UNITED STATES SECURITIES AND EXCHANGE COMMISSION
Washington, DC 20549

FORM 10-Q

☒ **QUARTERLY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934.**
For the quarterly period ended June 30, 2016

☐ **TRANSITION REPORTS PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934.**
For the transition period from to

Commission File Number: 333-178082

XENETIC BIOSCIENCES, INC.
(Exact name of registrant as specified in its charter)

Nevada	**45-2952962**
(State or other jurisdiction of incorporation or organization)	**(IRS Employer Identification No.)**

99 Hayden Ave, Suite 230
Lexington, Massachusetts 02421
(Address of principal executive offices and zip code)

781-778-7720
(Registrant's telephone number, including area code)

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days): Yes ☒ No ☐

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§ 232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files): Yes ☒ No ☐

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. See the definitions of "large accelerated filer," "accelerated filer" and "smaller reporting company" in Rule 12b-2 of the Exchange Act. (Check one):

Large accelerated filer	☐	Accelerated filer	☐
Non-accelerated filer (Do not check if a smaller reporting company)	☐	Smaller reporting company	☒

Indicate by check mark whether the registrant is a shell company (as defined in Exchange Act Rule 12b-2): Yes ☐ No ☒

As of August 15, 2016 the number of outstanding shares of the registrant's common stock was 9,024,872.

XENETIC BIOSCIENCES, INC.
FORM 10-Q
QUARTERLY PERIOD ENDED JUNE 30, 2016

PART 1 – FINANCIAL INFORMATION

ITEM 1 – FINANCIAL STATEMENTS

XENETIC BIOSCIENCES, INC.
CONDENSED CONSOLIDATED BALANCE SHEETS

	JUNE 30, 2016 (Unaudited)	DECEMBER 31, 2015
ASSETS		
Current assets:		
Cash	$ 240,786	$ 132,229
Restricted cash	66,510	66,510
Prepayment on acquisition	–	3,744,517
Prepaid expenses and other	171,199	247,298
Total current assets	478,495	4,190,554
Property and equipment, net	58,471	62,021
Goodwill	3,283,379	3,283,379
Indefinite-lived intangible assets	9,243,128	9,243,128
Other assets	97,238	129,306
Total assets	$ 13,160,711	$ 16,908,388
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities:		
Accounts payable	$ 2,021,205	$ 1,788,521
Accrued expenses	1,607,125	1,487,046
Hybrid debt instrument, net	–	3,652,749
Other current liabilities	19,647	19,098
Loans due to related parties	152,529	395,000
Total current liabilities	3,800,506	7,342,414
Deferred tax liability	2,918,518	2,918,518
Other liabilities	29,446	38,791
Total liabilities	6,748,470	10,299,723
Stockholders' equity:		
Common stock, $0.001 par value; 45,454,546 shares authorized as of June 30, 2016 and December 31, 2015; 9,348,757 and 4,909,685 shares issued as of June 30, 2016 and December 31, 2015, respectively; 9,024,872 and 4,585,800 shares outstanding as of June 30, 2016 and December 31, 2015, respectively	9,348	4,909
Additional paid in capital	150,905,035	99,763,101
Accumulated deficit	(139,474,696)	(88,131,899)
Accumulated other comprehensive income	253,734	253,734
Treasury stock	(5,281,180)	(5,281,180)
Total stockholders' equity	6,412,241	6,608,665
Total liabilities and stockholders' equity	$ 13,160,711	$ 16,908,388

The accompanying notes are an integral part of these condensed consolidated financial statements.

XENETIC BIOSCIENCES, INC.
CONDENSED CONSOLIDATED STATEMENTS OF COMPREHENSIVE LOSS
(Unaudited)

	THREE MONTHS ENDED JUNE 30,		SIX MONTHS ENDED JUNE 30,	
	2016	**2015**	**2016**	**2015**
Operating costs and expenses:				
Research and development	$ (2,205,213)	$ (555,740)	$ (2,634,494)	$ (1,590,823)
IPR&D expense	(39,500,000)	–	(39,500,000)	–
General and administrative	(1,557,677)	(803,399)	(2,980,043)	(1,738,625)
Loss from operations	(43,262,890)	(1,359,139)	(45,114,537)	(3,329,448)
Other income (expense):				
Change in fair value of derivative liability	1,769,275	–	1,905,289	–
Loss on issuance of hybrid debt instrument	–	–	(1,584,218)	–
Loss on conversion of debt	(6,187,337)	–	(6,187,337)	–
Other income (expense)	12,863	234,453	(13,551)	(225,515)
Interest income	13	914	27	1,088
Interest expense	(103,086)	(1,386)	(348,470)	(2,512)
	(4,508,272)	233,981	(6,228,260)	(226,939)
Net loss	(47,771,162)	(1,125,158)	(51,342,797)	(3,556,387)
Other comprehensive loss from foreign currency translation adjustment	–	(338,875)	–	(327,054)
Total comprehensive loss	$ (47,771,162)	$ (1,464,033)	$ (51,342,797)	$ (3,883,441)
Net loss per share of common stock, basic and diluted	$ (6.12)	$ (0.27)	$ (8.28)	$ (0.84)
Weighted-average shares of common stock outstanding, basic and diluted	7,804,187	4,221,328	6,197,776	4,221,328

The accompanying notes are an integral part of these condensed consolidated financial statements.

XENETIC BIOSCIENCES, INC.
CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS
(Unaudited)

	SIX MONTHS ENDED JUNE 30,	
	2016	**2015**
CASH FLOWS FROM OPERATING ACTIVITIES:		
Net Loss	$ (51,342,797)	$ (3,556,387)
Adjustments to reconcile net loss to net cash used in operating activities:		
IPR&D expense	39,500,000	
Depreciation and amortization	18,164	38,828
Amortization of hybrid debt instrument discount	204,003	–
Non-cash interest expense	142,929	–
Share-based payments	899,621	144,495
Warrant expense for services	1,118,642	92,703
Change in fair value of derivative liability	(1,905,289)	–
Loss on issuance of hybrid debt instrument	1,584,218	–
Loss on conversion of debt	6,187,337	–
Foreign currency translation	–	344,676
Other non-cash transactions	–	(129,328)
Changes in operating assets and liabilities:		
Prepaid expenses and other assets	36,990	148,580
Accounts payable, accrued expenses and other liabilities	421,823	686,597
Net cash used in operating activities	(3,134,359)	(2,229,836)
CASH FLOWS FROM INVESTING ACTIVITIES:		
Purchases of property and equipment	(14,613)	(1,663)
Disposition of property and equipment	–	6,245
Net cash (used in) provided by investing activities	(14,613)	4,583
CASH FLOWS FROM FINANCING ACTIVITIES:		
Proceeds from issuance of promissory note	3,500,000	100,000
Payments on loan from related party	(242,471)	–
Net cash provided by financing activities	3,257,529	100,000
Effect of exchange rate change on cash	–	(80,668)
Net change in cash, excluding restricted cash	108,557	(2,205,921)
Cash at beginning of period	132,229	2,507,401
Cash at end of period	$ 240,786	$ 301,480
SUPPLEMENTAL SCHEDULE OF NON-CASH INVESTING AND FINANCING ACTIVITIES:		
Convertible debt paid in common stock	$ 6,500,000	–
Interest paid in common stock	$ 227,829	$ –
Non-cash issuance of warrants in connection with debt	$ 1,701,214	$ –
Non-cash recording of derivative liability in connection with debt	$ 3,346,423	$ –

The accompanying notes are an integral part of these condensed consolidated financial statements.

XENETIC BIOSCIENCES, INC.
NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS
(Unaudited)

1. The Company

Background

Xenetic Biosciences, Inc. (the "Company"), incorporated in the state of Nevada and based in Lexington, Massachusetts, is a clinical stage biopharmaceutical company that is focused on the discovery, development and planned commercialization of a new generation of human drug therapies for the treatment of a variety of conditions including anemia, endometrial cancer, refractory Acute Myeloid Leukemia, Cystic Fibrosis and certain other cancers based upon its proprietary and patented drug delivery platform systems and drug development collaborations with major third party pharmaceutical companies around the world.

We incorporate our patented and proprietary technologies into a number of drug candidates currently under development either in-house or with biotechnology and pharmaceutical collaborators in order to create what we believe will be the next-generation biologic drugs and therapeutics. While we primarily focus on researching and developing orphan oncology drugs, we also have significant interests in drugs being developed by our collaborators to treat, among others, hemophilia and anemia. Our four core proprietary technologies are:

PolyXen™	An enabling biological platform technology designed to extend the circulation in the human body for a variety of existing drug molecules and, thereby, to create potentially superior next generation drug candidates. PolyXen is based on the concept of polysialylation and utilizes polysialic acid, or PSA, which is a biopolymer, comprising a chain of sialic acids molecules. PSA is a natural constituent of the human body, though we obtain our PSA from a bacterial source.
Virexxa®	A small molecule therapeutic with the potential to confer sensitivity to cancer cells to hormone therapeutics that are otherwise insensitive to such treatments. Virexxa, sodium cridanimod, belongs to a class of low-molecular weight synthetic interferon inducers. In addition to its immunomodulatory properties, Virexxa has been shown to increase levels of progesterone receptor expression in tumor tissue of patients who are progesterone receptor deficient, and thus may restore sensitivity of non-responsive endometrial cancers to hormonal (e.g., progestin) therapy. Based on preclinical observations, Virexxa may also be therapeutically relevant in other hormone-resistant cancers, such as triple-negative breast cancer. Virexxa has been granted an Orphan Drug Designation by the FDA, for treatment of progesterone receptor negative endometrial cancer in conjunction with progesterone therapy.
OncoHist™	A novel therapeutic platform technology that utilizes the properties of modified human histone H1.3 for targeted cell necrosis or apoptosis programed cell death, which may enable OncoHist to treat a broad range of cancer indications. OncoHist, unlike many competing oncology therapies, is based on a molecule occurring naturally in the human body, in the cell nucleus, and is therefore expected to be less toxic and immunogenic than other oncology therapies.
ImuXen™	A novel liposomal co-entrapment encapsulation technology designed to maximize both cell and immune system mediated responses. The technology is based on the co-entrapment of the nominated antigen(s) in a liposomal vesicle. The technology when applied may create new vaccines and improve the use and efficacy of certain existing human vaccines.

These proprietary technologies may address unmet needs, improve the performance of existing drugs, and create new patentable drug candidates. All of our drug candidates are in the development stage and none has yet received regulatory approval for marketing in the U.S. by the FDA or by any applicable agencies in other countries.

Going Concern and Management's Plan

While these condensed consolidated financial statements have been prepared on a going concern basis, if the Company does not successfully raise additional working capital, there can be no assurance that the Company will be able to continue its operations and these conditions raise substantial doubt about its ability to continue as a going concern. The accompanying condensed consolidated financial statements do not include any adjustments related to the recoverability or classification of asset-carrying amounts or the amounts and classification of liabilities that may result should the Company be unable to continue as a going concern.

In March 2016, the Company engaged an investment banking firm to assist with a proposed sale of the Company's securities. Though a positive outcome cannot be assured, as of this filing the Company is in late-stage negotiations to effect a public offering as described herein. The Company is optimistic that it will be successful in obtaining financing; however there can be no assurance that it will be able to do so or, if it is able to, that is can do so under commercially reasonable terms. In the event the Company is unsuccessful in this proposed sale, the Company will plan to rely upon proceeds from the sale of up to an additional $6.0 million in securities to PJSC Pharmsynthez ("Pharmsynthez") as provided for in the November 2015 Asset Purchase Agreement with Pharmsynthez and AS Kevelt ("Kevelt").

2. Summary of Significant Accounting Policies

Preparation of Interim Financial Statements

The accompanying condensed consolidated financial statements were prepared by the Company pursuant to the rules and regulations of the Securities and Exchange Commission ("SEC") and, in the opinion of management, include all normal and recurring adjustments necessary to present fairly the results of the interim periods shown. Certain information and footnote disclosures normally included in financial statements prepared in accordance with US GAAP have been condensed or omitted pursuant to such SEC rules and regulations. Management believes that the disclosures made are adequate to make the information presented not misleading. The results for the interim periods are not necessarily indicative of results for the full year. The condensed consolidated financial statements contained herein should be read in conjunction with the consolidated financial statements and notes thereto included in the Company's 2015 Annual Report on Form 10-K.

Certain prior period amounts have been reclassified to conform to the presentation of the current period.

Principles of Consolidation

The financial statements of the Company include the accounts of Xenetic Biosciences (UK) Limited ("Xenetic UK") and its wholly owned subsidiaries: Lipoxen Technologies Limited, Xenetic Bioscience, Incorporated, and SymbioTec GmbH ("SymbioTec"). All material intercompany balances and transactions have been eliminated on consolidation.

3. Significant Strategic Drug Development Collaborations – Related Parties

The Company has entered into various research, development, license and supply agreements with Shire plc ("Shire"), formerly Baxalta Incorporated (a spinoff of the biopharmaceuticals business from Baxter Healthcare SA and Baxter Healthcare Corporation), SynBio LLC ("SynBio"), Serum Institute of India ("Serum") and Pharmsynthez. The Company and its collaborative partners continue to engage in research and development activities with no resultant commercial products through June 30, 2016. No amounts were recognized as revenue related to these agreements during the six months ended June, 2016 or 2015.

4. Property and Equipment, net

Property and equipment, net consists of the following:

	June 30, 2016	December 31, 2015
Laboratory equipment	$ 264,583	$ 249,969
Office and computer equipment	35,190	35,190
Leasehold improvements	26,841	26,841
Furniture and fixtures	20,263	20,263
Property and equipment – at cost	346,877	332,263
Less accumulated depreciation	(288,406)	(270,242)
Property and equipment – net	$ 58,471	$ 62,021

Depreciation expense was $9,082 and $8,551 for the three months ended June 30, 2016 and 2015, respectively, and $18,164 and $38,828 for the six months ended June 30, 2016 and 2015, respectively.

5. Hybrid Debt Instrument

On July 1, 2015, the Company entered into a Securities Purchase Agreement (the "SPA") with Pharmsynthez providing for the issuance of a minimum of a $3 million 10% Senior Secured Collateralized Convertible Promissory Note (the "SPA Note"). The SPA also provides for the issuance of certain warrants up to the amount of the SPA Note. The convertible debt and its embedded debt-like features were recorded on the face of the condensed consolidated balance sheet within current liabilities as an aggregate hybrid debt instrument.

On November 13, 2015, the Company entered into an Asset Purchase Agreement (the "APA") with Pharmsynthez providing for the issuance of a minimum of a $3.5 million 10% Senior Secured Collateralized Convertible Promissory Note (the "APA Note") and the transfer to the Company of certain intellectual property rights with respect to Virexxa in exchange for, among others, 111.5 million shares of our common stock. The APA also provides for the issuance of certain warrants covering up to half the amount of the APA Note. During the quarter ended March 31, 2016, the Company issued $3.5 million of convertible debt as well as the associated warrants, both in connection with the APA Note. The convertible debt and its embedded debt-like features were recorded on the face of the condensed consolidated balance sheet within current liabilities as an aggregate hybrid debt instrument. See also Note 12. *Subsequent Events*.

On April 22, 2016, Pharmsynthez converted all convertible notes (in the principal amount of $6.5 million plus accrued interest of approximately $228,000), issued by the Company to Pharmsynthez in 2015 and 2016. The conversion rate was $4.95 per share. As such, the Company issued to Pharmsynthez 1,373,036 shares of common stock in connection with conversion of the convertible notes. The related embedded derivatives, which had been bifurcated from the host debt and accounted for separately, were settled by action of the conversion. The Company recognized a net loss on conversion, including a final mark-to-market of the compound derivative, of $4.4 million, which is recorded in other expense in the condensed consolidated statement of comprehensive loss for the three and six months ended June 30, 2016.

Interest expense related to the SPA Note and the APA Note of approximately $102,000 and $347,000 was recognized in the condensed consolidated statement of comprehensive loss for the three and six months ended June 30, 2016, respectively.

6. Fair Value Measurements

ASC Topic 820, *Fair Value Measurement,* defines fair value as the price that would be received to sell an asset or be paid to transfer a liability in an orderly transaction between market participants at the measurement date. The Company applies the following fair value hierarchy, which prioritizes the inputs used to measure fair value into three levels and bases the categorization within the hierarchy upon the lowest level of input that is available and significant to the fair value measurement. Level 1 inputs are quoted prices in active markets for identical assets or liabilities that the reporting entity has the ability to access at the measurement date. Level 2 utilizes quoted market prices in markets that are not active, broker or dealer quotations, or alternative pricing sources with reasonable levels of price transparency. Level 3 inputs are unobservable inputs for the asset or liability in which there is little, if any, market activity for the asset or liability at the measurement date.

The Company's cash and restricted cash are measured at fair value on a recurring basis and are classified as Level 1 in the fair value hierarchy. The carrying amount of certain of the Company's financial instruments approximate fair value due to their short maturities. The Company's derivative liabilities are measured at fair value on a recurring basis and are classified as Level 3 in the fair value hierarchy.

The following table provides a summary of the changes in fair value of the compound derivative measured at fair value on a recurring basis using significant unobservable inputs during the six months ended June 30, 2016.

Balance as of January 1, 2016	$	3,544,222
Issuances of compound derivative instrument		3,346,423
Change in fair value of compound derivative instrument		(1,905,289)
Settlement of derivative instrument through conversion of debt host		(4,985,356)
Balance as of June 30, 2016	$	–

There were no financial instruments classified as Level 3 in the fair value hierarchy during the six months ended June 30, 2015.

7. Stockholders' Equity

Reverse Stock Split

On May 16, 2016, our board of directors approved a reduction, on a 1 for 33 basis, in our authorized common stock, par value $0.001, along with a corresponding and proportional decrease in the number of shares issued and outstanding. This reduction was filed with the Nevada Secretary of State on May 18, 2016, but required a review by FINRA before becoming effective in the market. On May 31, 2016, FINRA announced that this change took effect in the over-the-counter securities markets on June 1, 2016.

All share information provided herein reflects the effect of the reverse stock split.

Common Stock

In November 2015, the Company agreed to issue 3.38 million shares of common stock in connection with the APA. In December 2015, 0.33 million shares of common stock were issued to Dr. Genkin and Mr. Surkhov pursuant to the APA.

On April 29, 2016, the Company closed on the APA with an effective date of April 27, 2016, acquiring in-process research and development ("IPR&D") related to certain intellectual property rights with respect to the immunomodulator product Virexxa held by Kevelt including the grant of the worldwide right to develop, market and license Virexxa for certain uses. In connection with the closing of the APA, the Company issued 3.05 million shares of its common stock to Pharmsynthez and, because there was no alternative use for the IPR&D, the Company recognized $39.5 million of expense based on the fair value of Virexxa IP received, which was determined to be more reliably measured than the related equity consideration. Included in the $39.5 million expense was the $3.74 million prepayment recorded in 2015.

Financing Warrants

In connection with the Company's issuance of the APA Note in March 2016, the Company issued a warrant to purchase 0.35 million shares of common stock in accordance with the terms of the APA (the "Warrant"). The Warrant has a five-year term and is exercisable commencing March 31, 2016. The exercise price per share under the Warrant is the lessor of $6.60 or 120% of the Public Offering price, in the event there is a Public Offering, as defined in the APA. If the APA Note is not repaid or converted on or before six months from the date of issuance, the Holder will be issued an additional warrant to purchase 0.35 million shares of common stock under the same terms as the Warrant. The Company determined there is a low probability that the Note will not be repaid or converted within the period six months from the date of issuance and, therefore, did not account for the additional warrant as issued. The fair value of the warrant was calculated using the Black-Scholes option pricing model. The key valuation assumptions used consist of the Company's stock price, a risk free rate of 1.42% and an expected volatility of 135%. Using an allocation of the APA Note proceeds between the relative fair values of the Warrants and the APA Note, the Company recorded the Warrants at a value of $1.7 million on the condensed consolidated balance sheet as equity paid-in-capital.

8. Share-Based Compensation

Total share-based compensation related to stock options, common stock awards, and non-financing warrants was $1,731,803 and $89,970 for the three months ended June 30, 2016 and 2015, respectively, and $2,018,263 and $237,198 for the six months ended June 30, 2016 and 2015, respectively.

Share-based compensation expense is classified in the condensed consolidated statements of comprehensive loss as follows:

	Three Months Ended June 30,		Six Months Ended June 30,	
	2016	2015	2016	2015
Research and development expenses	$ 1,427,691	$ 51,736	$ 1,234,240	$ 150,881
Administrative expenses	304,112	38,234	784,023	86,317
	$ 1,731,803	$ 89,970	$ 2,018,263	$ 237,198

Employee Stock Options

During the six months ended June 30, 2016 and 2015, the Company granted 12,122 employee stock options. The key valuation assumptions used consisted of the Company's stock price, a risk free rate of 0.54% and an expected volatility of 123%. There were no employee stock options granted during the same period in 2015. During the six months ended June 30, 2016, the Company extended the exercise expiration date of certain former employee stock option awards resulting in a change in incremental value of approximately $24,000 which was charged to administrative expense. The Company recognized compensation expense related to employee stock options of $310,469 and $20,668 during the three months ended June 30, 2016 and 2015, respectively, and $765,026 and $84,303 during the six months ended June 30, 2016 and 2015, respectively.

Non-Employee Stock Options

No non-employee stock options were granted during the six months ended June 30, 2016 or 2015 and no non-employee stock options were exercised during the six months ended June 30, 2016 or 2015. The Company recognized compensation expense related to non-employee stock options of $3,474 and $4,755 during the three months ended June 30, 2016 and 2015, respectively, and $2,503 and $9,193 during the six months ended June 30, 2016 and 2015, respectively.

Common stock awards

The Company granted 9,581 and 925 common stock awards during the three months ended June 30, 2016 and 2015, respectively, and 11,939 and 2,043 common stock awards during the six months ended June 30, 2016 and 2015, respectively, based on the value of the services provided and the average stock price during each respective period. The Company recognized compensation expense related to common stock awards of $50,000 and $25,500 during the three months ended June 30, 2016 and 2015, respectively, and $107,790 and $51,000 during the six months ended June 30, 2016 and 2015, respectively.

Warrants

In connection with certain of the Company's collaboration agreements and consulting arrangements, the Company has issued warrants to purchase shares of common stock. On May 16, 2016, the Company modified the exercise price of 150,307 performance-based warrants held by Serum and individuals related to Serum from $25.41 to $7.92 and resulted in an incremental value expense of $204,000. Additionally, the Company issued 212,122 warrants to purchase shares of common stock to Serum with an exercise price of $7.92. The new warrants were fully vested and the Company recognized $1.37 million of expense related to the grant.

As of June 30, 2016, and December 31, 2015, warrants to purchase 758,347 shares of common stock were outstanding. These warrants were fair valued at each issuance date using the Black-Scholes option pricing model. Warrants for which a measurement has not been reached are subject to re-measurement at each reporting period until the measurement date is reached. Expense is recognized on a straight-line basis over the expected service period or at the date of issuance, if there is not a service period. Expense for the six months ended June 30, 2016, was $1.1 million including the incremental value recognized for the warrant modification. The Company issued no warrants in connection with collaboration agreements and consulting services during the three and six months ended June 30, 2015.

9. Income Taxes

During the six months ended June 30, 2016 and 2015, there was no provision for income taxes as the Company incurred losses during both periods. Deferred tax assets and liabilities reflect the net tax effect of temporary differences between the carrying amount of assets and liabilities for financial reporting purposes and the amounts used for income tax purposes. The Company records a valuation allowance against its deferred tax assets as the Company believes it is more likely than not the deferred tax assets will not be realized. The valuation allowance against deferred tax assets was approximately $16.5 million and $15.3 million as of June 30, 2016 and December 31, 2015, respectively.

As of June 30, 2016, and December 31, 2015, the net deferred tax liability of $2,918,518 on the condensed consolidated balance sheets is related to book and tax basis differences for intangible assets with indefinite lives that were acquired in the January 2012 acquisition of SymbioTec. In accordance with ASC 740-10-30-18, the deferred tax liability related to the intangible assets cannot be used to offset deferred tax assets when determining the amount of the valuation allowance for deferred tax assets which are not more-likely-than-not to be realized. This results in a net deferred tax liability, even though the Company has a full valuation allowance on its other net deferred tax assets. This net deferred tax liability will continue to be reflected on the balance sheet until the related intangible assets are no longer held by the Company.

As of June 30, 2016 and December 31, 2015, the Company did not record any unrecognized tax positions.

10. Commitments

In August 2013, the Company entered into an agreement to lease office and laboratory space in Lexington, Massachusetts under an operating lease with a commencement date of January 1, 2014 and a termination date of January 31, 2019. With the execution of this lease, the Company is required to maintain a $66,000 letter of credit as a security deposit. In connection with the Lexington lease, the Company recorded $76,107 as prepaid rent as of June 30, 2016, with $46,646 recorded as a non-current asset. The Company also incurred a liability of $89,074 with respect to the Company's contribution to the landlord's leasehold improvements, of which $47,743 is outstanding as of June 30, 2016, with $29,446 recorded as a non-current liability, respectively. This liability is repayable as additional rent expense over the term of the lease and bears interest at 6%. The Company also leased office space in London, UK during 2014, however the lease was terminated in March 2015 in accordance with the terms of the lease.

11. Related Party Transactions

In May 2011, the Company received a short term unsecured loan facility of up to $1.7 million from SynBio, an affiliate of the Company, of which $152,529 and $395,000 was outstanding as of June 30, 2016 and December 31, 2015, respectively. In connection with the APA, the Company made a series of payments during the first two quarters of 2016 totaling $242,471 to creditors of Kevelt. Pursuant to the APA such payments are considered direct offsets to the loan with SynBio. No payments were made during the six months ended June 30, 2015. The loan had an interest rate of 8.04% per annum as of the date of grant, with interest payable upon repayment of the loan, which was to be seven months after the closing date of the loan. During 2012, the loan matured and it was agreed by both parties that the loan can be called due with full repayment of the outstanding principal including accrued interest upon future agreement by both parties. It was also agreed as of July 1, 2012 that no further interest on the outstanding loan balance would be accrued. The loan is recorded in "Loans due to related parties" within current liabilities.

The Company has entered into various research, development, license and supply agreements with Shire, SynBio, Serum and Pharmsynthez, each a related party whose relationship and ownership has not materially changed from that disclosed in our 10-K/A filed April 29, 2016.

12. Subsequent Events

On July 1, 2016, the Company received total proceeds of $0.5 million in connection with the APA financing arrangement. The APA provided for the issuance of certain warrants to purchase a number of share of the Company's common stock equal to 50% of the number of shares issuable under the APA Notes. The Warrant has a five-year term and is exercisable upon grant. The exercise price per share under the Warrant is the lessor of $6.60 or 120% of the Capital Raise price, in the event there is a Capital Raise. If the APA Note is not repaid or converted on or before six months from the date of issuance, the Holder will be issued an additional warrant under the same terms as the Warrant.

Mr. M. Scott Maguire is our Chief Executive Officer. Mr. Maguire current annual salary is $505,735 pursuant to his written employment agreement with the Company. Of Mr. Maguire's 2015 salary amount and 2016 salary amount through today, fifty percent (50%) has been paid in cash and fifty percent (50%) has been deferred and accrued pursuant to an unwritten arrangement between us and Mr. Maguire. On July 1, 2016, we issued a convertible promissory note in the amount of $369,957.51 and warrants to purchase 37,369 shares of our common stock at the Exercise Price to Mr. Maguire for the deferred salary. We also entered into a Deferred Salary Security Agreement with Mr. Maguire, pursuant to which Mr. Maguire agreed to continue to defer fifty percent (50%) of his salary until the earlier to occur of: (i) the closing of a public offering of our securities concurrent to a NASDAQ listing, or (ii) September 30, 2016 (the "Deferral End Date"). All deferred salary shall become due and payable on the Deferral End Date. As security for the payment of the deferred salary, we granted Mr. Maguire a continuing subordinated security interest in our assets, including all inventory, accounts, accounts receivable, equipment, trademarks, contracts, copyrights and general intangibles.

CAUTIONARY NOTE REGARDING FORWARD-LOOKING STATEMENTS

This report contains both historical and forward-looking statements. The forward-looking statements in this quarterly report are not based on historical facts, but rather reflect the current expectations of our management concerning future results and events. These forward-looking statements include, but are not limited to, statements concerning our plans to continue the development of our proposed drug candidates; our expectations regarding the nature, timing and extent of clinical trials and proposed clinical trials; our expectations regarding the timing for proposed submissions of regulatory filings, including but not limited to any Investigational New Drug ("IND") filing or any new drug application ("NDA"); the nature, timing and extent of collaboration arrangements; the expected results pursuant to collaboration arrangements including the receipts of future payments that may arise pursuant to collaboration arrangements; the outcome of our plans to obtain regulatory approval of our drug candidates; the outcome of our plans for the commercialization of our drug candidates; our plans to address certain markets, engage third party manufacturers, and evaluate additional drug candidates for subsequent commercial development, and the likelihood and extent of competition to our drug candidates.

In some cases, these statements may be identified by terminology such as "may", "will", "should", "expect", "plan", "anticipate", "believe", "estimate", "predict", "potential", or "continue", or the negative of such terms and other comparable terminology. Although we believe that the expectations reflected in the forward-looking statements contained herein are reasonable, we cannot guarantee future results, the levels of activity, performance or achievements. These statements involve known and unknown risks and uncertainties that may cause our or our industry's results, levels of activity, performance or achievements to be materially different from those expressed or implied by forward-looking statements.

The Management's Discussion and Analysis of Financial Condition and Results of Operations (the "MD&A") should be read together with our financial statements and related notes included elsewhere in this quarterly report. This quarterly report, including the MD&A, contains trend analysis and other forward-looking statements. Any statements in this quarterly report that are not statements of historical facts are forward-looking statements. These forward-looking statements made herein are based on our current expectations, involve a number of risks and uncertainties and should not be considered as guarantees of future performance.

The single most pressing factor that could cause actual results to differ materially and adversely is our need to raise additional working capital for the purpose of further developing our various drug candidates.

Other factors that could cause actual results to differ materially include without limitation:

- our ability to finance our business;
- our ability to achieve milestone and other payments associated with our co-development collaborations and strategic arrangements;
- the impact of new technologies on our drug candidates and our competition;
- changes in laws or regulations of governmental agencies;
- interruptions or cancellation of existing contracts;
- impact of competitive products and pricing;
- product demand and market acceptance and risks;
- the presence of competitors with greater financial resources;
- product development and commercialization risks;
- continued availability of supplies or materials used in manufacturing at the current prices;
- the ability of management to execute plans and motivate personnel in the execution of those plans;
- adverse publicity related to our products or the Company itself;
- adverse claims relating to our Intellectual Property ("IP");
- the adoption of new, or changes in, accounting principles;
- the costs inherent with complying with current and new statutes and regulations applicable to public reporting companies, such as the Sarbanes-Oxley Act of 2002; and
- other new lines of business that the Company may enter in the future.

These factors are not necessarily all of the important factors that could cause actual results to differ materially from those expressed in the forward-looking statements in this quarterly report. Other unknown or unpredictable factors also could have material adverse effects on our future results. The forward-looking statements in this quarterly report are made only as of the date of this quarterly report, and we do not have any obligation to publicly update any forward-looking statements to reflect subsequent events or circumstances. Please also refer to risk factors described on SEC Form S-1 filed on May 9, 2016.

ITEM 2 – MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

BUSINESS OVERVIEW

Management's discussion and analysis of our financial condition and results of operations ("MD&A") should be read in conjunction with the condensed consolidated financial statements and related footnotes.

The Company, carrying on business in a single operating segment, is a clinical-stage biopharmaceutical company focused on discovery, research and development of next-generation biologic drugs and novel orphan oncology therapeutics that may contribute to improvements in global human health. Our 200+ patent portfolio covers next generation biologic drugs and novel oncology therapeutics and provides protection for our current drug candidates and positions as well as strategic partnership and commercialization opportunities.

Our objective is to leverage our portfolio to maximize out-license opportunities that generate working capital to both build incremental shareholder value and provide funding necessary to clinically develop our orphan oncology drug candidate pipeline through to market launch.

Our lead product candidates include ErepoXen, a polysialylated form of erythropoietin (EPO) for the treatment of anemia in pre-dialysis patients with chronic kidney disease, and FDA orphan designated oncology therapeutics Virexxa and OncoHist for the treatment of progesterone receptor negative endometrial cancer and refractory Acute Myeloid Leukemia, respectively.

Significant Transactions and Recent Developments

Asset Acquisition and Financing Arrangement

On November 13, 2015, the Company entered into an Asset Purchase Agreement (the "APA") with Pharmsynthez providing for the issuance of a minimum of a $3.5 million 10% Senior Secured Collateralized Convertible Promissory Note (the "APA Note") and the transfer to the Company of certain intellectual property rights with respect to Virexxa in exchange for, among others, 111.5 million shares of our common stock.. The APA also provides for the issuance of certain warrants covering up to half the amount of the APA Note. During the six months ended June 30, 2016, the Company issued $3.5 million of convertible debt as well as the associated warrants, both in connection with the APA Note. The convertible debt and its embedded debt-like features were recorded on the face of the consolidated balance sheet within current liabilities as an aggregate hybrid debt instrument.

On April 29, 2016, the Company closed on the APA with an effective date of April 27, 2016, acquiring certain intellectual property rights with respect to the immunomodulator product Virexxa held by Kevelt and grant of the worldwide right to develop, market and license Virexxa for certain uses.

In connection with the closing of the APA, the Company issued 3,045,455 shares of its common stock to Pharmsynthez. In addition, Pharmsynthez converted all convertible notes (in the principal amount of $6.5 million plus accrued interest of approximately $300,000), issued by the Company to Pharmsynthez in 2015 and 2016. The conversion rate as set forth in the notes was $4.95 per share. As such, the Company issued to Pharmsynthez 1,373,036 shares of its common stock in connection with conversion of the convertible notes, which amount, together with the 3,045,455 shares of common stock in connection with the closing of the Asset Purchase Agreement, resulted in an aggregate of 4,418,491 new shares of common stock being issued to Pharmsynthez.

Technology Overview

We incorporate our patented and proprietary technologies into a number of drug candidates currently under development either in-house or with biotechnology and pharmaceutical collaborators in order to create what we believe will be the next-generation biologic drugs and therapeutics. While we primarily focus on researching and developing orphan oncology drugs, we also have significant interests in drugs being developed by our collaborators to treat, among others, hemophilia and anemia. Our four core proprietary technologies are:

PolyXen™ An enabling biological platform technology designed to extend the circulation in the human body for a variety of existing drug molecules and, thereby, to create potentially superior next generation drug candidates. PolyXen is based on the concept of polysialylation and utilizes polysialic acid, or PSA, which is a biopolymer, comprising a chain of sialic acids molecules. PSA is a natural constituent of the human body, though we obtain our PSA from a bacterial source.

Virexxa® A small molecule therapeutic with the potential to confer sensitivity to cancer cells to hormone therapeutics that are otherwise insensitive to such treatments. Virexxa, sodium cridanimod, belongs to a class of low-molecular weight synthetic interferon inducers. In addition to its immunomodulatory properties, Virexxa has been shown to increase levels of progesterone receptor expression in tumor tissue of patients who are progesterone receptor deficient, and thus may restore sensitivity of non-responsive endometrial cancers to hormonal (e.g., progestin) therapy. Based on preclinical observations, Virexxa may also be therapeutically relevant in other hormone-resistant cancers, such as triple-negative breast cancer. Virexxa has been granted an Orphan Drug Designation by the FDA, for treatment of progesterone receptor negative endometrial cancer in conjunction with progesterone therapy.

OncoHist™ A novel therapeutic platform technology that utilizes the properties of modified human histone H1.3 for targeted cell necrosis or apoptosis programed cell death, which may enable OncoHist to treat a broad range of cancer indications. OncoHist, unlike many competing oncology therapies, is based on a molecule occurring naturally in the human body, in the cell nucleus, and is therefore expected to be less toxic and immunogenic than other oncology therapies.

ImuXen™ A novel liposomal co-entrapment encapsulation technology designed to maximize both cell and immune system mediated responses. The technology is based on the co-entrapment of the nominated antigen(s) in a liposomal vesicle. The technology when applied may create new vaccines and improve the use and efficacy of certain existing human vaccines.

These proprietary technologies may address unmet needs, improve the performance of existing drugs, and create new patentable drug candidates. All of our drug candidates are in the development stage and none has yet received regulatory approval for marketing in the U.S. by the FDA or by any applicable agencies in other countries..

Our Business Strategy

Our goal is to become a leader in the development of novel orphan oncology drugs while leveraging our proprietary delivery technology as a vehicle for creating next generation bio-therapeutics.

Our strategy is to pursue a continuous and ongoing effort of out-licensing our PolyXen platform technology to drive short-term, incremental shareholder value and generate working capital to assist in providing the funding required to support our long-term development of orphan oncology drug candidates through regulatory approval and commercialization.

We advance our PolyXen platform technology through collaborative out-license arrangements with global pharmaceutical companies that can apply the resources necessary to bring the drug candidate to worldwide commercialization and with other partners that in-license our technology on a restrictive-market basis. The latter provides access to clinical data which can assist us in making decisions about potential monetization in larger markets.

We believe our orphan oncology drug candidates may meet an established and unmet therapeutic need for a relatively limited population of patients, and products with very high sales potential – benefiting from more favorable price and reimbursement policies.

We advance our drug candidates through a combination of conducting our own in-house research and through the use of contract manufacturing and contract research organizations in order to efficiently manage the Company's overheads. Continuous pipeline growth and advancement of out-licensed drug candidates is dependent, in part, on several important co-development collaborations and strategic arrangements. Together with our collaborative partners, we are focused on developing our pipeline of next generation bio-therapeutics and novel orphan drugs in oncology based primarily on our PolyXen, OncoHist and Virexxa proprietary technologies.

Our Technologies

PolyXen™

PolyXen is a drug delivery technology designed to extend the circulation in the human body for a variety of existing drug molecules and, thereby, to create potentially superior next generation drug candidates. It is based on the concept of polysialylation and utilizes polysialic acid (PSA), which is a biopolymer, comprising a chain of sialic acids molecules. PSA is a natural constituent of the human body, though Xenetic obtains its PSA from a bacterial source.

Sialic acid is found on the external membrane of a number of cell types in the body. In addition, it is a natural component expressed on the external membrane on a number of bacterial types. The chain of sialic acid molecules can be anywhere from 4 to over 200 individual sialic acid molecules in length. We use the linear form of PSA called colominic acid. It is a natural, hydrophilic polymer isolated from a bacterial strain of E. coli K1. This natural glycan is negatively charged, non-toxic and is biodegradable. The PSA chain is extensively purified from large-scale bacterial cultures under current Good Manufacturing Practices (cGMP), modified to specified sizes and then attached to defined sites on the therapeutic in order to enhance the properties of the therapeutic. The major effect of PSA addition to a therapeutic is to change the apparent hydrodynamic radius of the molecule. This physical alteration then changes a number of the biological characteristics of the therapeutic.

Both the length and the site of attachment of the PSA chain can enhance the properties of the therapeutic. The most noticeable, and perhaps the most relevant enhancement, is an extension of the lifetime of the therapeutic in blood circulation. This is due to the increase in the size of the drug which results in a decrease in the clearance rate of the molecule in the kidney by glomerular filtration. In addition, studies have shown that using PolyXen changes in other biological characteristics of the therapeutic such as protease sensitivity and temperature sensitivity. The linked PSA molecules may be less viscous in solution compared to other technologies, potentially providing for easier injections and fewer adverse injection site reactions.

The current standard for certain biologic delivery agents is methyl polyethylene glycol (or PEG) which is attached similarly to therapeutics. The mode of action between PSA and PEG is similar, increasing the apparent size of the molecule and thereby increasing the circulating time of the drug in the blood. PEGylation is a proven technology that can offer advantages in terms of pharmacokinetics and pharmacodynamics for therapeutics over non-modified, first generation molecules. There are a number of PEG modified molecules on the market, in clinical trials and under development. However, PEGylation is deemed to have limitations. It is not biodegradable and may therefore at high doses result in intra-cellular accumulation, potentially leading to vacuole formation in the cells. In comparison, PSA is a chain of sialic acids which is a natural constituent of the human body. PSA is biodegradable into individual sialic acid units. PEG has also been shown to be immunogenic when coupled to proteins and can activate the complement system showing limitations on particular molecules. PSA has to date been shown to be non-immunogenic as well as demonstrating greater versatility and fewer limitations on early-stage development relative to PEG. We believe PSA may provide the advantages of PEG, which represents a multi-billion dollar market, without its disadvantages, offering a potential advance over PEG molecules.

We plan to develop drug candidates, such as ErepoXen that uses the PolyXen platform delivery technology, to a stage that will enable us to seek profitable out-licensing arrangements with major pharmaceutical companies for further development and eventual commercialization, in exchange for milestone payments and royalties from product sales. We are also pursuing outlicensing PolyXen for use with a partner's proprietary molecule in exchange for upfront payments, clinical milestones and royalties linked to sales. In general, our collaborative out-licensing agreements relating to the platforms are an integral part of our early-stage monetization strategy.

In addition to potentially enhancing therapeutics, we believe that adding PSA to an existing marketed biological drug may allow for patent extension, thereby potentially creating a patent-protected next generation candidate. We are exploring such opportunities.

Virexxa®

On November 13, 2015, we entered into an Asset Purchase Agreement, or the Kevelt APA, with AS Kevelt, an Estonian biotech company, or Kevelt, and Pharmsynthez. Pursuant to the Kevelt APA, Kevelt and Pharmsynthez, transferred to us certain intellectual property rights with respect to Virexxa, and the worldwide rights to develop, market and license Virexxa for certain uses, except for excluded uses within the Commonwealth of Independent States (CIS) in exchange for, among others, 3.38 million shares of our common stock. Virexxa is a Phase II oncology drug candidate which is under investigation for the treatment of certain endometrial cancers. As part of this total consideration, we also acquired Kevelt's U.S. Orphan Drug designation for the use of Virexxa in the treatment of progesterone receptor negative endometrial cancer in conjunction with progesterone therapy. The Company closed on the Asset Purchase Agreement effective April 27, 2016.

Virexxa is our most advanced candidate with an orphan designation for a subset of endometrial cancers and an Investigational New Drug, or IND, in effect for Phase II clinical trials in the U.S. and certain territories in Eastern Europe. While Virexxa (a sodium cridanimod), belongs to a class of low-molecular weight synthetic interferon, or IFN, inducers and is primarily used in a wide range of therapeutic areas such as antiviral, antibacterial, antitumor, and inflammatory indications due to its ability to modify or regulate one or more immune system functions, Virexxa may prove to be therapeutically relevant in hormone-resistant cancers by increasing the levels of progesterone receptor, or PR, expression in tumor tissue of patients who are PR deficient. As such, it may restore the sensitivity of non-responsive endometrial cancers to hormonal (e.g., progestin) therapy. Accordingly, we are pursuing the use of Virexxa for endometrial cancer.

OncoHist™

OncoHist is a therapeutic platform technology that utilizes the recombinant, modified, properties of the human histone H1.3 (H1.3) for targeted cell killing by cell necrosis or apoptosis-programmed cell death.

OncoHist may be a drug candidate to treat a broad range of cancer indications. It, unlike many competing oncology therapies, is based on a molecule occurring naturally in the human body, in the cell nucleus, and is therefore expected to be less toxic and immunogenic than other oncology therapies. We developed a novel form of the H1 histone molecule and were granted patent protection of the new chemical entity, N-bis-met-histone 1.3, or OncoHist, in use against cancer through at least 2027.

OncoHist is based on research covered under our patent portfolio related to novel functions of histones. Histone H1 has strong anti-proliferative properties against cancer cells of different histological origin. This has been demonstrated extensively for hematologic malignancies, such as leukemias, lymphomas, and myelomas, and also for tumors from other tissues. Susceptibility of cells to the cytotoxic effect of histones is determined by the ability of histone H1 to selectively destabilize the tumor cell membrane, which results in cell death. OncoHist was tested on 58 tumor cell lines derived from various tissues. Hematopoietic cancer cell lines were found to be among the cell lines the most sensitive to OncoHist. OncoHist binds to the cell membrane and the binding mechanism appears to be completely different from that of other therapeutic agents on the market for hematopoietic cancers. The Dana-Faber Cancer Institute is currently conducting additional studies of the OncoHist binding mechanism. Hematopoietic cancer lines resistant to current chemotherapeutic agents have still been sensitive to OncoHist.

We plan to develop drug candidates such as OncoHist for AML, which uses the OncoHist platform technology, to a stage that will enable us to seek profitable outlicensing arrangements or commercialization. A Phase I/II trial to evaluate the safety and tolerability of OncoHist alone for AML was conducted in 2004-2007 at Saarland University, in Germany with 22 AML patients. Formal criteria of response were not met in any of the patients; however, according to the overall assessment of the investigator three patients achieved a partial remission although the strict criteria for partial remission according to protocol were only partly fulfilled. Six patients had a temporary increase of their platelet count while on therapy during the follow-up period. Most notably, two patients who had received two treatment cycles each experienced stabilization of their disease for six and one-half and 16 months, respectively.

ImuXen™

ImuXen is a patented platform technology based on the concept of simultaneous delivery of multiple active pharmaceutical ingredients (APIs), as antigens with the same liposome. The liposomes are composed of lipids that encapsulate an aqueous core. The APIs can be trapped in the core, be associated with the lipids, or both. Proteins, peptides, nucleic acids, polysaccharides and live or inactivated infectious agents can all be used as an API with the same liposome. Both the size and the lipid composition can be controlled which affects the biological properties of the liposome. Manufacturing involves the passive entrapment of the vaccine APIs by freeze drying commercially available liposomes with the antigens of interest. When the material is rehydrated it yields liposomes with the entrapped APIs.

Having multiple APIs formulated with the same liposome allows simultaneous delivery of the antigens to the same antigen presenting cell. This may allow a more efficient immune response to all the agents presented. In addition, it is possible that multiple vaccines can be delivered with a single injection. Relevant pre-clinical studies have shown a reduction in the number of doses and dosage required, and a faster immune response time. This efficient immune response also may allow for use of antigens that traditionally give a poor antibody response.

This technology is not currently the focus of clinical development for the Company. However, through a license agreement with Pharmsynthez, there is a novel multiple sclerosis vaccine that is in clinical development in Russia. SynBio completed a Phase I/II clinical trial to treat relapsing remitting multiple sclerosis (RRMS), and secondary progressive multiple sclerosis (SPMS) in the CIS. Peptides corresponding to antigenic sections of basic myelin protein were encapsulated within liposomes to be used as the therapeutic agent in our drug candidate, Xemys, which uses the ImuXen platform technology. As an integral part of our strategy, we await later stage clinical data on Xemys to determine whether to progress this candidate into U.S. clinical trials for potential out-licensing.

Critical Accounting Estimates

The preparation of our financial statements in conformity with US GAAP requires management to make estimates, judgments and assumptions that affect the reported amounts of assets and liabilities at the date of the financial statements and the reported amount of expenses during the reporting period. On an ongoing basis, we evaluate management's estimates that are based on historical experience and on various other assumptions that we believe to be reasonable under the circumstances. The result of these evaluations forms the basis for making judgments about the carrying values of assets and liabilities and the reported amount of expenses that are not readily apparent from other sources. Because future events and their effects cannot be determined with certainty, actual results could differ from our assumptions and estimates, and such differences could be material.

There has been no material change to our critical accounting estimates since those critical accounting estimates described in our Annual Report on Form 10-K filed on March 30, 2016.

RESULTS OF OPERATIONS

Comparison of Quarter Ended June 30, 2016 and 2015

The comparison of our historical results of operations for the fiscal quarter ended June 30, 2016 to the fiscal quarter ended June 30, 2015 is set forth below:

Description	Quarter Ended June 30, 2016	Quarter Ended June 30, 2015	Increase (Decrease)	Percentage Change
Research and development ("R&D")	$ (2,205,213)	$ (555,740)	$ (1,649,473)	(297)
IPR&D expense	(39,500,000)	–	(39,500,000)	–
General and administrative	(1,557,677)	(803,399)	(754,278)	(94)
Loss from operations	(43,262,890)	(1,359,139)	(41,854,687)	(3,083)
Other income (expense)	12,863	234,453	(221,590)	(95)
Change in fair value of derivative liability	1,769,275	–	1,769,275	–
Loss on conversion of debt	(6,187,337)	–	(6,187,337)	–
Interest income	13	914	(901)	(99)
Interest expense	(103,086)	(1,386)	(101,700)	(7,338)
Net loss	$ (47,771,162)	$ (1,125,158)	$ (46,646,004)	(4,146)

Research and Development

Overall, corporate R&D expenses for the quarter ended June 30, 2016 increased by $41.1 million, or 7,404% to $41,705,213 from $555,740 in the comparable quarter in 2015. The table below sets forth the R&D costs incurred by the Company, by category of expense, for the quarters ended June 30, 2016 and 2015:

Category of Expense	Quarter ended, June 30, 2016	June 30, 2015
IPR&D expense	$ 39,500,000	$ –
Outside services and Contract Research Organizations	563,233	315,408
Salaries and wages	120,233	125,941
Share-based compensation expense	1,427,691	51,736
Rent	22,362	21,796
Other	71,695	40,859
Total research and development expense	$ 41,705,213	$ 555,740

The increase in R&D expenses during the three months ended June 30, 2016, compared to the same period in 2015 was primarily due to the Company's acquisition and immediate expensing of the Virexxa asset ($39.5 million) coupled with $1.36 million recognized in connection with warrants issued to Serum. Separate from these, the primary increase in R&D costs of approximately $200,000 relates to the addition and incorporation of Virexxa programs into the Company's operating activity.

General and Administrative

General and administrative expenses increased by $754,278 or 94% for the quarter ended June 30, 2016 to $1,557,677 from $803,399 in the same quarter in 2015. The most significant drivers of the change were related to an increase of approximately $612,000 in legal and consulting services related to efforts to effect our planned capital stock offering and uplist to a national securities exchange as well as related accounting and regulatory costs. The increase is also driven by approximately $155,000 increase in share-based compensation. These increases were partially offset by decreases in personnel and other administrative costs.

Hybrid Debt Instrument

On July 1, 2015, the Company entered into a Securities Purchase Agreement (the "SPA") with Pharmsynthez providing for the issuance of a minimum of a $3 million 10% Senior Secured Collateralized Convertible Promissory Note (the "SPA Note"). The SPA also provides for the issuance of certain warrants up to the amount of the SPA Note. The convertible debt and its embedded debt-like features were recorded on the face of the condensed consolidated balance sheet within current liabilities as an aggregate hybrid debt instrument.

On April 22, 2016, Pharmsynthez converted all convertible notes (in the principal amount of $6.5 million plus accrued interest of approximately $228,000), issued by the Company to Pharmsynthez in 2015 and 2016. The conversion rate was $4.95 per share. As such, the Company issued to Pharmsynthez 1,373,036 shares of common stock in connection with conversion of the convertible notes. The related embedded derivatives, which had been bifurcated from the host debt and accounted for separately, were settled by action of the conversion. The Company recognized a net loss on conversion, including a final mark-to-market of the compound derivative, of $4.4 million.

Other Income (Expense)

Other income decreased $221,590, or 95% for the three months ended June 30, 2016 to 30,517 to $12,863 from $234,453 in the comparable period in 2015. The current period gain of primarily relates to gains on payables held in foreign currency compared to the same period in 2015 which included adjustments to foreign currency translation for prior period corrections.

Interest Expense

Interest expense increased from $1,386 to approximately $103,000 for the quarter ended June 30, 2016 compared to the same period in 2015. The increase in interest expense is primarily due to interest charges associated with the SPA Note and APA Note. There was not a similar promissory note in the comparable period in 2015. The interest expense for the three months ended June 30, 2015, is primarily related to a financing arrangement with the landlord of the Company's office and lab lease in the US, which commenced in January 2014.

Comparison of Six Months Ended June 30, 2016 and 2015

The comparison of our historical results of operations for the six months ended June 30, 2016 to the six months ended June 30, 2015 is set forth below:

Description	Six Months Ended June 30, 2016	Six Months Ended June 30, 2015	Increase (Decrease)	Percentage Change
Research and development	$ (2,634,494)	$ (1,590,823)	$ (1,043,671)	(66)
IPR&D expense	(39,500,000)	–	(39,500,000)	–
General and administrative	(2,980,043)	(1,738,625)	(1,241,418)	(71)
Loss from operations	(45,114,537)	(3,329,448)	(41,785,089)	(1,255)
Other income (expense)	(13,551)	(225,515)	211,964	94
Change in fair value of derivative liability	1,905,289	–	1,905,289	–
Loss on issuance of hybrid debt instrument	(1,584,218)	–	(1,584,218)	–
Loss on conversion of debt	(6,187,337)	–	(6,187,337)	–
Interest income	27	1,088	(1,061)	(98)
Interest expense	(348,470)	(2,512)	(345,958)	(13,772)
Net loss	$ (51,342,797)	$ (3,556,387)	$ (47,786,410)	(1,344)

Research and Development

Overall, corporate R&D expenses for the six months ended June 30, 2016 increased by $40.5 million, or 2,549% to $42,134,494 from $1,590,823 in the comparable period in 2015. The table below sets forth the R&D costs incurred by the Company, by category of expense, for the quarters ended June 30, 2016 and 2015:

Category of Expense	Six Months Ended, June 30, 2016	June 30, 2015
IPR&D expense	$ 39,500,000	$ –
Outside services and Contract Research Organizations	986,750	1,029,537
Salaries and wages	248,792	267,481
Share-based compensation expense	1,234,240	150,881
Rent	44,441	44,913
Other	120,271	98,011
Total research and development expense	$ 42,124,494	$ 1,590,823

The increase in R&D expenses during the six months ended June 30, 2016, compared to the same period in 2015 was primarily due to the Company's acquisition and immediate expensing of the Virexxa asset ($39.5 million) coupled with $1.36 million recognized in connection with warrants issued to Serum. Separate from these, R&D costs were relative flat period over period.

General and Administrative

General and administrative expenses increased by $1,241,418 or 71% for the six months ended June 30, 2016 to $2,980,043 from $1,738,625 in the comparable period of 2015. The most significant drivers of the change were related to an increase of approximately $909,000 in legal and consulting services in connection with our efforts to effect our planned capital stock offering and uplist to a national exchange as well as related accounting and regulatory costs. The increase is also driven by approximately $436,000 increase in share-based compensation. These increases were partially offset by decreases in personnel and other administrative costs.

Hybrid Debt Instrument

On July 1, 2015, the Company entered into a Securities Purchase Agreement (the "SPA") with Pharmsynthez providing for the issuance of a minimum of a $3 million 10% Senior Secured Collateralized Convertible Promissory Note (the "SPA Note"). The SPA also provides for the issuance of certain warrants up to the amount of the SPA Note. The convertible debt and its embedded debt-like features were recorded on the face of the condensed consolidated balance sheet within current liabilities as an aggregate hybrid debt instrument.

On April 22, 2016, Pharmsynthez converted all convertible notes (in the principal amount of $6.5 million plus accrued interest of approximately $228,000), issued by the Company to Pharmsynthez in 2015 and 2016. The conversion rate was $4.95 per share. As such, the Company issued to Pharmsynthez 1,373,036 shares of common stock in connection with conversion of the convertible notes. The related embedded derivatives, which had been bifurcated from the host debt and accounted for separately, were settled by action of the conversion. The Company recognized a net loss on conversion, including a final mark-to-market of the compound derivative, of $4.4 million.

Other Expense

Other expense decreased approximately $211,964, or 94% to $13,551 for the six months ended June 30, 2016 from $225,515 in the comparable period in 2015. This decrease is primarily related to effects on payables held in foreign currency compared to the same period in 2015 which also included adjustments to foreign currency translation for prior period corrections.

Interest Expense

Interest expense increased from $2,512 to approximately $348,000 for the six months ended June 30, 2016 compared to the same period in 2015. The increase in interest expense is primarily due to interest charges associated with the SPA Note and APA Note. There was not a similar promissory note in the comparable period in 2015. The interest expense for the six months ended June 30, 2015, is primarily related to a financing arrangement with the landlord of the Company's office and lab lease in the US, which commenced in January 2014.

Liquidity and Capital Resources

At June 30, 2016 and December 31, 2015, we had working capital deficits of approximately $3.3 million and $3.2 million, respectively. At June 30, 2016 we had approximately $0.2 million in cash and $3.6 million in accounts payable and accrued expenses. At December 31, 2015, we had approximately $0.13 million in cash and $3.3 million in accounts payable and accrued expenses. Our working capital has increased in 2016 due primarily to $3.5 million of debt proceeds offset by $3.4 million net cash used during the six months end June 30, 2016, which consisted of meeting creditor obligations, furthering our clinical development, and other general operating needs.

As of August 15, 2016, the Company will be required to raise additional working capital in order to meet its financial obligations for the next 12 months.

We have historically relied upon equity financing to fund our operations. Since 2005, we have raised approximately $53.5 million in equity financing, including $6.5 million from the April 2016 conversion of the SPA Note and APA Note to equity, $10 million from the sale of shares to Baxter in January 2014, as well as received $10 million from revenue producing activities in the years prior to 2014. Approximately 90% of that revenue was from a single customer, Baxter, in connection with milestone receipts and fees for services. We expect the majority of our funding through equity or equity linked instruments to continue as a trend for the foreseeable future.

On July 1, 2015, the Company entered into the SPA with Pharmsynthez for the issuance of the SPA Note, which provided net proceeds of approximately $3 million in July 2015 for the general working capital needs of the Company.

In November 2015 we entered into the APA which included the 1 st amendment to the SPA (the "Amended SPA") wherein Pharmsynthez agreed to purchase from the Company up to $3.5 million of additional 10% Convertible Promissory Notes (the "APA Notes"). The APA contains a total financing commitment from Pharmsynthez in the amount of $10 million. The APA Notes represent bridge financing to be drawn down from this $10 million. As of August 15, 2016, the Company had received net proceeds of $4.0 million from the APA Notes, leaving a balance of $6.0 million in funding commitment from Pharmsynthez.

In connection with the closing of the APA in April 2016, the Company issued 3,045,455 shares of its common stock to Pharmsynthez. In addition, Pharmsynthez converted all convertible notes (in the principal amount of $6.5 million plus accrued interest of approximately $300,000), issued by the Company to Pharmsynthez in 2015 and 2016. The conversion rate as set forth in the notes was $4.95 per share. As such, the Company issued to Pharmsynthez 1,373,036 shares of its common stock in connection with conversion of the convertible notes, which amount, together with the 3,045,455 shares of common stock in connection with the closing of the Asset Purchase Agreement, resulted in an aggregate of 4,418,491 new shares of common stock being issued to Pharmsynthez.

Pharmsynthez, as part of the APA, has agreed to invest $6.0 million (the "Additional Investment") as part of our planned total capital raise and planned up-list to a national securities exchange (the "Capital Raise"). The $6.0 million represents the remaining available draw down from Pharmsynthez's $10 million total financing commitment. The total amount of financing contemplated in the APA is $18.5 million consisting of $4.0 million in the APA Notes (which has been drawn down as of March 30, 2016), $6.0 million in the Additional Investment and an anticipated minimum of $8.5 million in proceeds resulting from the general public offering. The Company believes this total financing will be sufficient for the Company to meet its financial obligations and to continue its planned operations for the next 12 months.

In the event that the Company is unable to cause a listing of its securities on a national securities exchange and pursuant to the APA, Pharmsynthez shall loan to the Company up to the Additional Investment of $6.0 million on essentially similar terms as the APA Notes. This outcome would require the Company to seek additional financing and/or defer certain research and development activities in order to meet its financial obligations over the next 12 months.

The Company is optimistic that it will be successful in obtaining the financing contemplated in the APA. However, there can be no assurance that it will be able to do so or, if it is able to, that it can do so under commercially reasonable terms. Further, Pharmsynthez's $6.0 million commitment is an important factor in the Capital Raise. If Pharmsynthez becomes unable or unwilling to fulfill its $6.0 million commitment, the completion of the Capital Raise will be adversely affected. These financial statements have been prepared on a going concern basis. If we are unable to complete the Capital Raise for any reason, there will be substantial doubt about our ability to continue as a going concern.

Until we reach commercialization of our technology or receive significant and regular cash flows from our current collaborations or from planned out-licensing of our technology, we expect the trend of accessing capital markets to finance our working capital needs to continue.

The only significant cash receipts that we could expect from our current collaborations would be from Shire. Due to the uncertainties and risks inherent in the clinical development process, we are unable to predict precisely when those receipts may occur, if ever. We do not expect any significant receipts to become due within the next six months. However, there can be no assurance that future receipts will ever become due because they are contingent on positive outcomes from Shire's clinical development efforts in connection with the Factor VIII drug candidate.

We have commenced the process of seeking out-license arrangements for our ErepoXen™ technology but are currently unable to reliably predict when that process may result in an agreement. Due to the uncertainties inherent in the clinical research process and unknown future market conditions, there can be no assurance our ErepoXen™ technology will lead to any future income.

Cash Flows Used in Operating Activities

Cash flows used in operating activities for the six months ended June 30, 2016 totaled approximately $3.1 million, which includes a net loss of approximately $51.3 million offset by approximately $48.2 million in non-cash charges related to the Virexxa asset acquisition, which was immediately expensed ($39.5 million), as well as the hybrid debt instrument ($6.2 million including issuance loss, interest, amortization, change in fair value, and loss on extinguishment upon conversion of the debt host). In addition, as the Company recognized a net non-cash charge of approximately $2.0 million for share-based compensation and warrants.

Cash flows used in operating activities for the six months ended June 30, 2015 totaled approximately $2.2 million, which includes a net loss of approximately $3.6 million, partially offset by approximately $0.7 million in net decreases in account receivable and increase in accounts payable and accrued expenses, approximately $0.3 million in foreign exchange translation charges and approximately $0.2 million in non-cash charges for share-based compensation. The $2.2 million includes cash expenses of approximately $0.6 million in salaries, wages, employee fringe benefits and related taxes, including scientific staff, approximately $0.8 million in program-specific clinical development costs, $0.4 million in legal fees and $0.1 million in accounting and tax consultants.

Cash Flows from Investing Activities

For the six months ended June 30, 2016 and 2015, respectively, there were no significant cash sources or uses from investing activities.

Cash Flow from Financing Activities

The Company received $3.5 million in proceeds from issuance of $3.5 million 10% convertible secured promissory notes in connection with the APA. For the quarter ended June 30, 2015, there were no significant cash sources or uses from financing activities.

Off Balance Sheet Arrangements

The Company has no off balance sheet financing arrangements. The Company has one facility lease obligation and written employment agreements with three key employees as of June 30, 2016.

Recent Accounting Pronouncements

There has been no material change to the recent accounting pronouncements under consideration since those described in our Annual Report on Form 10-K filed on March 30, 2016.

Available Information

Our website address is www.xeneticbio.com. The information in, or that can be accessed through, our website is not part of this Quarterly Report on Form 10-Q. Our Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q and Current Reports on Form 8-K and amendments to those reports are available, free of charge, on or through our website as soon as practicable after we electronically file such forms, or furnish them to, the U.S. Securities and Exchange Commission (the "SEC"). The public may read and copy any materials we file with the SEC at the SEC's Public Reference Room at 100 F Street, NE, Washington, D.C. 20549. Information on the operations of the Public Reference Room can be obtained by calling 1-800-SEC-0330. The SEC maintains an internet site that contains reports, proxy and information statements and other information regarding our filings at www.sec.gov.

ITEM 3 – QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

We are not required to provide the information required by this Item because we are a smaller reporting company.

ITEM 4 – CONTROLS AND PROCEDURES

Evaluation of Disclosure Controls and Procedures

Our management, with the participation of our Chief Executive Officer and Chief Financial Officer, evaluated the effectiveness of our disclosure controls and procedures as defined in Rules 13a-15(e) or 15d-15(e) under the Securities Exchange Act of 1934, as amended (the "Exchange Act"), as of the end of the period covered by this Quarterly Report on Form 10-Q.

Based on this evaluation our management, including our Chief Executive Officer and Chief Financial Officer concluded that, as of the end of the period covered by this Quarterly Report on Form 10-Q, our disclosure controls and procedures are designed at a reasonable assurance level and are effective to provide reasonable assurance that information we are required to disclose in reports that we file or submit under the Exchange Act is recorded, processed, summarized, and reported within the time periods specified in the SEC's rules and forms, and that such information is accumulated and communicated to our management, including our Chief Executive Officer and Chief Financial Officer, as appropriate, to allow timely decisions regarding required disclosure.

Changes in Internal Control over Financial Reporting

There have been no changes in our internal control over financial reporting that occurred during the period covered by this Quarterly Report on Form 10-Q that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

PART II – OTHER INFORMATION

ITEM 1 – LEGAL PROCEEDINGS

We are not currently subject to any material legal proceedings, nor, to our knowledge, is any material legal proceeding threatened against us. From time to time, we may be a party to certain legal proceedings, incidental to the normal course of our business. While the outcome of these legal proceedings cannot be predicted with certainty, we do not expect that these proceedings will have a material effect upon our financial condition or results of operations.

ITEM 1A – RISK FACTORS

There were no material changes to the risk factors described on SEC Form S-1 filed on May 9, 2016 (except to the extent additional factual information disclosed elsewhere in this Quarterly Report on Form 10-Q relates to such risk factors (including, without limitation, the matters discussed in Part 1, Item 2 – Management's Discussion and Analysis of Financial Condition and Results of Operations)).

ITEM 2 – UNREGISTERED SALES OF EQUITY SECURITIES AND USE OF PROCEEDS

None.

ITEM 3 – DEFAULTS UPON SENIOR SECURITIES

None.

ITEM 4 – MINE SAFETY DISCLOSURES

Not applicable.

ITEM 5 – OTHER INFORMATION

None.

ITEM 6 – EXHIBITS

The attached list of exhibits in the "Exhibit Index" immediately preceding the exhibits to this Quarterly Report on Form 10-Q is incorporated herein by reference to this item.

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

XENETIC BIOSCIENCES, INC.

August 15, 2016 By: /S/ MICHAEL SCOTT MAGUIRE

Michael Scott Maguire

Chief Executive Officer and President

EXHIBIT INDEX

EXHIBIT NUMBER	DESCRIPTION
31.1 *	Certification of Michael Scott Maguire, Principal Executive Officer, pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
31.2 *	Certification of Michael Scott Maguire, Principal Financial Officer, pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
32.1 **	Certifications of Michael Scott Maguire, Chief Executive Officer and Chief Financial Officer, pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
101 *	XBRL (eXtensible Business Reporting Language). The following materials from Xenetic Biosciences, Inc.'s Quarterly Report on Form 10-Q for the fiscal quarter ended June 30, 2016, formatted in XBRL: (i) the Condensed Consolidated Balance Sheets, (ii) the Condensed Consolidated Statements of Comprehensive Loss, (iii) the Condensed Consolidated Statements of Cash Flows, and (iv) Notes to Condensed Consolidated Financial Statements.

* Exhibit filed with this report

** Exhibit 32.1 is being furnished and shall not be deemed to be "filed" for purposes of Section 18 of the Securities Exchange Act of 1934, as amended, or otherwise subject to the liability of that section, nor shall such exhibit be deemed to be incorporated by reference in any registration statement or other document filed under the Securities Act of 1933, as amended or the Securities Exchange Act of 1934, as amended, except as otherwise stated in such filing

EXHIBIT 31.1

CERTIFICATION OF PRINCIPAL EXECUTIVE OFFICER
PURSUANT TO EXCHANGE ACT RULES 13a-14(a) AND 15d-14(a),
AS ADOPTED PURSUANT TO
SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

I, Michael Scott Maguire, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of Xenetic Biosciences, Inc.;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

    a. Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

    b. Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

    c. Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

    d. Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

    a. All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

    b. Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Dated: August 15, 2016

By: /s/ Michael Scott Maguire
Michael Scott Maguire
Principal Executive Officer and President

EXHIBIT 31.2

CERTIFICATION OF PRINCIPAL FINANCIAL OFFICER
PURSUANT TO EXCHANGE ACT RULES 13a-14(a) AND 15d-14(a),
AS ADOPTED PURSUANT TO
SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

I, Michael Scott Maguire, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of Xenetic Biosciences, Inc.;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

    a. Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

    b. Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

    c. Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

    d. Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

    a. All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

    b. Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Dated: August 15, 2016

By: /s/ Michael Scott Maguire
Michael Scott Maguire
Principal Financial Officer

EXHIBIT 32.1

CERTIFICATION PURSUANT TO
18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

In connection with the Quarterly Report of Xenetic Biosciences, Inc. (the "Company") on Form 10-Q for the quarter ended June 30, 2016, as filed with the Securities and Exchange Commission on the date hereof (the "Report"), we, the undersigned officers of the Company, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that, to the best of our knowledge:

1. The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended; and

2. The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Dated: August 15, 2016

By: /s/ Michael Scott Maguire
Michael Scott Maguire
Chief Executive Officer and President