SECURITIES AND EXCHANGE COMMISSION

WASHINGTON, D.C. 20549

FORM 8-K/A

CURRENT REPORT
PURSUANT TO SECTION 13 OR 15(d)
OF THE SECURITIES EXCHANGE ACT OF 1934

Date of Report (Date of earliest event reported): January 23, 2014

Xenetic Biosciences, Inc.

(Exact name of registrant as specified in its charter)

Nevada	333-178082	45-2952962
(State or other jurisdiction of incorporation)	(Commission File Number)	(I.R.S. Employer Identification No.)

99 Hayden Avenue, Suite 230
Lexington MA, 02421
(Address of principal executive offices)

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

(Former name or former address, if changed since last report)

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

☐ Written communications pursuant to Rule 425 under the Securities Act (17CFR 230.425)

☐ Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)

☐ Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))

☐ Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))

EXPLANATORY NOTE

This Amendment No. 1 to the Current Report on Form 8-K/A (the "Amendment") amends the Current Report on Form 8-K of Xenetic Biosciences, Inc. (the "Company") (the "Original Filing"), that was initially filed with the U.S. Securities and Exchange Commission on January 29, 2014. The Amendment is being filed to submit Exhibit 99.1 and 99.2, as required by Item 9.01(a) and (b) of Form 8-K. Exhibit 99.1 contains the consolidated financial statements of the Company, which reflect the financial position of Xenetic Biosciences plc as of December 31, 2013 and 2012 and the results of its operations for the years then ended. These consolidated financial statements thus reflect the business acquired by the Company as reported in the Original Filing, ***except that*** the Consolidated Balance Sheets, Consolidated Statements of Changes in Stockholders' Equity and the per share balances and per share prices within the accompanying footnotes to the consolidated financial statements reflect the capital structure of the Company following the implementation of the Scheme of Arrangement and the Agreement of Conveyance, Transfer and Assignment of Subsidiaries and Assumption of Obligations (the "Hive Out Agreement"), as described in the Original Filing.

Except as described above, the Amendment does not modify or update the disclosures presented in, or exhibits to, the Original Filing in any way. Those sections of the Original Filing that are unaffected by the Amendment are not included herein. The Amendment continues to speak as of the date of the Original Filing. Furthermore, the Amendment does not reflect events occurring after the filing of the Original Filing (except as to the change of capital structure). Accordingly, the Amendment should be read in conjunction with the Original Filing, as well as the Company's other filings made with the SEC pursuant to Section 13(a) or 15(d) of the Exchange Act subsequent to the filing of the Original Filing.

Item 9.01 Financial Statements and Exhibits

Exhibit No.	Description
2.1	Order of the High Court of Justice, Chancery Division, entered January 23, 2014(3)
2.2	Scheme of Arrangement(1)
10.1	Agreement of Conveyance, Transfer and Assignment of Subsidiaries and Assumption of Obligations(2)
99.1	Consolidated Balance Sheets of Xenetic Biosciences, Inc. as of December 31, 2013 and 2012 and the related Consolidated Statements of Comprehensive Loss, Consolidated Statements of Changes in Stockholders' Equity and Consolidated Statements of Cash Flows for the years ended December 31, 2013 and 2012*
99.2	Unaudited Pro Forma combined financial information for Xenetic Biosciences, Inc. and Xenetic Biosciences plc as of and for the period ended December 31, 2013*

(1) Incorporated by reference to the Current Report on Form 8-K filed with the SEC on November 25, 2013 as Exhibit 9.1.
(2) Incorporated by reference to the Annual Report on Form 10-K filed with the SEC on November 27, 2013 as Exhibit 9.3.
(3) Incorporated by reference to Current Report on Form 8-K filed with the SEC on January 23, 2014.
*** Filed herewith**

SIGNATURE

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

Xenetic Biosciences, Inc.

/s/ M. Scott Maguire

M. Scott Maguire
President, Chief Executive Officer

Date: April 10, 2014

Exhibit 99.1

XENETIC BIOSCIENCES, INC.
INDEX TO CONSOLIDATED FINANCIAL STATEMENTS

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

The Board of Directors and Shareholders of Xenetic Biosciences, Inc.

We have audited the accompanying consolidated balance sheets of Xenetic Biosciences, Inc. (the "Company") as of December 31, 2013 and 2012, and the related consolidated statements of comprehensive loss, changes in stockholders' equity, and cash flows for each of the two years in the period ended December 31, 2013. Our audits also include the financial statement schedule. These financial statements and schedule are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. We were not engaged to perform an audit of the Company's internal control over financial reporting. Our audits included consideration of internal control over financial reporting as a basis for designing audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control over financial reporting. Accordingly, we express no such opinion. An audit also includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, and evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the consolidated financial position of Xenetic Biosciences, Inc. at December 31, 2013 and 2012, and the consolidated results of its operations and its cash flows for each of the two years in the period ended December 31, 2013, in conformity with US generally accepted accounting principles. Also, in our opinion, the related financial statement schedule, when considered in relation to the basic financial statements taken as a whole, presents fairly, in all material respects, the information set forth therein.

/s/ Ernst & Young LLP

Reading, United Kingdom
April 10, 2014

XENETIC BIOSCIENCES, INC.
CONSOLIDATED BALANCE SHEETS

	DECEMBER 31,	
	2013	**2012**
ASSETS		
Current assets:		
Cash	$ 4,839,486	$ 11,136,870
Restricted cash	66,000	—
Accounts receivable	—	130,258
Other receivables	256,015	81,926
Prepaid expenses and other	168,308	195,907
Total current assets	5,329,809	11,544,961
Property and equipment, net	152,603	122,082
Goodwill	3,665,199	3,592,073
Indefinite-lived intangible assets	10,318,001	10,112,141
Total assets	$ 19,465,612	$ 25,371,257
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities:		
Accounts payable	$ 942,156	$ 119,669
Accrued expenses	1,826,867	456,744
Accrued payroll taxes	84,599	86,600
Other current liabilities	55,266	53,656
Loans due to related parties	681,124	682,993
Total current liabilities	3,590,012	1,399,662
Deferred tax liability	3,257,910	3,192,909
Total liabilities	6,847,922	4,592,571
Commitments and contingent liabilities (Note 9)	—	—
Stockholders' equity:		
Common stock, $0.01 par value; 215,456,000 shares authorized as of December 31, 2013 and 2012; 130,575,516 and 130,520,137 shares issued as of December 31, 2013 and 2012; 119,887,322 and 119,831,943 shares outstanding as of December 31, 2013 and 2012 respectively	1,305,755	1,305,201
Additional paid in capital	73,999,860	73,566,820
Accumulated deficit	(58,306,999)	(49,727,753)
Accumulated other comprehensive income	900,254	915,598
Treasury stock	(5,281,180)	(5,281,180)
Total stockholders' equity	12,617,690	20,778,686
Total liabilities and stockholders' equity	$ 19,465,612	$ 25,371,257

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

XENETIC BIOSCIENCES, INC.
CONSOLIDATED STATEMENTS OF COMPREHENSIVE LOSS

	YEAR ENDED DECEMBER 31,	
	2013	2012
Revenue	$ 1,000,000	$ 293,603
Cost of revenue	—	44,838
Gross profit	1,000,000	248,765
Operating costs and expenses:		
Research and development	3,060,306	1,943,504
General and administrative	6,553,163	3,561,898
Impairment of In-Process Research and Development	—	1,087,638
	9,613,469	6,593,040
Loss from operations	(8,613,469)	(6,344,275)
Other income (expense):		
Interest income	34,855	67,674
Interest expense	(632)	(51,739)
	34,223	15,935
Loss before income taxes	$ (8,579,246)	$ (6,328,340)
Income tax	—	—
Net loss	$ (8,579,246)	$ (6,328,340)
Other comprehensive (loss) income		
Foreign currency translation adjustment	(15,344)	1,170,501
Total comprehensive loss	$ (8,594,590)	$ (5,157,839)
Net loss per share of common stock, basic and diluted	$ (0.07)	$ (0.05)
Weighted-average shares of common stock outstanding, basic and diluted	119,836,558	119,828,687

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

XENETIC BIOSCIENCES, INC.
CONSOLIDATED STATEMENTS OF CASH FLOWS

	YEAR ENDED DECEMBER 31,	
	2013	2012
CASH FLOWS FROM OPERATING ACTIVITIES:		
Net loss	$ (8,579,246)	$ (6,328,340)
Adjustments to reconcile net loss to net cash used in operating activities:		
Depreciation	52,032	104,619
Share-based compensation	431,504	339,780
Non-cash impairment of acquired In-Process Research and Development	—	1,087,638
Non-cash interest income	—	(577)
Non-cash interest expense	—	51,739
Foreign currency translation	(14,965)	(42,155)
Changes in operating assets and liabilities:		
Accounts receivable, prepayments and other receivables	(7,519)	(31,695)
Accounts payable and accrued expenses	2,066,172	(1,443,063)
Net cash used in operating activities	(6,052,022)	(6,262,054)
CASH FLOWS FROM INVESTING ACTIVITIES:		
Purchases of property and equipment	(78,634)	(130,084)
Sales of property and equipment	—	37,847
Overdraft acquired with SymbioTec GmbH	—	(349)
Change in restricted cash	(66,000)	—
Net cash used in investing activities	(144,634)	(92,586)
CASH FLOWS FROM FINANCING ACTIVITIES:		
Proceeds from issuance of common stock	—	421,163
Proceeds from exercise of stock options	2,090	709
Proceeds from employee participation in JSOP	—	61,751
Stock issuance costs	—	(80,774)
Payments on loan from related party	—	(706,201)
Net cash provided by (used in) financing activities	2,090	(303,352)
Effect of exchange rate change on cash and cash equivalents	(102,818)	677,882
Net decrease in cash and cash equivalents, excluding restricted cash	(6,297,384)	(5,980,110)
Cash and cash equivalents at beginning of year	11,136,870	17,116,980
Cash and cash equivalents at end of year	$ 4,839,486	$ 11,136,870
SUPPLEMENTAL SCHEDULE OF NON-CASH INVESTING AND FINANCING ACTIVITIES:		
Issuance of common stock in connection with SymbioTec GmbH acquisition	$ —	$ 9,339,100
Issuance of treasury stock under Joint Share Ownership Plan awards	$ —	$ 4,692,518

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

XENETIC BIOSCIENCES, INC.
CONSOLIDATED STATEMENTS OF CHANGES IN STOCKHOLDERS' EQUITY

	Common Stock						
	Number of Shares	Par value ($0.01)	Additional Paid In Capital	Accumulated Deficit	Accumulated Other Comprehensive Income (Loss)	Treasury Stock	Total Stockholders' Equity
Balance as of January 1, 2012	92,234,321	$ 922,343	$ 58,124,439	$(43,399,413)	$ (254,903)	$ (588,662)	$14,803,804
Exercise of stock options	19,535	195	514	—	—	—	709
Issuance of common stock in SymbioTec GmbH acquisition	25,600,000	256,000	9,002,326	—	—	—	9,258,326
Issuance of Joint Share Ownership Plan awards	8,986,281	89,863	4,664,406	—	—	(4,692,518)	61,751
Issuance of common stock to Serum Institute of India Limited	3,680,000	36,800	1,435,355	—	—	—	1,472,155
Share-based compensation	—	—	339,780	—	—	—	339,780
Net loss	—	—	—	(6,328,340)	—	—	(6,328,340)
Foreign currency translation	—	—	—	—	1,170,501	—	1,170,501
Balance as of December 31, 2012	130,520,137	$1,305,201	$ 73,566,820	$(49,727,753)	$ 915,598	$ (5,281,180)	$20,778,686
Exercise of stock options	55,379	554	1,536	—	—	—	2,090
Share-based compensation	—	—	431,504	—	—	—	431,504
Net loss	—	—		(8,579,246)	—	—	(8,579,246)
Foreign currency translation	—	—			(15,344)	—	(15,344)
Balance as of December 31, 2013	130,575,516	$1,305,755	$ 73,999,860	$(58,306,999)	$ 900,254	$ (5,281,180)	$12,617,690

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

1. The Company

Background

Xenetic Biosciences, Inc. (formerly General Sales and Leasing, 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, refractory Acute Myeloid Leukemia ("AML"), Cystic Fibrosis, Multiple Sclerosis, and certain cancers based upon its proprietary and patented drug delivery platform systems and drug development collaborations with major third party pharmaceutical companies around the world.

The Company's drug delivery platform systems include PolyXen® for creating next generation biologic drugs by extending the efficacy, safety and half-life of existing biologic drugs, OncoHist™ for the development of novel oncology drug therapies focused on orphan indications in humans and ImuXen® for the development of vaccines that can simultaneously deliver multiple active pharmaceutical ingredients. The Company is also developing a broad pipeline of drug candidates for next generation biologics and novel oncology therapeutics in a number of orphan disease indications.

Recent Significant Transaction

On January 23, 2014, the Company consummated a reverse merger (the "Acquisition") pursuant to a written plan of reorganization, in which the Company merged with Xenetic Biosciences plc ("Xenetic UK"), a company incorporated in England and Wales under the Companies Act of 1985, such that Xenetic UK became a wholly owned subsidiary of the Company. Upon completion of the Acquisition, the Company acquired all issued and outstanding shares of capital stock of Xenetic UK in exchange for the issuance of 56 new shares of the Company's common stock for every whole 175 shares of Xenetic UK's capital stock previously issued and outstanding. As a result, 132,545,504 shares of the Company's common stock were newly issued and immediately following the Acquisition, there were 136,045,504 shares of common stock issued and outstanding. Since former Xenetic UK shareholders owned, immediately following the Acquisition, approximately 97% of the combined company on a fully diluted basis and all members of the combined company's executive management were from Xenetic UK, Xenetic UK was deemed to be the acquiring company for accounting purposes and the transaction was accounted for as a reverse acquisition in accordance with accounting principles generally accepted in the United States ("US GAAP").

Prior to the Acquisition, the Company changed its name from General Sales and Leasing, Inc. to Xenetic Biosciences, Inc. As used in these consolidated financial statements, unless otherwise indicated, all references herein to "Xenetic", the "Company", "we" or "us" refer to Xenetic Biosciences, Inc. and its wholly owned subsidiaries.

2. Summary of Significant Accounting Policies

Principles of Consolidation

The financial statements of the Company include the accounts of Xenetic Biosciences plc 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.

2. Summary of Significant Accounting Policies (Continued)

Principles of Consolidation (Continued)

In accordance with the reverse acquisition guidance in Financial Accounting Standards Board ("FASB") Accounting Standards Codification ("ASC") Topic 805 *Business Combinations* ("ASC 805"), the consolidated financial statements of the Company (the accounting acquiree) are a continuation of the financial statements of Xenetic UK (the accounting acquirer), adjusted to retroactively change Xenetic UK's legal capital to reflect the legal capital of the Company. This adjustment has been calculated based upon the share exchange ratio of 56 new shares of Company common stock for every whole 175 shares of Xenetic UK capital stock previously issued and outstanding. Comparative information preserved in these consolidated financial statements is also retroactively adjusted to reflect the legal capital of the Company.

Use of Estimates

The preparation of the financial statements in accordance with US GAAP requires management to make estimates, judgments and assumptions that affect the reported amounts of assets and liabilities, the reported amounts of revenue and expenses in the financial statements and disclosures in the accompanying notes. Actual results and outcomes may differ materially from management's estimates, judgments and assumptions.

Fair Value of Financial Instruments

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 cash equivalents are measured at fair value on a recurring basis and classified as Level 1 in the fair value hierarchy because they are valued using quoted prices for the years ended December 31, 2013 and 2012. The carrying amount of certain of the Company's financial instruments approximate fair value due to their short maturities.

Cash, Cash Equivalents and Investments

The Company considers all highly liquid investments with maturities of 90 days or less from the date of purchase to be cash equivalents. Investments with original maturities of greater than 90 days from the date of purchase but less than one year from the balance sheet date are classified as short-term investments, while investments with maturities of one year or beyond from the balance sheet date are classified as long-term investments. Management determines the appropriate classification of its cash equivalents and investment securities at the time of purchase and re-evaluates such determination as of each balance sheet date.

2. Summary of Significant Accounting Policies (Continued)

Restricted Cash

As of December 31, 2013, restricted cash represents a certificate of deposit that matures annually, and secures the Company's outstanding letter of credit of $66,000 for the operating lease for new office and laboratory space in Lexington, Massachusetts. The letter of credit is required to be maintained through the term of the lease, which expires in January 2019.

Accounts Receivable and Amounts Due from Collaboration Partners

Accounts receivable are amounts due from third parties and collaboration partners as a result of research and development services provided or license fees due but not yet paid. The Company considered the need for an allowance for doubtful accounts and has concluded that no allowance was needed as of December 31, 2013 or 2012, as the estimated risk of loss on its accounts receivable was determined to be minimal. Historically, the Company has fully collected all accounts receivables from third parties and collaboration partners within their respective payment periods and in accordance with the Company's payment terms.

Concentration of Credit Risk

Financial instruments that subject the Company to concentrations of credit risk include cash and accounts receivable. The Company maintains cash and cash equivalents with various major financial institutions. The Company performs periodic evaluations of the relative credit standing of these financial institutions and limits the amount of credit exposure with any one institution.

Accounts receivable represent amounts due from collaboration partners. The Company monitors economic conditions to identify facts or circumstances that may indicate that any of its accounts receivable are at risk.

As of December 31, 2012, a single collaboration partner accounted for 100% of the Company's accounts receivable. Refer to Note 4, *Significant Strategic Drug Development Collaborations*, for additional information regarding the Company's collaboration agreements. The Company had no accounts receivable as of December 31, 2013.

Property and Equipment

The Company records property and equipment at cost less accumulated depreciation. Expenditures for major renewals and improvements which extend the life or usefulness of the asset are capitalized. Items of an ordinary repair or maintenance nature are charged directly to operating expense as incurred. The Company calculates depreciation using the straight-line method over the estimated useful lives of the assets:

Asset Classification	Estimated Useful Life
Laboratory equipment	4 years
Office and computer equipment	4 years
Leasehold improvements	4 years or the remaining term of the lease, if shorter

The Company eliminates the cost of assets retired or otherwise disposed of, along with the corresponding accumulated depreciation, from the related accounts, and the resulting gain or loss is reflected in the results of operations.

2. Summary of Significant Accounting Policies (Continued)

Indefinite-Lived Intangible Assets

Acquired indefinite-lived intangible assets consist of In-Process Research and Development ("IPR&D") related to the Company's business combination with SymbioTec, which were recorded at fair value on the acquisition date. IPR&D intangible assets are considered indefinite-lived intangible assets until completion or abandonment of the associated research and development efforts. Substantial additional research and development may be required before the Company's IPR&D reaches technological feasibility. Upon completion of the IPR&D project, the IPR&D assets will be amortized over their estimated useful lives.

In accordance with ASC Topic 350 *Intangibles – Goodwill and Other* ("ASC 350"), the Company assesses intangible assets with indefinite lives for impairment using the two-step impairment test at least annually on October 1, or when events or changes in the business environment indicate the carrying value may not be fully recoverable. In addition, the Company utilizes an independent third party to assist in the determination of the fair value of the Company's indefinite-lived intangible assets. Pursuant to Accounting Standards Update ("ASU") No. 2012-02, *Intangibles – Goodwill and Other (Topic 350): Testing Indefinite-Lived Intangible Assets for Impairment*, the Company has the option to first assess qualitative factors to determine whether the existence of events or circumstances leads to the determination that it is more likely than not (that is, a likelihood of more than 50%) that the acquired IPR&D is impaired. If the Company chooses to first assess the qualitative factors and it is determined that it is not more likely than not acquired IPR&D is impaired, the Company is not required to take further action to test for impairment. The Company also has the option to bypass the qualitative assessment and perform only the quantitative impairment test, which the Company may choose to perform in some periods but not in others.

The determinations as to whether, and, if so, the extent to which, acquired IPR&D become impaired are highly judgmental and based on significant assumptions regarding the projected future financial condition and operating results, changes in the manner of the use and development of the acquired assets, the Company's overall business strategy, and regulatory, market and economic environment and trends. No impairment was recorded during the year ended December 31, 2013. In the year ended December 31, 2012, IPR&D acquired from Serum Institute of India Limited ("Serum Institute") was immediately impaired as it was not acquired in connection with a business combination.

IPR&D that is acquired in a transaction that is not a business combination is not capitalized but expensed in the period acquired. Refer to Note 4, *Significant Strategic Drug Development Collaborations*, for further discussion on IPR&D acquired in a transaction that does not meet the criteria for a business combination.

Goodwill

Goodwill is comprised of the purchase price of business combinations in excess of the fair value assigned at acquisition to the net tangible and identifiable intangible assets acquired. Goodwill was assigned to the Company's single reporting unit at the date of the acquisition of SymbioTec. Goodwill is not amortized, but in accordance with ASC 350, the Company assesses goodwill for impairment using the two-step impairment test at least annually, or when events or changes in the business environment indicate the carrying value may not be fully recoverable. The Company performs its annual impairment review on October 1.

2. Summary of Significant Accounting Policies (Continued)

Goodwill (Continued)

Pursuant to ASU No. 2011-08, *Intangibles – Goodwill and Other (Topic 350) – Testing Goodwill for Impairment*, the Company has the option to first assess qualitative factors to determine whether the existence of events or circumstances leads to the determination that it is more likely than not (that is, a likelihood of more than 50%) that goodwill is impaired. If the Company chooses to first assess qualitative factors and it is determined that it is not more likely than not goodwill is impaired, the Company is not required to take further action to test for impairment. The Company also has the option to bypass the qualitative assessment and perform only the quantitative impairment test, which the Company may choose to do in some periods but not in others.

In addition, the Company assesses market conditions, industry developments and internal operations to determine if events or changes in the business environment indicate the carrying value of goodwill may not be fully recoverable. No impairments were recorded during the years ended December 31, 2013 or 2012.

Impairment of Long-Lived Assets

In accordance with ASC Topic 360 *Property, Plant and Equipment*, the Company reviews long-lived assets to be held and used, including property and equipment, for impairment whenever events or changes in circumstances indicate that the carrying amount of the assets or asset group may not be fully recoverable. No such impairments were recorded during the years ended December 31, 2013 or 2012.

Evaluation of recoverability is based on an estimate of undiscounted future cash flows resulting from the use of the asset or asset group and its eventual disposition. Impairment, if any, is calculated as the amount by which an asset's carrying value exceeds its fair value, typically using discounted cash flows to determine fair value.

Foreign Currency Translation

The Company's reporting currency is US dollars. During the years ended December 31, 2013 and 2012, the Company had operations in the United Kingdom ("UK"), United States ("US") and Germany. The functional currencies of the operations in the UK, US and Germany are their local currencies: British pounds sterling, US dollars and euros, respectively. Assets and liabilities of foreign operations are translated to US dollars at the exchange rate in effect at the balance sheet date and revenue and expenses at the average exchange rate for the period. Gains and losses from the translation of the consolidated financial statements of foreign subsidiaries into US dollars are included in stockholders' equity as a component of other comprehensive income. The Company does not record tax provisions or benefits for the net changes in foreign currency translation adjustments, as the company intends to permanently reinvest undistributed earnings in its foreign subsidiaries. Realized and unrealized gains and losses resulting from foreign currency transactions arising from exchange rate fluctuations on balances denominated in currencies other than the functional currencies, are recognized in "Other (expense) income" in the consolidated statements of comprehensive loss. Monetary assets and liabilities that are denominated in a currency other than the functional currency are re-measured to the functional currency using the exchange rate at the balance sheet date and gains or losses are recorded in "Other (expense) income" in the consolidated statements of comprehensive loss.

2. Summary of Significant Accounting Policies (Continued)

Revenue Recognition

The Company enters into supply, license and collaboration arrangements with pharmaceutical and biotechnology partners, some of which include royalty agreements based on potential net sales of approved commercial pharmaceutical products. The Company recognizes revenue in accordance with the authoritative guidance, ASC Topic 605, *Revenue Recognition*. The Company recognizes revenue when all of the following criteria are met: (i) persuasive evidence of an arrangement exists, (ii) delivery (or passage of title) has occurred or services have been rendered, (iii) the seller's price to the buyer is fixed or determinable, and (iv) collectability is reasonably assured.

Supply services

Supply services are primarily derived from cost-plus and fixed price supply agreements with the Company's collaboration partners and revenue is recognized when there is persuasive evidence that an arrangement exists, delivery has occurred in accordance to sales terms, the price is fixed or determinable, and collection is reasonably assured. The Company has not experienced any significant returns from customers.

License, collaboration and other

The terms of the Company's license agreements include delivery of an Intellectual Property ("IP") license to a collaboration partner. The Company may be compensated under license arrangements through a combination of non-refundable upfront payments, development and regulatory objective payments and royalty payments on future product sales by partners. Non-refundable upfront payments and development and regulatory objective payments received by the Company in license and collaboration arrangements that include future obligations, such as supply obligations, are recognized ratably over the Company's expected performance period under each respective arrangement. The Company makes its best estimate of the period over which the Company expects to fulfill the Company's performance obligations, which may include technology transfer assistance, research activities, clinical development activities, and manufacturing activities from development through the commercialization of the product. Given the uncertainties of these collaboration arrangements, significant judgment is required to determine the duration of the performance period. Non-refundable upfront license fees received, whereby continued performance or future obligations are considered inconsequential or perfunctory to the relevant licensed technology, are recognized as revenue upon delivery of the technology.

The Company expects to recognize royalty revenue in the period of sale, based on the underlying contract terms, provided that the reported sales are reliably measurable and the Company has no remaining performance obligations, assuming all other revenue recognition criteria are met.

Reimbursements for research and development services completed by the Company related to the collaboration agreements are recognized in operations as revenue on a gross basis.

2. Summary of Significant Accounting Policies (Continued)

Revenue Recognition (Continued)

The Company's license and collaboration agreements with certain collaboration partners could also provide for future payments to the Company based solely upon the performance of the respective collaboration partner in consideration of deadline extensions or upon the achievement of specified sales volumes of approved drugs. For such payments, the Company expects to recognize the payments as revenue when earned under the applicable contract terms on a performance basis or ratably over the term of the agreement. These payments may also be recognized as revenue when continued performance or future obligations by the Company are considered inconsequential or perfunctory. Refer to Note 4, *Significant Strategic Drug Development Collaborations*, for discussion on arrangements with specific collaboration partners.

Cost of Revenue

The Company expects to recognize costs of revenue related to the Company's supply services in the same period revenue is recognized from supply services.

Research and Development Expenses

Research and development expenses consist of expenses incurred in performing research and development activities, including compensation and benefits, facilities expenses, overhead expenses, clinical trial and related clinical manufacturing expenses, fees paid to Clinical Research Organizations and other outside expenses. The Company expenses research and development costs as incurred. The Company records non-refundable advance payments made for research and development services prior to the services being rendered as prepaid expenses on the consolidated balance sheets and expenses them as the services are provided. The value ascribed to intangible assets acquired but which have not met capitalization criteria is expensed as research and development at the time of acquisition.

Share-Based Compensation

Stock options

The Company grants share-based payments in the form of options to employees and non-employees, Joint Share Ownership Plan ("JSOP") awards to employees, as well as agreements to issue common stock in exchange for services provided by non-employees. The Company measures share-based payments in accordance with ASC Topic 718, *Compensation – Stock Compensation.*

Stock option compensation expenses are based on the fair value of the underlying option calculated using the Black-Scholes option pricing model. Determining the appropriate fair value model and related assumptions requires judgment, including estimating share price volatility and expected terms of the awards. Refer to Note 12, *Share-Based Compensation*, for additional information regarding these assumptions.

2. Summary of Significant Accounting Policies (Continued)

Share-Based Compensation (Continued)

For employee options, the fair value measurement date is generally on the date of grant and the related compensation expense is recognized on a straight-line basis over the requisite period of the awards, less expense for expected forfeitures. Share-based compensation expense related to stock options granted to non-employees is recognized as the services are rendered on a straight-line basis. For non-employee options, the fair value measurement date is the earlier of the date the performance of services is complete or the date the performance commitment has been reached. The Company generally determines the fair value of the stock options is more reliably measurable than the fair value of the services received. Compensation expense related to stock options granted to non-employees is subject to re-measurement at each reporting period until the options vest. The Company estimates forfeitures at the time of grant and revises those estimates in subsequent periods if actual forfeitures differ from those estimates. Upon exercise, stock options are redeemed for newly issued shares of common stock.

Common stock awards

The Company grants common stock awards to non-employees in exchange for services provided. The Company generally measures the fair value of these awards using the fair value of the services provided as it is a more reliable measure of the fair value of the awards. The fair value measurement date of these awards is generally the date the performance of services is complete. The fair value of the awards is recognized as services are rendered on a straight-line basis.

Joint Share Ownership Plan awards

The Company measures the fair value of JSOP awards using Monte Carlo simulations based on the terms of the plan, which includes vesting conditions based on the achievement of certain market conditions in the form of share price hurdles. Accordingly, the Company recognizes compensation expense related to its JSOP awards using a graded vesting model. Determination of the appropriate fair value model and related assumptions requires judgment, including estimating share price volatility and the expected term of the awards. Refer to Note 12, *Share-Based Compensation*, for additional information regarding JSOP awards.

Warrants to Purchase Common Stock

In connection with certain financing and collaboration arrangements, the Company issues warrants to purchase shares of its common stock to its collaborative partners. Outstanding warrants are standalone instruments that are not puttable or mandatorily redeemable by the holder and are classified as equity awards. The Company measures the fair value of the awards using the Black-Scholes option pricing model as of the measurement date. Warrants issued to collaboration partners in conjunction with the issuance of common stock are recorded at fair value as a reduction in additional paid-in capital of the common stock issued. All other warrants are recorded at fair value as compensation expense over the requisite service period or at the date of issuance, if there is not a service period. Warrants granted in connection with ongoing arrangements are more fully described in Note 10, *Stockholders' Equity.*

2. Summary of Significant Accounting Policies (Continued)

Income Taxes

The Company records deferred income taxes to recognize the effect of temporary differences between tax and financial statement reporting. The Company calculates the deferred taxes using enacted tax rates expected to be in place when the temporary differences are realized and records a valuation allowance to reduce deferred tax assets if it is determined that it is more likely than not that all or a portion of the deferred tax asset will not be realized. The Company considers many factors when assessing the likelihood of future realization of deferred tax assets, including recent earnings results, expectations of future taxable income, carryforward periods available and other relevant factors. The Company records changes in the required valuation allowance in the period that the determination is made. As of December 31, 2013 and 2012, the Company had a full valuation allowance on the balance of its recognized deferred tax assets. The deferred tax liability recorded as of December 31, 2013 and 2012 relates to the acquisition of SymbioTec during 2012, refer to Note 3, *Acquisitions*, for additional information.

The Company assesses its income tax positions and records tax benefits for all years subject to examination based upon management's evaluation of the facts, circumstances and information available as of the reporting date. For those tax positions where it is more likely than not that a tax benefit will be sustained, the Company records the largest amount of tax benefit with a greater than 50% likelihood of being realized upon ultimate settlement with a taxing authority having full knowledge of all relevant information. For those income tax positions where it is not more likely than not that a tax benefit will be sustained, the Company does not recognize a tax benefit in the financial statements. The Company records interest and penalties related to uncertain tax positions, if applicable, as a component of income tax expense. Refer to Note 8, *Income Taxes*, for additional information regarding the Company's income taxes.

Basic and Diluted Net Loss per Share

The Company computes basic net loss per share by dividing net loss attributable to common stockholders by the weighted-average number of shares of common stock outstanding during the period. The Company computes diluted net loss per share after giving consideration to the dilutive effect of stock options that are outstanding during the period, except where such non-participating securities would be anti-dilutive. The Company's JSOP awards are considered treasury shares by the Company and thus do not impact the Company's net loss per share calculation.

Basic and diluted net loss per share are the same for the years ended December 31, 2013 and 2012 as the Company was in a net loss position. Potentially dilutive non-participating securities have not been included in the calculations of diluted net loss per share, as their inclusion would be anti-dilutive.

Segment Information

Operating segments are identified as components of an enterprise about which separate discrete financial information is available for evaluation by the chief operating decision maker, or decision making group, in making decisions on how to allocate resources and assess performance. The Company views its operations and manages its business in one operating segment.

2. Summary of Significant Accounting Policies (Continued)

Operating Leases

The Company leases administrative and laboratory facilities under operating leases. Lease agreements may include rent holidays, rent escalation clauses and tenant improvement allowances. The Company recognizes scheduled rent increases on a straight-line basis over the lease term beginning with the date the Company takes possession of the leased space.

Business Combinations

The Company has a history of engaging in acquisition transactions that require us to evaluate whether the transaction meets the criteria of a business combination and, in some cases, whether it meets the definition of a reverse merger. For those acquisitions that meet the criteria for a reverse merger, the Company evaluates the entities involved to distinguish the appropriate accounting acquirer and acquiree according to ASC 805. If the transaction does not meet the reverse merger business combination requirements, the transaction is accounted for as a recapitalization and no goodwill or intangible assets are recognized. If the acquisition meets the definition of a business combination, the Company allocates the purchase price, including any contingent consideration, to the assets acquired and the liabilities assumed at their estimated fair values as of the date of the acquisition with any excess of the purchase price paid over the estimated fair value of net assets acquired recorded as goodwill. The fair value of the assets acquired and liabilities assumed is typically determined by using either estimates of replacement costs or discounted cash flow valuation methods.

When determining the fair value of tangible assets acquired, the Company estimates the cost to replace the asset with a new asset taking into consideration such factors as age, condition and the economic useful life of the asset. When determining the fair value of intangible assets acquired, the Company uses judgment to estimate the applicable discount rate, growth rates and the timing and amount of future cash flows. The fair value of assets acquired and liabilities assumed is typically determined using the assistance of an independent third party specialist.

Acquisition related costs are expensed in the period in which the costs are incurred and the services are received.

Recent Accounting Pronouncements

In February 2013, the FASB issued ASU No. 2013-02 *Comprehensive Income (Topic 220) – Reporting of Amounts Reclassified Out of Accumulated Other Comprehensive Income.* The new guidance provides information about the amounts reclassified out of accumulated other comprehensive income (“AOCI”) by component. An entity is required to present, either on the face of the financial statements or in the notes, significant amounts reclassified out of AOCI by the respective line items of net income, but only if the amount reclassified is required to be reclassified in its entirety in the same reporting period. For amounts that are not required to be reclassified in their entirety to net income, an entity is required to cross-reference to other disclosures that provide additional details about those amounts. On January 1, 2013 the Company adopted this standard, which had no impact on its financial position or results of operations.

2. Summary of Significant Accounting Policies (Continued)

Recent Accounting Pronouncements (Continued)

In July 2012, the FASB issued ASU No. 2012-02. The amended guidance provides information about an entity's option to perform a qualitative analysis to assess whether the existence of events and circumstances indicates that it is more likely than not that indefinite-lived intangible assets other than goodwill are impaired. If, after assessing the totality of events and circumstances, an entity concludes that it is not more likely than not that the indefinite-lived intangible asset is impaired, then the entity is not required to take further action. However, if an entity concludes otherwise, it is required to perform the first step of the two-step impairment test by calculating the fair value of the indefinite-lived intangible asset and comparing the fair value with the carrying amount. If the carrying amount exceeds its fair value, then the entity is required to perform the second step to measure the amount of impairment loss. An entity also has the option to bypass the qualitative assessment for any indefinite-lived intangible asset in any period and proceed directly to performing the quantitative impairment test. On January 1, 2013 the Company early adopted this standard, which had no impact on its financial position or results of operations.

In December 2011, the FASB issued ASU No. 2011-12, *Comprehensive Income (Topic 220) – Deferral of the Effective Date for Amendments to the Presentation of Reclassifications of Items Out of Accumulated Other Comprehensive Income in Accounting Standards Update No. 2011-05* ("ASU 2011-12"). The amended guidance provides further information about the deferral of amendments to the presentation of reclassifications of items out of AOCI but does not affect ASU No. 2011-05 *Comprehensive Income (Topic 220) – Presentation of Comprehensive Income* ("ASU 2011-05"), which the Company adopted starting January 1, 2012. Under ASU 2011-05, a company may present the total of comprehensive income, the components of net income, and the components of other comprehensive income either in a single continuous statement of comprehensive income or in two separate but consecutive statements. In either case, a company is required to present each component of net income along with total net income, each component of other comprehensive income along with a total for other comprehensive income, and a total amount for comprehensive income. On January 1, 2012 the Company adopted ASU 2011-12, which had no impact on its financial position or results of operations.

In September 2011, the FASB issued ASU No. 2011-08. The amended guidance provides information about an entity's option to perform a qualitative analysis to determine whether the existence of events or circumstances leads to a determination that it is more likely than not that the fair value of a reporting unit is less than its carrying amount. If after this assessment the entity determines it is not more likely than not that the fair value of the reporting unit is less than its carrying amount, then performing the quantitative two-step impairment test is unnecessary. However, if an entity concludes otherwise, it is required to perform the first step of the two-step impairment test by calculating the fair value of the reporting unit and comparing the fair value with the carrying amount of the reporting unit. If the carrying amount of the reporting unit exceeds its fair value, then the entity is required to perform the second step to measure the amount of impairment loss. An entity also has the option to bypass the qualitative assessment in any period and proceed directly to performing the quantitative impairment test. On January 1, 2012 the Company adopted this standard, which had no impact on its financial position or results of operations.

2. Summary of Significant Accounting Policies (Continued)

Recent Accounting Pronouncements (Continued)

In May 2011, the FASB issued ASU No. 2011-04 *Fair Value Measurement (Topic 820) – Amendments to Achieve Common Fair Value Measurement*, which includes amended guidance on fair value measurements. This newly issued accounting standard clarifies the application of certain existing fair value measurement guidance and expands the disclosures for fair value measurements that are estimated using significant unobservable (Level 3) inputs. This accounting standard was effective on a prospective basis for annual and interim reporting periods beginning on or after December 15, 2011. The adoption of this standard has not had a material impact on the Company's financial position or results of operations.

3. Acquisitions

SymbioTec GmbH

On January 17, 2012, the Company completed the acquisition of all of the outstanding shares of SymbioTec, a privately held company located in Germany, in exchange for 25.6 million shares of the Company's common stock. The full consideration transferred was $9.75 million, which included the assumption of a SymbioTec note payable due to the Company in the amount of approximately $411,000. In addition, the Company incurred $80,774 of stock issuance costs. SymbioTec is principally focused on the discovery of therapies designed to treat cancer in humans. SymbioTec's lead product candidate, OncoHist™, is in the pre-clinical stage of development for the treatment of refractory AML and Non-Hodgkins Lymphoma. OncoHist™ has been granted orphan drug status by both the U.S. Food and Drug Administration ("FDA") and the European Medicines Agency.

The acquisition has been accounted for as a business combination in accordance with ASC 805. In addition to acquiring all of the outstanding stock of SymbioTec and obtaining the rights to the OncoHist™ intangible asset, the Company obtained the services of key employees and the rights to a second antibody and an antibody conjugate, which are both in pre-clinical development.

The following table summarizes the estimated fair values of the separately identifiable assets acquired and liabilities assumed as of January 17, 2012:

Intangible asset	$ 9,579,660
Property and equipment	53,286
Trade and other receivables	51,627
Cash and cash equivalents	(349)
Trade and other payables	(312,301)
Deferred tax liability	(3,024,778)
Total identifiable net assets	6,347,145
Goodwill	3,402,923
Total	$ 9,750,068

3. Acquisitions (Continued)

SymbioTec GmbH (Continued)

The Company estimated the fair value of the OncoHist™ intangible asset using the Multi-Period Excess Earnings Method (the "MPEEM"), which considers forecasted revenue and operating projections for the 18 years following the acquisition date and applies a probability adjusted cash flow analysis utilizing a discount rate of approximately 50%. Refer to Note 6, *Goodwill and Indefinite-Lived Intangible* Assets, for further discussion on the valuation assumptions used. The fair value associated with the OncoHist™ intangible asset was $9.58 million as of the acquisition date. As of December 31, 2013, the Company estimates the cost to complete pre-clinical work necessary for the filing of an Investigation New Drug ("IND") filing with the FDA in the first quarter of 2015 and progress clinical development through completion of a phase I/II(a) human clinical trial will be approximately $10 million. Based upon current expectations, completion of any such phase I/II(a) clinical trial is expected by the end of the second quarter of 2017.

The Company's goodwill principally relates to establishing a deferred tax liability for the OncoHist™ intangible asset which has no tax basis and, therefore, is not tax deductible.

The Company concluded pro forma revenues and earnings related to the SymbioTec acquisition assuming the acquisition occurred on January 1, 2012 would not provide materially different results. In addition, the Company determined that there were no material, non-recurring pro forma adjustments directly attributable to the acquisition.

4. Significant Strategic Drug Development Collaborations

Baxter Healthcare SA and Baxter Healthcare Corporation

In August 2005, the Company entered into an exclusive research, development, license and supply agreement with Baxter Healthcare SA ("Baxter SA") and Baxter Healthcare Corporation (together referred to as "Baxter") to develop products with an extended half-life of certain proteins and molecules using the Company's patent protected PolyXen® technology whereby polysialyic acid ("PSA" – a chain of polysialic acids) is chemically conjugated with Baxter's proprietary molecule(s) to create a new generation of drugs to treat the failure of blood to coagulate in the therapeutic treatment of blood and bleeding disorders, such as hemophilia. The lead candidate in this collaboration is a longer-acting form of a full length recombinant Factor VIII ("rFVIII") protein. Under the terms of the agreement, the Company is entitled to research and development funding and is responsible for providing Baxter with a transfer of the Company's proprietary technology and supplying its requirements for PSA. Related to research and development service fees, approximately $5 million has been paid and recognized as revenue in periods prior to 2012, with no amounts recognized during December 31, 2013 and 2012.

During December 2006, the Company entered into a supply agreement with Baxter and Serum Institute, where Baxter can either directly or indirectly obtain a supply of PSA from Serum Institute on a cost basis. Baxter is responsible for all clinical development, regulatory and commercialization expenses. The agreement is terminable by both parties under customary conditions. The agreement was amended in September 2010 to provide for a change in the milestone schedules and options for further extending the regulatory milestone deadlines. Commensurate with the 2010 amendment, the bulk of research activities were transferred to Baxter to be further pursued in-house. The Company does not have any continuing obligations related to the provision for research activities under the amended agreement.

4. Significant Strategic Drug Development Collaborations (Continued)

Baxter Healthcare SA and Baxter Healthcare Corporation (Continued)

The Company is entitled to certain amounts in total development, regulatory, sales and deadline extension receipts, of which $3 million was received and recognized as revenue in periods prior to 2012, and $1 million was received and recognized as revenue during the year ended December 31, 2013 as the Company's continued performance or future obligations are considered inconsequential or perfunctory. No amounts were recognized as revenue during the year ended December 31, 2012. The Company is also entitled to royalties ranging from 2.0% to 3.5% on potential net sales varying by country of sale. The Company's right to receive these royalties in any particular country will expire upon the later of ten years after the first commercial sale of the product in that country or the expiration of patent rights in that particular country.

This agreement was most recently amended in January 2014, resulting in increased development, regulatory, sales and deadline extension receipts, restructured target deadlines and royalty receipts on potential net sales. The Company is entitled to $18 million in development receipts, $16 million in regulatory receipts and $66 million in sales target receipts, which are contingent on the performance of Baxter. In connection with this amendment, Baxter SA also made a $10 million equity investment in the Company. Refer to Note 15, *Subsequent Events*, for additional information.

SynBio LLC

In August, 2011, SynBio LLC ("SynBio") and the Company entered into a stock subscription and collaborative development of pharmaceutical products agreement (the "Co-Development Agreement"). The Company granted an exclusive license to SynBio to develop pharmaceutical products using certain molecule(s) based on SynBio's technology and the Company's proprietary technology (PolyXen®, OncoHist™ and ImuXen®) that prolongs the active life and/or improves the pharmacokinetics of certain therapeutic proteins and peptides (as well as conventional drugs). In return, SynBio granted an exclusive license to the Company to use the pre-clinical and clinical data generated by SynBio in certain agreed products and engage in the development of commercial candidates.

SynBio and the Company are each responsible for funding their own company's research activities. There are no milestone or other research-related payments due under the agreement other than fees for the supply of each company's respective research supplies based on their technology, which, when provided, are due to mutual convenience and not representative of an ongoing or recurring obligation to supply research supplies. For the years ended December 31, 2013 and 2012, the Company recognized $0 and $100,000 in supply service revenues respectively, in connection with the Co-Development Agreement. Most recently, similar to the Company's agreement with Baxter, Serum Institute has agreed to directly provide the research supplies to SynBio, where the Company is not liable for any failure to supply the research supplies as a result of any act or fault of Serum Institute's. Upon successful commercialization of any resultant products, the Company would receive royalties of 10% of sales in certain territories and pay royalties of 10% to SynBio for sales outside those certain territories. Through December 31, 2013, the Company and SynBio continue to engage in research and development activities with no resultant commercial products. Aside from the supply service revenue noted previously, no revenue was recognized by the Company related to the Co-Development Agreement for the years ended December 31, 2013 and 2012.

SynBio is a related party of the Company, with a share ownership of 45.3% as of December 31, 2013 and 2012.

4. Significant Strategic Drug Development Collaborations (Continued)

Serum Institute of India Limited

In the period from 2004 through 2011, the Company entered into and amended certain license and supply agreements with Serum Institute. The original license agreement with Serum Institute was a collaborative Development and Manufacturing Arrangement ("DMA") to develop agreed upon potential commercial product candidates using the Company's PolyXen® technology. Serum Institute then endeavored to further develop the potential commercial product candidates and eventually initiate pre-clinical and clinical trials at their own cost. The agreement was amended in 2011, resulting in the surrender of development rights for 14 potential commercial product candidates in 2012, which were vested to Serum Institute under the terms of the previous agreements, back to the Company. In consideration of Serum Institute's surrender of the development rights and certain changes to future shared license revenue and royalty rates of commercialized products, the Company issued Serum Institute 2.88 million new shares of common stock with a fair value of approximately $1.1 million at the time of issuance. This acquisition of the rights to the 14 potential commercial product candidates was accounted for as an acquisition of IPR&D and immediately expensed as the transaction was not part of a business combination. Accordingly, approximately $1.1 million is included in research and development expenses in the statement of operations during the year ended December 31, 2012 related to this IPR&D.

Following the 2011 amendment, Serum Institute retained an exclusive license to use the Company's PolyXen® technology to research and develop one potential commercial product, Polysialylated Erythropoietin ("PSA-EPO"). Serum Institute will be responsible for conducting all pre-clinical and clinical trials required to achieve regulatory approvals within the certain predetermined territories at Serum Institute's own expense. The royalty payment schedule based on net revenues on the future commercial sales of PSA-EPO under the DMA was also modified as a result of the 2011 amendment. Royalty payments ranging from 2% to 8% are payable by Serum Institute to the Company for net sales to certain customers in the Serum Institute sales territory. Royalty payments of up to 25% are payable by the Company to Serum Institute for net sales received by the Company over the term of the license. No royalty revenue or expense was recognized by the Company related to the Serum Institute arrangement for the years ended December 31, 2013 and 2012. There are no milestone or other research-related payments due under the DMA. Through December 31, 2013, the Company and Serum Institute continue to engage in research and development activities with no resultant commercial products.

Also during 2012, Serum Institute subscribed for 800,000 shares of the Company's common stock for net proceeds of $421,163. Serum Institute is a related party of the Company, with a share ownership of 10.6% as of December 31, 2013 and 2012.

5. Property and Equipment, net

Property and equipment, net consists of the following:

	December 31,	
	2013	2012
Laboratory equipment	$ 1,106,761	$ 1,028,417
Office and computer equipment	190,878	162,111
Leasehold improvements	69,296	67,913
Property and equipment – at cost	1,366,935	1,258,441
Less accumulated depreciation	(1,214,332)	(1,136,359)
Property and equipment – net	$ 152,603	$ 122,082

Depreciation expense was $52,032 and $104,619 for the years ended December 31, 2013 and 2012 respectively.

6. Goodwill and Indefinite-Lived Intangible Assets

Goodwill

A reconciliation of the change in the carrying value of goodwill is as follows:

	December 31,	
	2013	2012
Balance as of January 1	$3,592,073	$ —
Acquired from acquisitions	—	3,402,923
Foreign currency translation	73,126	189,150
Balance as of December 31	$3,665,199	$3,592,073

Goodwill acquired during the year ended December 31, 2012 was attributed to the Company's acquisition of SymbioTec. As of October 1, 2013 and 2012, the dates of the Company's annual impairment review, the fair value of the Company's goodwill balance exceeded its carrying value by approximately 104% and 58%, respectively.

Indefinite-Lived Intangible Assets

The Company has one indefinite-lived intangible asset, OncoHist™, as of December 31, 2013 and 2012 related to the Company's acquisition of SymbioTec in 2012. As of October 1, 2013 and 2012, the dates of the Company's annual impairment review, the fair value of the Company's indefinite-lived intangible asset balance exceeded its carrying value by approximately 1% and 87%, respectively. The fair value of OncoHist™ was $10,559,820 and the carrying value was $10,318,001, with a foreign currency impact of an increase in carrying value of $205,860 as of December 31, 2013.

6. Goodwill and Indefinite-Lived Intangible Assets (Continued)

Indefinite-Lived Intangible Assets (Continued)

The Company, with the assistance of an independent third party, calculated the fair value of OncoHist™ by using the MPEEM, which is a form of the income approach. Under the MPEEM, the fair value of an intangible asset is equal to the present value of the asset's incremental after-tax cash flows (excess earnings) remaining after deducting the market rates of return on the estimated value of contributory assets (contributory charge) over its remaining useful life. This method requires the Company to make long-term projections of the amount and timing of income and expenses related to development and commercialization of the acquired intangible asset and assumptions regarding the rate of return on contributory assets, the weighted average cost of capital and the discount rate for estimated future after-tax cash flows. Specifically, this method took into account the Company's estimates of future incremental milestone payments that may be achieved upon completion of certain clinical trial stages, regulatory approval and sales goals upon commercialization, as well as the Company's expected royalty income based on sales upon commercialization. Projected expenses are based on the Company's forecasted budget required to complete the development of the IPR&D and are estimates subject to change based on several factors including the results of clinical trials and delays in regulatory approval. The discount rate used is commensurate with the uncertainties associated with the economic estimates described above and reflects the stage of development, the time and resources needed to complete the development of the product and the risks of advancement through regulatory approval processes.

While the Company believes reasonable estimates and appropriate assumptions were utilized to calculate the fair value of OncoHist™, it is possible a material change could occur. If future results are not consistent with the assumptions and estimates used, the Company may be exposed to impairment charges in the future. The following table shows the decline in the fair value of OncoHist™ that would result from a 1% increase in the discount rate and a 5% decrease in the expected milestone income:

Indefinite-Lived Intangible Asset	Discount Rate	Milestone Income
OncoHist™ change in fair value as of December 31, 2013	$(688,000)	$(826,000)

Such a change in either the discount rate or expected milestone income would result in an impairment of approximately $405,000 and $545,000, respectively, during the current period.

OncoHist™ is not yet commercialized and has not yet begun to be amortized as of December 31, 2013 and 2012.

7. Accrued Expenses

Accrued expenses consist of the following:

	December 31,	
	2013	2012
Accrued professional fees	$1,106,358	$216,484
Accrued bonus compensation	422,226	—
Accrued payroll and benefits	99,548	10,240
Accrued research costs	29,682	165,578
Other	169,053	64,442
	$1,826,867	$456,744

8. Income Taxes

The Company accounts for income taxes using the liability method under ASC Topic 740, *Income Taxes*. Under this method, deferred tax assets and liabilities are determined based on temporary differences resulting from the different treatment of items for tax and financial reporting purposes. Deferred tax assets and liabilities are measured using enacted tax rates expected to apply to taxable income in the years in which those temporary differences are expected to reverse. Additionally, the Company must assess the likelihood that deferred tax assets will be recovered as deductions from future taxable income. The Company has provided a full valuation allowance on the Company's deferred tax assets because the Company believes it is more likely than not that its deferred tax assets will not be realized. The Company evaluates the recoverability of its deferred tax assets on a quarterly basis. Currently, there is no provision for income taxes as the Company has incurred losses to date.

The components of (loss) before income taxes are as follows:

	Year ended December 31,	
	2013	2012
Domestic (US)	$ (547,508)	$ (190,025)
Foreign (UK)	(7,855,509)	(5,244,538)
Foreign (Germany)	(176,229)	(893,777)
Loss before income taxes	$(8,579,246)	$(6,328,340)

The reconciliation of income tax expense (benefit) at the UK corporation tax rate, being the rate applicable to the country of domicile of Xenetic UK, to net income tax expense (benefit) is as follows:

	Year ended December 31,	
	2013	2012
UK corporation tax benefit at statutory rate	$(1,994,675)	$(1,550,443)
Increase in tax losses not recognized	1,461,836	1,319,946
Permanent differences, net	674,920	99,825
Foreign rate differential	(100,131)	(89,442)
Share-based compensation, net	9,179	6,770
Other	163	6,531
Impairment of IPR&D	—	266,471
Enhanced research and development tax credits	(51,292)	(59,658)
Net expense (benefit) for income taxes	$ —	$ —

8. Income Taxes (Continued)

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. Significant components of the Company's deferred tax assets are as follows:

	Year ended December 31,	
	2013	2012
Deferred tax assets:		
UK net operating loss carryforwards	$ 7,735,113	$ 7,543,489
Enhanced research and development tax credits	713,029	751,213
Share-based compensation	409,391	462,976
Germany net operating loss carryforwards	360,763	290,036
US federal net operating loss carryforwards	242,254	59,294
US state net operating loss carryforwards	35,929	8,754
Other	24,781	31,726
Total deferred tax assets before valuation allowance	9,521,260	9,147,488
Less valuation allowance	(9,521,260)	(9,147,488)
Net deferred tax assets	$ —	$ —
Deferred tax liability:		
Indefinite-lived intangible asset	$(3,257,910)	$(3,192,909)
Total net deferred tax liability	$(3,257,910)	$(3,192,909)

For the years ended December 31, 2013 and 2012, the Company had UK net operating loss carryforwards of $41.7 million and $35.5 million respectively, US federal net operating loss carryforwards of $692,153 and $169,410 respectively, US state net operating loss carryforwards of $690,942 and $168,352 respectively, and Germany net operating loss carryforwards of $1,142,197 and $918,275 respectively. The UK and Germany net operating loss carryforwards can be carried forward indefinitely. The US federal and state net operating loss carryforwards begin to expire in 2032.

The Company's ability to use its operating loss carryforwards and tax credits generated in the US to offset future taxable income is subject to restrictions under Section 382 of the United States Internal Revenue Code (the "Internal Revenue Code"). These restrictions may limit the future use of the operating loss carryforwards and tax credits if certain ownership changes described in the Internal Revenue Code occur. Future changes in stock ownership may occur that would create further limitations on the Company's use of the operating loss carryforwards and tax credits. In such a situation, the Company may be required to pay income taxes, even though significant operating loss carryforwards and tax credits exist.

The Company's ability to use its operating loss carryforwards and tax credits generated in the UK are subject to restrictions under UK tax legislation. These regulations may limit the future use of operating loss carryforwards if there is a change in ownership and a change in the nature or conduct of the business carried on by the Company, and in certain circumstances where there is a change in the nature or conduct of the business only. In such cases the carryforwards would cease to be available to set against future income.

The Company's ability to use its operating loss carryforwards and tax credits generated in Germany are also subject to restrictions under German tax legislation. These regulations may limit the future use of operating loss carryforwards if there is a change in ownership. In such cases the carryforwards would cease to be available to set against future income.

8. Income Taxes (Continued)

Uncertain Tax Positions

As of December 31, 2013 and 2012, the Company recorded unrecognized tax positions of $185,961 and $182,251 respectively, due to a claim for research and development tax credits. The changes to unrecognized tax positions for 2013 and 2012 were as follows:

	Year ended December 31,	
	2013	2012
Unrecognized tax benefits as of January 1	$ 182,251	$ 174,289
Gross adjustments in tax positions	—	—
Gross increases	—	—
Foreign currency translation	3,710	7,962
Unrecognized tax positions as of December 31	$ 185,961	$ 182,251

The Company has not yet conducted a study of its research and development tax credit carryforwards. This study may result in an increase or decrease in the Company's research and development credit carryforwards; however, until a study is completed and any adjustment is determined, no amounts are recorded as an uncertain tax position. A full valuation allowance has been provided against the Company's research and development credits and, if an adjustment is required, this adjustment would be offset by an adjustment to the valuation allowance with no resulting impact on overall income tax expense or the consolidated statement of operations and comprehensive loss.

The Company files income tax returns in the US federal tax jurisdiction, Nevada and Massachusetts state tax jurisdiction, and certain foreign tax jurisdictions. Since the Company is in a loss carryforward position, the Company is generally subject to examination by the US federal, state, foreign, and local income tax authorities for all tax years in which a loss carryforward is available. The Company is not currently under examination by the Internal Revenue Service. Subject to the research and development tax credit claim referred to above, the Company is not currently under examination by any other jurisdiction for these years. The Company has not recorded any interest or penalties for unrecognized tax benefits since its inception.

9. Commitments

The Company leases office space in London, UK which is due to expire in March 2017. The Company also leased laboratory space in London, UK during 2013 and 2012, however this lease was terminated in December 2013. 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.

9. Commitments (Continued)

The Company's contractual commitments under all non-cancelable operating leases as of December 31, 2013 are as follows:

As of December 31,	Total Operating Leases
2014	$ 137,489
2015	148,706
2016	152,665
2017	114,148
2018	106,563
Thereafter	8,908
Total minimum lease payments	$ 668,479

Rent expense is calculated on a straight-line basis over the term of the lease. Rent expense under the Company's operating leases was $280,606 and $371,069 for the years ended December 31, 2013 and 2012 respectively.

10. Stockholders' Equity

Common Stock

Each share of common stock entitles the holder to one vote on all matters submitted to a vote of the Company's stockholders. Common stockholders are entitled to dividends when and if declared by the Board of Directors. In the event of any voluntary or involuntary liquidation, dissolution or winding-up of the Company, the holders of common stock are entitled to share ratably in the assets of the Company available for distribution.

Warrants

In connection with the Company's collaboration agreements, the Company issued warrants to purchase shares of common stock to its collaborative partners. These warrants were valued at issuance date using the Black-Scholes option pricing model. In 2010, Baxter SA was granted warrants to purchase 4,588,298 new shares of common stock, which were exercisable immediately after issuance and expire on June 30, 2015. These warrants, which were fair valued at $932,000 at the time of issuance, were outstanding as of December 31, 2013 and 2012.

In 2011, SynBio was granted warrants to purchase 3,545,600 new shares of common stock, which are exercisable two years after issuance and expire on December 2, 2016. These warrants, which were fair valued at $108,000 at the time of issuance, were outstanding as of December 31, 2013 and 2012.

In 2011, Serum Institute was granted warrants to purchase 2,400,000 new shares of common stock in three tranches of 800,000 each, which are exercisable immediately after issuance and expire in a range of 6 to 18 months after issuance. These warrants were fair valued at $10,000 at the time of issuance. During 2012, Serum Institute's warrants to purchase 800,000 new shares of common stock expired and as of December 31, 2012, warrants to purchase 1.6 million new shares of common stock were outstanding. These warrants expired during 2013. Serum Institute did not exercise any warrants during 2013 or 2012. Refer to Note 4, *Significant Strategic Drug Development Collaborations*, for further information on the Company's collaborative partners.

There were no warrants issued by the Company during the years ended December 31, 2013 and 2012.

11. Employee Benefit Plans

The Company has a defined contribution 401(k) savings plan (the "401(k) Plan"). The 401(k) Plan covers substantially all US employees, and allows participants to defer a portion of their annual compensation on a pre-tax basis. Company contributions to the 401(k) Plan may be made at the discretion of the Board of Directors. As of December 31, 2013 and 2012, the Company made no contributions to the 401(k) Plan.

In the UK, the Company has adopted a defined contribution plan (the "UK Plan") which qualifies under the rules established by HM Revenue & Customs. The UK Plan generally allows all UK employees to contribute a minimum of 3% of salary with no maximum limit. The Company contributes to the plan between 8% and 12% of the employee's salary, depending upon seniority of the employee. The Company, at its discretion, may also contribute to an employee's personal pension plan. The Company paid total contributions of $129,353 and $135,553 during the years ended December 31, 2013 and 2012, respectively.

12. Share-Based Compensation

Total share-based compensation related to stock options, common stock awards and JSOP awards was $431,504 and $339,780 during the years ended December 31, 2013 and 2012, respectively.

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

	Year ended December 31,	
	2013	2012
Research and development expenses	$ 60,980	$ 41,851
Administrative expenses	370,524	297,929
	$431,504	$339,780

2000 Stock Plan (Incentive Stock Plan)

In July 2000, the Company's Board of Directors and stockholders adopted the Lipoxen plc Unapproved Share Option Plan (the "2000 Stock Plan"), under which stock options may be granted to employees, consultants and non-employee directors. The 2000 Stock Plan was amended by resolution of the Board of Directors in March 2006.

Options granted under the 2000 Stock Plan expire no later than ten years from the date of grant and have limited transferability. Options are granted with an exercise price determined by the Board of Directors. Options may be granted with different vesting terms from time to time but not more than 50% on or after the first anniversary, 25% on or after the second anniversary, and 25% on or after the third anniversary.

The number of options available to grant under the 2000 Stock Plan is limited to 15% of the issued ordinary share capital of the Company. As of December 31, 2013, 14,355,591 shares of common stock were collectively available for future grant under the 2000 Stock Plan and 2007 Stock Plan (as defined below). Options to purchase 2,507,489 shares of common stock were outstanding under the 2000 Stock Plan.

12. Share-Based Compensation (Continued)

2000 Stock Plan (Incentive Stock Plan) (Continued)

Subsequent to the Acquisition, the 2000 Stock Plan was converted to reflect the new shares issued by the Company under the Scheme related to the Acquisition. As part of the conversion, option holders under the 2000 Stock Plan have the right to subscribe for a number of shares of common stock in the Company (the "Replacement Option Shares") in exchange for the cancellation and surrender by the option holder of the original options granted by the 2000 Stock Plan. The number of Replacement Option Shares is determined in the same manner in which the shareholders of Xenetic UK were given the right to acquire shares of common stock in the Company according to the Acquisition. The aggregate exercise price payable in US dollars for Replacement Option Shares is the same as the aggregate exercise price in pounds sterling of the original options, using a foreign currency exchange rate for pounds sterling into US dollars quoted by Barclays Bank plc at 12 noon Greenwich Mean Time ("GMT") on January 23, 2014, the date of the Acquisition. This conversion of the stock options is retrospectively reflected in these financial statements. The conversion of the options will be treated as an option modification during the first quarter of 2014.

2007 Stock Plan (Incentive Stock Plan)

In August 2007, the Company's Board of Directors and stockholders adopted the Xenetic Biosciences plc 2007 Share Option Scheme (the "2007 Stock Plan"), under which Enterprise Management Incentives may be granted to employees and non-employee directors. The 2007 Stock Plan was amended by resolution of the Board of Directors and shareholders in June 2010 to include the US Share Option Addendum for the purposes of granting incentive stock options and non-statutory stock within the meaning of Section 422 of the Internal Revenue Code.

Options granted under the 2007 Stock Plan expire no later than ten years from the date of grant and have limited transferability. Options may be granted with different vesting terms from time to time or no vesting conditions. The option price of an incentive stock option granted to an employee or of a non-statutory stock option granted to any person who owns stock representing more than 10% of the total combined voting power of all classes of stock of the Company (or any parent or subsidiary) shall be no less than 110% of the fair market value per share on the date of grant. The option price of an incentive stock option granted to any other employee shall be no less than 100% of the fair market value per share on the date of grant.

The number of options available to grant under the 2007 Stock Plan is limited to 15% of the issued ordinary share capital of the Company. As of December 31, 2013, 14,355,591 shares of common stock were collectively available for future grant under the 2000 Stock Plan and 2007 Stock Plan. Options to purchase 2,714,941 shares of common stock were outstanding under the 2007 Stock Plan.

12. Share-Based Compensation (Continued)

2007 Stock Plan (Incentive Stock Plan) (Continued)

Subsequent to the Acquisition, the 2007 Stock Plan was converted to reflect the new shares issued by the Company under the Scheme related to the Acquisition. As part of the conversion, option holders under the 2007 Stock Plan have the right to subscribe for a number of shares of common stock in the Company in exchange for the cancellation and surrender by the option holder of the original options granted by the 2007 Stock Plan. The number of Replacement Option Shares is determined in the same manner in which the shareholders of Xenetic UK were given the right to acquire shares of common stock in the Company according to the Acquisition. The aggregate exercise price payable in US dollars for Replacement Option Shares is the same as the aggregate exercise price in Pounds Sterling of the original options, using a foreign currency exchange rate for Pounds Sterling into U.S. dollars quoted by Barclays Bank plc at 12 noon GMT on January 23, 2014, the date of the Acquisition. This conversion of the stock options is retrospectively reflected in these financial statements. The conversion of the options will be treated as an option modification during the first quarter of 2014.

Stock Options

The Company grants stock option awards to employees and non-employees with varying vesting terms. The Company measures the fair value of stock option awards using the Black-Scholes option pricing model, which uses the assumptions noted in the tables below. The risk-free interest rate is based upon the US Treasury yield curve in effect at the time of grant, with a term that approximates the expected life of the option. The Company estimates the expected life of options granted to employees using judgment based on the anticipated research and development milestones of the Company's clinical projects and behavior of the Company's employees. The expected life of non-employee options is the contractual life of the option. The Company determines the expected volatility based on a weighted-average of the historical volatility of a peer group of comparable publicly traded companies with product candidates in similar stages of development to the Company's product candidates in conjunction with the Company's historical volatility. The Company has applied an expected dividend yield of 0% as the Company has not historically declared a dividend and does not anticipate declaring a dividend during the expected life of the options. Further, the Company has applied a forfeiture rate of 0% as the Company has not historically experienced forfeitures. During 2013, approximately two million options were forfeited by a management executive as a result of his unanticipated short period of employment; however, the Company views this situation to be an independent event and does not expect this type of forfeiture to reoccur in the future.

Employee Stock Options

Key assumptions used in the Black-Scholes option pricing model on the date of grant for options granted to employees are as follows:

	December 31,	
	2013	2012
Expected dividend yield (%)	—	—
Expected volatility (%)	73.39	77.00
Risk-free interest rate (%)	0.92	0.49
Expected life of option (years)	4.00	3.25
Weighted-average share price ($)	0.29	0.37
Weighted-average exercise price ($)	1.22	0.91
Model used	Black-Scholes	Black-Scholes

12. Share-Based Compensation (Continued)

Employee Stock Options (Continued)

During the years ended December 31, 2013 and 2012, the Company granted employee stock options to purchase a total of 2.30 million and 960,000 shares of common stock respectively, with a weighted-average grant date fair value per option share of $1.22 and $0.91, respectively. Cash received from stock option exercises for the years ended December 31, 2013 and 2012 were $2,090 and $709, respectively. The Company considered the implications of these stock option exercises and concluded that there was not a material tax impact.

As of December 31, 2013, there was $77,496 of unrecognized share-based compensation related to employee stock options that are expected to vest. The Company expects to recognize this expense over a weighted-average period of two years.

The following is a summary of employee stock option activity for the years ended December 31, 2013 and 2012:

	Number of shares	Weighted-average exercise price	Weighted-average remaining life (years)	Aggregate intrinsic value
Outstanding as of January 1, 2012	4,068,024	$ 0.31		
Granted	960,000	0.91		
Exercised	(19,535)	0.04		$ 8,726
Forfeited	(23,009)	2.04		
Outstanding as of December 31, 2012	4,985,480	0.42		
Exercisable as of December 31, 2012	3,752,296	0.29	4.28	$423,487
Outstanding as of January 1, 2013	4,985,480	0.42		
Granted	2,304,000	1.22		
Exercised	(55,379)	0.04		$ 10,663
Forfeited	(2,011,671)	1.22		
Outstanding as of December 31, 2013	5,222,430	0.47	4.68	$432,392
Vested or expected to vest as of December 31, 2013	5,222,430	0.47	4.68	$432,392
Exercisable as of December 31, 2013	4,063,646	$ 0.30	3.72	$432,392

12. Share-Based Compensation (Continued)

Employee Stock Options (Continued)

A summary of the status of the Company's non-vested employee stock option shares as of December 31, 2013 and the changes during the year ended December 31, 2013 is as follows:

	Number of shares	Weighted-average grant date fair value
Balance as of January 1, 2013	1,233,184	$ 0.11
Granted	2,304,000	0.07
Vested	(454,400)	0.14
Forfeited	(1,924,000)	0.07
Balance as of December 31, 2013	1,158,784	$ 0.08

Non-Employee Stock Options

Share-based compensation expense related to stock options granted to non-employees is recognized as the services are rendered on a straight-line basis. The Company determined the fair value of the stock options is more reliably measurable than the fair value of the services received. Compensation expense related to stock options granted to non-employees is subject to re-measurement at each reporting period until the options vest.

Key assumptions used in the Black-Scholes option pricing model on the date of grant for options granted to non-employees are as follows:

	December 31,	
	2013	2012
Expected dividend yield (%)	—	—
Expected volatility (%)	78.25	73.79
Risk-free interest rate (%)	1.75	1.09
Expected life of option (years)	5.90	6.92
Weighted-average share price ($)	0.26	0.23
Weighted-average exercise price ($)	0.52	0.52
Model used	Black-Scholes	Black-Scholes

During the year ended December 31, 2012, the Company granted non-employee stock options to purchase a total of 416,000 shares of common stock. No non-employee stock options were granted during 2013 and no non-employee stock options were exercised during the years ended December 31, 2013 and 2012. During the year ended December 31, 2013, options to purchase 104,000 shares of common stock vested, with options to purchase 288,000 shares of common stock remaining unvested as of December 31, 2013.

As of December 31, 2013, there was $33,635 of unrecognized share-based compensation related to non-employee stock options that are expected to vest. The Company expects to recognize this expense over a weighted-average period of three years.

12. Share-Based Compensation (Continued)

Non-Employee Stock Options (Continued)

The following is a summary of non-employee stock option activity for the years ended December 31, 2013 and 2012:

	Number of shares	Weighted-average exercise price	Weighted-average remaining life (years)	Aggregate intrinsic value
Outstanding as of January 1, 2012	—	$ —		
Granted	416,000	0.52		
Exercised	—	—		
Forfeited	—	—		
Outstanding as of December 31, 2012	416,000	0.52		
Exercisable as of December 31, 2012	24,000	0.31	4.73	$ 0
Outstanding as of January 1, 2013	416,000	0.52		
Granted	—	—		
Exercised	—	—		
Forfeited	—	—		
Outstanding as of December 31, 2013	416,000	0.52	5.90	$ 49
Vested or expected to vest as of December 31, 2013	416,000	0.52	5.90	$ 49
Exercisable as of December 31, 2013	128,000	$ 0.48	4.38	$ 49

Common stock awards

The Company granted common stock awards to a non-employee in exchange for services provided. The Company measured the fair value of these awards using the fair value of the services provided as it is a more reliable measure of the fair value of the awards. The fair value measurement date of these awards is generally the date the performance of services is complete. The fair value of the awards is recognized as services are rendered on a straight-line basis.

During the years ended December 31, 2013 and 2012, the Company granted 282,509 and 177,607 common stock awards, respectively, with a calculated grant date fair value of $85,825 and $58,339, respectively. As all services were rendered in each respective year, $85,825 and $58,339 of compensation expense related to common stock awards was recognized during the years ending December 31, 2013 and 2012, respectively. As of December 31, 2013, there was no unrecognized share-based compensation related to non-employee common stock awards. These common stock awards were not issued as of December 31, 2013 or 2012.

12. Share-Based Compensation (Continued)

Joint Share Ownership Plan

In 2010 and 2012, the Company issued 1,701,913 and 8,986,281 JSOP awards, respectively, to two senior executives under the JSOP. During 2011, the 2010 JSOP awards fully vested under the terms of the JSOP due to a significant change in beneficial ownership of the Company, and the related compensation charges were fully recorded during periods prior to 2012 related to this accelerated vesting. As of December 31, 2013, all 2012 JSOP awards were outstanding and unvested, while all 2010 JSOP awards were outstanding and vested.

Under the JSOP, shares in the Company are jointly purchased at fair market value by the participating executives and the trustees of the JSOP trust, with such shares held in the JSOP trust. For US GAAP purposes the awards are valued as employee options.

The JSOP trust holds the shares of the JSOP until such time as the JSOP shares are vested and the participating executives exercise their rights under the JSOP. The JSOP trust is granted an interest bearing loan by the Company in order to fund the purchase of its interest in the JSOP shares. The loan held by the trust is eliminated on consolidation in the financial statements of the Company. The Company funded portion of the share purchase price is deemed to be held in treasury until such time as they are transferred to the employee and is recorded as a reduction in equity.

The exercise price of the "option" is deemed to be the market value of the shares at the date of issue. The awards vest based on certain market conditions, which require each tranche of shares to meet specific share price hurdles, or change in control conditions, as defined by the plan. Under the JSOP and subject to the vesting of the participants' interest, participating executives will, when the JSOP shares are sold, be entitled to a share of the proceeds of sale equal to the growth in market value of the JSOP shares versus the exercise price, less simple interest on the original share purchase price, net of executives' cash contribution at inception, as agreed for each grant (the "Carry Charge"). The balance of the proceeds will remain to the benefit of the JSOP trust and be applied to the repayment of the loan originally made by the Company to the JSOP trust. Any funds remaining in the JSOP trust after settlement of the loan and any expenses of the JSOP trust are for the benefit of the Company.

The Company measures the fair value of the awards using Monte Carlo simulations, which requires estimates based on the Company's judgment as well as other assumptions. These estimates include the expected term of each tranche of the JSOP awards, which the Company determined to be the initial life of the awards, and expected volatility, which is based on a weighted-average of the historical volatility of a peer group of comparable publicly traded companies with product candidates in similar stages of development to the Company's product candidates in conjunction with the historical volatility of Xenetic Biosciences plc's shares when traded on the UK Alternative Investment Market. The Company has applied an expected dividend yield of 0% as the Company has not historically declared a dividend and does not anticipate declaring a dividend during the expected life of the awards. The risk-free interest rate is based upon the U.S. Treasury yield curve in effect at the time of grant, with a term that approximates the expected life of the awards. The compensation expense is recorded over the expected life of the option, regardless of whether the awards vest. Having established the full value of the JSOP awards using the Monte Carlo simulation outlined above, a deduction is made in respect of the anticipated Carry Charge in order that the expense recorded in the financial statements only represents the participating executives' net interest in the awards.

On exercise of the JSOP awards by the executives the Carry Charge due to the Company will be recognized as additional paid-in capital, arising from the sale of treasury stock.

12. Share-Based Compensation (Continued)

Joint Share Ownership Plan (Continued)

Due to the nature of the vesting of the JSOP awards, the Company uses a graded vesting model to recognize the related compensation expense. The share price hurdles range from $0.75 to $2.50 per share of common stock. The Company used the following weighted-average assumptions for the 2012 JSOP awards:

	December 31, 2012
Expected dividend yield (%)	—
Expected volatility (%)	76.00
Risk-free interest rate (%)	0.57
Expected life of option (years)	3.00
Weighted-average share price ($)	0.17
Weighted-average exercise price ($)	0.17
Model used	Monte Carlo

The total fair value of the 2012 JSOP awards was $853,889. The Company recognized $279,484 and $235,927 of compensation costs in 2013 and 2012 respectively, related to 2012 JSOP awards.

As of December 31, 2013, there was $326,066 of total unrecognized compensation costs related to the 2012 JSOP awards. Subsequent to December 31, 2013, the 2012 JSOP awards fully vested under the terms of the JSOP due to market share price hurdles that were met. As a result, the Company expects to recognize $326,066 of compensation expense during the first quarter of 2014 related to this accelerated vesting.

13. Restructuring Charges

In September 2012, the Company approved and publicly announced a business plan to close the Company's SymbioTec office in Germany and shift operations to the Company's office in the UK. The Company treated all costs incurred related to this closing as restructuring charges. The closing was expected to drive cost savings and leverage potential synergies from the SymbioTec acquisition.

The expenses incurred include employee severance and facility closure charges. The Company incurred total expenses of approximately $112,000 related to SymbioTec restructuring activities, which was recorded in the line item administrative expenses in the Company's statement of operations. The following table sets forth the costs incurred during the year ended December 31, 2012:

	Year ended December 31, 2012
Facility closure expenses	$ 13,000
Employee termination expenses	99,000
Total restructuring charges	$ 112,000

All costs related to the SymbioTec restructuring activities were completed as of December 31, 2012.

14. Related Party Transactions

The Company received a short term unsecured loan facility of up to $1.7 million from SynBio, a related party, in May 2011, of which $681,124 and $682,993 is outstanding as of December 31, 2013 and 2012. The loan had an interest rate of 8.04% 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 principle including accrued interest upon future agreement by both parties. It was also agreed at this point that as of July 1, 2012, no further interest on the outstanding loan balance will be accrued. The loan is recorded in current liabilities as of December 31, 2013. $0 and $706,201 were repaid by the Company during the years ended December 31, 2013 and 2012 respectively. The change in the balance of the loan between December 31, 2013 and 2012 is due to foreign currency translation. The loan does not bear interest at the prevailing market rate for instruments with similar characteristics.

Please refer to Note 4, *Significant Strategic Drug Development Collaborations* for details of arrangements with collaboration partners that are also related parties.

15. Subsequent Events

Significant Agreement

On January 30, 2014, the Company announced the amendment of the licensing agreement with Baxter in which certain financial and timing aspects of the agreement were modified. As a result, the Company is entitled to receive certain amounts in development, regulatory and sales milestone payments as well as increased royalties on potential net sales. In addition, Baxter SA made a direct equity investment of $10 million in cash in exchange for 10,695,187 shares of the Company's common stock. Following this investment, Baxter SA increased their share ownership to approximately 10%.

Reverse Merger Business Combination

The Acquisition transaction between the Company and Xenetic UK was completed on January 23, 2014 and resulted in the Company acquiring all of the issued and outstanding common stock of Xenetic UK. The Acquisition was accounted for as a reverse acquisition under the acquisition method of accounting per ASC 805, with Xenetic UK treated as the accounting acquirer and the Company treated as the "acquired" company for financial reporting purposes. This was determined based on the following facts: (i) after the reverse merger, former stockholders of Xenetic UK held a majority of the voting interest of the combined company; (ii) former Board of Directors of Xenetic UK possess majority control of the Board of Directors of the combined company; and (iii) members of the management of Xenetic UK are responsible for the management of the combined company. As such, the financial statements of Xenetic UK are treated as the historical financial statements of the combined company.

15. Subsequent Events (Continued)

Reverse Merger Business Combination (Continued)

The fair value of the consideration transferred in the reverse merger was $3.75 million. This was calculated as the number of shares of common stock that Xenetic UK would have had to issue in order for the Company's shareholders to hold the same equity interest in the combined entity immediately following the acquisition (approximately 9.2%), multiplied by the estimated fair value of the Company's common stock on the acquisition date (£0.06 per share). The estimated fair value of the Company's common stock was based on the price of the Company's stock on the acquisition date, which was actively traded on the Alternative Investments Market in the United Kingdom. In addition, Xenetic UK incurred approximately $3 million of transaction costs related to the reverse merger to date.

The fair value of all acquired assets and liabilities summarized below is provisional pending finalization of the Company's acquisition accounting. The Company believes that such preliminary allocations provide a reasonable basis for estimating the fair values of assets acquired and liabilities assumed but the Company is waiting for additional information necessary to finalize fair value. The Company expects to finalize the valuation and complete the purchase price allocation as soon as practicable but no later than one year from the acquisition date. Final determination of the fair value may result in further adjustments.

The preliminary fair value of the acquired assets and liabilities is as follows:

Cash	$ 43,502
Accounts receivable	145
Prepaid expenses	8,643
Property, plant and equipment	331,500
Accounts payable	(354,079)
Accrued expenses	(36,146)
Long-term debt	(372,813)
Total identifiable net assets	(379,248)
Goodwill	4,129,248
Total	$3,750,000

Following the Acquisition, an Agreement of Conveyance, Transfer and Assignment of Subsidiaries and Assumption of Obligations (the "Hive Out Agreement") was executed, whereupon 10,000,000 outstanding shares of common stock held by Oxbridge Technology Partners SA ("Oxbridge") were canceled, returned to the Company and recorded as treasury shares. In exchange, Oxbridge acquired all issued and outstanding shares of both of the Company's former operating subsidiaries, Shift It Media Co. and General Aircraft, Inc. (the "Disposed Subsidiaries"), including all assets and liabilities connected with the businesses transferred. The Hive Out Agreement also required a payment to Oxbridge of $430,000, which was paid by the Company shortly after the Acquisition.

15. Subsequent Events (Continued)

Reverse Merger Business Combination (Continued)

The Company recorded this divestiture as a separate transaction from the Acquisition that results in the disposal of two of the Company's subsidiaries. The Disposed Subsidiaries did not record any operations in the combined entity following the Acquisition before they were disposed and these financial statements do not reflect the historical financial statements of the Disposed Subsidiaries as they were previously owned by the accounting acquiree. Accordingly, there are no balances to be recorded as discontinued operations on the statement of operations. As a result of the divestiture of the Disposed Subsidiaries, the Company expects to record a loss on disposal of $1,069,675 during the first quarter of 2014 related to a portion of the overall consideration to Oxbridge for the canceled shares returned by Oxbridge.

With the occurrence of the Acquisition and following that, the Hive Out Agreement, the pro forma revenue and net loss financial information as if the transactions had occurred on January 1, 2012 is not necessarily indicative of the Company's consolidated operating results that would have been reported had the transactions been completed as described herein, nor is such information necessarily indicative of the Company's consolidated results for any future period. The year ended December 31, 2013 pro forma net loss would be adjusted to exclude certain expenses incurred during 2013, being approximately $2.2 million of acquisition-related costs and to include the loss on disposal of the Disposed Subsidiaries of approximately $1.1 million, referred to above. There were no pro forma adjustments for the year ended December 31, 2012.

XENETIC BIOSCIENCES, INC.

SCHEDULE II

VALUATION AND QUALIFYING ACCOUNTS

For the years ended December 31, 2013 and 2012

Valuation Allowance on Deferred Tax Assets	Balance Beginning of Period	Additions (Deductions) Charged to (from) Income Tax Expense	Other Changes to Valuation Allowance	Balance End of Period
2013	$(9,147,488)	(373,772)	—	$(9,521,260)
2012	$(8,159,774)	(987,714)	—	$(9,147,488)

Exhibit 99.2

UNAUDITED PRO FORMA COMBINED FINANCIAL INFORMATION

In advance of and in anticipation of completion of the following significant transaction, described below, the registrant, formerly known as General Sales and Leasing, Inc. changed its name to Xenetic Biosciences, Inc., as previously reported in its Quarterly Report on Form 10-Q filed on January 10, 2014. On January 23, 2014 Xenetic Biosciences, Inc. acquired all of the issued and outstanding capital stock of Xenetic Biosciences plc, a company incorporated in England and Wales under the Companies Act of 1985 ("Xenetic UK"). The Company's acquisition of Xenetic UK (the "Acquisition") was consummated pursuant to a written plan, known as a Scheme of Arrangement, under Part 26 of the Companies Act 2006 of England and Wales (the "Scheme") dated as of November 21, 2013. The Scheme was approved by Order of the High Court of Justice, Chancery Division, in London (the "Court") on January 23, 2014. In its ruling, the Court considered the fairness of the transaction and determined that the terms and conditions of the issuance of new shares of common stock of the Company in exchange for the issued and outstanding shares of Xenetic UK were fair. Accordingly, the new shares of common stock of the Company issued as part of the Acquisition are "Exempted Securities" under Section 3(a)(10) of the Securities Act of 1933, as amended (the "Securities Act"). Pursuant to the Scheme, the Company exchanged 56 new shares of Company common stock for every whole 175 shares of Xenetic UK capital stock. This transaction resulted in Xenetic UK becoming a wholly owned subsidiary of the Company.

As a result of the Acquisition the holders of all of the capital stock of Xenetic UK immediately prior to the closing of the Acquisition exchanged their shares for a total of 132,545,504 newly issued shares of the Company's common stock. Since former Xenetic UK shareholders owned, immediately following the Acquisition, approximately 97% of the combined company on a fully diluted basis and all members of the combined company's executive management were from Xenetic UK, Xenetic UK was deemed to be the acquiring company for accounting purposes and the transaction was accounted for as a reverse acquisition in accordance with accounting principles generally accepted in the United States ("US GAAP").

An Agreement of Conveyance, Transfer and Assignment of Subsidiaries and Assumption of Obligations, previously executed on November 21, 2013, became effective upon closing of the Acquisition. Under the terms of the Hive Out Agreement, 10,000,000 shares of the Company's common stock held by General Sales & Leasing, Inc.'s former controlling shareholder, Oxbridge Technology Partners SA ("Oxbridge"), were canceled and returned to treasury. In exchange, Oxbridge acquired all issued and outstanding shares of both of our former operating subsidiaries, Shift It Media Co. and General Aircraft, Inc. In addition, Oxbridge has assumed any and all liabilities connected with the business being transferred and has indemnified the Company for any losses arising out of such liabilities. The Hive Out Agreement also required a payment to Oxbridge in the amount of US dollars ("$") 430,000. The $430,000 payment was made shortly after the closing of the Acquisition. As a result of the Hive Out Agreement, the Company's assets, liabilities, and continuing operations are now exclusively those of Xenetic UK.

The following unaudited pro forma combined financial information for Xenetic UK and Xenetic Biosciences, Inc. as a combined company gives effect to (i) the Scheme, (ii) the Hive Out Agreement, and (iii) the acquisition method of accounting for the Acquisition (collectively, the "Transactions"). The unaudited pro forma combined balance sheet as of December 31, 2013 is presented as if the Transactions had been completed on December 31, 2013. The unaudited pro forma combined statement of comprehensive loss for the year ended December 31, 2013 are presented as if the Transactions had been completed on January 1, 2013, the first day of the Company's fiscal year 2013.

The following unaudited pro forma combined financial information is based on the historical consolidated financial statements of Xenetic UK and Xenetic Biosciences, Inc., formerly General Sales and Leasing, Inc., described below. Both Xenetic UK and Xenetic Biosciences, Inc.'s consolidated financial statements were prepared in accordance with US GAAP. The unaudited pro forma combined balance sheet combines Xenetic UK's historical consolidated balance sheet as of December 31, 2013 with Xenetic Biosciences, Inc.'s historical consolidated balance sheet as of December 31, 2013, giving effect to events that are directly attributable to the Transactions, as if the Transactions were consummated as of December 31, 2013. The unaudited pro forma combined statement of comprehensive loss combines Xenetic UK's historical consolidated statement of comprehensive loss for the year ended December 31, 2013 with Xenetic Biosciences, Inc.'s historical consolidated statement of comprehensive loss for the year ended December 31, 2013, giving effect to the events that are directly attributable to the Transactions, as if the Transactions were consummated at the beginning of the fiscal year, and that are expected to have a continuing impact on the Company.

The following unaudited pro forma combined financial information does not purport to represent what the Company's results of operations or financial position would actually have been had the Transactions occurred on the dates described above or to project the Company's results of operations or financial position for any future date or period. The information reflects the Company's estimates of the allocation of the purchase price for Xenetic Biosciences, Inc. based upon available information and certain assumptions that the Company believes are reasonable under the circumstances, and actual results could differ materially from these anticipated results.

The following unaudited pro forma combined financial information should be read together with Xenetic Biosciences, Inc.'s audited Consolidated Balance Sheets as of December 31, 2013 and 2012 and the related Consolidated Statements of Comprehensive Loss, Consolidated Statements of Changes in Stockholders' Equity and Consolidated Statements of Cash Flows for the years ended December 31, 2013 and 2012 and the accompanying notes, filed herewith.

Xenetic Biosciences, Inc.
Unaudited Pro Forma Combined Balance Sheet
As of December 31, 2013

	Xenetic Biosciences plc	*Xenetic Biosciences, Inc.	Acquisition Adjustments	Hive Out Adjustments	Equity Adjustments	Pro Forma Adjustments	Total
ASSETS							
Current assets:							
Cash	$ 4,839,486	$ 40,167	$ —	$ (470,167) **B**	$ —	$ 1,158,303 **E**	$ 5,567,789
Restricted Cash	66,000	—	—	—	—	—	66,000
Accounts receivable	—	1,980	—	(1,980) **B**	—	—	—
Other receivables	256,015	—	—	—	—	—	256,015
Prepaid expenses and other	168,308	8,643	—	(8,643) **B**	—	—	168,308
Total current assets	5,329,809	50,790	—	(480,790)	—	1,158,303	6,058,112
Property and equipment, net	152,603	389,491	(57,991) **A**	(331,500) **B**	—	—	152,603
Goodwill	3,665,199	—	4,113,195 **A**	(4,113,195) **B**	—	—	3,665,199
Indefinite-lived intangible assets	10,318,001	—	—	—	—	—	10,318,001
Total assets	19,465,612	440,281	4,055,204	(4,925,485)	—	1,158,303	20,193,915
LIABILITIES AND STOCKHOLDERS' EQUITY							
Current liabilities:							
Accounts payable	942,156	338,214	—	(338,214) **B**	—	(258,586) **E**	683,570
Accrued expenses	1,826,867	34,458	—	(34,458) **B**	—	(766,968) **E**	1,059,899
Accrued payroll taxes	84,599	—	—	—	—	—	84,599
Other current liabilities	55,266	—	—	—	—	—	55,266
Loans due to related parties	681,124	—	—	—	—	—	681,124
Total current liabilities	3,590,012	372,672	—	(372,672)	—	(1,025,554)	2,564,458
Deferred tax liability	3,257,910	—	—	—	—	—	3,257,910
Long-term liabilities	—	372,813	—	(372,813) **B**	—	—	—
Total liabilities	6,847,922	745,485	—	(745,485)	—	(1,025,554)	5,822,368
Commitments and contingent liabilities	—	—	—	—	—	—	—
Stockholders' equity:							
Common stock, $0.01 par value	1,305,755	135,000	207,666 **A**	(100,000) **C**	(207,666) **D**	—	1,340,755
Additional paid in capital	73,999,860	—	3,407,334 **A**	—	207,666 **D**	—	77,614,860
Accumulated deficit	(58,306,999)	(440,204)	440,204 **A**	(4,080,000) **B, C**	—	2,183,857 **E**	(60,203,142)
Accumulated other comprehensive income	900,254	—	—	—	—	—	900,254
Treasury stock	(5,281,180)	—	—	—	—	—	(5,281,180)
Total stockholders' equity	12,617,690	(305,204)	4,055,204	(4,180,000)	—	2,183,857	14,371,547
Total liabilities and stockholders' equity	$ 19,465,612	$ 440,281	$4,055,204	$(4,925,485)	$ —	$ 1,158,303	$ 20,193,915

A To record purchase accounting adjustments including goodwill and fair value adjustments

B To record distribution of net assets of Shift It Media Co. and General Aircraft, Inc., formerly wholly owned subsidiaries of Xenetic Biosciences, Inc., and record loss on disposal related to Agreement of Conveyance, Transfer and Assignment of Subsidiaries and Assumption of Obligations

C To record return and retirement of common stock related to Agreement of Conveyance, Transfer and Assignment of Subsidiaries and Assumption of Obligations

D To record adjustment to restate common stock to be that of Xenetic Biosciences, Inc., the legal acquirer

E Represents reversal of direct transaction costs, including legal and accounting fees which were directly related to the reverse merger incurred by Xenetic Biosciences plc

***** Formerly known as General Sales and Leasing, Inc.

Xenetic Biosciences, Inc.
Unaudited Pro Forma Combined Statement of Comprehensive Loss
For the Year Ended December 31, 2013

	Xenetic Biosciences plc	*Xenetic Biosciences, Inc.	Hive Out Adjustments	Pro Forma Adjustments	Total
Revenue	$ 1,000,000	$ 148,445	$ (148,445) **F**	$ —	$ 1,000,000
Cost of revenue	—	93,216	(93,216) **F**	—	—
Gross profit	1,000,000	55,229	(55,229)	—	1,000,000
Operating costs and expenses:					
Research and development	3,060,306	—	—	—	3,060,306
General and administrative	6,553,163	230,634	(230,634) **F**	(2,183,857) **I**	4,369,306
Impairment of In-Process Research and Development	—	—	—	—	—
	9,613,469	230,634	(230,634)	(2,183,857)	7,429,612
Income (loss) from operations	(8,613,469)	(175,405)	175,405	2,183,857	(6,429,612)
Other income (expense):					
Loss on settlement	—	(10,668)	10,668 **F**	—	—
Loss on disposal	—	—	—	(1,069,675) **G**	(1,069,675)
Interest income	34,855	—	—	—	34,855
Interest expense	(632)	(16,771)	16,771	—	(632)
	34,223	(27,439)	27,439	(1,069,675)	(1,035,452)
Loss before income taxes	(8,579,246)	(202,844)	202,844	1,114,182	(7,465,064)
Income tax	—	—	—	—	—
Net loss	$ (8,579,246)	$ (202,844)	$ 202,844	$ 1,114,182	$ (7,465,064)
Other comprehensive loss					
Foreign currency translation adjustment	(15,344)	—	—	—	(15,344)
Total comprehensive loss	$ (8,594,590)	$ (202,844)	$ 202,844	$ 1,114,182	$ (7,480,408)
Net loss per share of common stock, basic and diluted	$ (0.07)	$ (0.02)			$ (0.06)
Weighted-average shares of common stock outstanding, basic and diluted	119,836,558	13,500,000			123,336,558 **H**

F Elimination of operations of Shift It Media Co. and General Aircraft, Inc., formerly wholly owned subsidiaries of Xenetic Biosciences, Inc., related to Agreement of Conveyance, Transfer and Assignment of Subsidiaries and Assumption of Obligations

G To record loss on disposal related to Agreement of Conveyance, Transfer and Assignment of Subsidiaries and Assumption of Obligations

H Weighted-average shares of common stock outstanding after Agreement of Conveyance, Transfer and Assignment of Subsidiaries and Assumption of Obligations

I Represents reversal of direct transaction costs, including legal and accounting fees which were directly related to the reverse merger incurred by Xenetic Biosciences plc

***** Formerly known as General Sales and Leasing, Inc.