii) 193,786 shares issuable upon exercise of warrants and options that are exercisable within 60 days of February 10, 2017.
- (2) Mr. Knyazev, one of our directors, is the Deputy Chairman of the Board of Directors of Pharmsynthez.
- (3) Consists of (i) 4,543,888 shares of common stock owned directly, (ii) 1,454,545 shares of Series B Convertible Preferred Stock and (iii) 2,464,648 shares issuable upon exercise of warrants that are exercisable within 60 days of February 10, 2017. After the Record Date, Pharmsynthez acquired 100% of the equity interests of our stockholder SynBio LLC. The address of PJSC Pharmsynthez is Office Center IT Park, 25 Liter ZH, Krasnogo Kursanta ul., St. Petersburg, 197110, Russia.
- (4) Consists of 821,567 shares of common stock owned directly including 145,455 held in escrow. After the Record Date, Pharmsynthez acquired 100% of the equity interests of our stockholder SynBio LLC. The address of SynBio LLC is Building 2, 55/1, Leninsky Prospekt, Moscow, Russian Federation.
- (5) Consists of shares issuable upon exercise of options and warrants that are exercisable within 60 days of February 10, 2017.
- (6) Consists of (i) 630,396 shares of common stock owned directly and indirectly by related affiliates of Serum Institute of India Private Limited and (ii) 212,123 shares issuable upon exercise of warrants that are exercisable within 60 days of February 10, 2017. The address of Serum Institute of India is S. No. 212/2, Off Soli Poonawalla Road, Hadapsar, Pune, 411028, Maharashtra, India.
- (7) OPKO Health acquired a significant ownership position in PJSC Pharmsynthez in 2013. By virtue of such relationship, OPKO Health may be deemed to have voting and investment power with respect to the shares held by Pharmsynthez noted above and as a result may be deemed to have beneficial ownership over such shares.
- (8) Consists of 309,215 shares of common stock owned directly and (ii) 484,848 shares of Series B Convertible Stock. The address of OPKO Health Inc. is 4400 Biscayne Boulevard, Miami, FL 33137.
- (9) Consists of (i) 6,815 shares of common stock owned directly, (ii) 246,348 shares of Series B Convertible Stock and (iii) 484,848 shares issuable upon exercise of warrants that are exercisable within 60 days of February 10, 2017. The address of Alpha Capital is 510 Madison Ave 14th Floor, New York, NY 10022.
- (10) Consists of (i) 73,953 shares of common stock owned directly or through nominee trusts, (ii) 264,124 JSOP award shares and (iii) 365,193 shares issuable upon exercise of options and warrants that are exercisable within 60 days of February 10, 2017.

INTEREST OF CERTAIN PERSONS IN MATTERS TO BE ACTED UPON

Other than provided herein, no director, executive officer or associate of any director or executive officer has any substantial interest, direct or indirect, by security holdings or otherwise, in the matter consented by the Majority Shareholder, other than in their role as director or officer. Mr. Roman Knyazev, one of our directors, is the Deputy Chairman of the Board of Directors of the Majority Shareholder, but disclaims beneficial ownership over the securities held by the Majority Shareholder.

As of the record date, the Majority Shareholder had beneficial ownership of approximately 67.3% of the Company, consisting of (i) 4,543,888 shares of common stock, (ii) 1,454,545 shares of non-voting Series B Convertible Preferred Stock, which is convertible into 1,454,545 shares of common stock within 60 days of February 10, 2017, and (iii) 2,464,648 shares issuable upon exercise of warrants that are exercisable within 60 days of February 10, 2017. After the Record Date, the Majority Shareholder acquired 100% of the equity interests of our stockholder SynBio LLC, which as of the Record Date had beneficial ownership of approximately 9.5% of the Company consisting of 821,567 shares of common stock. The action will not affect the current beneficial ownership of the Majority Shareholder. However, if a Dilutive Issuance occurs, pursuant to the Down-Ratchet Protection provision set forth in the Series B Certificate, then the Conversion Price of the Series B Convertible Preferred Stock will be reduced. Holders of Series B Convertible Preferred Stock, including the Majority Shareholder, will be able to convert their shares of Series B Convertible Preferred Stock into additional shares of common stock than if a Dilutive Issuance had not occurred. Therefore, assuming a Dilutive Issuance has occurred prior to the conversion, the conversion of the Series B Convertible Preferred Stock would result in a dilutive impact on the ownership currently held by existing common stockholders due to the issuance of additional shares of common stock.

FINANCIAL AND OTHER INFORMATION

The Company has prepared and filed its Annual Report on Form 10-K for the fiscal year ended December 31, 2016 with the Securities and Exchange Commission on March 31, 2017.

WHERE YOU CAN FIND MORE INFORMATION

The Company is subject to the reporting and informational requirements of the Securities Exchange Act of 1934, as amended, and, in accordance therewith, files periodic reports and other information with the SEC. You can read and copy (at prescribed rates) any materials that the Company files with the SEC at the SEC's Public Reference Room at 100 F Street, N.E., Washington, D.C., 20549. You can obtain information about the operation of the SEC's Public Reference Room by calling the SEC at 1-800-SEC-0330. The Company's SEC filings are also available to you on the SEC's website at www.sec.gov and in the Investors section of the Company's website at www.xeneticbio.com. The Company's website and the information contained on that site, or connected to that site, are not incorporated into and are not a part of this Information Statement.

FORWARD-LOOKING STATEMENTS

This Information Statement includes "forward-looking statements" within the meaning of the Private Securities Litigation Reform Act of 1995, which may be identified by their use of terms and phrases such as "anticipate," "believe," "continue," "estimate," "expect," "intend," "may," "will" and other similar terms and phrases, and may include but are not limited to, the statements regarding the Company's ability to secure future equity financing and the impact of the Down-Ratchet Protection provision on the beneficial ownership of existing common stockholders.

These statements reflect the Company's current views with respect to future events, and are subject to certain risks, uncertainties, and assumptions. The Company does not undertake any obligation to update the forward-looking statements contained in this Information Statement to reflect actual results, changes in assumptions, or changes in other factors affecting these forward-looking statements.

OTHER MATTERS

The Board knows of no other matters other than those described in this Information Statement which have been reapproved or considered by the holders of a majority of the shares of the Company's voting stock.

IF YOU HAVE ANY QUESTIONS REGARDING THIS INFORMATION STATEMENT, PLEASE CONTACT:

XENETIC BIOSCIENCES, INC.

99 Hayden Avenue, Suite 230

Lexington, MA 02421

United States

t 781-778-7720

e info@xeneticbio.com

By Order of the Board of Directors,

/s/ M. Scott Maguire

M. Scott Maguire

Chief Executive Officer and Chairman of the Board of Directors

May 1, 2017

**SCHEDULE 14C INFORMATION
EXHIBIT A**

Second Amended and Restated Certificate of Designation for its Series B Preferred Stock

SECOND AMENDED AND RESTATED CERTIFICATE OF DESIGNATION

OF

Xenetic Biosciences, Inc.

Pursuant to Section 78.1955 of the

Nevada Revised Statutes

SERIES B PREFERRED STOCK

On behalf of **Xenetic Biosciences, Inc.**, a Nevada corporation (the “Corporation”), the undersigned hereby certifies that the following resolution has been duly adopted by the board of directors of the Corporation (the “Board”):

RESOLVED, that, pursuant to the authority granted to and vested in the Board by the provisions of the articles of incorporation of the Corporation (the “Articles of Incorporation”), there hereby is created, out of the ten million (10,000,000) shares of preferred stock, par value \$.001 per share, of the Corporation authorized by Article III of the Articles of Incorporation (“Preferred Stock”), Series B-1 Preferred Stock, consisting of Two Million Five Hundred Thousand (2,500,000) shares, which series shall have the following powers, designations, preferences and relative participating, optional and other special rights, and the following qualifications, limitations and restrictions:

The specific powers, preferences, rights and limitations of the Series B Preferred Stock are as follows:

TERMS OF PREFERRED STOCK

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

“Affiliate” means any Person that, directly or indirectly through one or more intermediaries, controls or is controlled by or is under common control with a Person, as such terms are used in and construed under Rule 405 of the Securities Act.

“Alternate Consideration” shall have the meaning set forth in Section 7(e).

“Attribution Parties” shall have the meaning set forth in Section 6(d).

“Base Conversion Price” shall have the meaning set forth in Section 7(b).

“Beneficial Ownership Limitation” shall have the meaning set forth in Section 6(d).

“Business Day” means any day except any Saturday, any Sunday, any day which is 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.

“Buy-In” shall have the meaning set forth in Section 6(c)(iv).

“Certificate of Designation” means this Amended and Restated Certificate of Designation for Series B Preferred Stock of the Corporation.

“Change of Control Transaction” means the occurrence after the date hereof of any of (a) an acquisition after the date hereof by an individual or legal entity or “group” (as described in Rule 13d-5(b)(1) promulgated under the Exchange Act) of effective control (whether through legal or beneficial ownership of capital stock of the Corporation, by contract or otherwise) of in excess of 33% of the voting securities of the Corporation (other than by means of conversion or exercise of (i) Preferred Stock and the Securities issued together with the Preferred Stock, or (ii) Series A Preferred Stock and the Securities issued together with the Series A Preferred Stock), (b) the Corporation merges into or consolidates with any other Person, or any Person merges into or consolidates with the Corporation and, after giving effect to such transaction, the stockholders of the Corporation immediately prior to such transaction own less than 66% of the aggregate voting power of the Corporation or the successor entity of such transaction, (c) the Corporation sells or transfers all or substantially all of its assets to another Person and the stockholders of the Corporation immediately prior to such transaction own less than 66% of the aggregate voting power of the acquiring entity immediately after the transaction, (d) a replacement at one time or within a six-month period of more than one-half of the members of the Board of Directors which is not approved by a majority of those individuals who are members of the Board of Directors on the Original Issue Date (or by those individuals who are serving as members of the Board of Directors on any date whose nomination to the Board of Directors was approved by a majority of the members of the Board of Directors who are members on the Original Issue Date), or (e) the execution by the Corporation of an agreement to which the Corporation is a party or by which it is bound, providing for any of the events set forth in clauses (a) through (d) above. For clarity, the acquisition of further voting securities of the Corporation by PJSC Pharmsynthez or one of its Attribution Parties shall not be considered a Change of Control.

“Commission” means the United States Securities and Exchange Commission.

“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 or changed.

“Common Stock Equivalents” means any securities of the Corporation or the Subsidiaries which would entitle the holder thereof to acquire at any time Common Stock, including, without limitation, any debt, preferred stock, rights, options, warrants or other instrument that is at any time convertible into or exercisable or exchangeable for, or otherwise entitles the holder thereof to receive, Common Stock.

“Conversion Amount” means the sum of the Stated Value at issue.

“Conversion Date” shall have the meaning set forth in Section 6(a).

“Conversion Price” shall have the meaning set forth in Section 6(b).

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

“Dilutive Issuance” shall have the meaning set forth in Section 7(b).

“Dilutive Issuance Notice” shall have the meaning set forth in Section 7(b).

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

“Exempt Issuance” means the issuance of (a) shares of Common Stock or options to employees, officers or directors of the Corporation pursuant to any stock or option plan duly adopted by a majority of the non-employee members of the Board of Directors of the Corporation or a majority of the members of a committee of non-employee directors established for such purpose, (b) securities upon the exercise or exchange of or conversion of any securities issued and outstanding on the date hereof, provided that such securities have not been amended since the date hereof to increase the number of such securities or to decrease the exercise price, exchange price or conversion price of any such securities, (c) securities issued pursuant to acquisitions or strategic transactions or provision of services approved by a majority of the disinterested directors of the Corporation, provided that any such issuance shall only be to a Person (or to the equityholders of a Person) which is, itself or through its subsidiaries, an operating company or an asset in a business synergistic with the business of the Corporation or for delivery of services and shall provide to the Corporation additional benefits in addition to the investment of funds, but shall not include a transaction in which the Corporation is issuing securities primarily for the purpose of raising capital or to an entity whose primary business is investing in securities. With respect to any providers of services under this clause (c), such issuances shall be limited to no more than 100,000 shares of Common Stock in the aggregate in any rolling 12-month period (adjusted for any subsequent stock splits, reverse splits and similar capital adjustments)

“Fundamental Transaction” shall have the meaning set forth in Section 7(e).

“GAAP” means United States generally accepted accounting principles.

“Holder” shall have the meaning given such term in Section 2.

“Issuable Maximum” shall have the meaning set forth in Section 6(e).

“Junior Securities” means the Common Stock and all other Common Stock Equivalents of the Corporation other than those securities which are explicitly senior or pari passu to the Preferred Stock in dividend rights or liquidation preference.

“Liquidation” shall have the meaning set forth in Section 5.

“New York Courts” shall have the meaning set forth in Section 11(d).

“Notice of Conversion” shall have the meaning set forth in Section 6(a).

“Original Issue Date” means the date of the first issuance of any shares of the Preferred Stock regardless of the number of transfers of any particular shares of Preferred Stock and regardless of the number of certificates which may be issued to evidence such Preferred Stock.

“Person” means an 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.

“Preferred Stock” shall have the meaning set forth in Section 2.

“Prospectus” means that certain final prospectus filed with the Commission as part of the Registration Statement.

“Registration Statement” means that certain Registration Statement (file no. 333-211249) filed with the Commission pursuant to which the Corporation registered the sale of shares of Preferred Stock to the Holders.

“Securities” means, as it relates to Preferred Stock, the Preferred Stock, the Warrants, the Warrant Shares and the Underlying Shares, and as it relates to the Series A Preferred Stock, the Series A Preferred Stock, the warrants issued to the holders of the Series A Preferred Stock in connection with the issuance of the Series A Preferred Stock (the “Series A Preferred Stock Warrants”) and the Common Stock underlying the Series A Preferred Stock Warrants.

“Securities Act” means the Securities Act of 1933, as amended, and the rules and regulations promulgated thereunder.

“Series A Preferred Stock” means the Series A Preferred Stock of the Company issued and outstanding as of the Original Issue Date.

“Share Delivery Date” shall have the meaning set forth in Section 6(c).

“Stated Value” shall have the meaning set forth in Section 2, as the same may be increased pursuant to Section 3.

“Shareholder Approval” means such approval as may be required by the applicable rules and regulations of the Nasdaq Stock Market (or any successor entity) to render the Issuable Maximum inapplicable to conversions of the Preferred Stock and the Conversion Price adjustments of Section 7(b) hereof operative.

“Subsidiary” means any direct or indirect subsidiary of the Corporation.

“Successor Entity” shall have the meaning set forth in Section 7(e).

“Trading Day” means a day on which the principal Trading Market is open for business.

“Trading Market” means any of the following markets or exchanges on which the Common Stock is listed or quoted for trading on the date in question: the NYSE MKT, the Nasdaq Capital Market, the Nasdaq Global Market, the Nasdaq Global Select Market, the New York Stock Exchange, (or any successors to any of the foregoing).

“Transfer Agent” means Empire Stock Transfer, Inc., the current transfer agent of the Corporation with a mailing address of 1859 Whitney Mesa Drive, Henderson, Nevada 89014 and a telephone number of 702-818-5898, and any successor transfer agent of the Corporation.

“Underlying Shares” means the shares of Common Stock issued and issuable upon conversion of the Preferred Stock, upon exercise of the Warrants and issued and issuable in lieu of the cash payment of dividends on the Preferred Stock in accordance with the terms of this Certificate of Designation.

“Voting Agreement” means the existing written agreement of PJSC Pharmsynthez to vote all Common Stock over which such Persons have voting control as of the record date for the meeting of stockholders of the Corporation in favor of Shareholder Approval, amounting to, in the aggregate, at least 52% of the issued and outstanding Common Stock as of the Original Issue Date.

“Warrants” means, collectively, the Common Stock purchase warrants delivered to the Holder attached as an exhibit to the Registration Statement.

“Warrant Shares” means the shares of Common Stock issuable upon exercise of the Warrants.

Section 2. Designation, Amount and Par Value. The series of preferred stock shall be designated as its Series B Convertible Preferred Stock (the “Preferred Stock”) and the number of shares so designated shall be up to 2,500,000 (which shall not be subject to increase without the written consent of all of the holders of the Preferred Stock (each, a “Holder” and collectively, the “Holders”). Each share of Preferred Stock shall have a par value of \$0.001 per share and a stated value equal to \$4.00, subject to increase set forth in Section 3 below (the “Stated Value”). The Series B Preferred Stock shall, with respect to dividend rights and rights on liquidation, winding up and dissolution, rank senior to the Common Stock, and all classes and series of stock of the Corporation now authorized, issued or outstanding, including the Series A Preferred Stock (collectively, “Junior Securities”).

Section 3. Dividends.

a) Dividends. The holders of Series B Preferred Stock shall be entitled to receive such dividends as would have been received by the Holders with respect to the shares of Common Stock had such shares of Series B Preferred Stock then been converted to Common Stock (“Dividends”), whenever funds are legally available, and when and as declared by the Board of Directors. Dividends on the Series B Preferred Stock will be distributed ratably among the Holders and in preference to dividends paid on any Junior Securities. Dividends on the Series B Preferred Stock are not cumulative and will accrue only if declared by the Board.

b) Other Securities. So long as any Preferred Stock shall remain outstanding, neither the Corporation nor any Subsidiary thereof shall directly or indirectly pay or declare any dividend or make any distribution upon, nor shall any distribution be made in respect of, any Junior Securities as long as any dividends due on the Preferred Stock remain unpaid, nor shall any monies be set aside for or applied to the purchase or redemption (through a sinking fund or otherwise) of any Junior Securities or shares pari passu with the Preferred Stock.

Section 4. Voting Rights. Except as otherwise provided herein or as otherwise required by law, the Preferred Stock shall have no voting rights. However, as long as any shares of Preferred Stock are outstanding, the Corporation shall not, without the affirmative vote of the Holders of all of the then outstanding shares of the Preferred Stock, (a) alter or change adversely the powers, preferences or rights given to the Preferred Stock or alter or amend this Certificate of Designation, (b) authorize or create any class of stock ranking as to dividends, redemption or distribution of assets upon a Liquidation (as defined in Section 5) senior to, or otherwise pari passu with, the Preferred Stock, (c) amend its certificate of incorporation or other charter documents in any manner that adversely affects any rights of the Holders, (d) increase the number of authorized shares of Preferred Stock, or (e) 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 Holders shall be entitled to receive out of the assets, whether capital or surplus, of the Corporation an amount equal to the Stated Value, plus any accrued and unpaid dividends thereon and any other fees or liquidated damages then due and owing thereon under this Certificate of Designation, for each share of Preferred Stock before any distribution or payment shall be made to the holders of any Junior Securities, and if the assets of the Corporation shall be insufficient to pay in full such amounts, then the entire assets to be distributed to the Holders shall be ratably distributed among the Holders in accordance with the respective amounts that would be payable on such shares if all amounts payable thereon were paid in full. A Fundamental Transaction or Change of Control Transaction shall be deemed a Liquidation. The Corporation shall give each Holder of Series B Preferred Stock written notice of any Liquidation not later than thirty (30) days prior to any meeting of stockholders to approve such Liquidation or, if no meeting is to be held, not later than forty-five (45) days prior to the date of such Liquidation.

Section 6. Conversion.

a) Conversions at Option of Holder. Each share of Preferred Stock shall be convertible, at any time and from time to time from and after the Original Issue Date at the option of the Holder thereof, into that number of shares of Common Stock (subject to the limitations set forth in Section 6(d) and Section 6(e)) determined by dividing the Stated Value of such share of Preferred Stock by the Conversion Price. Holders shall effect conversions by providing the Corporation with the form of conversion notice attached hereto as Annex A (a “Notice of Conversion”). Each Notice of Conversion shall specify the number of shares of Preferred Stock to be converted, the number of shares of Preferred Stock owned prior to the conversion at issue, the number of shares of Preferred Stock owned subsequent to the conversion at issue and the date on which such conversion is to be effected, which date may not be prior to the date the applicable Holder delivers by facsimile such Notice of Conversion to the Corporation (such date, the “Conversion Date”). If no Conversion Date is specified in a Notice of Conversion, the Conversion Date shall be the date that such Notice of Conversion to the Corporation is deemed delivered hereunder. No ink-original Notice of Conversion shall be required, nor shall any medallion guarantee (or other type of guarantee or notarization) of any Notice of Conversion form be required. The calculations and entries set forth in the Notice of Conversion shall control in the absence of manifest or mathematical error. To effect conversions of shares of Preferred Stock, a Holder shall not be required to surrender the certificate(s) representing the shares of Preferred Stock to the Corporation unless all of the shares of Preferred Stock represented thereby are so converted, in which case such Holder shall deliver the certificate representing such shares of Preferred Stock promptly following the Conversion Date at issue. Shares of Preferred Stock converted into Common Stock or redeemed in accordance with the terms hereof shall be canceled and shall not be reissued.

b) Conversion Price. The conversion price for the Preferred Stock shall equal **\$4.00**, subject to adjustment herein (the “Conversion Price”).

c) Mechanics of Conversion

i. Delivery of Conversion Shares Upon Conversion. Not later than the earlier of (i) three (3) Trading Days and (ii) the number of Trading Days comprising the Standard Settlement Period (as defined below) after each Conversion Date (the “Share Delivery Date”), the Corporation shall deliver, or cause to be delivered, to the converting Holder (A) the number of Conversion Shares being acquired upon the conversion of the Preferred Stock, which Conversion Shares shall be free of restrictive legends and trading restrictions and (B) a bank check in the amount of accrued and unpaid dividends. The Corporation shall deliver the Conversion Shares electronically through the Depository Trust Company or another established clearing corporation performing similar functions. As used herein, “Standard Settlement Period” means the standard settlement period, expressed in a number of Trading Days, on the Corporation’s primary Trading Market with respect to the Common Stock as in effect on the date of delivery of the Notice of Conversion.

ii. Failure to Deliver Conversion Shares. If, in the case of any Notice of Conversion, such Conversion Shares are not delivered to or as directed by the applicable Holder by the Share Delivery Date, the Holder shall be entitled to elect by written notice to the Corporation at any time on or before its receipt of such Conversion Shares, to rescind such Conversion, in which event the Corporation shall promptly return to the Holder any original Preferred Stock certificate delivered to the Corporation and the Holder shall promptly return to the Corporation the Conversion Shares issued to such Holder pursuant to the rescinded Notice of Conversion.

iii. Obligation Absolute: Partial Liquidated Damages. The Corporation’s obligation to issue and deliver the Conversion Shares upon conversion of 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; provided, however, that such delivery shall not operate as a waiver by the Corporation of any such action that the Corporation may have against such Holder. In the event a Holder shall elect to convert any or all of the Stated Value of its Preferred Stock, the Corporation may not refuse conversion based on any claim that such Holder or any one 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 Preferred Stock of such Holder shall have been sought and obtained, and the Corporation posts a surety bond for the benefit of such Holder in the amount of 150% of the Stated Value of Preferred Stock which is subject to the 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 issue Conversion Shares and, if applicable, cash, upon a properly noticed conversion. If the Corporation fails to deliver to a Holder such Conversion Shares pursuant to Section 6(c)(i) by the Share Delivery Date applicable to such conversion, the Corporation shall pay to such Holder, in cash, as liquidated damages and not as a penalty, for each \$5,000 of Stated Value of Preferred Stock being converted, \$50 per Trading Day (increasing to \$100 per Trading Day on the third Trading Day and increasing to \$200 per Trading Day on the sixth Trading Day after such damages begin to accrue) for each Trading Day after the Share Delivery Date until such Conversion Shares are delivered or Holder rescinds such conversion. Nothing herein shall limit a Holder’s right to pursue actual damages or declare a Triggering Event pursuant to Section 10 hereof 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. 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.

iv. Compensation for Buy-In on Failure to Timely Deliver Conversion Shares Upon Conversion. In addition to any other rights available to the Holder, if the Corporation fails for any reason to deliver to a Holder the applicable Conversion Shares by the Share Delivery Date pursuant to Section 6(c)(i), and if after such Share Delivery Date such Holder is required by its brokerage firm to purchase (in an open market transaction or otherwise), or the Holder's brokerage firm otherwise purchases, shares of Common Stock to deliver in satisfaction of a sale by such Holder of the Conversion Shares which such Holder was entitled to receive upon the conversion relating to such Share Delivery Date (a "Buy-In"), then the Corporation shall (A) pay in cash to such Holder (in addition to any other remedies available to or elected by such Holder) the amount, if any, by which (x) such Holder's total purchase price (including any brokerage commissions) for the Common Stock so purchased exceeds (y) the product of (1) the aggregate number of shares of Common Stock that such Holder was entitled to receive from the conversion at issue multiplied by (2) the actual sale price at which the sell order giving rise to such purchase obligation was executed (including any brokerage commissions) and (B) at the option of such Holder, either reissue (if surrendered) the shares of Preferred Stock equal to the number of shares of Preferred Stock submitted for conversion (in which case, such conversion shall be deemed rescinded) or deliver to such Holder the number of shares of Common Stock that would have been issued if the Corporation had timely complied with its delivery requirements under Section 6(c)(i). For example, if a Holder purchases shares of Common Stock having a total purchase price of \$11,000 to cover a Buy-In with respect to an attempted conversion of shares of Preferred Stock with respect to which the actual sale price of the Conversion Shares (including any brokerage commissions) giving rise to such purchase obligation was a total of \$10,000 under clause (A) of the immediately preceding sentence, the Corporation shall be required to pay such Holder \$1,000. The Holder shall provide the Corporation written notice indicating the amounts payable to such Holder in respect of the Buy-In and, upon request of the Corporation, evidence of the amount of such loss. Nothing herein shall limit a Holder's right to pursue any other remedies available to it hereunder, at law or in equity including, without limitation, a decree of specific performance and/or injunctive relief with respect to the Corporation's failure to timely deliver the Conversion Shares upon conversion of the shares of Preferred Stock as required pursuant to the terms hereof.

v. 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 Preferred Stock and payment of dividends on the Preferred Stock, each as herein provided, free from preemptive rights or any other actual contingent purchase rights of Persons other than the Holder (and the other holders of the Preferred Stock), not less than such aggregate number of shares of the Common Stock as shall be issuable (taking into account the adjustments and restrictions of Section 7) upon the conversion of the then outstanding shares of Preferred Stock and payment of dividends hereunder. 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 nonassessable.

vi. Fractional Shares. No fractional shares or scrip representing fractional shares shall be issued upon the conversion of the Preferred Stock. As to any fraction of a share which the Holder would otherwise be entitled to purchase upon such conversion, the Corporation shall at its election, either pay a cash adjustment in respect of such final fraction in an amount equal to such fraction multiplied by the Conversion Price or round up to the next whole share.

vii. Transfer Taxes and Expenses. The issuance of Conversion Shares on conversion of this 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 Conversion Shares, 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 Conversion Shares upon conversion in a name other than that of the Holders of such shares of Preferred Stock and the Corporation shall not be required to issue or deliver such Conversion Shares 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. The Corporation shall pay all Transfer Agent fees required for same-day processing of any Notice of Conversion and all fees to the Depository Trust Company (or another established clearing corporation performing similar functions) required for same-day electronic delivery of the Conversion Shares.

d) Beneficial Ownership Limitation. The Corporation shall not effect any conversion of the Preferred Stock, and a Holder shall not have the right to convert any portion of the Preferred Stock, to the extent that, after giving effect to the conversion set forth on the applicable Notice of Conversion, such Holder (together with such Holder's Affiliates, and any Persons acting as a group together with such Holder or any of such Holder's Affiliates (such Persons, "Attribution Parties")) would beneficially own in excess of the Beneficial Ownership Limitation (as defined below), unless such Attribution Parties beneficially owned in excess of the Beneficial Ownership Limitation prior to such conversion. For purposes of the foregoing sentence, the number of shares of Common Stock beneficially owned by such Holder and its Affiliates and Attribution Parties shall include the number of shares of Common Stock issuable upon conversion of the Preferred Stock with respect to which such determination is being made, but shall exclude the number of shares of Common Stock which are issuable upon (i) conversion of the remaining, unconverted Stated Value of Preferred Stock beneficially owned by such Holder or any of its Affiliates or Attribution Parties and (ii) exercise or conversion of the unexercised or unconverted portion of any other securities of the Corporation subject to a limitation on conversion or exercise analogous to the limitation contained herein (including, without limitation, the Preferred Stock or the Warrants) beneficially owned by such Holder or any of its Affiliates or Attribution Parties. Except as set forth in the preceding sentence, for purposes of this Section 6(d), beneficial ownership shall be calculated in accordance with Section 13(d) of the Exchange Act and the rules and regulations promulgated thereunder. To the extent that the limitation contained in this Section 6(d) applies, the determination of whether the Preferred Stock is convertible (in relation to other securities owned by such Holder together with any Affiliates and Attribution Parties) and of how many shares of Preferred Stock are convertible shall be in the sole discretion of such Holder, and the submission of a Notice of Conversion shall be deemed to be such Holder's determination of whether the shares of Preferred Stock may be converted (in relation to other securities owned by such Holder together with any Affiliates and Attribution Parties) and how many shares of the Preferred Stock are convertible, in each case subject to the Beneficial Ownership Limitation. To ensure compliance with this restriction, each Holder will be deemed to represent to the Corporation each time it delivers a Notice of Conversion that such Notice of Conversion has not violated the restrictions set forth in this paragraph and the Corporation shall have no obligation to verify or confirm the accuracy of such determination. In addition, a determination as to any group status as contemplated above shall be determined in accordance with Section 13(d) of the Exchange Act and the rules and regulations promulgated thereunder. For purposes of this Section 6(d), in determining the number of outstanding shares of Common Stock, a Holder may rely on the number of outstanding shares of Common Stock as stated in the most recent of the following: (i) the Corporation's most recent periodic or annual report filed with the Commission, as the case may be, (ii) a more recent public announcement by the Corporation or (iii) a more recent written notice by the Corporation or the Transfer Agent setting forth the number of shares of Common Stock outstanding. Upon the written or oral request of a Holder, the Corporation shall within two Trading Days confirm orally and in writing to such Holder the number of shares of Common Stock then outstanding. In any case, the number of outstanding shares of Common Stock shall be determined after giving effect to the conversion or exercise of securities of the Corporation, including the Preferred Stock, by such Holder or its Affiliates or Attribution Parties since the date as of which such number of outstanding shares of Common Stock was reported. The "Beneficial Ownership Limitation" shall be 4.99% of the number of shares of the Common Stock outstanding immediately after giving effect to the issuance of shares of Common Stock issuable upon conversion of Preferred Stock held by the applicable Holder. A Holder, upon notice to the Corporation, may increase or decrease the Beneficial Ownership Limitation provisions of this Section 6(d) applicable to its Preferred Stock provided that the Beneficial Ownership Limitation in no event exceeds 9.99% of the number of shares of the Common Stock outstanding immediately after giving effect to the issuance of shares of Common Stock upon conversion of this Preferred Stock held by the Holder and the provisions of this Section 6(d) shall continue to apply. Any such increase in the Beneficial Ownership Limitation will not be effective until the 61st day after such notice is delivered to the Corporation and shall only apply to such Holder and no other Holder. The provisions of this paragraph shall be construed and implemented in a manner otherwise than in strict conformity with the terms of this Section 6(d) to correct this paragraph (or any portion hereof) which may be defective or inconsistent with the intended Beneficial Ownership Limitation contained herein or to make changes or supplements necessary or desirable to properly give effect to such limitation. The limitations contained in this paragraph shall apply to a successor holder of Preferred Stock.

e) Issuance Limitations. Notwithstanding anything herein to the contrary, if the Corporation has not obtained Shareholder Approval, then the Corporation may not issue, upon conversion of the Preferred Stock, a number of shares of Common Stock which, when aggregated with any shares of Common Stock issued on or after the Original Issue Date and prior to such Conversion Date (i) in connection with any conversion of Preferred Stock issued pursuant to the Registration Statement, (ii) in connection with the exercise of any Warrants issued pursuant to the Registration Statement and (iii) in connection with the exercise of any warrants issued to any registered broker-dealer as a fee in connection with the issuance of the Securities pursuant to the Registration Statement, would exceed 9,024,872 shares of Common Stock (subject to adjustment for forward and reverse stock splits, recapitalizations and the like) (such number of shares, the “Issuable Maximum”). Each Holder shall be entitled to a portion of the Issuable Maximum equal to the quotient obtained by dividing (x) the original Stated Value of such Holder’s Preferred Stock by (y) the aggregate Stated Value of all Preferred Stock issued on the Original Issue Date to all Holders. In addition, each Holder may allocate its pro-rata portion of the Issuable Maximum among Preferred Stock and Warrants held by it in its sole discretion. Such portion shall be adjusted upward ratably in the event a Holder no longer holds any Preferred Stock or Warrants and the amount of shares issued to such Holder pursuant to such Holder’s Preferred Stock and Warrants was less than such Holder’s pro-rata share of the Issuable Maximum. For avoidance of doubt, unless and until any required Shareholder Approval is obtained and effective, warrants issued to any registered broker-dealer as a fee in connection with the Securities issued pursuant to the Registration Statement as described in clause (iii) above shall provide that such warrants shall not be allocated any portion of the Issuable Maximum and shall be unexercisable unless and until such Shareholder Approval is obtained and effective.

Section 7. Certain Adjustments.

a) Stock Dividends and Stock Splits. If the Corporation, at any time while this Preferred Stock is outstanding: (i) pays a stock dividend or otherwise makes a distribution or distributions payable in shares of Common Stock on shares of Common Stock or any other Common Stock Equivalents (which, for avoidance of doubt, shall not include any shares of Common Stock issued by the Corporation upon conversion of, or payment of a dividend on, this Preferred Stock), (ii) subdivides outstanding shares of Common Stock into a larger number of shares, (iii) combines (including by way of a reverse stock split) outstanding shares of Common Stock into a smaller number of shares, or (iv) issues, in the event of a reclassification of shares of the Common Stock, any shares of capital stock of the Corporation, 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. 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, combination or re-classification.

b) Subsequent Equity Sales. Subject to the Corporation's receipt of Shareholder Approval, if, at any time while this Preferred Stock is outstanding, the Corporation or any Subsidiary, as applicable sells or grants any option to purchase or sells or grants any right to reprice, or otherwise disposes of or issues (or announces any sale, grant or any option to purchase or other disposition), any Common Stock or Common Stock Equivalents entitling any Person to acquire shares of Common Stock at an effective price per share that is lower than the then Conversion Price (such lower price, the "Base Conversion Price" and such issuances, collectively, a "Dilutive Issuance") (if the holder of the Common Stock or Common Stock Equivalents so issued shall at any time, whether by operation of purchase price adjustments, reset provisions, floating conversion, exercise or exchange prices or otherwise, or due to warrants, options or rights per share which are issued in connection with such issuance, be entitled to receive shares of Common Stock at an effective price per share that is lower than the Conversion Price, such issuance shall be deemed to have occurred for less than the Conversion Price on such date of the Dilutive Issuance), then the Conversion Price shall be reduced to equal the Base Conversion Price. Such adjustment shall be made whenever such Common Stock or Common Stock Equivalents are issued. Notwithstanding the foregoing, no adjustment will be made under this Section 7(b) in respect of an Exempt Issuance. The Corporation shall notify the Holders in writing, no later than the Trading Day following the issuance of any Common Stock or Common Stock Equivalents subject to this Section 7(b), indicating therein the applicable issuance price, or applicable reset price, exchange price, conversion price and other pricing terms (such notice, the "Dilutive Issuance Notice"). For purposes of clarification, whether or not the Corporation provides a Dilutive Issuance Notice pursuant to this Section 7(b), upon the occurrence of any Dilutive Issuance, the Holders are entitled to receive a number of Conversion Shares based upon the Base Conversion Price on or after the date of such Dilutive Issuance, regardless of whether a Holder accurately refers to the Base Conversion Price in the Notice of Conversion.

c) Subsequent Rights Offerings. In addition to any adjustments pursuant to Section 7(a) above, if at any time the Corporation grants, issues or sells any Common Stock Equivalents or rights to purchase stock, warrants, securities or other property pro rata to the record holders of any class of shares of Common Stock (the "Purchase Rights"), then the Holder of will be entitled to acquire, upon the terms applicable to such Purchase Rights, the aggregate Purchase Rights which the Holder could have acquired if the Holder had held the number of shares of Common Stock acquirable upon complete conversion of such Holder's Preferred Stock (without regard to any limitations on exercise hereof, including without limitation, the Beneficial Ownership Limitation) immediately before the date on which a record is taken for the grant, issuance or sale of such Purchase Rights, or, if no such record is taken, the date as of which the record holders of shares of Common Stock are to be determined for the grant, issue or sale of such Purchase Rights (provided, however, to the extent that the Holder's right to participate in any such Purchase Right would result in the Holder exceeding the Beneficial Ownership Limitation, then the Holder shall not be entitled to participate in such Purchase Right to such extent (or beneficial ownership of such shares of Common Stock as a result of such Purchase Right to such extent) and such Purchase Right to such extent shall be held in abeyance for the Holder until such time, if ever, as its right thereto would not result in the Holder exceeding the Beneficial Ownership Limitation).

d) Pro Rata Distributions. During such time as this Preferred Stock is outstanding, if the Corporation shall declare or make any dividend or other distribution of its assets (or rights to acquire its assets) to holders of shares of Common Stock, by way of return of capital or otherwise (including, without limitation, any distribution of cash, stock or other securities, property or options by way of a dividend, spin off, reclassification, corporate rearrangement, scheme of arrangement or other similar transaction) (a "Distribution"), at any time after the issuance of this Preferred Stock, then, in each such case, the Holder shall be entitled to participate in such Distribution to the same extent that the Holder would have participated therein if the Holder had held the number of shares of Common Stock acquirable upon complete conversion of this Preferred Stock (without regard to any limitations on conversion hereof, including without limitation, the Beneficial Ownership Limitation) immediately before the date of which a record is taken for such Distribution, or, if no such record is taken, the date as of which the record holders of shares of Common Stock are to be determined for the participation in such Distribution (provided, however, to the extent that the Holder's right to participate in any such Distribution would result in the Holder exceeding the Beneficial Ownership Limitation, then the Holder shall not be entitled to participate in such Distribution to such extent (or in the beneficial ownership of any shares of Common Stock as a result of such Distribution to such extent) and the portion of such Distribution shall be held in abeyance for the benefit of the Holder until such time, if ever, as its right thereto would not result in the Holder exceeding the Beneficial Ownership Limitation).

e) Fundamental Transaction. If, at any time while this Preferred Stock is outstanding, (i) the Corporation, directly or indirectly, in one or more related transactions effects any merger or consolidation of the Corporation with or into another Person, (ii) the Corporation, directly or indirectly, effects any sale, lease, license, assignment, transfer, conveyance or other disposition of all or substantially all of its assets in one or a series of related transactions, (iii) any, direct or indirect, purchase offer, tender offer or exchange offer (whether by the Corporation or another Person) is completed pursuant to which holders of Common Stock are permitted to sell, tender or exchange their shares for other securities, cash or property and has been accepted by the holders of 50% or more of the outstanding Common Stock, (iv) the Corporation, directly or indirectly, in one or more related transactions effects any reclassification, reorganization or recapitalization 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, or (v) the Corporation, directly or indirectly, in one or more related transactions consummates a stock or share purchase agreement or other business combination (including, without limitation, a reorganization, recapitalization, spin-off or scheme of arrangement) with another Person whereby such other Person acquires more than 50% of the outstanding shares of Common Stock (not including any shares of Common Stock held by the other Person or other Persons making or party to, or associated or affiliated with the other Persons making or party to, such stock or share purchase agreement or other business combination) (each a "Fundamental Transaction"), then, upon any subsequent conversion of this Preferred Stock, the Holder shall have the right to receive, for each Conversion Share that would have been issuable upon such conversion immediately prior to the occurrence of such Fundamental Transaction (without regard to any limitation in Section 6(d) and Section 6(e) on the conversion of this Preferred Stock), the number of shares of Common Stock of the successor or acquiring corporation or of the Corporation, if it is the surviving corporation, and any additional consideration (the "Alternate Consideration") receivable as a result of such Fundamental Transaction by a holder of the number of shares of Common Stock for which this Preferred Stock is convertible immediately prior to such Fundamental Transaction (without regard to any limitation in Section 6(d) and Section 6(e) on the conversion of this Preferred Stock). For purposes of any such conversion, the determination of the Conversion Price shall be appropriately adjusted to apply to such Alternate Consideration based on the amount of Alternate Consideration issuable in respect of one share of Common Stock in such Fundamental Transaction, and the Corporation shall apportion the Conversion Price among the Alternate Consideration in a reasonable manner reflecting the relative value of any different components of the Alternate Consideration. 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 Holder shall be given the same choice as to the Alternate Consideration it receives upon any conversion of this Preferred Stock following such Fundamental Transaction. To the extent necessary to effectuate the foregoing provisions, 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 Corporation shall cause any successor entity in a Fundamental Transaction in which the Corporation is not the survivor (the "Successor Entity") to assume in writing all of the obligations of the Corporation under this Certificate of Designation in accordance with the provisions of this Section 7(e) pursuant to written agreements in form and substance reasonably satisfactory to the Holder and approved by the Holder (without unreasonable delay) prior to such Fundamental Transaction and shall, at the option of the holder of this Preferred Stock, deliver to the Holder in exchange for this Preferred Stock a security of the Successor Entity evidenced by a written instrument substantially similar in form and substance to this Preferred Stock which is convertible for a corresponding number of shares of capital stock of such Successor Entity (or its parent entity) equivalent to the shares of Common Stock acquirable and receivable upon conversion of this Preferred Stock (without regard to any limitations on the conversion of this Preferred Stock) prior to such Fundamental Transaction, and with a conversion price which applies the conversion price hereunder to such shares of capital stock (but taking into account the relative value of the shares of Common Stock pursuant to such Fundamental Transaction and the value of such shares of capital stock, such number of shares of capital stock and such conversion price being for the purpose of protecting the economic value of this Preferred Stock immediately prior to the consummation of such Fundamental Transaction), and which is reasonably satisfactory in form and substance to the Holder. Upon the occurrence of any such Fundamental Transaction, the Successor Entity shall succeed to, and be substituted for (so that from and after the date of such Fundamental Transaction, the provisions of this Certificate of Designation referring to the "Corporation" shall refer instead to the Successor Entity), and may exercise every right and power of the Corporation and shall assume all of the obligations of the Corporation under this Certificate of Designation with the same effect as if such Successor Entity had been named as the Corporation herein.

f) 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 sum of the number of shares of Common Stock (excluding any treasury shares of the Corporation) issued and outstanding.

g) 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 by facsimile or email a notice setting forth the Conversion Price after such adjustment and setting forth a brief statement of the facts requiring such adjustment.

ii. Notice to Allow Conversion by Holder. 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 this Preferred Stock, and shall cause to be delivered by facsimile or email to each Holder at its last facsimile number or email address as it shall appear upon the stock books of the Corporation, at least twenty (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 Corporation or any of the Subsidiaries, the Corporation shall simultaneously file such notice with the Commission pursuant to a Current Report on Form 8-K. The Holder shall remain entitled to convert the Conversion Amount of this Preferred Stock (or any part hereof) during the 20-day period commencing on the date of such notice through the effective date of the event triggering such notice except as may otherwise be expressly set forth herein.

Section 8. Negative Covenants. As long as any shares of Preferred Stock are outstanding, unless the holders of all of the then outstanding shares of Preferred Stock shall have otherwise given prior written consent, the Corporation shall not, and shall not permit any of the Subsidiaries to, directly or indirectly:

- a) amend its charter documents, including, without limitation, its certificate of incorporation and bylaws, in any manner that materially and adversely affects any rights of the Holder;
- b) repay, repurchase or offer to repay, repurchase or otherwise acquire more than a de minimis number of shares of its Common Stock, Common Stock Equivalents or Junior Securities, other than as to (i) the Conversion Shares or Warrant Shares as permitted or required hereunder and (ii) repurchases of Common Stock or Common Stock Equivalents of departing officers and directors of the Corporation, provided that such repurchases shall not exceed an aggregate of \$100,000 for all officers and directors for so long as the Preferred Stock is outstanding;
- c) enter into any transaction with any Affiliate of the Corporation which would be required to be disclosed in any public filing with the Commission, unless such transaction is made on an arm's-length basis and expressly approved by a majority of the disinterested directors of the Corporation (even if less than a quorum otherwise required for board approval); or
- d) enter into any agreement with respect to any of the foregoing.

Section 9. 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 or e-mail, or sent by a nationally recognized overnight courier service, addressed to the Corporation, at the address set forth above Attention: M. Scott Maguire, facsimile number 781-538-4327, e-mail address s.maguire@xeneticbio.com, or such other facsimile number, e-mail address or address as the Corporation may specify for such purposes by notice to the Holders delivered in accordance with this Section 11. 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 or e-mail, or sent by a nationally recognized overnight courier service addressed to each Holder at the facsimile number, e-mail address or address of such Holder appearing on the books of the Corporation, or if no such facsimile number, e-mail address or 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 at the facsimile number or e-mail at the e-mail address set forth in this Section prior to 5:30 p.m. (New York City time) on any date, (ii) the next Trading Day after the date of transmission, if such notice or communication is delivered via facsimile at the facsimile number or e-mail at the e-mail address set forth in this Section on a day that is not a Trading Day or later than 5:30 p.m. (New York City time) on any Trading Day, (iii) the second Trading Day following the date of mailing, if sent by U.S. nationally recognized overnight courier service, or (iv) upon actual receipt by the party to whom such notice is required to be given.

b) Absolute Obligation. Except as expressly provided herein, no provision of this Certificate of Designation shall alter or impair the obligation of the Corporation, which is absolute and unconditional, to pay liquidated damages, accrued dividends and accrued interest, as applicable, on the shares of Preferred Stock at the time, place, and rate, and in the coin or currency, herein prescribed.

c) Lost or Mutilated Preferred Stock Certificate. If a Holder's Preferred Stock certificate shall be mutilated, lost, stolen or destroyed, the Corporation shall execute and deliver, 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 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 hereof reasonably satisfactory to the Corporation.

d) Governing Law. All questions concerning the construction, validity, enforcement and interpretation of this Certificate of Designation shall be governed by and construed and enforced in accordance with the internal laws of the State of Nevada, without regard to the principles of conflict of laws thereof. Each party agrees that all legal proceedings concerning the interpretation, enforcement and defense of the transactions contemplated by this Certificate of Designations (whether brought against a party hereto or its respective Affiliates, directors, officers, shareholders, employees or agents) shall be commenced in the state and federal courts sitting in the City of New York, Borough of Manhattan (the “New York Courts”). Each party hereto hereby irrevocably submits to the exclusive jurisdiction of the New York Courts for the adjudication of any dispute hereunder or in connection herewith or with any transaction contemplated hereby or discussed herein (including with respect to the enforcement of this Certificate of Designations), and hereby irrevocably waives, and agrees not to assert in any suit, action or proceeding, any claim that it is not personally subject to the jurisdiction of such New York Courts, or such New York Courts are improper or inconvenient venue for such proceeding. Each party hereby irrevocably waives personal service of process and consents to process being served in any such suit, action or proceeding by mailing a copy thereof via registered or certified mail or overnight delivery (with evidence of delivery) to such party at the address in effect for notices to it under this Certificate of Designation and agrees that such service shall constitute good and sufficient service of process and notice thereof. Nothing contained herein shall be deemed to limit in any way any right to serve process in any other manner permitted by applicable law. Each party hereto hereby irrevocably waives, to the fullest extent permitted by applicable law, any and all right to trial by jury in any legal proceeding arising out of or relating to this Certificate of Designation or the transactions contemplated hereby. If any party shall commence an action or proceeding to enforce any provisions of this Certificate of Designation, then the prevailing party in such action or proceeding shall be reimbursed by the other party for its attorneys’ fees and other costs and expenses incurred in the investigation, preparation and prosecution of such action or proceeding.

e) 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 on any other occasion. Any waiver by the Corporation or a Holder must be in writing.

f) 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.

g) 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.

h) 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.

i) Status of Converted or Redeemed Preferred Stock. If any shares of Preferred Stock shall be converted, redeemed or reacquired by the Corporation, such shares shall resume the status of authorized but unissued shares of preferred stock and shall no longer be designated as Series B Preferred Stock.

IN WITNESS WHEREOF, the undersigned has executed this Certificate this ____ day of October 2016.

Name: M. Scott Maguire

Title: Chief Executive Officer

ANNEX A

NOTICE OF CONVERSION

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

The undersigned hereby elects to convert the number of shares of Series B Convertible Preferred Stock indicated below into shares of common stock, par value \$0.001 per share (the "Common Stock"), of Xenetic Biosciences, Inc., a Nevada corporation (the "Corporation"), according to the conditions hereof, as of the date written below. If shares of Common Stock 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 and is delivering herewith such certificates and opinions as may be required by the Corporation. No fee will be charged to the Holders for any conversion, except for any such transfer taxes.

Conversion calculations:

Date to Effect Conversion: _____

Number of shares of Preferred Stock owned prior to Conversion: _____

Number of shares of Preferred Stock to be Converted: _____

Stated Value of shares of Preferred Stock to be Converted: _____

Number of shares of Common Stock to be Issued: _____

Applicable Conversion Price: _____

Number of shares of Preferred Stock subsequent to Conversion: _____

Address for Delivery: _____

or

DWAC Instructions:

Broker no: _____

Account no: _____

[HOLDER

By: _____

Name:

Title:

