UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549

FORM 10-Q

(Mark One)

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

For the quarterly period ended September 30, 2016

OR

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

For the transition period from to

Commission file number 001-36714

JAGUAR ANIMAL HEALTH, INC.
(Exact name of registrant as specified in its charter)

Delaware	**46-2956775**
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification No.)

201 Mission Street, Suite 2375
San Francisco, California 94105
(Address of principal executive offices, zip code)

(415) 371-8300
(Registrant's telephone number, including area code)

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

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

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

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

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes o No x

As of November 14, 2016, there were 12,340,464 shares of common stock, par value $0.0001 per share, outstanding.

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PART I. — FINANCIAL INFORMATION

Item 1. Condensed Financial Statements

JAGUAR ANIMAL HEALTH, INC.

CONDENSED BALANCE SHEETS

	September 30, 2016 (Unaudited)	December 31, 2015 (1)
Assets		
Current assets:		
Cash and cash equivalents	$ 1,813,411	$ 7,697,531
Restricted cash	988,580	—
Accounts receivable	4,963	55,867
Due from former parent	273,062	3,199
Inventory	276,227	229,871
Deferred offering costs	67,011	143,231
Prepaid expenses and other current assets	655,207	324,083
Total current assets	4,078,461	8,453,782
Property and equipment, net	900,976	829,232
Restricted cash	—	3,000,000
Other assets	122,163	122,163
Total assets	$ 5,101,600	$ 12,405,177
Liabilities, Convertible Preferred Stock and Stockholders' Equity (Deficit)		
Current liabilities:		
Accounts payable	$ 443,729	$ 574,462
License fee payable to former parent	—	425,000
Deferred revenue	246,235	251,936
Convertible notes payable	150,000	150,000
Accrued expenses	410,658	798,434
Current portion of long-term debt	1,846,101	1,707,899
Total current liabilities	3,096,723	3,907,731
Long-term debt, net of discount	2,271,114	4,095,028
Deferred rent	6,799	3,321
Total liabilities	$ 5,374,636	$ 8,006,080
Commitments and Contingencies (See note 6)		
Stockholders' Equity (Deficit):		
Preferred stock: $0.0001 par value, 10,000,000 shares authorized at September 30, 2016 and December 31, 2015; no shares issued and outstanding at September 30, 2016 and December 31, 2015.	—	—
Common stock: $0.0001 par value, 50,000,000 shares authorized at September 30, 2016 and December 31, 2015; 11,821,408 and 8,124,923 shares issued and outstanding at September 30, 2016 and December 31, 2015, respectively.	1,182	812
Additional paid-in capital	36,485,279	30,100,613
Accumulated deficit	(36,759,497)	(25,702,328)

Total stockholders' equity (deficit)	(273,036)	4,399,097
Total liabilities, convertible preferred stock and stockholders' equity (deficit)	$ 5,101,600	$ 12,405,177

(1) The condensed balance sheet at December 31, 2015 is derived from the audited financial statements at that date included in the Company's Form 10-K filed with the Securities and Exchange Commission on March 29, 2016.

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JAGUAR ANIMAL HEALTH, INC.

CONDENSED STATEMENTS OF OPERATIONS AND COMPREHENSIVE LOSS

(Unaudited)

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2016	2015	2016	2015
Revenue	$ 50,357	$ 77,666	$ 112,646	$ 203,195
Operating Expenses				
Cost of revenue	9,858	36,634	36,867	87,889
Research and development expense	1,967,128	1,239,831	5,672,516	4,414,162
Sales and marketing expense	136,882	165,745	355,345	519,275
General and administrative expense	1,115,312	1,390,429	4,319,856	3,784,272
Total operating expenses	3,229,180	2,832,639	10,384,584	8,805,598
Loss from operations	(3,178,823)	(2,754,973)	(10,271,938)	(8,602,403)
Interest expense, net	(235,191)	(163,595)	(774,185)	(3,033,238)
Other income/(expense)	(1,476)	(42,103)	(11,046)	(23,471)
Change in fair value of warrants	—	—	—	(501,617)
Net loss and comprehensive loss	(3,415,490)	(2,960,671)	(11,057,169)	(12,160,729)
Accretion of redeemable convertible preferred stock	—	—	—	(346,374)
Net loss attributable to common stockholders	$ (3,415,490)	$ (2,960,671)	$ (11,057,169)	$ (12,507,103)
Net loss per share atributable to common stockholders, basic and diluted	$ (0.30)	$ (0.36)	$ (1.07)	$ (2.28)
Weighted-average common shares outstanding, basic and diluted	11,264,886	8,123,293	10,298,987	5,488,655

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

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JAGUAR ANIMAL HEALTH, INC.

CONDENSED STATEMENT OF CHANGES IN COMMON STOCK, CONVERTIBLE PREFERRED STOCK AND STOCKHOLDERS' EQUITY (DEFICIT)

(Unaudited)

	Series A Convertible Preferred Stock		Common Stock				
	Shares	Amount	Shares	Amount	Additional paid-in capital	Accumulated deficit	Total Stockholders' Equity (Deficit)
Balances - December 31, 2014	3,015,902	$ 7,304,914	2,874,330	$ 288	$ 1,175,242	$ (9,410,778)	$ (8,235,248)
Issuance of common stock in initial public offering, net of discounts and commissions of $1,209,802, offering costs of $2,897,825 and offering costs in the form of common stock warrants of $400,400	—	—	2,860,000	286	15,511,974	—	15,512,260
Warrant, issued in conjunction with the initial public offering	—	—	—	—	400,400	—	400,400
Conversion of preferred stock into common stock upon initial public offering	(3,015,902)	(7,651,288)	2,010,596	201	7,651,087	—	7,651,288
Conversion of preferred stock warrant liability into additional paid-in capital upon initial public offering	—	—	—	—	1,150,985	—	1,150,985
Conversion of convertible notes into common stock upon initial public offering	—	—	374,997	37	2,099,963	—	2,100,000
Stock-based compensation	—	—	—	—	992,165	—	992,165
Beneficial conversion feature on notes payable	—	—	—	—	1,202,521	—	1,202,521
Deemed dividends on Series A	—	263,060	—	—	(263,060)	—	(263,060)
Accretion of issuance costs	—	83,314	—	—	(83,314)	—	(83,314)
Napo license fee abatement	—	—	—	—	250,000	—	250,000

Issuance of common stock upon exercise of stock options	—	—	5,000	—	12,650	—	12,650
Net and comprehensive loss	—	—	—	—	—	(16,291,550)	(16,291,550)
Balances - December 31, 2015	—	$ —	8,124,923	$ 812	$ 30,100,613	$ (25,702,328)	$ 4,399,097
Issuance of common stock in a secondary public offering, net of discounts and commissions of $373,011 and offering costs of $496,887.	—	—	2,000,000	200	4,129,902		4,130,102
Issuance of common stock in a private investment in public entities offering, net of offering costs of $105,398.			1,678,889	168	1,776,324		1,776,492
Issuance of common stock in exchange for vested restricted stock units	—	—	17,596	2	(2)		—
Stock-based compensation	—	—	—	—	478,442		478,442
Net and comprehensive loss	—	—	—	—	—	(11,057,169)	(11,057,169)
Balances - September 30, 2016	—	$ —	11,821,408	$ 1,182	$ 36,485,279	$ (36,759,497)	$ (273,036)

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

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JAGUAR ANIMAL HEALTH, INC.

CONDENSED STATEMENTS OF CASH FLOWS

(Unaudited)

	Nine months Ended September 30,	
	2016	**2015**
Cash Flows from Operating Activities		
Net loss	$ (11,057,169)	$ (12,160,729)
Adjustments to reconcile net loss to net cash used in operating activities:		
Depreciation expense	32,463	—
Gain/loss on disposal of fixed assets	—	34,549
Materials cost in connection with license activity	—	6,287
Stock-based compensation	478,442	828,049
Amortization of debt issuance costs and debt discount	396,107	2,592,956
Change in fair value of warrants	—	501,617
Changes in assets and liabilities		
Accounts receivable - trade	50,904	(8,698)
Inventory	(46,356)	(58,100)
Prepaid expenses	(331,124)	(329,774)
Deferred finance charges	—	(197,524)
Other long-term assets	—	(122,163)
Due from parent	(269,863)	(20,790)
Deferred revenue	(5,701)	312,910
Deferred rent	3,478	1,660
License fee payable	(425,000)	(675,000)
Accounts payable	(151,912)	(421,551)
Accrued expenses	(360,776)	(669,634)
Total cash used in operations	(11,686,507)	(10,385,935)
Cash Flows from Investing Activities		
Purchase of equipment	(104,207)	(23,300)
Sale of equipment	—	20,600
Change in restricted cash	2,011,420	(4,500,000)
Total cash provided by (used in) investing activities	1,907,213	(4,502,700)
Cash Flows from Financing Activities		
Proceeds from issuance of long-term debt	—	5,865,567
Repayment of long-term debt	(2,011,420)	—
Proceeds from issuance of redeemable convertible notes payable, net	—	1,250,000
Repayment of convertible notes payable	—	(100,000)
Repayment of notes payable	—	(1,000,000)
Proceeds from issuance of common stock in initial public offering, net of commissions and discounts	—	18,810,484
Deferred offering costs	—	(417,775)
Proceeds from issuance of common stock in a follow-on secondary offering, net of commissions and discounts	4,130,102	—
Proceeds from issuance of common stock in a private investment in public entities, net of commissions, discounts	1,776,492	—
Proceeds from the exercise of common stock options	—	12,650
Total Cash Provided by Financing Activities	3,895,174	24,420,926
Net increase in cash and cash equivalents	(5,884,120)	9,532,291
Cash and cash equivalents, beginning of period	7,697,531	845,192
Cash and cash equivalents, end of period	$ 1,813,411	$ 10,377,483
Supplemental Schedule of Non-Cash Financing and Investing Activities		

Interest paid on long-term debt	$ 382,810	$ 23,100
Offering costs not paid during the nine months	$ —	$ 1,401,253
Accretion of redeemable convertible preferred stock	$ —	$ 346,374
Abatement of license fee payable to Napo	$ —	$ 250,000
Conversion of convertible preferred stock to common stock	$ —	$ 7,651,288
Conversion of preferred stock warrant liability to common stock warrants	$ —	$ 1,150,985
Conversion of convertible notes to common stock	$ —	$ 2,100,000

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

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JAGUAR ANIMAL HEALTH, INC.

NOTES TO CONDENSED FINANCIAL STATEMENTS

1. Organization and Business

Jaguar Animal Health, Inc. ("Jaguar" or the "Company") was incorporated on June 6, 2013 (inception) in Delaware. The Company was a majority-owned subsidiary of Napo Pharmaceuticals, Inc. ("Napo" or the "Former Parent") until the close of the Company's initial public offering on May 18, 2015. The Company was formed to develop and commercialize first-in-class gastrointestinal products for companion and production animals and horses. The Company's first commercial product, Neonorm Calf, was launched in 2014 and Neonorm Foal was launched in the first quarter of 2016. In September of 2016, the Company began selling the *Croton lechleri* botanical extract (the "botanical extract") to an exclusive distributor for use in pigs in China. The Company's activities are subject to significant risks and uncertainties, including failing to secure additional funding in order to timely compete the development and commercialization of products. The Company operates in one segment and is headquartered in San Francisco, California.

On June 11, 2013, Jaguar issued 2,666,666 shares of common stock to Napo in exchange for cash and services. On July 1, 2013, Jaguar entered into an employee leasing and overhead agreement (the "Service Agreement") with Napo, under which Napo agreed to provide the Company with the services of certain Napo employees for research and development and the general administrative functions of the Company. On January 27, 2014, Jaguar executed an intellectual property license agreement with Napo pursuant to which Napo transferred fixed assets and development materials, and licensed intellectual property and technology to Jaguar. On February 28, 2014, the Service Agreement terminated and the associated employees became employees of Jaguar effective March 1, 2014. See Note 9 for additional information regarding the capital contributions and Note 4 for the Service Agreement and license agreement details.

On October 6, 2016, Jaguar signed a non-binding letter of intent ("LOI") with Napo potentially to merge the two companies.

Reverse Stock Split

In October 2014, the Board of Directors and stockholders approved a 1-for-1.5 reverse stock split (the "Reverse Split") of the Company's outstanding shares of common stock and increased the number of authorized shares of common stock from 10,000,000 shares to 15,000,000 shares. The Company effected the Reverse Split on October 27, 2014. Under the terms of the Reverse Split, each share of common stock, issued and outstanding as of such effective date, was automatically reclassified and changed into two-thirds of one share of common stock, without any action by the stockholder. Fractional shares were rounded down to the nearest whole share. All share and per share amounts have been restated to reflect the Reverse Split.

Initial Public Offering

On May 18, 2015, the Company completed an initial public offering ("IPO") of its common stock. In connection with its IPO, the Company issued and sold 2,860,000 shares of common stock at a price to the public of $7.00 per share. As a result of the IPO, the Company received $15.9 million in net proceeds, after deducting underwriting discounts and commissions of $1.2 million and offering expenses of $2.9 million ($3.3 million including non-cash offering expenses) payable by the Company. In connection with the IPO, the Company's outstanding shares of convertible preferred stock were automatically converted into 2,010,596 shares of common stock and the Company's outstanding warrants to purchase convertible preferred stock were all converted to warrants to purchase common stock.

Secondary Public Offering

On February 8, 2016, the Company completed a secondary public offering of its common stock. In connection with its secondary public offering, the Company issued and sold 2,000,000 shares of common stock at a price to the public of $2.50 per share. As a result of the secondary public offering, the Company received $4.1 million in net proceeds, after deducting underwriting discounts and commissions of $373,011 and offering expenses of $496,887.

Liquidity

The accompanying financial statements have been prepared assuming the Company will continue as a going concern. The Company has incurred recurring operating losses since inception and has an accumulated deficit of $36,759,497 as of September 30, 2016. The Company expects to incur substantial losses in future periods. Further, the Company's future operations are dependent on the success of the Company's ongoing development and commercialization efforts. There is no assurance that profitable operations, if ever achieved, could be sustained on a continuing basis.

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The Company plans to finance its operations and capital funding needs through equity and/or debt financing as well as revenue from future product sales. However, there can be no assurance that additional funding will be available to the Company on acceptable terms on a timely basis, if at all, or that the Company will generate sufficient cash from operations to adequately fund operating needs or ultimately achieve profitability. If the Company is unable to obtain an adequate level of financing needed for the long-term development and commercialization of its products, the Company will need to curtail planned activities and reduce costs. Doing so will likely have an adverse effect on the Company's ability to execute on its business plan. These matters raise substantial doubt about the ability of the Company to continue in existence as a going concern. The accompanying financial statements do not include any adjustments that might result from the outcome of these uncertainties.

In June 2016, the Company entered into a common stock purchase agreement with a private investor (the "CSPA"), which provides that, upon the terms and subject to the conditions and limitations set forth therein, the investor is committed to purchase up to an aggregate of $15.0 million of the Company's common stock over the approximately 30-month term of the agreement. As of September 30, 2016 the Company sold 1,678,889 shares for net cash proceeds of $1,776,492.

2. Summary of Significant Accounting Policies

Basis of Presentation

The financial statements have been prepared in accordance with accounting principles generally accepted in the United States of America ("U.S. GAAP").

Use of Estimates

The preparation of financial statements in conformity with U.S. GAAP requires the Company's management to make judgments, assumptions and estimates that affect the amounts reported in its financial statements and the accompanying notes. The accounting policies that reflect the Company's more significant estimates and judgments and that the Company believes are the most critical to aid in fully understanding and evaluating its reported financial results are valuation of stock options; valuation of warrant liabilities; impairment of long lived assets; useful lives for depreciation; valuation adjustments for excess and obsolete inventory; deferred taxes and valuation allowances on deferred tax assets; and evaluation and measurement of contingencies. Those estimates could change, and as a result, actual results could differ materially from those estimates.

Concentration of Credit Risk and Cash and Cash Equivalents

The financial instrument that potentially subjects the Company to a concentration of credit risk is that is held at a financial institution of high credit standing. Cash is generally in excess of Federal Deposit Insurance Corporation ("FDIC") insurance limits. Therefore, the Company is exposed to credit risk in the event that the balances exceed FDIC insurance limits. The carrying value of cash approximates fair value at September 30, 2016 and December 31, 2015.

Fair Values

The Company's financial instruments include, cash and cash equivalents, accounts payable, accrued expenses, amounts due to Napo, the former parent, warrant liabilities, and debt. Cash is reported at fair value. The recorded carrying amount of accounts payable, accrued expenses and amounts due to Napo approximates their fair value due to their short-term nature. The carrying value of the interest-bearing debt approximates fair value based upon the borrowing rates currently available to the Company for bank loans with similar terms and maturities. See Note 3 for the fair value measurements, and Note 7 for the fair value of the Company's warrant liabilities.

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Restricted Cash

On August 18, 2015, the Company entered into a long-term loan and security agreement with a lender for up to $8.0 million, which provided for an initial loan commitment of $6.0 million. The loan agreement required the Company to maintain a base minimum cash balance of $4.5 million until the Company met certain milestones and/or when the Company begins making principal payments. On December 22, 2015, the Company achieved certain milestones and the base minimum cash balance was reduced to $3.0 million. Aggregate principal payments of $2.1 million further reduced the restricted cash balance to $988,580 as of September 30, 2016. Restricted cash has been classified within current assets as the balance will be converted to cash before September 30, 2017.

Inventories

Inventories are stated at the lower of cost or market. The Company calculates inventory valuation adjustments when conditions indicate that the net realizable value is less than cost due to physical deterioration, usage, obsolescence, reductions in estimated future demand or reduction in selling price. Inventory write-downs are measured as the difference between the cost of inventory and estimated net realizable value. There have been no write-downs to date.

Property and Equipment

Equipment is stated at cost, less accumulated depreciation. Equipment begins to be depreciated when it is placed into service. Depreciation is calculated using the straight-line method over the estimated useful lives of 3 to 10 years.

Expenditures for repairs and maintenance of assets are charged to expense as incurred. Costs of major additions and betterments are capitalized and depreciated on a straight-line basis over their estimated useful lives. Upon retirement or sale, the cost and related accumulated depreciation of assets disposed of are removed from the accounts and any resulting gain or loss is included in income (loss) from operations.

Long-Lived Assets

The Company regularly reviews the carrying value and estimated lives of all of its long-lived assets, including property and equipment to determine whether indicators of impairment may exist that warrant adjustments to carrying values or estimated useful lives. The determinants used for this evaluation include management's estimate of the asset's ability to generate positive income from operations and positive cash flow in future periods as well as the strategic significance of the assets to the Company's business objectives.

Should an impairment exist, the impairment loss would be measured based on the excess of the carrying amount over the asset's fair value. The Company has not recognized any impairment losses through September 30, 2016.

Research and Development Expense

Research and development expense consists of expenses incurred in performing research and development activities including related salaries, clinical trial and related drug and non-drug product costs, contract services and other outside service expenses. Research and development expense is charged to operating expense in the period incurred.

Revenue Recognition

Sales of Neonorm Calf and Foal to distributors are made under agreements that may provide distributor price adjustments and rights of return under certain circumstances. Until the Company develops sufficient sales history and pipeline visibility, revenue and costs of distributor sales will be deferred until products are sold by the distributor to the distributor's customers. Revenue recognition depends on notification either directly from the distributor that product has been sold to the distributor's customer, when the Company has access to the data. Deferred revenue on shipments to distributors reflect the estimated effects of distributor price adjustments, if any, and the estimated amount of gross margin expected to be realized when the distributor sells through product purchased from the Company. Accounts receivable from distributors are recognized and included in deferred revenue when shipped to the distributor. Inventory is relieved and revenue recognized upon shipment by the distributor to their customer. The Company had Neonorm revenues of $26,357 and $88,646 for the three and nine months ended September 30, 2016, and $77,666 and $203,195 for the three and nine months ended September 30, 2015.

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Stock-Based Compensation

The Company's 2013 Equity Incentive Plan and 2014 Stock Incentive Plan (see Note 10) provides for the grant of stock options, restricted stock and restricted stock unit awards.

The Company measures stock awards granted to employees and directors at fair value on the date of grant and recognizes the corresponding compensation expense of the awards, net of estimated forfeitures, over the requisite service periods, which correspond to the vesting periods of the awards. The Company issues stock awards with only service-based vesting conditions, and records compensation expense for these awards using the straight-line method.

The Company uses the grant date fair market value of its common stock to value both employee and non-employee options when granted. The Company revalues non-employee options each reporting period using the fair market value of the Company's common stock as of the last day of each reporting period.

Classification of Securities

The Company applies the principles of ASC 480-10 "Distinguishing Liabilities from Equity" and ASC 815-40 "Derivatives and Hedging—Contracts in Entity's Own Equity" to determine whether financial instruments such as warrants, contingently issuable shares and shares subject to repurchase should be classified as liabilities or equity and whether beneficial conversion features exist.

Income Taxes

The Company accounts for income taxes using the asset and liability method, which requires the recognition of deferred tax assets and liabilities for the expected future tax consequences of events that have been recognized in the financial statements or in the Company's tax returns. Deferred taxes are determined based on the difference between the financial statement and tax basis of assets and liabilities using enacted tax rates in effect in the years in which the differences are expected to reverse. Changes in deferred tax assets and liabilities are recorded in the provision for income taxes. The Company assesses the likelihood that its deferred tax assets will be recovered from future taxable income and, to the extent it believes, based upon the weight of available evidence, that it is more likely than not that all or a portion of deferred tax assets will not be realized, a valuation allowance is established through a charge to income tax expense. Potential for recovery of deferred tax assets is evaluated by estimating the future taxable profits expected and considering prudent and feasible tax planning strategies.

The Company accounts for uncertainty in income taxes recognized in the financial statements by applying a two-step process to determine the amount of tax benefit to be recognized. First, the tax position must be evaluated to determine the likelihood that it will be sustained upon external examination by the taxing authorities. If the tax position is deemed more-likely-than-not to be sustained, the tax position is then assessed to determine the amount of benefit to recognize in the financial statements. The amount of the benefit that may be recognized is the largest amount that has a greater than 50% likelihood of being realized upon ultimate settlement. The provision for income taxes includes the effects of any resulting tax reserves, or unrecognized tax benefits, that are considered appropriate, as well as the related net interest and penalties.

Comprehensive Loss

Comprehensive loss is defined as changes in stockholders' equity (deficit) exclusive of transactions with owners (such as capital contributions and distributions). For the three and nine months ended September 30, 2016 and 2015 there was no difference between net loss and comprehensive loss.

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Segment Data

The Company manages its operations as a single segment for the purposes of assessing performance and making operating decisions. The Company is an animal health company focused on developing and commercializing prescription and non-prescription products for companion and production animals.

Basic and Diluted Net Loss Per Common Share

Basic net loss per common share is computed by dividing net loss attributable to common stockholders for the period by the weighted-average number of common shares outstanding during the period. Diluted net loss per share is computed by dividing the net loss attributable to common stockholders for the period by the weighted-average number of common shares, including potential dilutive shares of common stock assuming the dilutive effect of potential dilutive securities. For periods in which the Company reports a net loss, diluted net loss per common share is the same as basic net loss per common share, because their impact would be anti-dilutive to the calculation of net loss per common share. Diluted net loss per common share is the same as basic net loss per common share for the three and nine months ended September 30, 2016 and 2015.

Recent Accounting Pronouncements

In February 2016, the Financial Accounting Standards Board ("FASB") issued Accounting Standards Update ("ASU") No. 2016-02, *Leases (Topic 842)*, which provides guidance for accounting for leases. Under ASU 2016-02, the Company will be required to recognize the assets and liabilities for the rights and obligations created by leased assets. ASU 2016-02 is effective for fiscal years, and interim periods within those fiscal years, beginning after December 15, 2018. We are currently evaluating the impact of the adoption of ASU 2016-02 on our consolidated financial statements.

In November 2015, the FASB issued ASU No. 2015-17, *Balance Sheet Classification of Deferred Taxes (Topic 740)*, which simplifies the presentation of deferred income taxes. Under ASU 2015-17, deferred tax assets and liabilities are required to be classified as noncurrent, eliminating the prior requirement to separate deferred tax assets and liabilities into current and noncurrent. The new guidance is effective for the Company beginning on January 1, 2017, with early adoption permitted. The standard may be adopted prospectively or retrospectively to all periods presented. The Company is currently assessing the timing of adoption of the new guidance, but does not expect it will have a material impact on the Company's Consolidated Financial Statements.

In April 2015, the FASB issued ASU No. 2015-03, *Interest—Imputation of Interest (Subtopic 835-30): Simplifying the Presentation of Debt Issuance Costs*, to simplify the presentation of debt issuance costs by requiring debt issuance costs to be presented as a deduction from the corresponding debt liability. ASU 2015-03 will be effective for the Company beginning in its first quarter of 2016, however early adoption is permitted for financial statements that have not been previously issued. The guidance is to be applied retrospectively to all periods presented. We adopted ASU 2015-03 on December 31, 2015.

In August 2014, the FASB issued ASU No. 2014-15, "Presentation of Financial Statements—Going Concern (Subtopic 205-40)—Disclosure of Uncertainties about an Entity's Ability to Continue as a Going Concern", which provides guidance regarding management's responsibility to assess whether substantial doubt exists regarding the ability to continue as a going concern and to provide related footnote disclosures. In connection with preparing financial statements for each annual and interim reporting period, management should evaluate whether there are conditions or events, considered in the aggregate, that raise substantial doubt about the Company's ability to continue as a going concern within one year after the date that the financial statements are issued (or within one year after the date that the financial statements are available to be issued when applicable). This ASU is effective for the annual period ending after December 15, 2016, and for annual periods and interim periods thereafter. The Company is currently evaluating the new guidance and has not determined the impact this standard may have on its financial statements.

In June 2014, the FASB issued ASU No. 2014-12, *"Compensation—Stock Compensation (Topic 718)"*, which requires that a performance target that affects vesting and that could be achieved after the requisite service period be treated as a performance condition. The performance target should not be reflected in estimating the grant-date fair value of the award. Compensation cost should be recognized in the period in which it becomes probable that the performance target will be achieved and should represent the compensation cost attributable to the period(s) for which the requisite service has already been rendered. If the performance target becomes probable of being achieved before the end of the requisite service period, the remaining unrecognized compensation cost should be recognized prospectively over the remaining requisite service period. The total amount of compensation cost recognized during and after the requisite service period should reflect the number of awards that are expected to vest and should be adjusted to reflect those awards that ultimately vest. The requisite service period ends when the employee can cease rendering service and still be eligible to vest in the award if the performance target is achieved. This guidance will be effective for annual periods (and interim periods within those annual periods) beginning after December 15, 2015. The Company implemented this guidance for all interim and annual periods beginning after December 15, 2015. The adoption of this guidance did not have an impact on the Company's financial condition, results of operations or cash flows.

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In May 2014, the FASB issued ASU No. 2014-09, "Revenue from Contracts with Customers." The objective of ASU 2014-19 is to establish a single comprehensive model for entities to use in accounting for revenue arising from contracts with customers and will supersede most of the existing revenue recognition guidance, including industry-specific guidance. The core principle of the new standard is that revenue should be recognized to depict the transfer of promised goods or services to customers in an amount that reflects the consideration to which the entity expects to be entitled in exchange for those goods or services. The standard is effective for annual reporting periods beginning after December 15, 2016 and allows for prospective or retrospective application. The Company is evaluating the new guidance and has not determined the impact this pronouncement will have on its financial statements.

3. Fair Value Measurements

ASC 820 "Fair Value Measurements," defines fair value, establishes a framework for measuring fair value under generally accepted accounting principles and enhances disclosures about fair value measurements. Fair value is defined under ASC 820 as the exchange price that would be received for an asset or paid to transfer a liability (an exit price) in the principal or most advantageous market for the asset or liability in an orderly transaction between market participants on the measurement date. Valuation techniques used to measure fair value under ASC 820 must maximize the use of observable inputs and minimize the use of unobservable inputs. The standard describes a fair value hierarchy based on three levels of inputs, of which the first two are considered observable and the last unobservable, that may be used to measure fair value which are the following:

- Level 1—Quoted prices in active markets for identical assets or liabilities;

- Level 2—Inputs other than Level 1 that are observable, either directly or indirectly, such as quoted prices for similar assets or liabilities; quoted prices in markets that are not active; or other inputs that are observable or can be corroborated by observable market data; and

- Level 3—Unobservable inputs that are supported by little or no market activity and that are significant to the fair value of the assets or liabilities, including pricing models, discounted cash flow methodologies and similar techniques.

As of September 30, 2016 and 2015, the Company does not have any assets or liabilities measured at fair value on a recurring basis.

During the nine months ended September 30, 2015, the Company had a warrant liability that was measured at fair value on a recurring basis until May of 2015. The change in the estimated fair value of the warrant liability for the nine months ended September 30, 2015 is summarized below:

	Beginning Value of Warrant Liability	Issuance of Common Stock Warrants	Change in Fair Value of Level 3 Liability	Conversion into Additional Paid-in Capital	Ending Fair Value of Level 3 Liability
For the nine months ended September 30, 2015	$ 601,889	$ 47,479	$ 501,617	(1,150,985)	$ —

The change in the fair value of the level 3 warrant liability is reflected in the statement of operations and comprehensive loss for the nine months ended September 30, 2015.

4. License Agreement

On July 11, 2013, Jaguar entered into an option to license Napo's intellectual property and technology (the "Option Agreement"). Under the Option Agreement, upon the payment of $100,000 in July 2013, the Company obtained an option for a period of two years to execute an exclusive worldwide license to Napo's intellectual property and technology to use for the Company's animal health business. The option price was creditable against future license fees to be paid to Napo under the License Agreement (as defined below).

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In January 2014, the Company exercised its option and entered into a license agreement (the "License Agreement") with Napo for an exclusive worldwide license to Napo's intellectual property and technology to permit the Company to develop, formulate, manufacture, market, use, offer for sale, sell, import, export, commercialize and distribute products for veterinary treatment uses and indications for all species of animals. The Company was originally obligated to pay a one-time non-refundable license fee of $2,000,000, less the option fee of $100,000. At the Company's option, the license fee could have been paid in common stock. Milestone payments aggregating $3,150,000 may also be due to Napo based on regulatory approvals of various veterinary products. In addition to the milestone payments, the Company will owe Napo an 8% royalty on annual net sales of products derived from the *Croton lechleri* tree, up to $30,000,000 and then, a royalty of 10% on annual net sales of $30,000,000 or more. Additionally, if any other products are developed, the Company will owe Napo a 2% royalty on annual net sales of pharmaceutical prescription products that are not derived from *Croton lechleri* and a 1% royalty on annual net sales of nonprescription products that are not derived from *Croton lechleri*. The royalty term expires at the longer of 10 years from the first sale of each individual product or when there is no longer a valid patent claim covering any of the products and a competitive product has entered the market. However, because an IPO of at least $10,000,000 was consummated prior to December 31, 2015, the royalty was reduced to 2% of annual net sales of its prescription products derived from *Croton lechleri* and 1% of net sales of its nonprescription products derived from *Croton lechleri* and no milestone payment will be due and no royalties will be owed on any additional products developed. The Company incurred royalty expense of $99 and $943 for the three and nine months ended September 30, 2016 and $413 and $39,159 for the three and nine months ended September 30, 2015, which is included in sales and marketing expense in the Company's statement of operations and comprehensive loss. The Company's unpaid royalties total $99 and $2,810 at September 30, 2016 and December 31, 2015, respectively, which is included in accrued liabilities in the Company's balance sheet.

In addition to receiving a License Agreement to Napo's intellectual property and technology, the License also transferred to the Company certain materials and equipment. Materials transferred from Napo have been included in research and development expense on the statements of operations and comprehensive loss during the year ended December 31, 2014. Equipment of $811,087 related to the License is included in property and equipment on the Company's balance sheet at September 30, 2016 and December 31, 2015 at the cost paid by Napo, which approximates fair value. Some of the equipment was placed into service in November of 2015, and the Company has booked $6,568 and $19,704 in depreciation expense for the three and nine months ended September 30, 2016, which is included in research and development expense in the Company's statement of operations and comprehensive loss.

The Company has agreed under the License Agreement to defend, indemnify and hold Napo, its affiliates, and the officers, directors, employees, consultants and contractors of Napo harmless from and against any losses, costs, damages, liabilities, fees and expenses arising out of any third-party claim related to the Company's gross negligence, breach of covenants or the manufacture, sale or use of the product or products.

In January 2015, the License Agreement was amended to decrease the one-time non-refundable license fee payable from $2,000,000 to $1,750,000 in exchange for acceleration of the payment of the fee. In 2015, payments totaling $1.2 million were made, and the balance of $425,000 was paid in March of 2016. The License Fee Payable of $0 and $425,000 is included in the Company's balance sheet at September 30, 2016 and December 31, 2015, respectively. Additionally, the terms of the License Agreement were amended to require the mutual agreement of the parties for payment of the license fee to be remitted in the form of the Company's common stock. The Company may also, at its sole discretion, elect to remit any milestone payments and/or royalties in the form of the Company's common stock. Given that Napo is a significant shareholder of the Company, the abatement of the license fee amount has been recorded as a capital contribution in the accompanying condensed financial statements.

5. Balance Sheet Components

Property and Equipment

Property and equipment at September 30, 2016 and December 31, 2015 consisted of the following:

	September 30,	December 31,

	2016	2015
Lab equipment	$ 811,087	$ 811,087
Clinical equipment	64,870	23,300
Software	62,637	—
Work in-process	—	—
Total property and equipment at cost	938,594	834,387
Accumulated Depreciation	(37,618)	(5,155)
Property and Equipment, net	$ 900,976	$ 829,232

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Depreciation expense for the three and nine month periods ended September 30, 2016 and 2015 was as follows:

	Three months ended September 30,		Nine months ended September 30,	
	2016	2015	2016	2015
Depreciation - Lab Equipment - research and developoment expense	$ 6,568	$ —	$ 19,704	$ —
Depreciation - Clinical Equipment - research and development expense	3,243	—	6,959	—
Depreciation - Software - general and administrative expense	5,220	—	5,800	—
Total Depreciation Expense	$ 15,031	$ —	$ 32,463	$ —

Accrued Expenses

Accrued expenses at September 30, 2016 and December 31, 2015 consist of the following:

	September 30, 2016	December 31, 2015
Accrued compensation and related:		
Accrued vacation	$ 191,492	$ 187,734
Accrued payroll	—	80,692
Accrued payroll tax	24,304	43,702
	215,796	312,128
Accrued interest	122,417	127,149
Accrued contract manufacturing costs	—	110,141
Accrued clinical	59,575	166,750
Accrued other	12,870	82,266
Total	$ 410,658	$ 798,434

6. Commitments and Contingencies

Operating Leases

Effective July 1, 2015, the Company leases its San Francisco, California headquarters under a non-cancelable sub-lease agreement that expires August 31, 2018. The Company provided cash deposits of $122,163, consisting of a security deposit of $29,539 and prepayment of the last three months of the lease of $92,623, which is identified as other assets on the Company's balance sheet.

Future minimum lease payments under non-cancelable operating leases as of September 30, 2016 are as follows:

Years ending December 31,	Amount
2016 - October through December	$ 90,121
2017	363,486
2018	245,327
Total minimum lease payments	$ 698,934

The Company recognizes rent expense on a straight-line basis over the non-cancelable lease period. Rent expense under the non-cancelable operating lease was $90,278 and $270,835 for the three and nine months ended September 30, 2016, and $90,278 and $90,278 for the three months ended September 30, 2015, which are included in general and administrative expense in the Company's statement of operations and comprehensive loss.

Since March 1, 2014, the date the Service Agreement terminated (Note 4), the Company paid Napo $33,897 for rent related to the office space utilized by the Company for the months of March, April and May 2014. Effective June 1, 2014, the Company assumed the existing sublease from Napo. The term of the assumed sublease was from June 1, 2014 through June 30, 2015. Rent expense under the sub-lease was $34,799 and $69,598 for the three and six months ended June 30, 2015, which was included in general and administrative expense in the Company's statement of operations and comprehensive loss.

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Contract Manufacturing Commitment

Effective June 26, 2014 the Company entered into a technology transfer and commercial manufacturing agreement (the "Transfer Agreement") with a contract manufacturer in Italy (the "Manufacturer"), whereby the Company and the Manufacturer will cooperate to develop and refine the manufacturing process for the Company's prescription and non-prescription products. Pursuant to the Transfer Agreement, the Company was to make prepayments to the

Manufacturer as follows: (1) a start-up fee of €500,000, €250,000 of which was to be paid at the earlier to occur of September 15, 2014 or the closing date of an initial public offering and €250,000 of which was to be paid at the time of installation and qualification of the Company's equipment at their facility, (2) related to the technology transfer, €620,000, €310,000 of which was paid subsequent to the signature of the Transfer Agreement and €310,000 of which was to be paid after the delivery of a final study report, (3) for design of a portion of the Manufacturer's facility, €100,000 was to be paid within five days of the signature of the Transfer Agreement, and (4) a €300,000 bonus fee payable in two equal installments, the first of which is due by the end of March 2015, with the remainder paid by the end of December 2015. The first €150,000 of the bonus fee payable was paid in May 2015. Additionally, the Transfer Agreement stipulated that the Company was to pay the Manufacturer an aggregate of €500,000 upon the delivery of agreed-upon levels of satisfactory product. Further, the Company issued the Manufacturer warrants to purchase 16,666 shares of common stock with an exercise price of 90% of the initial public offering price, amended to $6.30 in March 2015. (Note 7)

Effective February 12, 2015, March 25, 2015 and July 15, 2015 the Company entered into amendments delaying payments to the Manufacturer as follows: (i) the €500,000 start-up fee was due by the end of April 2015 and has been paid during the year ended December 31, 2015, (ii) related to the technology transfer, of the remaining €310,000, €215,000 was due April 2015 and €95,000 was due June 30, 2015, both of which were paid during the year ended December 31, 2015, (iii) related to the design of a portion of the Manufacturer's facility, the payment has increased to €170,000, €150,000 of which was due at the end of April 2015 and €20,000 was due on June 30, 2015, both of which have been paid during the year ended December 31, 2015 (iv) the fees linked to the deliverables are now due €250,000 on December 31, 2015 and €250,000 on March 31, 2016, 2015, (v) the bonus fee payable of €300,000, €150,000 was due at the end of April 2015 and has been paid during the year ended December 31, 2015 and €150,000 due at December 31, 2015. In May 2015, the Company entered into a Memorandum of Understanding ("MOU") with the contract manufacturer and paid the start-up fee of €500,000 and the technology transfer fee of €215,000. In accordance with the terms of the Memorandum of Understanding, the Manufacturer will supply 400Kg of the Company's API at no cost in anticipation of the future deduction by December 2015. The final €250,000 was paid on March 29, 2016.

In December 2015, we entered into an amendment to our technology transfer and commercial manufacturing agreement with our contract manufacturer in Italy delaying a €150,000 bonus fee payment which was originally due on December 31, 2015 to March 31, 2016. On April 4, 2016, the Company further amended the payment date to June 30, 2016. The Company paid the final €150,000 bonus fee on July 15, 2016.

The Company expenses the total cost of the contract ratably over the estimated life of the contract, or the total amount paid if greater. As of September 30, 2016 and December 31, 2015, the amortized costs exceeded amounts paid by $0 and $110,141, respectively, which are included in accrued manufacturing costs in accrued liabilities in the Company's balance sheet.

Debt Obligations

See Note 7—Debt and Warrants.

Contingencies

From time to time, the Company may be involved in legal proceedings arising in the ordinary course of business. The Company believes there is no litigation pending that could have, individually or in the aggregate, a material adverse effect on the financial position, results of operations or cash flows.

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7. Debt and Warrants

Convertible Notes and Warrants

2013 Convertible Notes

From July through September 2013, the Company issued four convertible promissory notes (collectively the "Notes") for gross aggregate proceeds of $525,000 to various third-party lenders. The Notes bore interest at 8% per annum. The Notes automatically matured and the entire outstanding principal amount, together with accrued interest, was due and payable in cash at the earlier of July 8, 2015 (the "Maturity Date") or ten business days after the date of consummation of the initial closing of a first equity round of financing. The Company consummated a first equity round of financing prior to the Maturity Date with a pre-money valuation of greater than $3.0 million, and, accordingly, principal and accrued interest was converted into shares of common stock at 75% of the purchase price paid by such equity investors. These notes were all converted to common stock in February 2014 upon the issuance of the convertible preferred stock. In February 2014, in connection with the first equity round of financing and issuance of the Series A convertible preferred stock, the noteholders exercised their option to convert their Notes into 207,664 shares of common stock and accrued interest was paid in cash to the noteholders. The accreted interest expense related to the discount on the Notes was $1,443 for the period from January 1, 2014 to the conversion date of the Notes. Upon conversion, the entire remaining debt discount of $4,071 was recorded as interest expense.

In connection with the Notes, the Company issued to the noteholders warrants, which became exercisable to purchase an aggregate of 207,664 shares of common stock as of the issuance of the first equity round of financing (the "Warrants"). The Warrants have a $2.53 exercise price, are fully exercisable from the initial date of the first equity round of financing, and have a five-year term subsequent to that date.

2014 Convertible Notes

On June 2, 2014, pursuant to a convertible note purchase agreement, the Company issued convertible promissory notes in the aggregate principal amount of $300,000 to two accredited investors, including a convertible promissory note for $200,000 to a board member to which Series A preferred stock was sold. These notes accrued interest at 3% per annum and automatically were to mature on June 1, 2015. Interest expense for the three and nine months ended September 30, 2015 was $0 and $3,237 and is included in interest expense in the statement of operations and comprehensive loss. Accrued interest is $8,507 and is included in accrued liabilities in the balance sheet. All interest was to be paid in cash upon maturity. Upon the closing of the IPO, the outstanding principal amount automatically converted into 53,571 shares common stock at $5.60, as amended in March 2015. Upon issuance, the Company analyzed the beneficial nature of the conversion terms and determined that a beneficial conversion feature ("BCF") existed because the effective conversion price on issuance of the notes was less than the fair value at the time of the issuance. We calculated the value of the BCF using the intrinsic method and recorded a BCF of $75,000 as a discount to the notes payable and to additional paid-in capital. For the three and nine months ended September 30, 2015, the Company

we amortized $0 and $31,250, respectively, of the discount, which has also been recorded as interest expense in the statement of operations and comprehensive loss.

On July 16, 2014, pursuant to a convertible note purchase agreement, the Company issued a convertible promissory note in the principal amount of $150,000 to an accredited investor. This note accrued interest at 3% per annum and automatically was to mature on June 1, 2015. Interest expense for the three and nine months ended September 30, 2015 was $0 and $1,627 and is included in interest expense in the statement of operations and comprehensive loss. Accrued interest is $3,711 and is included in accrued liabilities in the balance sheet. All interest was to be paid in cash upon maturity. Upon the closing of the IPO, the outstanding principal amount automatically converted into 26,785 shares of common stock at $5.60, as amended in March 2015. Upon issuance, the Company analyzed the beneficial nature of the conversion terms and determined that a BCF existed because the effective conversion price was less than the fair value at the time of the issuance. The Company calculated the value of the BCF using the intrinsic method and recorded a BCF of $37,500 as a discount to the notes payable and to additional paid-in capital. For the three and nine months ended September 30, 2015, the Company amortized $0 and $17,857 of the discount, respectively, which has also been recorded as interest expense in our statement of operations and comprehensive loss.

In connection with the Transfer Agreement (Note 7) the Company issued fully vested and immediately exercisable warrants to the Manufacturer to purchase 16,666 shares of common stock at 90% of the IPO price, amended to $6.30 in March 2015, for a period of five years. The fair value of the warrants, $37,840, was recorded as research and development expense and additional paid-in capital in June 2014. The warrants were originally valued using the Black-Scholes model with the following assumptions: stock price of $4.83, exercise price of $4.35, term of five years, volatility of 49%, dividend yield of 0%, and risk-free interest rate of 1.64%.

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On December 23, 2014, pursuant to a convertible note purchase agreement, the Company issued convertible promissory notes in the aggregate principal amount of $650,000 to three accredited investors, including a convertible promissory note for $250,000 to the same board member to which the June 2, 2014 $200,000 convertible promissory note was issued and to which Series A preferred stock was sold. These notes accrued interest at 12% per annum and became payable within thirty days following the IPO. Interest expense for the three and nine months ended September 30, 2015 was $0 and $28,210 and is included in interest expense in the statement of operations and comprehensive loss. Accrued interest is $30,132 and is included in accrued liabilities in the balance sheet. All interest was to be paid in cash upon maturity. Upon consummation of the Company's IPO, the noteholders converted the notes into 116,070 shares of common stock at a conversion price equal to 80% of the IPO price, amended to $5.60 in March 2015. In connection with these notes, the Company also issued the lenders a fully vested warrant to purchase shares of the Company's common stock at an exercise price equal to 80% of the IPO price, amended to $5.60 in March 2015. These warrants entitle the noteholders to purchase 58,035 shares of common stock. The fair value of the warrants, $147,943, was recorded as a debt discount and liability at December 23, 2014. The Company amortized $0 and $141,890 of this discount during the three and nine months ended September 30, 2015 which has been recorded as interest expense in our statement of operations and comprehensive loss. The warrants were originally valued using the Black-Scholes model with the following assumptions: stock price of $4.59, exercise price of $4.15, term of three years expiring December 2017, volatility of 49%, dividend yield of 0%, and risk-free interest rate of 1.10%. Based on the circumstances, the value derived using the Black-Scholes model approximated that which would be obtained using a lattice model. The debt discount was to be recorded as interest expense over the one hundred ninety days from issuance of the notes through their first maturity date of July 31, 2015, beginning in January 2015. The Company analyzed the beneficial nature of the conversion terms and determined that a BCF existed because the effective conversion price was less than the fair value at the time of the issuance. The Company calculated the value of the BCF using the intrinsic method. A BCF of $502,057 has been recorded as a discount to the notes payable and to additional paid-in capital. For the three and nine months ended September 30, 2015, the Company amortized $0 and $484,329 of the BCF which has also been recorded as interest expense in our statement of operations and comprehensive loss.

2015 Convertible Notes

In February 2015, the Company issued convertible promissory notes to two accredited investors in the aggregate principal amount of $250,000. These notes were issued pursuant to the convertible note purchase agreement dated December 23, 2014. In connection with the issuance of the notes, the Company issued the lenders warrants to purchase 22,320 shares at $5.60 per share, which expire December 31, 2017. Principal and interest of $103,912 was paid in May 2015 for $100,000 of these notes. The remaining outstanding note of $150,000 is payable to the investor at an effective simple interest rate of 12% per annum, and was due in full on July 31, 2016. On July 28, 2016, the Company entered into an amendment to delay the repayment of the principal and related interest under the terms of the remaining note from July 31, 2016 to October 31, 2016. On November 8, 2016, the Company entered into an amendment to extend the maturity date of the remaining note from October 31, 2016 to January 1, 2017. In exchange for the extension of the maturity date, on November 8, 2016, the Company's board of directors granted the lendor a warrant to purchase 120,000 shares of the Company's common stock for $0.01 per share. The warrant is exercisable at any time on or before July 28, 2022, the expiration date of the warrant. The remaining note is included in notes payable in the Company's balance sheet. The Company has accrued interest of $29,392, which is included in accrued liabilities in the Company's balance sheet, and incurred $4,537 and $11,342 in interest expense in the three and nine months ended September 30, 2015, and $4,537 and $13,512 in interest expense in the three and nine months ended September 30, 2016. The note remains outstanding as the investor elected not to convert the note as per the terms of the agreement. The Company analyzed the beneficial nature of the conversion terms and determined that a BCF existed because the effective conversion price was less than the fair value at the time of the issuance. The Company calculated the value of the BCF using the intrinsic method. A BCF of for the full face value was recorded as a discount to the notes payable and to additional paid-in capital. For the three and nine months ended September 30, 2015, the Company amortized $26,786 and $250,000 of the BCF as interest expense in the Company's statement of operations and comprehensive income.

In March 2015, the Company entered into a non-binding letter of intent with Dechra Pharmaceuticals PLC ("Dechra"). In connection therewith, Dechra paid the Company $1.0 million. At March 31, 2015, the Company had recorded this amount as a loan advance on the balance sheet. In April 2015, Dechra purchased $1.0 million of convertible promissory notes from the Company, the terms of which provided that such notes were to be converted into shares of the Company's common stock upon the closing of an IPO at a conversion price of $5.60 per share. In connection with the purchase of the notes, the Company issued Dechra a warrant to purchase 89,285 shares at $5.60 per share, which expires December 31, 2017. The notes accrued simple interest of 12% per annum and, upon consummation of the Company's IPO in May 2015, converted into 178,571 shares of the Company's common stock. The Company analyzed the beneficial nature of the conversion terms and determined that a BCF existed because the effective conversion price was less than the fair value at the time of the issuance. The Company calculated the value of the BCF using the intrinsic method. A BCF of for the full face value was recorded as a discount to the notes payable and to additional paid-in capital. For the three and nine months ended September 30, 2015, the Company amortized $0 and $1,000,000 of the BCF as interest expense in the Company's statement of operations and comprehensive income.

As of September 30, 2016 and December 31, 2015, the convertible notes payable obligations were as follows:

	September 30, 2016	December 31, 2015
Notes payable	$ 150,000	$ 150,000
Unamortized note discount	—	—
Net debt obligation	$ 150,000	$ 150,000

Interest expense on the convertible notes payable was as follows:

	Three months ended September 30,		Nine months ended September 30,	
	2016	2015	2016	2015
Nominal Interest	$ 4,537	$ 4,537	$ 13,512	$ 66,082
Amortization of debt discount	—	26,786		1,925,326
	$ 4,537	$ 31,323	$ 13,512	$ 1,991,408

At September 30, 2016 and December 31, 2015, interest payable on convertible notes payable was $89,511 and $75,999, respectively.

Notes Payable—Bridge Loans

On October 30, 2014, the Company entered into a standby bridge financing agreement with two lenders, which was amended and restated on December 3, 2014, which provided a loan commitment in the aggregate principal amount of $1.0 million (the “Bridge”). Proceeds to the Company were net of a $100,000 debt discount under the terms of the Bridge and net of $104,000 of debt issuance costs. This debt discount and debt issuance costs were recorded as interest expense using the effective interest method, over the six month term of the Bridge. The Bridge became payable upon the IPO. The Bridge was repaid in May 2015, including interest thereon in an amount of $1,321,600. In connection with the Bridge, the lenders were granted warrants to purchase 178,569 shares of the Company’s common stock determined by dividing $1.0 million by the exercise price of 80% of the IPO price, amended to $5.60 in March 2015. The fair value of the warrants, $505,348, was originally recorded as a debt discount and liability at December 3, 2014. The warrants were originally valued using the Black-Scholes model with the following assumptions: stock price of $5.01, exercise price of $5.23, term of five years expiring December 2019, volatility of 63%, dividend yield of 0%, and risk-free interest rate of 1.61%. Based on the circumstances, the value derived using the Black-Scholes model approximated that which would be obtained using a lattice model. The debt discount was recorded as interest expense over the six month term of the Bridge. Of the aggregate debt discount of $605,348 (warrants and original $100,000 discount), $521,291 was recorded as interest expense during the year ended December 31, 2015. Additional financing costs of $104,000 were incurred related to the Bridge and deferred on closing. These were recognized as interest expense over the six-month term of the Bridge using the effective interest method. The Company amortized the remaining $86,667 of these deferred financing charges by the end of May 2015 was recorded the amortized amounts as interest expense. The Company fully extinguished the debt in May 2015.

Interest expense on the notes payable-bridge loans was as follows:

	Three months ended September 30,		Nine months ended September 30,	
	2016	2015	2016	2015
Nominal interest	$ —	$ —	$ —	$ 100,000
Amortization of debt discount	—	—	—	521,291
Debt issuance costs	—	—	—	86,667
Repayment premium	—	—	—	201,600
	$ —	$ —	$ —	$ 909,558

Standby Line of Credit

In August 2014, the Company entered into a standby line of credit with an accredited investor for up to $1.0 million pursuant to a Line of Credit and Loan Agreement dated August 26, 2014. In connection with the entry into the standby line of credit, the Company issued the lender a fully vested warrant to purchase 33,333 shares of common stock at an exercise price equal to 80% of the IPO price, amended to $5.60 in March 2015, which expires in August 2016. The fair value of the warrants, $114,300, was recorded as interest expense and additional paid-in capital in August 2014. The warrants were originally valued using the Black-Scholes model with the following assumptions: stock price of $8.00, exercise price of $6.40, term of two years, volatility of 52%, dividend yield of 0%, and risk-free interest rate of 0.52%. The line of credit expired on March 31, 2015 and there have been no drawdowns under the facility.

Long-term Debt

In August 2015, the Company entered into a loan and security agreement with a lender for up to $8.0 million, which provided for an initial loan commitment of $6.0 million. The loan agreement requires the Company to maintain $4.5 million of the proceeds in cash, which may be reduced or eliminated on the achievement of certain milestones. An additional $2.0 million is available contingent on the achievement of certain further milestones. The agreement has a term of three years, with interest only payments through February 29, 2016. Thereafter, principal and interest payments will be made with an interest rate of 9.9%. Additionally, there will be a balloon payment of $560,000 on August 1, 2018. This amount is being recognized over the term of the loan agreement and the effective interest rate, considering the balloon payment, is 15.0%. Proceeds to the Company were net of a $134,433 debt discount under the terms of the loan agreement. This debt discount is being recorded as interest expense, using the interest method, over the term of the loan agreement. Under the agreement, the Company is entitled to prepay principal and accrued interest upon five days prior notice to the lender. In the event of prepayment, the Company is obligated to pay a prepayment charge. If such prepayment is made during any of the first twelve months of the loan agreement, the prepayment charge will be (a) during such time as the Company is required to maintain a minimum cash balance, 2% of the minimum cash balance amount plus 3% of the difference between the amount being prepaid and the minimum cash balance, and (b) after such time as the Company is no longer required to maintain a

minimum cash balance, 3% of the amount being prepaid. If such prepayment is made during any time after the first twelve months of the loan agreement, 1% of the amount being prepaid.

On April 21, 2016, the loan and security was amended upon which the Company repaid $1.5 million of the debt out of restricted cash. The amendment modified the repayment amortization schedule providing a four-month period of interest only payments for the period from May through August 2016.

As of September 30, 2016 and December 31, 2015, the net long-term debt obligation was as follows:

	September 30, 2016	December 31, 2015
Debt and unpaid accrued end-of-term payment	$ 4,314,301	$ 6,115,797
Unamortized note discount	(56,247)	(106,635)
Unamortized debt issuance costs	(140,839)	(206,235)
Net debt obligation	$ 4,117,215	$ 5,802,927
Current portion of long-term debt	$ 1,846,101	$ 1,707,899
Long-term debt, net of discount	2,271,114	$ 4,095,028
Total	$ 4,117,215	$ 5,802,927

Future principal payments under the long-term debt as of September 30, 2016 are as follows:

Years ending December 31 (except 2016 which is the three months ending December 31)	Amount
2016 October through December	$ 477,286
2017	2,032,048
2018	1,479,246
Total future principal payments	$ 3,988,580
2018 end-of-term payment	$ 560,000
	$ 4,548,580
Less: unaccreted end-of-term payment at September 30, 2016	$ (234,279)
Debt and unpaid accrued end-of-term payment	$ 4,314,301

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The obligation at September 30, 2016 and December 31, 2015 includes an end-of-term payment of $560,000, which accretes over the life of the loan as interest expense. As a result of the debt discount and the end-of-term payment, the effective interest rate for the loan differs from the contractual rate.

Interest expense on the long-term debt was as follows:

	Three months ended September 30,		Nine months ended September 30,	
	2016	2015	2016	2015
Nominal Interest	$ 103,566	$ 72,600	$ 364,566	$ 72,600
Amortization of debt discount	15,337	8,993	50,388	8,993
Accretion of end-of-term payment	63,897	37,464	209,924	37,464
Debt issuance costs	47,855	13,214	135,795	13,214
	$ 230,655	$ 132,271	$ 760,673	$ 132,271

At September 30, 2016 and December 31, 2015, interest payable on long-term debt was $32,906 and $51,150, respectively.

At the IPO, the Company's outstanding warrants to purchase convertible preferred stock were all converted to warrants to purchase common stock.

The Company's warrant activity is summarized as follows:

	September 30, 2016	September 30, 2015
Warrants outstanding January 1	748,872	494,267
Issuances	—	254,605
Cancellations	(33,333)	—
Warrants outstanding September 30	715,539	748,872

8. Redeemable Convertible Preferred Stock

In February, April and May 2014, the Company issued 3,015,902 shares of convertible preferred stock in exchange for $6,777,338. The redemption value of the convertible preferred stock was $9.0 million. The differences between the respective redemption values/liquidation preference and carrying values are being accreted over the period from the date of issuance to the earliest possible redemption date, February 2017. The Company has recorded accretion of $0 and $263,060 for the three and nine months ended September 30, 2015.

Costs incurred in connection with the issuance of Series A redeemable convertible preferred stock during the year ended December 31, 2014 were $119,097 which have been recorded as a reduction to the carrying amounts of convertible preferred stock and are being accreted to the carrying value of the applicable preferred stock to the redemption date. The Company has recorded accretion of $0 and $83,334 for the three and nine months ended September 30, 2015.

On May 18, 2015, the Company completed its IPO. In connection with the IPO, the Company's 3,015,902 outstanding shares of convertible preferred stock were automatically converted into 2,010,596 shares of common stock.

The Convertible Preferred Stock was classified outside of stockholders' (deficit) in accordance with authoritative guidance for the classification and measurement of potentially redeemable securities.

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9. Stockholders' Equity

Common Stock

The Company's second amended and restated certificate of incorporation authorizes the Company to issue 50,000,000 shares of common stock $0.0001 par value. The holders of common stock are entitled to one vote for each share of common stock held at all meetings of stockholders. The number of authorized shares of common stock may be increased or decreased by the affirmative vote of the holders of shares of capital stock of the Company representing a majority of the votes represented by all shares (including Preferred Stock) entitled to vote.

In June 2016, the Company entered into a common stock purchase agreement with a private investor (the "CSPA"), which provides that, upon the terms and subject to the conditions and limitations set forth therein, the investor is committed to purchase up to an aggregate of $15.0 million of the Company's common stock over the approximately 30-month term of the agreement. Upon execution of the CSPA, the Company sold 222,222 shares of its common stock to the investor at $2.25 per share for net proceeds of $394,534, reflecting gross proceeds of $500,000 and offering expenses of $104,398. In consideration for entering into the CSPA, the Company issued 456,667 shares of its common stock to the investor. Concurrently with entering into the CSPA, the Company also entered into a registration rights agreement with the investor (the "Registration Agreement"), in which the Company agreed to file one or more registration statements, as permissible and necessary to register under the Securities Act of 1933, as amended, the sale of the shares of the Company's common stock that have been and may be issued to the investor under the CSPA. On June 22, 2016 and September 22, 2016, the Company filed registration statements on Form S-1 (File Nos. 333-212173 and 333-213751) pursuant to the terms of the Registration Agreement, which registration statements were declared effective on July 8, 2016 and October 5, 2016, respectively. In the three months ended September 30, 2016, pursuant to the CSPA, the Company sold 1,000,000 shares of the Company's common stock in exchange for $1,381,890 of cash proceeds, and on October 4, 2016, the Company sold an additional 348,601 shares of the Company's common stock in exchange for $794,810 of cash proceeds. Of the $15.0 million available under the CSPA, the Company has received $1,881,890 in aggregate cash proceeds through September 30, 2016 and $2,676,700 as of November 14, 2016.

As of September 30, 2016 and December 31, 2015, the Company had reserved shares of common stock for issuance as follows:

	September 30, 2016	December 31, 2015
Options issued and outstanding	2,444,375	919,506
Options available for grant	166,833	106,833
RSUs issued and outstanding	20,789	55,536
Warrants issued and outstanding	715,539	748,872
Convertible notes	26,785	26,785
Total	3,374,321	1,857,532

Preferred Stock

The Company's second amended and restated certificate of incorporation authorizes the Company to issue 10,000,000 shares of preferred stock $0.0001 par value. No shares of preferred stock were issued or outstanding at September 30, 2016 or December 31, 2015.

10. Stock Incentive Plans

2013 Equity Incentive Plan

Effective November 1, 2013, the Company's board of directors and sole stockholder adopted the Jaguar Animal Health, Inc. 2013 Equity Incentive Plan (the "2013 Plan"). The 2013 Plan allows the Company's board of directors to grant stock options, restricted stock awards and restricted stock unit awards to employees, officers, directors and consultants of the Company. As of December 31, 2013, the Company had reserved 300,000 shares of its common stock for issuance under the 2013 Plan. In April 2014, the board of directors amended the 2013 Plan to increase the shares reserved for issuance to 847,533 shares. Following the effective date of the IPO and after effectiveness of any grants under the 2013 Plan that were contingent on the IPO, no additional stock awards will be granted under the 2013 Plan. Outstanding grants continue to be exercisable, however any unissued shares under the plan and any forfeitures of outstanding options do not rollover to the 2014 Stock Incentive Plan.

2014 Stock Incentive Plan

Effective May 12, 2015, the Company adopted the Jaguar Animal Health, Inc. 2014 Stock Incentive Plan ("2014 Plan"). The 2014 Plan provides for the grant of options, restricted stock and restricted stock units to eligible employees, directors and consultants to purchase the Company's common stock. The Company reserved 333,333 shares of common stock for issuance pursuant to the 2014 Plan. The Company added 162,498 shares to the plan in accordance with the Plan that provides for automatic share increases on the first day of each fiscal year in the amount of 2% of the outstanding number of shares of the Company's common stock on last day of the preceding calendar year. The 2014 Plan replaces the 2013 Plan except that all outstanding options under the 2013 Plan remain outstanding until exercised, cancelled or until they expire.

In July 2015, the Company amended the 2014 Plan reserving an additional 550,000 shares under the plan contingent upon approval by the Company's stockholders at the June 2016 annual stockholders meeting. In June 2016, the Company amended the 2014 Plan once again, modifying the increase from 550,000 shares to 1,550,000 shares, which was approved at the annual stockholders meeting.

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Stock Options and Restricted Stock Units ("RSUs")

The following table summarizes incentive plan activity for the nine months ended September 30, 2016:

	Shares Available for Grant	Stock Options Outstanding	RSUs Outstanding	Weighted Average Stock Option Exercise Price	Weighted Average Remaining Contractual Life (Years)	Aggregate Intrinsic Value
Combined Incentive Plan Balance— December 31, 2015	106,833	919,506	55,536	$ 3.87	8.81	$ —
Q1 2016 2013 Equity Incentive Plan Activity:						
Options Cancelled		(24,740)		$ 7.00		
RSUs vested and released			(27,768)			
RSUs Cancelled			(6,979)			
Q2 2016 2013 Equity Incentive Plan Activity:						
Options Cancelled		(102,889)		$ 3.52		
Q1 2016 2014 Stock Incentive Plan Activity:						
Additional shares authorized	162,498					
Q2 2016 2014 Stock Incentive Plan Activity:						
Additional shares authorized	1,550,000					
Options granted	(692,388)	692,388		$ 3.30		
Options cancelled	20,000	(20,000)		$ 1.58		
Q3 2016 2014 Stock Incentive Plan Activity:						
Options granted	(1,032,859)	1,032,859		$ 1.23		
Options cancelled	52,749	(52,749)		$ 2.92		
Combined Incentive Plan Balance— September 30, 2016	166,833	2,444,375	20,789	$ 2.62	8.87	
Options vested and exercisable— September 30, 2016		812,828		$ 3.51	8.37	$ —
Options vested and expected to vest— September 30, 2016		2,014,184		$ 2.66	8.83	$ —

The weighted average fair value of options granted to purchase common stock was $0.89 and $3.52 for the nine months ended September 30, 2016 and 2015, respectively.

The number of options that vested in the nine months ended September 30, 2016 and 2015 was 480,377 and 452,965, respectively. The grant date fair value of options vested was $542,999 and $544,452 for the nine months ended September 30, 2016 and 2015, respectively.

The weighted-average fair value of options exercised was $0.43 in the nine months ended September 30, 2015 of which there was no intrinsic value. No options were exercised in the nine months ended September 30, 2016.

The Company granted RSUs in 2014 and 2015 under the 2013 Equity Incentive Plan. The units granted vest upon the occurrence of both a liquidity event and satisfaction of the service-based requirement. The time-based vesting provides that 50% of the RSU will vest on January 1, 2016 and the remaining 50% vest on July 1, 2017. The Company began recording stock-based compensation expense relating to the RSU grants effective May 18, 2015, the date of the Company's initial public offering, and the date the liquidity condition was met. The stock-based compensation expense is based on the grant date fair value which is the equivalent to the fair market value on the date of grant, and is amortized over the vesting period using the straight-line method, net of estimated forfeitures. On January 1, 2016, the Company issued 17,546 shares of its common stock in exchange for 27,768 vested and released RSUs, net of 10,172 RSU shares used to pay withholding taxes.

Stock-Based Compensation

The following table summarizes stock-based compensation expense related to stock options and RSUs for the three months ended September 30, 2016 and 2015, and are included in the statements of operations and comprehensive loss as follows:

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2016	2015	2016	2015
Research and development expense	$ 53,935	$ 83,249	$ 116,552	$ 429,468
Sales and marketing expense	50,052	9,633	58,733	44,462
General and administrative expense	145,391	107,321	303,157	354,119
Total	$ 249,378	$ 200,202	$ 478,442	$ 828,049

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As of September 30, 2016, the Company had $1,328,841 of unrecognized stock-based compensation expense for outstanding stock options and RSUs, which is expected to be recognized over a weighted-average period of 2.22 years.

The estimated grant-date fair value of employee stock options was calculated using the Black-Scholes option-pricing model using the following assumptions:

	Three months ended September 30,		Nine Months Ended September 30,	
	2016	2015	2016	2016
Weighted-average volatility	69.39-71.38%	55.43-59.05%	66.25-71.38%	55.43-59.05%
Weighted-average expected term (years)	5.00-5.82	5.15-5.77	5.00-5.82	5.15-5.77
Risk-free interest rate	1.10-1.29%	1.60-1.76%	1.10-1.49%	1.60-1.76%
Expected dividend yield	—	—	—	—

The estimated grant-date fair value of non-employee stock options was calculated using the Black-Scholes option-pricing model using the following assumptions:

	Three months ended September 30,		Nine Months Ended September 30,	
	2016	2015	2016	2016
Weighted-average volatility	78.30-80.02%	74.21%	78.30-80.04%	74.21%
Weighted-average expected term (years)	9.17-10.00	10.00	9.19-10.00	10.00
Risk-free interest rate	1.32-1.67%	2.05%	1.32-1.74%	2.05%
Expected dividend yield	—	—	—	—

11. Related Party Transactions

The Company was a majority-owned subsidiary of Napo. Additionally, Lisa A. Conte, Chief Executive Officer of the Company, is also the interim Chief Executive Officer of Napo Pharmaceuticals, Inc. The Company has total outstanding receivables (payables) from/to Napo at September 30, 2016 and December 31, 2015 as follows:

	September 30, 2016	December 31, 2015
Due from/(to) Napo	$ 273,161	$ 6,008
Royalty payable to Napo	(99)	(2,809)
License Fee payable to Napo	—	(425,000)
Net receivable (payable) to Napo	$ 273,062	$ (421,801)

Effective July 1, 2016, the Company and Napo agreed to share employee services. The agreement enables Jaguar to invoice Napo for personnel expenses for the estimated time its employees work on behalf of Napo, rent for space used both by Napo employees, and for a prorated amount of space used by Jaguar employees when working on behalf of Napo, and a fixed overhead amount to cover office supplies and copier use. The total amount of such services was $272,210 for the three months ended September 30, 2016 and are included in due from former parent in the Company's balance sheet.

The Company perodically purchases clinical trial material, crofelemer API and crude plant latex from Napo. In April 2016, the Company purchased 125mg Fulyzaq in exchange for $37,355 of which $19,723 has been used in clinical trials and the remaining $17,631 is included in prepaid expenses and other current assets in the Company's balance sheet. In May 2016, the Company purchased crofelemer API from Napo in exchange for $174,299 all of which has been used in processing clinical trial material. And in June 2016, the Company purchased crude plant latex in exchange for $66,358 none of which has been used in operations and all of which is included in prepaid expenses and other current assets in the Company's balance sheet. The Company paid for these purchases in June 2016.

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12. Net Loss Per Share Attributable to Common Stockholders

The following table presents the calculation of basic and diluted net loss per common share for the three and nine months ended September 30, 2016 and 2015:

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2016	2015	2016	2015
Net loss attributable to common shareholders	$ (3,415,490)	$ (2,960,671)	$ (11,057,169)	$ (12,507,103)
Shares used to compute net loss per common share, basic and diluted	11,264,886	8,123,293	10,298,987	5,488,655
Net loss per share attributable to common shareholders, basic and diluted	$ (0.30)	$ (0.36)	$ (1.07)	$ (2.28)

Basic net loss per share is calculated by dividing net loss by the weighted-average number of common shares outstanding during the period. Diluted net loss per share is computed by dividing net loss by the weighted-average number of common shares and common share equivalents outstanding for the period. Common stock equivalents are only included when their effect is dilutive. The Company's potentially dilutive securities which include stock options, convertible preferred stock and common stock warrants have been excluded from the computation of diluted net loss per share as they would be anti-dilutive. For all periods presented, there is no difference in the number of shares used to compute basic and diluted shares outstanding due to the Company's net loss position.

The following outstanding common stock equivalents have been excluded from diluted net loss per common share for the three and nine months ended September 30, 2016 and 2015 because their inclusion would be anti-dilutive:

	September 30, 2016	September 30, 2015

Options	2,444,375	849,766
Warrants to purchase common stock	715,539	748,872
Restricted stock units	20,789	55,536
Total	3,180,703	1,654,174

13. 401(k) Plan

The Company sponsors a 401(k) defined contribution plan covering all employees. There were no employer contributions to the plan from plan inception through September 30, 2016.

14. Notice of Delisting or Failure to Satisfy a Continued Listing Rule or Standard

On August 22, 2016, the Company received notice from the Listing Qualifications Staff of The NASDAQ Stock Market notifying the Company that it no longer complies with NASDAQ Listing Rule 5550(b)(1) due to the Company's failure to maintain a minimum of $2,500,000 in stockholders' equity (or meet the alternatives of market value of listed securities of $35.0 million or net income from continuing operations). The current market value of the Company's listed securities is approximately $14.8 million and the Company does not meet the net income from continuing operations test. The notification letter stated that the Company would be afforded 45 calendar days, or until October 6, 2016, to submit a plan to regain compliance and that if the plan was accepted, the Company may be granted an extension of up to 180 calendar days from the date of notification, or until February 18, 2017 to evidence compliance.

On October 26, 2016, the Listing Qualifications Staff of the NASDAQ Stock Market notified the Company of its determination to grant the Company an extension of time to regain compliance with the Nasdaq Listing Rule 5550(b)(1) for a minimum level of stockholders equity based on review of a plan submitted by the Company. The plan consisted of a proposed merger with Napo Pharmaceuticals, Inc., raising capital through the public or private sale of the Company's securities, and entering into a potential collaboration with a third party. The Company has until February 21, 2017 to evidence compliance with the NASDAQ continued listing requirements.

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15. Subsequent Events

The Company completed an evaluation of the impact of subsequent events through November 14, 2016, the date these financial statements were issued.

2015 Convertible Notes Payable

On November 8, 2016, the Company entered into an amendment to extend the due date of the $150,000 convertible note payable from October 31, 2016 to January 1, 2017. In exchange for the extension of the maturity date, on November 8, 2016, the Company's board of directors granted the convertible note holder a warrant to purchase 120,000 shares of the Company's common stock for $0.01 per share. The warrant is exercisable at any time on or before July 28, 2022, the expiration date of the warrant.

Common Stock Purchase Agreement with an Existing Private Investor

On October 19, 2016, we entered into a Common Stock Purchase Agreement with an existing private investor. Upon execution of the agreement we sold 170,455 shares of our common stock in exchange for $150,000 in cash proceeds.

CSPA

On October 4, 2016, pursuant to the CSPA, the Company sold an additional 348,601 shares of the Company's common stock in exchange for $794,810 of cash proceeds.

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Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations

The following discussion and analysis of financial condition and results of operations should be read together with the condensed consolidated financial statements and the related notes included in Item 1 of Part I of this Quarterly Report on Form 10-Q, and with our audited financial statements and the related notes included in our Annual Report on Form 10-K for the year ended December 31, 2015.

The discussion and analysis below includes certain forward-looking statements related to our research and development and commercialization of our products in the U.S., our future financial condition and results of operations and potential for profitability, the sufficiency of our cash resources, our ability to obtain additional equity or debt financing, if needed, possible partnering or other strategic opportunities for the development of our products, as well as other statements related to the progress and timing of product development, present or future licensing, collaborative or financing arrangements or that otherwise relate to future periods, which are all forward-looking statements as defined by the Private Securities Litigation Reform Act of 1995. These statements represent, among other things, the expectations, beliefs, plans and objectives of management and/or assumptions underlying or judgments concerning the future financial performance and other matters discussed in this document. The words "may," "will," "should," "plan," "believe," "estimate," "intend," "anticipate," "project," and "expect" and similar expressions are intended to connote forward-looking statements. All forward-looking statements involve certain risks, uncertainties and other factors described in our Annual Report on Form 10-K, that could cause our actual commercialization efforts, financial condition and results of operations, and business prospects and opportunities to differ materially from these expressed in, or implied by, those forward-looking statements. We caution investors not to place significant reliance on the forward-looking statements contained in this report. These statements, like all

statements in this report, speak only as of the date of this report (unless another date is indicated), and we undertake no obligation to update or revise forward-looking statements.

Overview

We are an animal health company focused on developing and commercializing first-in-class gastrointestinal products for companion and production animals, foals, and high value horses. Canalevia is our lead prescription drug product candidate, intended for treatment of various forms of diarrhea in dogs. We achieved statistically significant results in a multicenter canine proof-of-concept study completed in February 2015, supporting the conclusion that Canalevia treatment is superior to placebo. As we announced in December 2015, the pivotal clinical field study to evaluate the safety and effectiveness of Canalevia for acute diarrhea in dogs is underway. An estimated 200 dogs will be enrolled in the Canalevia pivotal study, which is expected to complete enrollment around the end of 2016. Jaguar has received Minor Use in a Minor Species (MUMS) designation for Canalevia for Chemotherapy-Induced Diarrhea (CID) in dogs. Canalevia is a canine-specific formulation of crofelemer, an active pharmaceutical ingredient isolated and purified from the *Croton lechleri* tree, which is sustainably harvested. A human-specific formulation of crofelemer, Mytesi (formerly known as Fulyzaq), was approved by the FDA in 2012 for the symptomatic relief of noninfectious diarrhea in adults with HIV/AIDS on antiretroviral therapy. Members of our management team developed crofelemer while at Napo Pharmaceuticals, Inc. (Napo), which was Jaguar's parent company until May 13, 2015. The reception among users of our lead non-prescription products—Neonorm Calf and Neonorm Foal, an anti-diarrheal product we launched for newborn horses early this year—has been quite positive. The clinically-proven performance of Neonorm Foal, in combination with our heightened understanding of market needs within the global equine space, is driving our increased focus on equine product development. Equilevia (formerly referred to as SB-300) is Jaguar's prescription drug product candidate for the treatment of gastrointestinal ulcers in horses. Equilevia is a pharmaceutical formulation of a standardized botanical extract. Neonorm is a standardized botanical extract derived from the *Croton lechleri* tree. We launched Neonorm Calf in the United States at the end of 2014 for preweaned dairy calves. Canalevia, Equilevia and Neonorm are distinct products formulated to address specific species and market channels. We have filed nine investigational new animal drug applications, or INADs, with the FDA and intend to develop species-specific formulations of Neonorm in six additional target species, and Canalevia for both cats and dogs. We recently released data from two China-based studies sponsored by Fresno, California-based Integrated Animal Nutrition and Health Inc. showing remarkable resolution of diarrhea and cure of piglets afflicted with diarrhea following treatment with a *Croton lechleri* botanical extract administered in water. As we announced in September 2016, we have signed an exclusive supply and distribution agreement for this botanical extract with Integrated Animal Nutrition and Health Inc. for dairy cattle and pigs in the Chinese marketplace. According to the Minnesota-based Institute for Agriculture and Trade Policy, swine production was expected to reach 723 million head in 2014 in China, where pork is still the main protein source for many consumers. In 2015 there were an estimated 15.6 million dairy cattle in China, according to Index Muni.

Since inception, we have been primarily focused on designing and conducting studies of Canalevia to treat diarrhea in dogs and of Neonorm to help retain fluid in calves and to function as an anti-diarrheal in foals. We are also focused on developing a full suite of equine products to support and improve gastrointestinal health in foals and adult horses. Gastrointestinal conditions such as acute diarrhea, ulcers and diarrhea associated with acute colitis can be extremely debilitating for horses, and present a significant economic and emotional burden for veterinarians and owners around the world. A portion of our activities has also been focused on other efforts associated with being a recently formed company, including securing necessary intellectual property, recruiting management and key employees, and financing activities.

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In June 2016, we entered into a common stock purchase agreement with a private investor (the "CSPA"), which provides that, upon the terms and subject to the conditions and limitations set forth therein, the investor is committed to purchase up to an aggregate of $15.0 million in our common stock over the approximately 30-month term of the agreement. Upon execution of the CSPA, we sold 222,222 shares of our common stock to the investor at $2.25 per share for net proceeds of $448,732, reflecting gross proceeds of $500,000 and offering expenses of $51,268. In consideration for entering into the CSPA, we issued 456,667 shares of our common stock to the investor. Concurrently with entering into the CSPA, we also entered into a registration rights agreement with the investor (the "Registration Rights Agreement"), in which we agreed to file one or more registration statements, as permissible and necessary to register under the Securities Act of 1933, as amended, the sale of the shares of our common stock that have been and may be issued to the investor under the CSPA. On June 22, 2016 and September 22, 2016, we filed registration statements on Form S-1 (File Nos. 333-212173 and 333-213751) pursuant to the terms of the Registration Agreement, which registration statements were declared effective on July 8, 2016 and October 5, 2016, respectively.

In September 2016, we entered into a supply and distribution agreement (the "Supply Agreement") with Integrated Animal Nutrition Health Inc. ("IANH"), pursuant to which IANH serves as our exclusive distributor, seller and promoter of *Croton lechleri* botanical extract (the "botanical extract") in China. The terms of the Supply Agreement specify annual minimum purchase amounts that are required to maintain exclusivity, and state that IANH is responsible for all activities and costs to obtain all required product registrations, marketing authorizations, and customs clearances for the Chinese market. The Supply Agreement also contains provisions regarding the rights and responsibilities of the parties with respect to quality specifications and testing, marketing, forecasting and ordering, delivery arrangements, payment terms, confidentiality and indemnification, as well as other customary provisions. The term of the Supply Agreement is four years.

On October 6, 2016, we announced that we had entered into a non-binding letter of intent (the "LOI") with Napo Pharmaceuticals, Inc. ("Napo") potentially to merge the two companies. The LOI contemplates a 3-to-1 Napo-to-Jaguar value ratio (inclusive only of our in-the-money convertible securities at the time a definitive agreement is entered into) to calculate the relative ownership of the merged entity. The LOI also outlines capitalization requirements that Napo would be required to satisfy to proceed with a potential merger.

The LOI is non-binding and any agreement is subject to the negotiation and execution of a definitive transaction agreement, which may vary from the terms set forth in the LOI. A final transaction also is anticipated to be subject to material conditions, including, but not limited to, the approval of: (i) the respective boards of directors of Napo and us, (ii) the shareholders of each company, (iii) the NASDAQ Stock Market, and (iv) other customary conditions for a transaction of this nature. Accordingly, there can be no assurance that a definitive agreement will be reached by the companies, or that any agreement will result in the completion of a merger transaction.

On November 8, 2016, we entered into an amendment with Serious Change II LP to extend the maturity date of the $150,000 convertible note, issued pursuant to the convertible note purchase agreement dated December 23, 2014, from October 31, 2016 to January 1, 2017. In exchange for the extension of the maturity date, on November 8, 2016, the Company's board of directors granted Serious Change II LP a warrant to purchase 120,000 shares of the Company's common stock for $0.01 per share. The warrant is exercisable at any time on or before July 28, 2022, the expiration date of the warrant.

Financial Operations Overview

We were incorporated in June 2013 in Delaware. Napo formed our company to develop and commercialize animal health products. Prior to our incorporation, the only activities of Napo related to animal health were limited to the retention of consultants to evaluate potential strategic alternatives. We were previously a majority-owned subsidiary of Napo. However, following the closing of our May 2015 initial public offering, we are no longer majority-owned by Napo.

We have not generated any material revenue to date and expect to continue to incur significant research and development and other expenses. Our net loss attributable to common stockholders was $11.1 million and $12.5 million in the nine months ended September 30, 2016 and 2015, and $16.6 million and $9.3 million for the years ended December 31, 2015 and 2014. As of September 30, 2016, we had total stockholders' deficit of $273,000 and cash and cash equivalents of $1.8 million. We expect to continue to incur losses for the foreseeable future as we expand our product development activities, seek necessary approvals for our product candidates, conduct species-specific formulation studies for our non-prescription products, establish API manufacturing capabilities and begin commercialization activities. As a result, we expect to experience increased expenditures for 2016.

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Revenue

We sell our primary commercial product Neonorm to distributors under agreements that may provide distributor price adjustments and rights of return under certain circumstances. Until we have sufficient sales history and pipeline visibility, we will defer revenue and costs of distributor sales until products are sold by the distributor to the distributor's customers. Revenue recognition depends on notification either directly from the distributor that product has been sold to the distributor's customer, when we have access to the data. Deferred revenue on shipments to distributors will reflect the estimated effects of distributor price adjustments, if any, and the estimated amount of gross margin expected to be realized when the distributor sells through product purchased from the Company. Accounts receivable from distributors will be recognized and included in deferred revenue when we ship product to the distributor. We relieve inventory and recognize revenue typically upon shipment by the distributor to their customer. While we did not have revenue in the year ended December 31, 2014, we did recognize $258,381 in revenue for the year ended December 31, 2015, and $112,646 in the nine months ended September 30, 2016.

Cost of Revenue

Cost of revenue expenses consist of costs to manufacture, package and distribute Neonorm that distributors have sold through to their customers.

Research and Development Expense

Research and development expenses consist primarily of clinical and contract manufacturing expense, personnel and related benefit expense, stock-based compensation expense, employee travel expense, reforestation expenses and expenses attributable to services received from Napo under the Service Agreement. Clinical and contract manufacturing expense consists primarily of costs to conduct stability, safety and efficacy studies, and manufacturing startup expenses at an outsourced API provider in Italy.

We typically use our employee and infrastructure resources across multiple development programs. We track outsourced development costs by prescription drug product candidate and non-prescription product but do not allocate personnel or other internal costs related to development to specific programs or development compounds.

The timing and amount of our research and development expenses will depend largely upon the outcomes of current and future trials for our prescription drug product candidates as well as the related regulatory requirements, the outcomes of current and future species-specific formulation studies for our non-prescription products, manufacturing costs and any costs associated with the advancement of our line extension programs. We cannot determine with certainty the duration and completion costs of the current or future development activities.

The duration, costs and timing of trials, formulation studies and development of our prescription drug and non-prescription products will depend on a variety of factors, including:

- the scope, rate of progress, and expense of our ongoing, as well as any additional clinical trials, formulation studies and other research and development activities;
- future clinical trial and formulation study results;
- potential changes in government regulations; and
- the timing and receipt of any regulatory approvals.

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A change in the outcome of any of these variables with respect to the development of a prescription drug product candidate or non-prescription product could mean a significant change in the costs and timing associated with our development activities.

We expect research and development expense to increase significantly as we add personnel, commence additional clinical studies and other activities to develop our prescription drug product candidates and non-prescription products.

Sales and Marketing Expense

Sales and marketing expenses consist of personnel and related benefit expense, direct sales and marketing expense, employee travel expense, and management consulting expense. We currently incur sales and marketing expenses to promote Neonorm sales.

We expect sales and marketing expense to increase significantly as we develop and commercialize new products and grow our existing Neonorm market. We will need to add sales and marketing headcount to promote the sales of existing and new products.

General and Administrative Expense

General and administrative expenses consist of personnel and related benefit expense, stock-based compensation expense, employee travel expense, legal and accounting fees, rent and facilities expense, and management consulting expense.

We expect general and administrative expense to increase in order to enable us to effectively manage the overall growth of the business. This will include adding headcount, enhancing information systems and potentially expanding corporate facilities.

Interest Expense

Interest expense consists primarily of interest on convertible promissory notes, the standby bridge financing commitment and the loan and security agreement (long-term debt arrangement). It also includes interest expense and the amortization of a beneficial conversion feature related to convertible promissory notes issued in June and December 2014.

Results of Operations

Comparison of the nine months ended September 30, 2016 and 2015

The following table summarizes the Company's results of operations (in thousands) with respect to the items set forth in such table for the nine months ended September 30, 2016 and 2015 together with the change in such items in dollars and as a percentage:

	Nine Months Ended September 30,		Variance	
	2016	2015	($)	(%)
Revenue	$ 113	$ 203	$ (90)	(44.3)%
Operating Expenses				
Cost of revenue	37	88	(51)	(58.0)%
Research and development expense	5,673	4,414	1,259	28.5%
Sales and marketing expense	355	520	(165)	(31.7)%
General and administrative expense	4,320	3,784	536	14.2%
Total operating expenses	10,385	8,806	1,579	17.9%
Loss from operations	(10,272)	(8,603)	(1,669)	(19.4)%
Interest expense, net	(774)	(3,033)	2,259	(74.5)%
Other income	(11)	(24)	13	(54.2)%
Change in fair value of warrants	—	(501)	501	(100.0)%
Net loss and comprehensive loss	$ (11,057)	$ (12,161)	$ 1,104	(9.1)%

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Revenue and Cost of Revenue

Revenue and related cost of revenue for the nine months ended September 30, 2016 reflects sell-through of our Neonorm Calf and Neonorm Foal products to our distributors. We defer revenue and cost of revenue until products are sold by the distributor to the distributor's end customers and recognition will depend on notification from the distributor that product has been sold to the distributor's end customer. In September 2016, we began selling the botanical extract to a distributor for use exclusively in China. The revenue from these sales, which totaled $24,000 in the nine months ended September 30, 2016, is recognized upon shipment to the distributor as all of the needed revenue recognition criteria has been met. We experienced a reduction in unit sales in the nine months ended September 30, 2016 compared to the same period in 2015 resulting in the decrease in revenue. The decrease in cost of revenue was consistent with the decrease in revenue. We are increasing our efforts to promote sales growth.

Research and Development Expense

The following table presents the components of research and development expense (in thousands) for the nine months ended September 30, 2016 and 2015 together with the change in such components in dollars and as a percentage:

	Nine Months Ended September 30,		Variance	
	2016	2015	($)	(%)
R&D:				
Personnel and related benefits	$ 1,994	$ 1,295	$ 699	54.0%
Materials expense and tree planting	79	116	(37)	(31.9)%
Travel, other expenses	348	241	107	44.4%
Clinical and contract manufacturing	1,837	2,109	(272)	(12.9)%
Stock-based compensation	117	429	(312)	(72.7)%
Other	1,298	224	1,074	479.5%
Total	$ 5,673	$ 4,414	$ 1,259	28.5%

We increased research and development expense $1.3 million from $4.4 million in the nine months ended September 30, 2015 to $5.7 million for the same period in 2016. We added headcount to enable us to make significant progress in the development of certain drug candidates that resulted in the increase of $699,000 in personnel and related benefit expenses, while carefully controlling spend in clinical trials and contract manufacturing. Clinical trial expenses increased due to our dog safety and efficacy study and our horse dose determination study both of which began in fiscal year 2016. These expenses were offset by a reduction of contract manufacturing expenses associated with the setup of manufacturing in Italy, which was completed in March 2016. Stock-based compensation decreased $312,000 from $429,000 in the nine months ended September 30, 2015 to $117,000 in the same period in 2016 primarily due to the reduction in the fair market value of our common stock. Other expenses, consisting primarily of consulting and formulation expenses, increased $1.1 million from $224,000 in the nine months ended September 30, 2015 to $1.3 million in the same period in 2016. Consulting expenses increased $737,000 from $74,000 in the nine months ended September 30, 2015 to $811,000 in the same period in 2016 due to a substantial increase in contractor utilization to assist in our clinical trials and in chemistry, manufacturing and controls ("CMC") activities. Formulation expenses increased $315,000 from $17,000 in the nine months ended September 30, 2015 to $331,000 for the same period in 2016 due to an increase in work needed to supply clinical operations with active and placebo product for use in clinical trials. We plan to increase our research and development expense as we continue developing our drug candidates.

We also continued our reforestation efforts, although our expense decreased $37,000 from $116,000 in the nine months ended September 30, 2015 to $79,000 for the same period in 2016. We value and take to heart the responsibility to replenish trees consumed in order to extract the raw material to manufacture our primary commercial product and the drug product for use in clinical trials.

Sales and Marketing Expense

Sales and marketing expense decreased $165,000 from $520,000 in the nine months ended September 30, 2015 to $355,000 in the same period in 2016 primarily due to a decrease in headcount and a decrease in direct marketing expense. Personnel costs decreased $112,000 from $257,000 for the nine months ended September 30, 2016 to $145,000 for the same period in 2016. Direct marketing and sales expense decreased $19,000 from $89,000 in the nine months ended September 30, 2015 to $70,000 for the same period in 2016. Sales and marketing expenses consist of personnel costs, direct marketing, travel and consulting expenses. We plan to expand sales and marketing spend to promote our Neonorm products.

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General and Administrative Expense

The following table presents the components of general and administrative expense (in thousands) for the nine months ended September 30, 2016 and 2015 together with the change in such components in dollars and as a percentage:

	Nine Months Ended September 30,		Variance	
	2016	2015	($)	(%)
G&A:				
Personnel and related benefits	**$ 1,704**	**$ 1,453**	**$ 251**	**17.3%**
Accounting fees	**225**	**317**	**(92)**	**(29.0)%**
Third-party consulting fees and Napo service fees	**174**	**108**	**66**	**61.1%**
Legal fees	**456**	**437**	**19**	**4.3%**
Travel	**242**	**311**	**(69)**	**(22.2)%**
Stock-based compensation	**303**	**354**	**(51)**	**(14.4)%**
Rent and lease expense	**302**	**182**	**120**	**65.9%**
Public company expenses	**228**	**159**	**69**	**43.4%**
Other	**686**	**463**	**223**	**48.2%**
Total	**$ 4,320**	**$ 3,784**	**$ 536**	**14.2%**

Our general and administrative expenses increased $536,000 from $3.8 million in the nine months ended September 30, 2015 to $4.3 million for the same period in 2016. In 2015, we became a public company and added headcount that has resulted in increases of $251,000 in personnel expense. Stock-based compensation decreased $51,000 primarily due to the reduction in the fair market value of our common stock. Our public company expenses increased $69,000 due primarily to a full nine months of expense in 2016 versus only four months of expense in 2015 as we went public in May 2015. We controlled our professional services expenses, reducing our audit fees by $92,000, while limiting increases to legal fees and consulting services to $19,000 and $66,000, respectively. Rent expense increased $120,000 due to moving into our new San Francisco headquarters facility in July of 2015. Other expenses, including insurance costs also increased as a result of becoming a public company in May 2015. We expect to incur additional general and administrative expense as a result of operating as a public company and as we grow our business, including expenses related to compliance with the rules and regulations of the SEC, additional insurance expenses, investor relations activities and other administrative and professional services.

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Comparison of the three months ended September 30, 2016 and 2015

The following table summarizes the Company's results of operations (in thousands) with respect to the items set forth in such table for the three months ended September 30, 2016 and 2015 together with the change in such items in dollars and as a percentage:

	Three Months Ended September 30,		Variance	
	2016	2015	($)	(%)
Revenue	**$ 51**	**$ 78**	**$ (27)**	**(34.6)%**
Operating Expenses				

Cost of revenue	**10**	**37**	**(27)**	**(73.0)%**
Research and development expense	**1,968**	**1,240**	**728**	**58.7%**
Sales and marketing expense	**137**	**166**	**(29)**	**(17.5)%**
General and administrative expense	**1,115**	**1,390**	**(275)**	**(19.8)%**
Total operating expenses	**3,230**	**2,833**	**397**	**14.0%**
Loss from operations	**(3,179)**	**(2,755)**	**(424)**	**(15.4)%**
Interest expense, net	**(235)**	**(164)**	**(71)**	**43.3%**
Other income	**(1)**	**(42)**	**41**	**(97.6)%**
Change in fair value of warrants	**—**	**—**	**—**	**—**
Net loss and comprehensive loss	**$ (3,415)**	**$ (2,961)**	**$ (454)**	**15.3%**

Revenue and Cost of Revenue

Revenue and related cost of revenue for the three months ended September 30, 2016 reflects sell-through of our Neonorm Calf and Neonorm Foal products to our distributors. We defer revenue and cost of revenue until products are sold by the distributor to the distributor's end customers and recognition will depend on notification from the distributor that product has been sold to the distributor's end customer. In September 2016, we began selling the botanical extract to a distributor for use exclusively in China. The revenue from these sales, which totaled $24,000 in the three months ended September 30, 2016, is recognized upon shipment to the distributor as all of the needed revenue recognition criteria has been met. We experienced a reduction in unit sales in the three months ended September 30, 2016 compared to the same period in 2015 resulting in the decrease in revenue. The decrease in cost of revenue for Neonorm products was consistent with the decrease in revenue. The botanical extract has no cost value on the Company's balance sheet. Therefore no cost of revenue is recognized on sales of the botanical extract. We are increasing our efforts to promote sales growth.

Research and Development Expense

The following table presents the components of research and development expense (in thousands) for the three months ended September 30, 2016 and 2015 together with the change in such components in dollars and as a percentage:

	Three Months Ended September 30,		Variance	
	2016	2015	($)	(%)
R&D:				
Personnel and related benefits	**$ 568**	**$ 460**	**$ 108**	**23.5%**
Materials expense and tree planting	**33**	**65**	**(32)**	**(49.2)%**
Travel, other expenses	**125**	**127**	**(2)**	**(1.6)%**
Clinical and contract manufacturing	**514**	**416**	**98**	**23.6%**
Stock-based compensation	**54**	**83**	**(29)**	**(34.9)%**
Other	**674**	**89**	**585**	**657.3%**
Total	**$ 1,968**	**$ 1,240**	**$ 728**	**58.7%**

We increased Research and development expense $728,000 from $1.2 million in the three months ended September 30, 2015 to $2.0 million for the same period in 2016. We added headcount to enable us to make significant progress in the development of certain drug candidates that resulted in the increase of $108,000 in personnel and related benefit expenses, while carefully controlling spend in clinical trials and contract manufacturing. The 2015 clinical and contract manufacturing expense consisted primarily of expense incurred in setting up our manufacturing in Italy and the 2016 expense consisted primarily of expense incurred in conducting our dog and horse clinical studies. Stock-based compensation decreased $29,000 primarily due to the reduction in the fair market value of our common stock. Other expenses increased $585,000 primarily due to a $362,000 increase in consulting expenses from $62,000 in the three months ended September 30, 2015 to $424,000 in the same period in 2016 due to a substantial increase in contractor utilization to assist in the clinical trials, and a $195,000 increase in product formulation expense from $3,000 in the three months ended September 30, 2015 to $198,000 in the same period in 2016 due to an increase in work needed to supply clinical operations with active and placebo product for use in clinical trials. We plan to increase our research and development expense as we continue developing our drug candidates.

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We also continued our reforestation efforts, although our expense decreased $32,000 from $65,000 in the nine months ended September 30, 2015 to $33,000 for the same period in 2016. We value and take to heart the responsibility to replenish trees consumed in order to extract the raw material to manufacture our primary commercial product and the drug product for use in clinical trials.

Sales and Marketing Expense

Sales and marketing expense decreased $29,000 from $166,000 in the three months ended September 30, 2015 to $137,000 in the same period in 2016 primarily due to a reduction in headcount. Sales and marketing expenses consist of personnel costs, direct marketing, travel and consulting expenses. We plan to expand sales and marketing spend to promote our Neonorm products.

General and Administrative Expense

The following table presents the components of general and administrative expense (in thousands) for the three months ended September 30, 2016 and 2015 together with the change in such components in dollars and as a percentage:

	Three Months Ended September 30,		Variance	
	2016	2015	($)	(%)
G&A:				
Personnel and related benefits	**$ 435**	**$ 458**	**$ (23)**	**(5.0)%**
Accounting fees	**56**	**50**	**6**	**12.0%**

Third-party consulting fees and Napo service fees	**20**	**37**	**(17)**	**(45.9)%**
Legal fees	**73**	**130**	**(57)**	**(43.8)%**
Travel	**61**	**125**	**(64)**	**(51.2)%**
Stock-based compensation	**145**	**107**	**38**	**35.5%**
Rent and lease expense	**89**	**97**	**(8)**	**(8.2)%**
Public company expenses	**42**	**98**	**(56)**	**(57.1)%**
Other	**194**	**288**	**(94)**	**(32.6)%**
Total	**$ 1,115**	**$ 1,390**	**$ (275)**	**(19.8)%**

Our general and administrative expenses decreased $275,000 from $1.4 million in the three months ended September 30, 2015 to $1.1 million for the same period in 2016. There was no change in headcount which is reflected in the minimal change in personnel and related benefits expense. Stock-based compensation increased $38,000 primarily due to an increase in expense resulting from a significant number of options granted in the period offset by the expense impact reduction in the fair market value of our common stock. We were able to reduce our direct public company expenses by $56,000 in the three months ended September 30, 2016 due to reductions in public and investor relations expense, printer fees for SEC filings, and board of directors expenses. We controlled our professional services expenses, managing only a small increase in our audit fees of $6,000, while realizing decreases to legal fees and consulting services to $57,000 and $17,000, respectively. Other expenses decreased $94,000 primarily due to a $55,000 decrease in employee recruiting expense and a decrease of $28,000 in various service fees. Insurance expense was constant quarter over quarter. We expect to incur additional general and administrative expense as a result of operating as a public company, including expenses related to compliance with the rules and regulations of the SEC, additional insurance expenses, investor relations activities and other administrative and professional services.

Liquidity and Capital Resources

Sources of Liquidity

We have an accumulated deficit of $36.8 million as a result of incurring net losses since our inception as we have not generated significant revenue through the current fiscal quarter. Our net loss and comprehensive loss was $801,000 for the period from inception to December 31, 2013, $8.6 million for the year ended December 31, 2014, $16.3 million for the year ended December 31, 2015, and $11.1 million for the nine months ended September 30, 2016. We expect to continue to incur additional losses through the end of fiscal year 2016 and in future years due to expected significant expenses for toxicology, safety and efficacy clinical trials of our products and product candidates, for establishing contract manufacturing capabilities, and for the commercialization of one or more of our product candidates, if approved.

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We had cash and cash equivalents of $1.8 million as of September 30, 2016 compared to $7.7 million as of December 31, 2015. We do not believe our existing cash and cash equivalents will be sufficient to meet our anticipated cash requirements for the next 12 months. Our independent registered public accounting firm has included an explanatory paragraph in its audit report included in our Form 10-K regarding our assessment of substantial doubt about our ability to continue as a going concern. Our financial statements do not include any adjustments that may result from the outcome of this uncertainty.

To date, we have funded our operations primarily through the issuance of equity securities, short-term convertible promissory notes, and long-term debt, in addition to sales of Neonorm, our commercial product:

- In 2013, we received $400 from the issuance of 2,666,666 shares of common stock to our parent Napo Pharmaceuticals, Inc. We also received $519,000 of net cash from the issuance of convertible promissory notes in an aggregate principal amount of $525,000. These notes were all converted to common stock in 2014.

- In 2014, we received $6.7 million in proceeds from the issuance of convertible preferred stock. Effective as of the closing of our initial public offering, the 3,015,902 shares of outstanding convertible preferred stock were automatically converted into 2,010,596 shares of common stock. Following our initial public offering, there were no shares of preferred stock outstanding.

- In 2014, we received $1.1 million from the issuance of convertible promissory notes in an aggregate principal amount of $1.1 million. These notes were converted to common stock upon the effectiveness of the initial public offering in May of 2015. In August 2014, we entered into a standby line of credit with an individual, who is an accredited investor, for up to $1.0 million. To date, we had not made any drawdowns under this facility. Also, in October of 2014, as amended and restated in December 2014, we entered into a $1.0 million standby bridge loan which was repaid in 2015.

- In 2015, we received $1.25 million in exchange for $1.25 million of convertible promissory notes, of which $1.0 million was converted to common stock in 2015, and $100,000 was repaid in 2015. The remaining $150,000 remains outstanding.

- In May 2015, we received net proceeds of $15.9 million upon the closing of our initial public offering, gross proceeds of $20.0 million (2,860,000 shares at $7.00 per share) net of $1.2 million of underwriting discounts and commissions and $3.3 million of offering expenses, including $0.4 million of non-cash expense. These shares began trading on The NASDAQ Capital Market on May 13, 2015.

- In 2015, we received net proceeds of $5.9 million from the issuance of long-term debt. We entered into a loan and security agreement with a lender for up to $8.0 million, which provided for an initial loan commitment of $6.0 million. Under the loan agreement we are required to maintain $4.5 million of the proceeds in cash, which amount may be reduced or eliminated on the achievement of certain milestones. An additional $2.0 million is available contingent on the achievement of certain further milestones. The agreement has a term of three years, with interest only payments through February 29, 2016. Thereafter, principal and interest payments will be made with an interest rate of 9.9%. Additionally, there will be a balloon interest payment of $560,000 on August 1, 2018. This amount is being recognized over the term of the loan agreement and the effective interest rate, considering the balloon payment, is 15.0%. Our proceeds are net of a $134,433 debt discount under the terms of such agreement.

- In 2014 and 2015, we received $24,000 and $531,000, respectively, in cash from sales of Neonorm to distributors.

- In 2015, we received approximately $13,000 in proceeds from the exercise of stock options.

- In 2016, we received net proceeds of $4.1 million upon the closing of our follow-on public offering, reflecting gross proceeds of $5.0 million (2.0 million shares at $2.50 per share) net of $373,011 of underwriting discounts and commissions and $496,887 of offering expenses.

- In 2016, we entered into the CSPA with a private investor. Under the terms of the agreement, we may sell up to $15.0 million in common stock to the investor during the approximately 30-month term of the agreement. Upon execution of the CSPA, we sold 222,222 shares of our common stock to the investor at $2.25 per share for net proceeds of $448,732, reflecting gross proceeds of $500,000 and offering expenses of $51,268. In consideration for entering into the CSPA, we issued 456,667 shares of our common stock to the investor. We issued one million shares in exchange for $1,381,890 in cash proceeds under the CSPA in the three months ended September 30, 2016. In October 2016, we issued 348,601 shares in exchange for $794,810 in cash proceeds.

- In October 2016, we entered into a Common Stock Purchase Agreement with an existing private investor. Upon execution of the agreement we sold 170,455 shares of our common stock in exchange for $150,000 in cash proceeds.

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We expect our expenditures will continue to increase as we continue our efforts to develop animal health products, expand our commercially available Neonorm product and continue development of Canalevia in the near term. We have agreed to pay Indena S.p.A. fees of approximately €2.1 million under a memorandum of understanding relating to the establishment of our commercial API manufacturing arrangement in Italy. As of June 30, 2016, we remitted €1.95 million of the €2.1 million. We paid the final €150,000 on July 15, 2016.

We do not believe our current capital is sufficient to fund our operating plan through September 2017. We will need to seek additional funds sooner than planned, through public or private equity or debt financings or other sources, such as strategic collaborations. Such financing may result in dilution to stockholders, imposition of debt covenants and repayment obligations or other restrictions that may affect our business. In addition, we may seek additional capital due to favorable market conditions or strategic considerations even if we believe we have sufficient funds for our current or future operating plans. We may also not be successful in entering into partnerships that include payment of upfront licensing fees for our products and product candidates for markets outside the United States, where appropriate. If we do not generate upfront fees from any anticipated arrangements, it would have a negative effect on our operating plan.

Cash Flows for the nine months ended September 30, 2016 compared to the nine months ended September 30, 2015

The following table shows a summary of cash flows for the nine months ended September 30, 2016 and 2015:

	Nine Months Ended September 30,	
	2016	2015
	(in thousands of $)	
Total cash used in operations	$ (11,686)	$ (10,386)
Total cash provided by (used in) investing activities	1,907	(4,503)
Total cash provided by financing activities	3,895	24,421
	$ (5,885)	$ 9,532

Cash Used in Operating Activities

During the nine months ended September 30, 2016, cash used in operating activities resulted from our net loss of $11.1 million, offset by non-cash accretion of end of term payment, debt discounts and debt issuance costs of $396,000, stock-based compensation of $478,000, depreciation expense of $32,000, net of changes in operating assets and liabilities of $1.5 million.

During the nine months ended September 30, 2015 cash used in operating activities was the result of our net loss of $12.2 million, offset by non-cash accretion of debt discounts of $2.5 million, non-cash revaluation of warrant liability of $502 thousand and stock-based compensation of $828 thousand, and amortization of deferred finance charges of $100 thousand, $35 thousand loss on the sale of property and equipment, net of changes in operating assets and liabilities of $2.2 million.

Cash Provided by Investing Activities

During the nine months ended September 30, 2016, cash provided by investing activities primarily consisted of $2.0 million of a release of restricted cash that resulted from principal payments on our long-term debt, net of $104,000 in purchases of property and equipment.

During the nine months ended September 30, 2015 cash used in investing activities primarily consisted of $4.5 million in restricted cash that resulted from our issuance of long-term debt.

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Cash Provided by Financing Activities

During the nine months ended September 30, 2016, cash provided by financing activities primarily consisted of $4.1 million in net cash received in our secondary public offering, net of commissions and certain offering expenses, and $395,000 in net cash received in the initial sale under the CSPA, net of fees and certain offering expenses, and $1.4 million received from the issuance of common stock under the aforementioned CSPA, offset by $2.0 million in principal payments on our long-term debt.

During the nine months ended September 30, 2015, cash provided by financing activities primarily consisted of the gross proceeds from the issuance of $5.9 million in long-term debt, net of discounts, and $1.3 million in convertible promissory notes, offset by $1.1 million in repayments thereof. Additionally, $15.9 million in cash was provided related to our IPO, net of commissions and certain deferred offering costs.

Description of Indebtedness

Standby Lines of Credit, Convertible Notes and Warrant Issuances

Convertible Notes and Warrants

2013 Convertible Notes

From July through September 2013, we issued four convertible promissory notes (collectively the "Notes") for gross aggregate proceeds of $525,000 to various third-party lenders. The Notes bore interest at 8% per annum. The Notes automatically matured and the entire outstanding principal amount, together with accrued interest, was due and payable in cash at the earlier of July 8, 2015 (the "Maturity Date") or ten business days after the date of consummation of the initial closing of a first equity round of financing. We consummated a first equity round of financing prior to the Maturity Date with a pre-money valuation of greater than $3.0 million, and, accordingly, principal and accrued interest was converted into shares of common stock at 75% of the purchase price paid by such equity investors. These notes were all converted to common stock in February 2014 upon the issuance of the convertible preferred stock. In February 2014, in connection with the first equity round of financing and issuance of the Series A convertible preferred stock, the noteholders exercised their option to convert their Notes into 207,664 shares of common stock and accrued interest was paid in cash to the noteholders. The accreted interest expense related to the discount on the Notes was $1,443 for the period from January 1, 2014 to the conversion date of the Notes. Upon conversion, the entire remaining debt discount of $4,071 was recorded as interest expense.

In connection with the Notes, we issued to the noteholders warrants, which became exercisable to purchase an aggregate of 207,664 shares of common stock as of the issuance of the first equity round of financing (the "Warrants"). The Warrants have a $2.53 exercise price, are fully exercisable from the initial date of the first equity round of financing, have a five-year term subsequent to that date and expire in July and September 2018.

2014 Convertible Notes

On June 2, 2014, pursuant to a convertible note purchase agreement, we issued convertible promissory notes in the aggregate principal amount of $300,000 to two accredited investors, including a convertible promissory note for $200,000 to a board member to which Series A preferred stock was sold. These notes accrued interest at 3% per annum and automatically were to mature on June 1, 2015. Interest expense for the three and nine months ended September 30, 2015 was $0 and $3,237 and is included in interest expense in the statement of operations and comprehensive loss. Accrued interest is $8,507 and is included in accrued liabilities in the balance sheet. All interest was to be paid in cash upon maturity. Upon the closing of the IPO, the outstanding principal amount automatically converted into 53,571 shares common stock at $5.60, as amended in March 2015. Upon issuance, we analyzed the beneficial nature of the conversion terms and determined that a beneficial conversion feature ("BCF") existed because the effective conversion price on issuance of the notes was less than the fair value at the time of the issuance. We calculated the value of the BCF using the intrinsic method and recorded a BCF of $75,000 as a discount to the notes payable and to additional paid-in capital. For the three and nine months ended September 30, 2015, we amortized $0 and $31,250, respectively, of the discount, which has also been recorded as interest expense in our statement of operations and comprehensive loss.

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On July 16, 2014, pursuant to a convertible note purchase agreement, we issued a convertible promissory note in the principal amount of $150,000 to an accredited investor. This note accrued interest at 3% per annum and automatically were to mature on June 1, 2015. Interest expense for the three and nine months ended September 30, 2015 was $0 and $1,627 and is included in interest expense in the statement of operations and comprehensive loss. Accrued interest is $3,711 and is included in accrued liabilities in the balance sheet. All interest was to be paid in cash upon maturity. Upon the closing of the IPO, the outstanding principal amount automatically converted into 26,785 shares of common stock at $5.60, as amended in March 2015. Upon issuance, we analyzed the beneficial nature of the conversion terms and determined that a BCF existed because the effective conversion price was less than the fair value at the time of the issuance. We calculated the value of the BCF using the intrinsic method and recorded a BCF of $37,500 as a discount to the notes payable and to additional paid-in capital. For the three and nine months ended September 30, 2015, we amortized $0 and $17,857 of the discount, respectively, which has also been recorded as interest expense in our statement of operations and comprehensive loss.

In connection with the Transfer Agreement (Note 7) we issued fully vested and immediately exercisable warrants to the Manufacturer to purchase 16,666 shares of common stock at 90% of the IPO price, amended to $6.30 in March 2015, for a period of five years. The fair value of the warrants, $37,840, was recorded as research and development expense and additional paid-in capital in June 2014. The warrants were originally valued using the Black-Scholes model with the following assumptions: stock price of $4.83, exercise price of $4.35, term of five years, volatility of 49%, dividend yield of 0%, and risk-free interest rate of 1.64%.

On December 23, 2014, pursuant to a convertible note purchase agreement, we issued convertible promissory notes in the aggregate principal amount of $650,000 to three accredited investors, including a convertible promissory note for $250,000 to the same board member to which the June 2, 2014 $200,000 convertible promissory note was issued and to which Series A preferred stock was sold. These notes accrued interest at 12% per annum and became payable within thirty days following the IPO. Interest expense for the three and nine months ended September 30, 2015 was $0 and $28,210 and is included in interest expense in the statement of operations and comprehensive loss. Accrued interest is $30,132 and is included in accrued liabilities in the balance sheet. All interest was to be paid in cash upon maturity. Upon consummation of our IPO, the noteholders converted the notes into 116,070 shares of common stock at a conversion price equal to 80% of the IPO price, amended to $5.60 in March 2015. In connection with these notes, we also issued the lenders a fully vested warrant to purchase shares of our common stock at an exercise price equal to 80% of the IPO price, amended to $5.60 in March 2015. These warrants entitle the noteholders to purchase 58,035 shares of common stock. The fair value of the warrants, $147,943, was recorded as a debt discount and liability at December 23, 2014. We amortized $0 and $141,890 of this discount during the three and nine months ended September 30, 2015 which has been recorded as interest expense in our statement of operations and comprehensive loss. The warrants were originally valued using the Black-Scholes model with the following assumptions: stock price of $4.59, exercise price of $4.15, term of three years expiring December 2017, volatility of 49%, dividend yield of 0%, and risk-free interest rate of 1.10%. Based on the circumstances, the value derived using the Black-Scholes model approximated that which would be obtained using a lattice model. The debt discount was to be recorded as interest expense over the one hundred ninety days from issuance of the notes through their first

maturity date of July 31, 2015, beginning in January 2015. We analyzed the beneficial nature of the conversion terms and determined that a BCF existed because the effective conversion price was less than the fair value at the time of the issuance. We calculated the value of the BCF using the intrinsic method. A BCF of $502,057 has been recorded as a discount to the notes payable and to additional paid-in capital. For the three and nine months ended September 30, 2015, we amortized $0 and $484,329 of the BCF which has also been recorded as interest expense in our statement of operations and comprehensive loss.

2015 Convertible Notes

In February 2015, we issued convertible promissory notes to two accredited investors in the aggregate principal amount of $250,000. These notes were issued pursuant to the convertible note purchase agreement dated December 23, 2014. In connection with the issuance of the notes, we issued the lenders warrants to purchase 22,320 shares at $5.60 per share, which expire December 31, 2017. Principal and interest of $103,912 was paid in May 2015 for $100,000 of these notes. The remaining outstanding note of $150,000 is payable to the lendor at an effective simple interest rate of 12% per annum, and was due in full on July 31, 2016. On July 28, 2016, we entered into an amendment to delay the repayment of the principal and related interest under the terms of the note from July 31, 2016 to October 31, 2016. On November 8, 2016, we entered into an amendment to extend the maturity date of the outstanding note from October 31, 2016 to January 1, 2017. In exchange for the extension of the maturity date, on November 8, 2016, our board of directors granted the lendor a warrant to purchase 120,000 shares of our common stock for $0.01 per share. The warrant is exercisable at any time on or before July 28, 2022, the expiration date of the warrant. The note is included in notes payable in our balance sheet. We have accrued interest of $29,392, which is included in accrued liabilities in our balance sheet, and incurred $4,537 and $11,342 in interest expense in the three and nine months ended September 30, 2015, and $4,537 and $13,512 in interest expense in the three and nine months ended September 30, 2016. The note remains outstanding as the lendor elected not to convert the note as per the terms of the note. We analyzed the beneficial nature of the conversion terms and determined that a BCF existed because the effective conversion price was less than the fair value at the time of the issuance. We calculated the value of the BCF using the intrinsic method. A BCF of for the full face value was recorded as a discount to the notes payable and to additional paid-in capital. For the three and nine months ended September 30, 2015, we amortized $26,786 and $250,000 of the BCF as interest expense in our statement of operations and comprehensive income.

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In March 2015, we entered into a non-binding letter of intent with Dechra Pharmaceuticals PLC (“Dechra”). In connection therewith, Dechra paid us $1.0 million. At March 31, 2015, we had recorded this amount as a loan advance on the balance sheet. In April 2015, Dechra purchased $1.0 million of convertible promissory notes from us, the terms of which provided that such notes were to be converted into shares of our common stock upon the closing of an IPO at a conversion price of $5.60 per share. In connection with the purchase of the notes, we issued Dechra a warrant to purchase 89,285 shares at $5.60 per share, which expires December 31, 2017. The notes accrued simple interest of 12% per annum and, upon consummation of our IPO in May 2015, converted into 178,571 shares of our common stock. We analyzed the beneficial nature of the conversion terms and determined that a BCF existed because the effective conversion price was less than the fair value at the time of the issuance. We calculated the value of the BCF using the intrinsic method. A BCF of for the full face value was recorded as a discount to the notes payable and to additional paid-in capital. For the three and nine months ended September 30, 2015, we amortized $0 and $1,000,000 of the BCF as interest expense in the our statement of operations and comprehensive income.

As of September 30, 2016 and December 31, 2015, the convertible notes payable obligations were as follows:

	September 30, 2016	December 31, 2015
Notes payable	$ 150,000	$ 150,000
Unamortized note discount	—	—
Net debt obligation	$ 150,000	$ 150,000

Interest expense on the convertible notes payable was as follows:

	Three months ended September 30,		Nine months ended September 30,	
	2016	2015	2016	2015
Nominal Interest	$ 4,537	$ 4,537	$ 13,512	$ 66,082
Amortization of debt discount	—	26,786		1,925,326
Accretion of end-of-term payment	—	—		—
Debt issuance costs	—	—		—
	$ 4,537	$ 31,323	$ 13,512	$ 1,991,408

At September 30, 2016 and December 31, 2015, interest payable on convertible notes payable was $89,511 and $75,999, respectively.

Notes Payable—Bridge Loans

On October 30, 2014, we entered into a standby bridge financing agreement with two lenders, which was amended and restated on December 3, 2014, which provided a loan commitment in the aggregate principal amount of $1.0 million (the “Bridge”). Proceeds to us were net of a $100,000 debt discount under the terms of the Bridge and net of $104,000 of debt issuance costs. This debt discount and debt issuance costs were recorded as interest expense using the effective interest method, over the six-month term of the Bridge. The Bridge became payable upon the IPO. The Bridge was repaid in May 2015, including interest thereon in an amount of $1,321,600. In connection with the Bridge, the lenders were granted warrants to purchase 178,569 shares of our common stock determined by dividing $1.0 million by the exercise price of 80% of the IPO price, amended to $5.60 in March 2015. The fair value of the warrants, $505,348, was originally recorded as a debt discount and liability at December 3, 2014. The warrants were originally valued using the Black-Scholes model with the following assumptions: stock price of $5.01, exercise price of $5.23, term of five years expiring December 2019, volatility of 63%, dividend yield of 0%, and risk-free interest rate of 1.61%. Based on the circumstances, the value derived using the Black-Scholes model approximated that which would be obtained using a lattice model. The debt discount was recorded as interest expense over the six-month term of the Bridge. Of the aggregate debt discount of $605,348 (warrants and original $100,000 discount), $521,291 was recorded as interest expense during the year ended December 31, 2015. Additional financing costs of $104,000 were incurred related to the Bridge and deferred on closing. These were recognized as interest expense over the six-month term of the Bridge using the effective interest method. We amortized the remaining $86,667 of these deferred financing charges by the end of May 2015 was recorded the amortized amounts as interest expense. The Company fully extinguished the debt in May 2015.

Interest expense on the notes payable-bridge loans was as follows:

	Three months ended September 30,		Nine months ended September 30,	
	2016	2015	2016	2015
Nominal interest	$ —	$ —	$ —	$ 100,000
Amortization of debt discount	—	—	0	521,291
Debt issuance costs	—	—	0	86,667
Repayment premium	—	—	0	201,600
	$ —	$ —	$ —	$ 909,558

Standby Line of Credit

In August 2014, we entered into a standby line of credit with an accredited investor for up to $1.0 million pursuant to a Line of Credit and Loan Agreement dated August 26, 2014. In connection with the entry into the standby line of credit, we issued the lender a fully vested warrant to purchase 33,333 shares of common stock at an exercise price equal to 80% of the IPO price, amended to $5.60 in March 2015, which expires in August 2016. The fair value of the warrants, $114,300, was recorded as interest expense and additional paid-in capital in August 2014. The warrants were originally valued using the Black-Scholes model with the following assumptions: stock price of $8.00, exercise price of $6.40, term of two years, volatility of 52%, dividend yield of 0%, and risk-free interest rate of 0.52%. The line of credit expired on March 31, 2015 and there have been no drawdowns under the facility.

Long-term Debt

In August 2015, we entered into a loan and security agreement with a lender for up to $8.0 million, which provided for an initial loan commitment of $6.0 million. The loan agreement requires us to maintain $4.5 million of the proceeds in cash, which may be reduced or eliminated on the achievement of certain milestones. An additional $2.0 million is available contingent on the achievement of certain further milestones. The agreement has a term of three years, with interest only payments through February 29, 2016. Thereafter, principal and interest payments will be made with an interest rate of 9.9%. Additionally, there will be a balloon payment of $560,000 on August 1, 2018. This amount is being recognized over the term of the loan agreement and the effective interest rate, considering the balloon payment, is 15.0%. Proceeds to us were net of a $134,433 debt discount under the terms of the loan agreement. This debt discount is being recorded as interest expense, using the interest method, over the term of the loan agreement. Under the agreement, we are entitled to prepay principal and accrued interest upon five days prior notice to the lender. In the event of prepayment, we are obligated to pay a prepayment charge. If such prepayment is made during any of the first twelve months of the loan agreement, the prepayment charge will be (a) during such time as we are required to maintain a minimum cash balance, 2% of the minimum cash balance amount plus 3% of the difference between the amount being prepaid and the minimum cash balance, and (b) after such time as we are no longer required to maintain a minimum cash balance, 3% of the amount being prepaid. If such prepayment is made during any time after the first twelve months of the loan agreement, 1% of the amount being prepaid.

On April 21, 2016, the loan and security was amended upon which we repaid $1.5 million of the debt out of restricted cash. The amendment modified the repayment amortization schedule providing a four-month period of interest only payments for the period from May through August 2016.

As of September 30, 2016 and December 31, 2015, the net long-term debt obligation was as follows:

	September 30, 2016	December 31, 2015
Debt and unpaid accrued end-of-term payment	$ 4,314,301	$ 6,115,797
Unamortized note discount	(56,247)	(106,635)
Unamortized debt issuance costs	(140,839)	(206,235)
Net debt obligation	$ 4,117,215	$ 5,802,927
Current portion of long-term debt	$ 1,846,101	$ 1,707,899
Long-term debt, net of discount	2,271,114	$ 4,095,028
Total	$ 4,117,215	$ 5,802,927

Future principal payments under the long-term debt as of September 30, 2016 are as follows:

Years ending December 31 (except 2016 which is the three months ending December 31)	Amount
2016 October through December	$ 477,286
2017	2,032,048
2018	1,479,246
Total future principal payments	$ 3,988,580
2018 end-of-term payment	$ 560,000
	$ 4,548,580
Less: unaccreted end-of-term payment at September 30, 2016	$ (234,279)
Debt and unpaid accrued end-of-term payment	$ 4,314,301

The obligation at September 30, 2016 and December 31, 2015 includes an end-of-term payment of $560,000, which accretes over the life of the loan as interest expense. As a result of the debt discount and the end-of-term payment, the effective interest rate for the loan differs from the contractual rate.

Interest expense on the long-term debt was as follows:

	Three months ended September 30,		Nine months ended September 30,	
	2016	2015	2016	2015
Nominal Interest	$ 103,566	$ 72,600	$ 364,566	$ 72,600
Amortization of debt discount	15,337	8,993	50,388	8,993
Accretion of end-of-term payment	63,897	37,464	209,924	37,464
Debt issuance costs	47,855	13,214	135,795	13,214
	$ 230,655	$ 132,271	$ 760,673	$ 132,271

At September 30, 2016 and December 31, 2015, interest payable on long-term debt was $32,906 and $51,150, respectively.

At the IPO, our outstanding warrants to purchase convertible preferred stock were all converted to warrants to purchase common stock.

Warrant activity is summarized as follows:

	September 30, 2016	September 30, 2015
Warrants outstanding January 1	748,872	494,267
Issuances	—	254,605
Cancellations	(33,333)	—
Warrants outstanding September 30, 2016	715,539	748,872

Off-Balance Sheet Arrangements

Since inception, we have not engaged in the use of any off-balance sheet arrangements, such as structured finance entities, special purpose entities or variable interest entities.

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Critical Accounting Policies and Significant Judgments and Estimates

The preparation of financial statements in conformity with U.S. generally accepted accounting principles, or U.S. GAAP, requires the use of estimates and assumptions that affect the reported amounts of assets and liabilities, revenues and expenses, and related disclosures in the financial statements. Critical accounting policies are those accounting policies that may be material due to the levels of subjectivity and judgment necessary to account for highly uncertain matters or the susceptibility of such matters to change, and that have a material impact on financial condition or operating performance. While we base our estimates and judgments on our experience and on various other factors that we believe to be reasonable under the circumstances, actual results may differ from these estimates under different assumptions or conditions. We believe the following critical accounting policies used in the preparation of our financial statements require significant judgments and estimates. For additional information relating to these and other accounting policies, see Note 2 to our audited financial statements, appearing elsewhere in this report.

Accrued Research and Development Expenses

As part of the process of preparing our financial statements, we are required to estimate accrued research and development expenses. Estimated accrued expenses include fees paid to vendors and clinical sites in connection with our clinical trials and studies. We review new and open contracts and communicate with applicable internal and vendor personnel to identify services that have been performed on our behalf and estimate the level of service performed and the associated costs incurred for the service when we have not yet been invoiced or otherwise notified of the actual cost for accrued expenses. The majority of our service providers invoice us monthly in arrears for services performed or as milestones are achieved in relation to our contract manufacturers. We make estimates of our accrued expenses as of each reporting date.

We base our accrued expenses related to clinical trials and studies on our estimates of the services received and efforts expended pursuant to contracts with vendors, our internal resources, and payments to clinical sites based on enrollment projections. The financial terms of the vendor agreements are subject to negotiation, vary from contract to contract and may result in uneven payment flows. Payments under some of these contracts depend on factors such as the successful enrollment of animals and the completion of development milestones. We estimate the time period over which services will be performed and the level of effort to be expended in each period. If the actual timing of the performance of services or the level of effort varies from our estimate, we adjust the related expense accrual accordingly on a prospective basis. If we do not identify costs that have been incurred or if we underestimate or overestimate the level of services performed or the costs of these services, our actual expenses could differ from our estimates. To date, we have not made any material adjustments to our estimates of accrued research and development expenses or the level of services performed in any reporting period presented.

The Company expenses the total cost of a certain long-term manufacturing development contract ratably over the estimated life of the contract, or the total amount paid if greater.

Accounting for Stock-Based Compensation

During 2013, we did not issue any stock awards to employees, directors or consultants and did not incur any stock based compensation expense. Beginning in the second quarter of 2014, we awarded options and restricted stock units. We measure stock-based awards granted to employees and directors at fair value on the date of grant and recognize the corresponding compensation expense of the awards, net of estimated forfeitures, over the requisite service periods, which correspond to the vesting periods of the awards.

Key Assumptions. Our Black-Scholes-Merton option-pricing model requires the input of highly subjective assumptions, including the fair value of the underlying common stock, the expected volatility of the price of our common stock, the expected term of the option, risk-free interest rates and the expected dividend yield of our common stock. These estimates involve inherent uncertainties and the application of management's judgment. If factors change and different assumptions are used, our stock-based compensation expense could be materially different in the future. These assumptions are estimated as follows:

- Fair value of our common stock—Our common stock is valued by reference to the publicly-traded price of our common stock.

- Expected volatility—As we do not have any trading history for our common stock, the expected stock price volatility for our common stock was estimated by taking the average historic price volatility for industry peers based on daily price observations for common stock values over a period equivalent to the expected term of our stock option grants. We did not rely on implied volatilities of traded options in our industry peers' common stock because the volume of activity was relatively low. We intend to continue to consistently apply this process using the same or similar public companies until a sufficient amount of historical information regarding the volatility of our own common stock share price becomes available.

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- Expected term—The expected term represents the period that our stock-based awards are expected to be outstanding. It is based on the "simplified method" for developing the estimate of the expected life of a "plain vanilla" stock option. Under this approach, the expected term is presumed to be the midpoint between the average vesting date and the end of the contractual term for each vesting tranche. We intend to continue to apply this process until a sufficient amount of historical exercise activity is available to be able to reliably estimate the expected term.

- Risk-free interest rate—The risk-free interest rate is based on the yields of U.S. Treasury securities with maturities similar to the expected term of the options for each option group.

- Dividend yield—We have never declared or paid any cash dividends and do not presently plan to pay cash dividends in the foreseeable future. Consequently, we used an expected dividend yield of zero.

- Forfeitures—We estimate forfeitures at the time of grant and revise those estimates periodically in subsequent periods. We use historical data to estimate pre-vesting option forfeitures and record stock-based compensation expense only for those awards that are expected to vest.

Common Stock Valuations. Prior to our IPO, the fair value of the common stock underlying our stock options was determined by our board of directors, which intended all options granted to be exercisable at a price per share not less than the per share fair value of our common stock underlying those options on the date of grant. The valuations of our common stock were determined in accordance with the guidelines outlined in the American Institute of Certified Public Accountants Practice Aid, Valuation of Privately-Held-Company Equity Securities Issued as Compensation. The assumptions we used in the valuation model are highly complex and subjective. We base our assumptions on future expectations combined with management judgment. In the absence of a public trading market, our board of directors, with input from management, exercised significant judgment and considered numerous objective and subjective factors to determine the fair value of our common stock as of the date of each option grant and stock award. These judgments and factors will not be necessary to determine the fair value of new awards once the underlying shares begin trading. For now we included the following factors:

- the prices, rights, preferences and privileges of our Series A preferred stock relative to those of our common stock;

- lack of marketability of our common stock;

- our actual operating and financial performance;

- current business conditions and projections;

- hiring of key personnel and the experience of our management;

- our stage of development;

- illiquidity of share-based awards involving securities in a private company;

- the U.S. capital market conditions; and

- the likelihood of achieving a liquidity event, such as an offering or a merger or acquisition of our company given prevailing market conditions.

The fair value per share of our common stock for purposes of determining stock-based compensation is now the closing price of our common stock as reported on The NASDAQ Stock Market on the applicable grant date.

Classification of Securities

We apply the principles of ASC 480-10 "Distinguishing Liabilities From Equity" and ASC 815-40 "Derivatives and Hedging—Contracts in Entity's Own Equity" to determine whether financial instruments such as warrants, contingently issuable shares and shares subject to repurchase should be classified as liabilities or equity and whether beneficial conversion features exist.

Income Taxes

As of December 31, 2015, we had net operating loss carryforwards for federal and state income tax purposes of $19.1 million and $10.6 million, respectively, which will begin to expire in 2033, subject to limitations. Our management has evaluated the factors bearing upon the realizability of our deferred tax assets, which are comprised principally of net operating loss carryforwards. Our management concluded that, due to the uncertainty of realizing any tax benefits as of December 31, 2015, a valuation allowance was necessary to fully offset our deferred tax assets. We have evaluated our uncertain tax positions and determined that we have no liabilities from unrecognized tax benefits and therefore we have not incurred any penalties or interest. The Tax Reform Act of 1986, as amended, limits the use of net operating loss and tax credit carryforward in certain situations where changes occur in the stock ownership of a company. In the event we have a change in ownership in the future, as defined by the tax law, utilization of the carryforwards could be limited.

Recently Issued Accounting Pronouncements

Recent Accounting Pronouncements

In February 2016, the Financial Accounting Standards Board ("FASB") issued Accounting Standards Update ("ASU") No. 2016-02, *Leases (Topic 842)*, which provides guidance for accounting for leases. Under ASU 2016-02, we will be required to recognize the assets and liabilities for the rights and obligations created by leased assets. ASU 2016-02 is effective for fiscal years, and interim periods within those fiscal years, beginning after December 15, 2018. We are currently evaluating the impact of the adoption of ASU 2016-02 on our financial statements.

In November 2015, the FASB issued ASU No. 2015-17, *Balance Sheet Classification of Deferred Taxes (Topic 740)*, which simplifies the presentation of deferred income taxes. Under ASU 2015-17, deferred tax assets and liabilities are required to be classified as noncurrent, eliminating the prior requirement to separate deferred tax assets and liabilities into current and noncurrent. The new guidance is effective for us beginning on January 1, 2017, with early adoption permitted. The standard may be adopted prospectively or retrospectively to all periods presented. We are currently assessing the timing of adoption of the new guidance, but does not expect it will have a material impact on our Financial Statements.

In April 2015, the FASB issued ASU No. 2015-03, *Interest—Imputation of Interest (Subtopic 835-30): Simplifying the Presentation of Debt Issuance Costs*, to simplify the presentation of debt issuance costs by requiring debt issuance costs to be presented as a deduction from the corresponding debt liability. ASU 2015-03 will be effective for us beginning in its first quarter of 2016, however early adoption is permitted for financial statements that have not been previously issued. The guidance is to be applied retrospectively to all periods presented. We adopted ASU 2015-03 on December 31, 2015.

In August 2014, the FASB issued ASU No. 2014-15, "Presentation of Financial Statements—Going Concern (Subtopic 205-40)—Disclosure of Uncertainties about an Entity's Ability to Continue as a Going Concern," which provides guidance regarding management's responsibility to assess whether substantial doubt exists regarding the ability to continue as a going concern and to provide related footnote disclosures. In connection with preparing financial statements for each annual and interim reporting period, management should evaluate whether there are condition or events, considered in the aggregate, that raise substantial doubt about the company's ability to continue as a going concern within one year after the date that the financial statements are issued (or within one year after the date that the financial statements are available to be issued when applicable). This ASU is effective for the annual period ending after December 15, 2016, and for annual periods and interim periods thereafter. We are evaluating the new guidance and have not determined the impact this standard may have on our financial statements.

In June 2014, the FASB issued ASU No. 2014-12, *"Compensation—Stock Compensation (Topic 718)"*, which requires that a performance target that affects vesting and that could be achieved after the requisite service period be treated as a performance condition. The performance target should not be reflected in estimating the grant-date fair value of the awarded. Compensation cost should be recognized in the period in which it becomes probable that the performance target will be achieved and should represent the compensation cost attributable to the period(s) for which the requisite service has already been rendered. If the performance target becomes probable of being achieved before the end of the requisite service period, the remaining unrecognized compensation cost should be recognized prospectively over the remaining requisite service period. The total amount of compensation cost recognized during and after the requisite service period should reflect the number of awards that are expected to vest and should be adjusted to reflect those awards that ultimately vest. The requisite service period ends when the employee can cease rendering service and still be eligible to vest in the award if the performance target is achieved. This guidance will be effective for annual periods (and interim periods within those annual periods) beginning after December 15, 2015. We implemented this guidance for all interim and annual periods beginning after December 15, 2015. The adoption of this guidance did not have an impact on our financial condition, results of operations or cash flows.

In May 2014, the FASB issued ASU No. 2014-09, "Revenue from Contracts with Customers." The objective of ASU2014-19 is to establish a single comprehensive model for entities to use in accounting for revenue arising from contracts with customers and will supersede most of the existing revenue recognition guidance, including industry-specific guidance. The core principle of the new standard is that revenue should be recognized to depict the transfer of promised goods or services to customers in an amount that reflects the consideration to which the entity expects to be entitled in exchange for those goods or services. The standard is effective for annual reporting periods beginning after December 15, 2017 and allows for prospective or retrospective application. We are evaluating this pronouncement and have not yet determined the impact it will have on our financial statements.

JOBS Act

In April 2012, the JOBS Act was enacted. Section 107 of the JOBS Act provides that an emerging growth company can take advantage of an extended transition period for complying with new or revised accounting standards. Thus, an emerging growth company can delay the adoption of certain accounting standards until those standards would otherwise apply to private companies. We have irrevocably elected not to avail ourselves of this extended transition period, and, as a result, we will adopt new or revised accounting standards on the relevant dates on which adoption of such standards is required for other public companies.

Item 3. Quantitative and Qualitative Disclosures About Market Risk

Not applicable.

Item 4. Controls and Procedures

Evaluation of disclosure controls and procedures.

We maintain "disclosure controls and procedures," as such term is defined in Rule 13a-15(e) under the Exchange Act that are designed to ensure that information required to be disclosed by us in reports that we file or submit under the Exchange Act is recorded, processed, summarized, and reported within the time periods specified in Securities and Exchange Commission rules and forms, and that such information is accumulated and communicated to our management, including our Chief Executive Officer and Chief Financial Officer, as appropriate, to allow timely decisions regarding required disclosure. In

designing and evaluating our disclosure controls and procedures, management recognized that disclosure controls and procedures, no matter how well conceived and operated, can provide only reasonable, not absolute, assurance that the objectives of the disclosure controls and procedures are met. Our disclosure controls and procedures have been designed to meet reasonable assurance standards. Additionally, in designing disclosure controls and procedures, our management necessarily was required to apply its judgment in evaluating the cost-benefit relationship of possible disclosure controls and procedures. The design of any disclosure controls and procedures also is based in part upon certain assumptions about the likelihood of future events, and there can be no assurance that any design will succeed in achieving its stated goals under all potential future conditions.

Based on their evaluation as of the end of the period covered by this Quarterly Report on Form 10-Q, our Chief Executive Officer and Chief Financial Officer have concluded that, as of such date, our disclosure controls and procedures were effective at the reasonable assurance level.

Changes in internal control over financial reporting.

There was no change in our internal control over financial reporting as defined in Rule 13a-15(f) under the Exchange Act that occurred during the period covered by this Quarterly Report on Form 10-Q that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

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PART II. — OTHER INFORMATION

Item 1. Legal Proceedings.

We are not currently involved in any material legal proceedings. However, from time to time, we may become subject to legal proceedings, claims, and litigation arising in the ordinary course of business.

Item 2. Unregistered Sales of Equity Securities and Use of Proceeds.

Other than the shares of our common stock sold pursuant to the CSPA, as disclosed on our Form 8-K filed with the SEC on June 9, 2016, there were no unregistered sales of equity securities during the period.

Item 6. Exhibits

Exhibit Number	Description
10.1**	Supply and Distribution Agreement, dated as of September 6, 2016, by and between Jaguar Animal Health, Inc. and Integrated Animal Nutrition and Health Inc.
10.2	Common Stock Warrant issued pursuant to the Letter Agreement, dated November 8, 2016, between Jaguar Animal Health, Inc. and Serious Change II LP, which expires July 28, 2022.
31.1	Principal Executive Officer's Certification Pursuant to Section 302 of the Sarbanes- Oxley Act of 2002
31.2	Principal Financial Officer's Certification Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002
32.1*	Certification Pursuant to 18 U.S.C. § 1350 (Section 906 of Sarbanes-Oxley Act of 2002)
32.2*	Certification Pursuant to 18 U.S.C. § 1350 (Section 906 of Sarbanes-Oxley Act of 2002)
101.INS	XBRL Instance Document
101.SCH	XBRL Taxonomy Extension Schema Document
101.CAL	XBRL Taxonomy Extension Calculation Document
101.DEF	XBRL Taxonomy Extension Definition Linkbase Document
101.LAB	XBRL Taxonomy Extension Label Linkbase Document
101.PRE	XBRL Taxonomy Extension Presentation Linkbase Document

*In accordance with Item 601(b)(32)(ii) of Regulation S-K and SEC Release No. 34-47986, the certifications furnished in Exhibits 32.1 and 32.2 hereto are deemed to accompany this Form 10-Q and will not be deemed "filed" for purposes of Section 18 of the Securities Exchange Act of 1934 (the "Exchange Act") or deemed to be incorporated by reference into any filing under the Exchange Act or the Securities Act of 1933 except to the extent that the registrant specifically incorporates it by reference.

** Portions of the exhibit have been omitted pursuant to a request for confidential treatment.

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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 thereunto duly authorized.

Date: November 14, 2016

JAGUAR ANIMAL HEALTH, INC.

By: /s/ Karen S. Wright
Karen S. Wright
Chief Financial Officer

Principal Financial and Accounting Officer

***** TEXT OMITTED AND SUBMITTED SEPARATELY PURSUANT TO CONFIDENTIAL TREATMENT REQUEST**

JAGUAR ANIMAL HEALTH, INC. AND INTEGRATED ANIMAL NUTRITION AND HEALTH INC.
SUPPLY, DISTRIBUTION AGREEMENT

This Supply and Distribution Agreement ("Agreement") is made and entered into as of the date of first signature below ("Effective Date"), by Jaguar Animal Health, Inc. ("Supplier"), having its principal place of business at 201 Mission Street, Suite 2345, San Francisco, California, USA and Integrated Animal Nutrition and Health Inc. ("Company"), having its principal place of business at 9277 N. Valley Green Drive, Fresno, California 93720.

1. RECITALS

WHEREAS, Supplier wishes to supply a botanical extract ("BE") from the *Croton lechleri* tree (the "Product") to the Company so that Company can distribute the Product either stand-alone or in combination with one or more products owned or licensed or distributed by the Company, or it can sub-license the product to another company, having informed the Supplier.

WHEREAS Company wishes to purchase the Product from Supplier and distribute the Product in the Territory on exclusive basis pursuant to the terms and conditions of this Agreement.

2. SUPPLY AND QUALITY GUARANTEED

Supplier agrees to manufacture enough of the Product to allow Company to purchase the Product from Supplier in order to distribute, promote and sell the Product in the Territory per the Target Annual Unit Sales as set forth in Exhibit B. Supplier agrees to guarantee the quality of the product based on the Certificate of Analysis document provided where the Proanthocynadin Oligmer concentration will be greater than 60%.

3. PRICING, PURCHASE ORDERS, DELIVERY, AND PAYMENT

a. **Price.** The Price on the Effective Date shall be as detailed in Exhibit A $[***] for one kilogram of the Product. Per Exhibit A this price will remain in effect for the first 1200 kilograms purchased by Company. Thereafter Supplier shall have the right to increase the price of the Product as detailed in Exhibit A.

b. **Purchase Orders.** Company shall order the Product by sending a purchase order ("Purchase Order") to Supplier by email, fax, or physical mail to Supplier's addresses contained in this Agreement. All Purchase Orders must specify a pickup date that is at least sixty (60) days after the date of the Purchase Order. The Purchase Order must specify the quantity, requested and a date for Company representatives to pick up the Product in the United States and price for Supplier's approval. A Purchase Order shall become binding upon written acceptance of the Purchase Order by Supplier, such written acceptance to occur within thirty (30) days of Purchase Order receipt by Supplier. Minimum order size for all Purchase Orders is 20

***** CONFIDENTIAL TREATMENT REQUESTED**

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kilograms. Company will place its first order under this Agreement in the amount detailed in Exhibit A within thirty (30) days of the Effective Date of this Agreement.

c. **Delivery.** Product will be made available to Company for pick up from a US based facility identified by Supplier. Company will assume liability for the Product at time of pick up and be solely responsible for shipping, import/export and any other charges.

d. **Payment.** All payments shall be made in United States Dollars by wire transfer to the bank account specifically designated by the Supplier in the invoice: fifty percent (50%) upon acceptance of Purchase Order by Supplier and fifty percent (50%) upon Product pick up.

4. GOAL SETTING AND REPORTING

Goal Setting. The Company and Supplier have agreed to Annual Unit Purchase Goals for the Initial Term of this Agreement, attached hereto as Exhibit B ("Annual Unit Purchase Goals"). During September of each year of this Agreement, Company and Supplier will meet to discuss Company's performance against the Annual Unit Purchase Goals for the previous year and the Annual Unit Purchase Goals for the next year and the Parties may mutually agree to adjustments the Annual Unit Purchase Goals in writing which document shall constitute an amendment to Exhibit B.

a. **Reporting.** Company will provide Supplier with written reports within thirty (30) days of the end of each calendar quarter in a format to be mutually agreed-upon between the Parties to track Company's performance towards the Annual Unit Purchase Goals.

5. NO SALES OUTSIDE THE TERRITORY

Company is only authorized to sell the Product inside of the Territory. Company and its Affiliates shall not directly or indirectly: (i) sell, resell, distribute, market or promote the Product or any product containing the Product outside the Territory, or (ii) sell, resell, distribute, market or promote any Product or any product containing the Product to any third party in the Territory if Company has any reason to believe that such third party may export or use the Product outside of the Territory.

6. PRODUCT REGISTRATION

a. **Product Registration.** Company is responsible for all activities and costs to obtain all registrations, marketing authorizations, customs clearance and renewals thereof from various government and/or quasi-governmental agencies or entities in the Territory that may be necessary to supply, sell, distribute and promote the Product in the Territory or otherwise perform it's responsibilities under this Agreement ("Product Registrations"). Company may provide Supplier with a written list of the documents needed for the Product Registration and customs clearance under this section 6 and Supplier will produce relevant, non-confidential documentation it has in its possession to Company at Company's expense.

7. INTELLECTUAL PROPERTY, CONFIDENTIALITY AND TRIALS

a. **Confidentiality Obligations**. For purposes of this Agreement, the following is "Confidential Information" of Supplier: (i) any scientific, technical, business, or other data or information (collectively, "Data") disclosed by Supplier to Company relating to the Product, (ii) any Data disclosed in electronic or written form by Supplier to Company that is marked "Confidential" or that is generally regarded as confidential, and (iii) any Data disclosed orally by Supplier to Company noted as "Confidential" or that is generally regarded as confidential.

b. **Exceptions**. Information shall be deemed not to be Confidential Information to the extent that it:

(a) is or later becomes publicly known other than through a breach of this Agreement by the Company, its employees, or its agents;

(b) is lawfully made available to the Company, by a third party that owes no obligation of confidentiality to Supplier; or

(c) was already known to or is independently developed by the Company, its employees, or its agents as evidenced by written records.

c. **No Reverse-Engineering or Modification**. Company shall not attempt to modify or reverse-engineer (or otherwise determine the chemical structure or sequence of) the Product.

d. Disclosure. Company shall provide Supplier with written reports summarizing the results of any use of the Product in the Trial(s) and any results obtained at mutually agreed intervals during the Initial Term of this Agreement, including upon expiration or termination of this Agreement. Such reports shall include a summary of all data, and all information, inventions, discoveries, know-how, or any other intellectual property made or generated by or on behalf of the Company relating to the use of the Product.

8. TRADEMARKS AND PACKAGING

a. **Trademark.** Company will not make any use of or take any action with respect to Supplier's Trademarks (registered or not) and Company shall not register in its own name or in the name of any other person, any identical trademarks or any other trademark that in Supplier's sole opinion is confusingly similar to Supplier´s Trademarks. Company shall be allowed to partner with an existing manufacturer within the Territory and the Product may be combined with that partner's product upon prior written notice to Supplier and Supplier's approval. Supplier's label will not be used for any purpose including, but not limited to, sale, Product packaging or labeling.

9. MARKETING

a. **Marketing of the Product.** The Company shall use best commercial efforts to market, distribute and sell the Product, stand alone or in combination with other products owned or licensed or distributed by Company, in the Territory during the Initial Term of this Agreement including any term extensions. All expenses incurred in connection with the formulation, promotion, marketing and advertising of the Product in the Territory shall be borne solely and exclusively by Company.

10. INDEMNIFICATION, INSURANCE AND PRODUCT RECALLS AND RETURNS

a. Company shall be responsible for all product recalls and returns unless it is definitively proven that the Product at the time it was picked-up from the Supplier was defective.

b. Company Assumes Risk. The Company assumes the risk of any damage, loss, or expense associated with or resulting from the trial(s) or the Company's use, storage, handling, sale, marketing, distribution, or disposal of the Product. Company may insure against such risk in its sole discretion.

c. Indemnification. The Company shall indemnify, defend, and hold harmless Supplier, its officers, directors, employees, and agents from any loss, liability, damage, or expense (including reasonable attorneys' fees and costs) from any claim that may arise from or in connection with Company's use, storage, handling, sale, marketing, distribution, or disposal of the Product including any claim(s) that may arise from the Trial(s) and the combination of the Product with other products owned or licensed by Company globally.

11. TERM AND TERMINATION

a. The initial term of this Agreement shall commence on the Effective Date and shall expire on the fourth (4th) anniversary of the Effective Date ("Initial Term"). If the Company has met all annual sales goals during the Initial Term the Company shall be automatically granted to extend the Initial Term of this Agreement for one (1) additional four (4) year term.

b. **Termination for Failure to Meet Annual Sales Goals.** If during any calendar year the Company sells less than twenty-five percent (25%) of the Target as defined in the Annual Sales Goal in Appendix B Supplier shall have the right to terminate this Agreement with a notice period of 60 (sixty) day notice, in writing. If the sales are less than fifty percent (50%) of the Target as defined in the Annual Sales Goal in Appendix B for any two (2) years in the Initial Term, Supplier shall have the right to terminate this Agreement with a notice period of 60 (sixty) day, in writing. During any such 60 (sixty) day notice period this Agreement shall be non-exclusive in the Territory.

c. **Termination by Supplier.** Supplier may terminate this Agreement at any time before its expiration in the event that:

i. There is a bankruptcy, insolvency or other type of legal suspension of the business activities of Company, pursuant to law, an agreement among creditors or pursuant to the naming of an assignee, or trustee, or administrator, or commission or other person or persons charged with the administration or possession of the assets and goods of Company;

ii. Company fails to pay an invoice within thirty (30) days after notice from Supplier of such past due payment; or

iii. Company violates the confidentiality of any Supplier information or information regarding a trial; or commits crimes against the property and reputation of Supplier.

iv. Product sold to the Company is found outside of the Territory.

d. **Termination by Company.** Company may terminate this Agreement at any time before its expiration in the event that:

i. There is a bankruptcy, insolvency or other type of legal suspension of the business activities of Supplier, pursuant to law, an agreement among creditors or pursuant to the naming of an assignee, or trustee, or administrator, or commission or other person or persons charged with the administration or possession of the assets and goods of Supplier; or

ii. Supplier violates the confidentiality of any of the Company´s information; or commits crimes against the property and reputation of Company.

e. **Time to Cure Breach Prior to Termination.** Except for Company's obligation to pay invoices as due, before terminating this Agreement the non-breaching party agrees to notify the breaching party in writing with details regarding the matter of deficiency or non-performance and allow a period of thirty (30) calendar days to remedy said breach (the "Cure Period"). If the deficient or non-performance is not corrected within the Cure Period, the non-breaching party may immediately terminate this Agreement.

f. **Payments to Supplier Upon Termination.** Upon termination of this Agreement, any and all amounts due to Supplier from Company shall be due and payable immediately.

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12. MISCELLANEOUS

a. **Publications and Press Releases:**

a. Supplier has an interest in obtaining valid patent protection. Supplier's employees or consultants wishing to make a publication that refers specifically to this Agreement will share with Company a copy of the proposed written publication.

b. Communications required by applicable law or the requirement or request of any securities exchange on which the Party's securities are listed or traded, and informational marketing and website postings will not require advance approval.

b. **Notices**. The Parties shall send notices in writing, referencing this Agreement.

To Company:

Attention:

To Supplier:

Jaguar Animal Health, Inc.

201 Mission Street Suite 2375

San Francisco, CA 94105

Attention: Karen Wright CFO

With a copy to:

Joelle Margolin, Esq. Vice President of Legal

c. **Governing Law and Venue.** This Agreement will be governed in accordance with the laws of the State of California, without regard to its conflict of law provisions. The sole and exclusive venue for any and all disputes regarding this Agreement will be San Francisco, California. The rights and obligations of the parties under this Agreement will not be governed by the provisions of the 1980 United Nations Convention on Contracts for the international sale of goods or any subsequent revisions to those provisions.

IN WITNESS WHEREOF, the parties have executed this Agreement as of the Effective Date.

Integrated Animal Nutrition and Health Inc.	Jaguar Animal Health, Inc.
/s/ Kai Hang Chen	/s/ Lisa Conte
Signature	Signature

Kai Hang Chen	Lisa Conte
Name	CEO for Jaguar Animal Health
CEO	
Title	

September 6, 2016

EXHIBIT A

Product:
BE

Price:

$[***] per kilogram for the first 1200 kilograms of Product.

On the earlier of; the purchase by Company by 1200 kilograms of Product OR the first anniversary date of the Effective Date of this Agreement Supplier may increase the Price by three percent (3%) and the annual Price increase shall not be greater than three percent (3%) per annum.

Active Ingredient:

Proanthocynadin Oligomer which is a standardized botanical extract of the Croton lechleri. The guaranteed minimum of the active in the Botanical Extract will be greater than 60%

Quality Specs and method of analysis:

The testing of the BE can be done using a HPLC method. IT can be carried out by a trusted independent laboratory like Chromadex based in Irvine, California. Jaguar Animal can facilitate the introduction to them or the Company is free to use any other company of its choice.

Exclusive Country: The People's Republic of China.

Purchase on signing the Agreement:

The Company agrees to submit a Purchase Order for 20 kilograms of the Product at the time this Agreement is executed. The Company shall then place an additional Purchase Order for 30 kilograms of the Product within 30-45 days of the first order. At that time Supplier shall provide an additional 10 kilograms of the Product at no cost per kilogram to Company for the exclusive purpose of developing the market. When the Company has purchased 100kgs of the Product, then the Supplier shall provide and additional 10kg of the Product free for purposes of marketing.

***** CONFIDENTIAL TREATMENT REQUESTED**

EXHIBIT B

ANNUAL UNIT PURCHASE GOALS

Year 1	234
Year 2	400
Year 3	524
Year 4	660

Annual purchase goals in Kilograms starting from the date of signing this agreement

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[Jaguar ANIMAL HEALTH letterhead]

November 8, 2016

Ms. Jo Sandlin
Serious Change II LP
3555 Timmons Lane, Suite 800
Houston, TX 77027

Re: (i) Serious Change II LP Convertible Promissory Note with Jaguar Animal Health dated February 13, 2015 in the amount of $150,000, due July 31, 2017, per the terms of the original Note and Warrant Purchase Agreement originally dated for reference purposes as of December 23, 2014, (ii) the notification between Serious Change II LP Convertible Promissory Note and Jaguar Animal Health dated May 23, 2016 in the amount of $150,000, plus simple interest at the rate of twelve percent (12.0%) thereon from the date of February 13, 2015 through final cash payment date, due two weeks after the effective date of the Jaguar Animal Health and Napo Pharmaceuticals merger, to Serious Change II LP, (iii) the notification between Serious Change II LP Convertible Promissory Note and Jaguar Animal Health dated July 28, 2016 in the amount of $150,000, plus simple interest at the rate of twelve percent (12%) thereon from the date of February 13, 2015 through final cash payment due October 31, 2016.

Dear Ms Sandlin,

Please accept this email as confirmation of your notification to Jaguar Animal Health, Inc. that Serious Change II LP requests the following cash and warrant consideration in regard to the above referenced convertible promissory note with Jaguar Animal Health:

1) The convertible promissory note of the principal sum of one hundred fifty thousand dollars ($150,000.00), plus simple interest at the rate of twelve percent (12.0%) thereon from the date of February 13, 2015 through January 1, 2017 in the amount of $33,978.08, will be paid in cash consideration of $183,978.08 on January 1, 2017 to Serious Change II LP; and

2) Warrant (Exhibit A) to purchase 120,000 shares of common stock of Jaguar Animal Health, Inc. for $0.01 per share upon exercise of this Warrant, at any time after the later of the date upon which the $150,000 Convertible Promissory Note between Serious Change II LP and Jaguar Animal Health, Inc. dated February 13, 2015 or 5:00 p.m. California time on July 28, 2017, and before July 28, 2022 (the Termination Date), at a price per share equal to the Warrant Price of $0.01.

Thank you for your continued support and interest in Jaguar Animal Health, Josh.

Best,
/s/ Lisa Conte
Lisa Conte
CEO and President
Jaguar Animal Health, Inc.

ACCEPTED, ACKNOWLEDGED AND AGREED TO AS OF THE DATE FRIST ABOVE WRITTEN.

SERIOUS CHANGE II LP
By: Serious Change Management II GP LLC,
Its General Partner

By: /s/ Jo Sandlin
Jo Sandlin,
Vice President

Exhibit A

THIS WARRANT AND THE SECURITIES ISSUABLE UPON EXERCISE OF THIS WARRANT, HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED (THE "ACT"), AND MAY NOT BE SOLD, TRANSFERRED, ASSIGNED, HYPOTHECATED OR OTHERWISE TRANSFERRED UNLESS THERE IS AN EFFECTIVE REGISTRATION STATEMENT UNDER THE ACT COVERING SUCH SECURITIES, THE SALE IS MADE IN ACCORDANCE WITH RULE 144 UNDER THE ACT, OR THE COMPANY RECEIVES AN OPINION OF COUNSEL FOR THE HOLDER OF SUCH SECURITIES REASONABLY SATISFACTORY TO THE COMPANY STATING THAT SUCH SALE, TRANSFER, ASSIGNMENT OR HYPOTHECATION IS EXEMPT FROM THE REGISTRATION AND PROSPECTUS DELIVERY REQUIREMENTS OF THE ACT

WARRANT TO PURCHASE COMMON STOCK
OF JAGUAR ANIMAL HEALTH, INC.

1. Number of Shares and Exercise Price Subject to Warrant. FOR VALUE RECEIVED, subject to the terms and conditions herein set forth (including but not limited to Section 9 below), the Holder (as defined below) is entitled to purchase from Jaguar Animal Health, Inc., a Delaware corporation (the "Company"), at any time the Warrant Stock (as defined below) on, or before, July 28, 2022 (the "Termination Date"), at a price per share equal to the Warrant Price (as defined below), and subject to adjustments as described below) upon exercise of this Warrant pursuant to Section 6 hereof. ***This***

Warrant is executed and delivered in consideration of Holder's extension of the due date under Holder's $150,000 Convertible Promissory Note between Serious Change II LP and Jaguar Animal Health, Inc. dated February 13, 2015.

2. Definitions. As used in this Warrant, the following terms shall have the definitions ascribed to them below:

(a) "Common Stock" shall mean a share of common stock of the Company

(b) "Holder" shall mean SERIOUS CHANGE II LP or its permitted assigns.

(c) "Securities" shall mean the security issued in the Company's Common Stock.

(d) "Warrant Price" shall be $0.01 per share subject to adjustment from time to time in accordance with Section 3 below.

(e) "Warrant Stock" shall mean 120,000 shares of the Company's Securities subject to adjustment from time to time in accordance with Section 3 below.

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3. Adjustments and Notices. The Warrant Price and Warrant Stock shall be subject to adjustment from time to time in accordance with the following provisions:

(a) Subdivision, Stock Dividends or Combinations. In case the Company shall at any time subdivide the outstanding shares of Securities subject to this Warrant or shall issue a stock dividend with respect to the Securities, the Warrant Price in effect immediately prior to such subdivision or the issuance of such dividend shall be proportionately decreased, and in case the Company shall at any time combine the outstanding shares of the Securities, the Warrant Price in effect immediately prior to such combination shall be proportionately increased, effective at the close of business on the date of such subdivision, dividend or combination, as the case may be. Simultaneously with any adjustment to the Warrant Price pursuant to this Section 3, the number of Warrant Stock shares that may be purchased upon exercise of this Warrant shall be increased or decreased proportionately, so that after such adjustment the aggregate Warrant Price payable hereunder for the increased or decreased number of Warrant Stock shares shall be the same as the aggregate Warrant Price in effect immediately prior to such adjustment

(b) Reclassification, Exchange, Substitution, In-Kind Distribution. Upon any reclassification, exchange, substitution, or other event that results in a change of the number and/or class of the Warrant Stock or upon the payment of a dividend in securities or property other than the Warrant Stock, the Holder shall be entitled to receive, upon exercise or conversion of this Warrant, the number and kind of securities and property that the Holder would have received for the Warrant Stock if this Warrant had been exercised immediately before the record date for such reclassification, exchange, substitution, or other event or immediately prior to the record date for such dividend. The Company or its successor shall promptly issue to the Holder a new Warrant for such new securities or other property. The new Warrant shall provide for adjustments which shall be as nearly equivalent as may be practicable to the adjustments provided for in this Section 3 including, without limitation, adjustments to the Warrant Price and to the number of securities or property issuable upon exercise of the new Warrant. The provisions of this Section 3(b) shall similarly apply to successive reclassifications, exchanges, substitutions, or other events and successive dividends.

(c) Notice of Adjustment Events. Upon any adjustment of the Warrant Price and any increase or decrease in the number of shares of Warrant Stock, then, and in each such case, the Company, as promptly as practicable thereafter, shall give written notice thereof to the Holder of this Warrant at the address of such Holder as shown on the books of the Company which notice shall state the Warrant Price as adjusted and the increased or decreased number of shares of Warrant Stock, setting forth in reasonable detail the method of calculation of each.

(d) Fractional Shares. No fractional shares shall be issuable upon exercise or conversion of the Warrant and the number of shares of Warrant Stock to be issued shall be rounded down to the nearest whole share. If a fractional share interest arises upon any exercise or conversion of the Warrant, the Company shall eliminate such fractional share interest by paying the Holder an amount computed by multiplying the fractional interest by the fair market value of a full share of the Warrant Stock.

4. No Stockholder Rights. This Warrant, by itself, as distinguished from any shares purchased hereunder, shall not entitle the Holder to any of the rights of a stockholder of the Company except as provided herein.

5. Representations, Warranties and Covenants.

(a) Reservation of Stock. The Company will, in connection with the execution and delivery of this Warrant, reserve from its authorized and unissued common stock, as applicable, a sufficient number of shares to provide for the issuance of the Warrant Stock in the form of common stock, as applicable, upon the exercise or conversion of this Warrant. Issuance of this Warrant shall constitute full authority to the Company's officers who are charged with the duty of executing stock certificates to execute and issue the necessary certificates for shares of Warrant Stock issuable upon the exercise or conversion of this Warrant.

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6. Exercise of Warrant. This Warrant may be exercised in whole or part by the Holder prior to the termination of this Warrant, as provided in Section 9 hereof, by the surrender of this Warrant, together with the Notice of Exercise and Investment Representation Statement in the forms attached hereto as Attachments 1 and 2, respectively, duly completed and executed at the principal office of the Company, specifying the portion of the Warrant to be exercised and accompanied by payment in full of the Warrant Price in cash or by check with respect to the shares of Warrant Stock being purchased. This Warrant shall be deemed to have been exercised immediately prior to the close of business on the date of its surrender for exercise as provided above, and the person entitled to receive the shares of Warrant Stock issuable upon such exercise shall be treated for all purposes as the Holder of such shares of record as of the close of business on such date. As promptly as practicable after such date, the Company shall issue and deliver to the person or persons entitled to receive the same a certificate or certificates for the number of full shares of Warrant Stock issuable upon such exercise. If the Warrant shall be exercised for less than the total number of shares of Warrant Stock then issuable upon exercise, promptly after surrender of the Warrant upon such exercise,

the Company will execute and deliver a new Warrant, dated the date hereof, evidencing the right of the Holder to the balance of the Warrant Stock purchasable hereunder upon the same terms and conditions set forth herein.

7. Conversion. This Warrant shall not be exercisable on a "net exercise" basis, and the exercise price for this warrant shall always be paid in cash.

8. Transfer of Warrant. This Warrant may not be transferred or assigned by the Holder in whole or in part, without the prior written consent of the Company.

9. Termination, This Warrant shall terminate at 5:00 p.m. California time on the Termination Date.

10. Successors and Assigns. Subject to the restrictions on transfer described in Section 8 above, and the termination provisions described in Section 9 above, the rights and obligations of the Company and the Holder shall be binding upon and benefit the successors, assigns, heirs, administrators and transferees of the parties.

11. Governing Law and Venue.

(a) This Warrant and all actions arising out of or in connection with this Warrant shall be governed by and interpreted in accordance with the laws of the State of California, without regard to the conflicts of law provisions in the State of California or any other state. The parties hereby consent to the personal and exclusive jurisdiction and venue of the California state courts and the federal courts located in San Francisco County, California.

(b) Notwithstanding the foregoing, except with respect to enforcing claims for injunctive or equitable relief, any dispute, claim or controversy arising out of or relating in any way to this Warrant or the interpretation, application, enforcement, breach, termination or validity thereof (including any claim of inducement of this Warrant by fraud and including determination of the scope or applicability of this agreement to arbitrate) or its subject matter (collectively, "Disputes") shall be determined by binding arbitration before one arbitrator. The arbitration shall be administered by JAMS conducted in accordance with the expedited procedures set forth in the JAMS Comprehensive Arbitration Rules and Procedures as those Rules exist on the effective date of this Agreement, including Rules 16.1 and 16.2 of those

Rules. Notwithstanding anything to the contrary in this Agreement, the Federal Arbitration Act shall govern the arbitrability of all Disputes. The arbitration shall be held in San Francisco County, California, and it shall be conducted in the English language. The parties shall maintain the confidential nature of the arbitration proceeding and any award, including the hearing, except as may be necessary to prepare for or conduct the arbitration hearing on the merits, or except as may be necessary in connection with a court application for a preliminary remedy, a judicial challenge to an award or its enforcement, or unless otherwise required by law or judicial decision. The arbitrator shall have authority to award compensatory damages only and shall not award any punitive, exemplary, or multiple damages, and the parties waive any right to recover any such damages. Judgment on any award in arbitration may be entered in any court of competent jurisdiction. Notwithstanding the above, each party shall have recourse to any court of competent jurisdiction to enforce claims for injunctive and other equitable relief.

(c) IN THE EVENT OF ANY DISPUTE BETWEEN THE PARTIES, WHETHER IT RESULTS IN PROCEEDINGS IN ANY COURT IN ANY JURISDICTION OR IN ARBITRATION, THE PARTIES HEREBY KNOWINGLY AND VOLUNTARILY, AND HAVING HAD AN OPPORTUNITY TO CONSULT WITH COUNSEL, WAIVE ALL RIGHTS TO TRIAL BY JURY, AND AGREE THAT ANY AND ALL MATTERS SHALL BE DECIDED BY A JUDGE OR ARBITRATOR WITHOUT A JURY TO THE FULLEST EXTENT PERMISSIBLE UNDER APPLICABLE LAW. To the extent applicable, in the event of any lawsuit between the parties arising out of or related to this Warrant, the parties agree to prepare and to timely file in the applicable court a mutual consent to waive any statutory or other requirements for a trial by jury.

12. Notices.

(a) Generally. All notices and other communications provided for or permitted hereunder shall be made by hand-delivery, or may be sent by email at the email address set forth below or by facsimile to any phone number provided by the parties hereto, or overnight air courier guaranteeing next day delivery at the addresses set forth on the signature page hereof to the Holder and with respect to the Company at its principal place of business. All such notices and communications shall be deemed to have been duly given at the time delivered by hand, if personally delivered; if emailed or telecopied, during regular business hours in San Francisco, California, on the date transmitted or the next business day if transmitted after such regular business hours; and the next business day after timely delivery to the courier, if sent by overnight air courier guaranteeing next day delivery. The parties may change the addresses to which notices are to be given by giving five days prior notice of such change in accordance herewith. All communications shall be sent to the Company at 201 Mission Street, Suite 2375, San Francisco, California, 94105.

(b) Required Notices. If at any time prior to exercise of the Warrant, the Company: (i) declares any dividend upon the Company's common stock; (ii) effects any capital reorganization or reclassification of its capital stock; (iii) any voluntary or involuntary liquidation, dissolution or winding up of the Company, then the Company shall provide Holder with at least ten (10) days prior written notice of such corporate action.

13. Legend. The Holder understands and agrees that all certificates evidencing the shares to be issued to the Holder may bear the following legend:

THESE SECURITIES HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED (THE "ACT"). THEY MAY NOT BE SOLD, OFFERED FOR SALE, PLEDGED OR HYPOTHECATED IN THE ABSENCE OF AN EFFECTIVE REGISTRATION STATEMENT AS TO THE SECURITIES UNDER THE ACT OR AN OPINION OF COUNSEL SATISFACTORY TO THE COMPANY THAT SUCH REGISTRATION IS NOT REQUIRED.

14. Amendments. Neither this Warrant nor any term hereof may be changed or waived orally, but only by an instrument in writing signed by the Company and the Holder of this Warrant.

ISSUED: November 8, 2016

Jaguar Animal Health, Inc.

Signature: /s/ Lisa A. Conte

Name: Lisa A. Conte

Title: President & CEO

Acknowledged and Agreed:

SERIOUS CHANGE II LP
By: Serious Change Management II GP LLC,
Its General Partner

By: /s/ Jo Sandlin
Jo Sandlin,
Vice President

(Street Address)

(Email Address)

Attachment 1

NOTICE OF EXERCISE

TO: Jaguar Animal Health, Inc.

1. The undersigned hereby elects to purchase shares of the Warrant Stock of J, Inc. pursuant to the terms of the attached Warrant, and tenders herewith payment of the purchase price in full, together with all applicable transfer taxes, if any.

2. Please issue a certificate or certificates representing said shares of Warrant Stock in the name of the undersigned or in such other name as is specified below:

(Name)

(Address)

(Date)

(Name of Warrant Holder)

By:

Title:

Attachment 2

INVESTMENT REPRESENTATION STATEMENT

Shares of Warrant Stock

(as defined in the attached Warrant) of

Jaguar Animal Health, Inc.

In connection with the purchase of the Warrant Stock, the undersigned hereby represents to Jaguar Animal Health, Inc. (the "Company") as follows:

(a) The Warrant Stock to be received upon the exercise of the Warrant (the "Securities") will be acquired for investment for its own account, not as a nominee or agent, and not with a view to the sale or distribution of any part thereof, and the undersigned has no present intention of selling, granting participation in or otherwise distributing the same, but subject, nevertheless, to any requirement of law that the disposition of its property shall at all times be within its control. By executing this Investment Representation Statement, the undersigned further represents that it does not have any contract, undertaking, agreement or arrangement with any person to sell, transfer, or grant participations to such person or to any third person, with respect to the Securities.

(b) The undersigned understands that the Securities are not registered under the Securities Act of 1933, as amended (the "Act"), and applicable state securities laws, on the ground that the issuance of such securities is exempt pursuant to Section 4(2) of the Act and state law exemptions relating to offers and sales not by means of a public offering, and that the Company's reliance on such exemptions is predicated on the undersigned's representations set forth herein.

(c) The undersigned agrees that in no event will it make a disposition of the Securities unless and until (i) it shall have notified the Company of the proposed disposition and shall have furnished the Company with a statement of the circumstances surrounding the proposed disposition, and if requested by the Company, (ii) it shall have furnished the Company with an opinion of counsel satisfactory to the Company and the Company's counsel to the effect that (A) appropriate action necessary for compliance with the Act and any applicable state securities laws has been taken or an exemption from the registration requirements of the Act and such laws is available, and (B) the proposed transfer will not violate any of said laws.

(d) The undersigned acknowledges that an investment in the Company is highly speculative and represents that it is able to fend for itself in the transactions contemplated by this Investment Representation Statement, is an "Accredited Investor" as that term is defined in Rule 501 of Regulation D promulgated under the Act or has such knowledge and experience in financial and business matters as to be capable of evaluating the merits and risks of its investments, and has the ability to bear the economic risks (including the risk of a total loss) of its investment. The undersigned represents that it has had the opportunity to ask questions of the Company concerning the Company's business and assets and to obtain any additional information which it considered necessary to verify the accuracy of or to amplify the Company's disclosures, and has had all questions which have been asked by it satisfactorily answered by the Company.

(e) The undersigned acknowledges that the Securities must be held indefinitely unless subsequently registered under the Act or an exemption from such registration is available. The undersigned is aware of the provisions of Rule 144 promulgated under the Act which permit limited resale of shares purchased in a private placement subject to the satisfaction of certain conditions, including, among other things, the existence of a public market for the shares, the availability of certain current public information about the Company, the resale occurring not less than one year after a party has purchased and paid for the security to be sold, the sale being through a "broker's transaction" or in transactions directly with a "market

Exhibit 31.1

PRINCIPAL EXECUTIVE OFFICER'S CERTIFICATION PURSUANT TO SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

I, Lisa A. Conte, certify that:

1. I have reviewed this quarterly report on Form 10-Q of Jaguar Animal Health, Inc.;

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

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

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

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

b) Not applicable;

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

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

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

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

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

Date: November 14, 2016

/s/ Lisa A. Conte

Lisa A. Conte
President and Chief Executive Officer
(Principal Executive Officer)

Exhibit 31.2

PRINCIPAL FINANCIAL OFFICER'S CERTIFICATION PURSUANT TO SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

I, Karen S. Wright, certify that:

1. I have reviewed this quarterly report on Form 10-Q of Jaguar Animal Health, Inc.;

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

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

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

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

b) Not applicable;

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

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

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

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

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

Date: November 14, 2016

/s/ Karen S. Wright

Karen S. Wright
Chief Financial Officer
(Principal Financial and Accounting Officer)

Exhibit 32.1

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

In connection with the Quarterly Report of Jaguar Animal Health, Inc. (the "Company") on Form 10-Q for the nine months ended September 30, 2016, as filed with the Securities and Exchange Commission on the date hereof (the "Report"), the undersigned officer of the Company certifies, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that, to such officer's knowledge:

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

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

Date: November 14, 2016

/s/ Lisa A. Conte
Lisa A. Conte
President and Chief Executive Officer
(Principal Executive Officer)

Exhibit 32.2

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

In connection with the Quarterly Report of Jaguar Animal Health, Inc. (the "Company") on Form 10-Q for the nine months ended September 30, 2016, as filed with the Securities and Exchange Commission on the date hereof (the "Report"), the undersigned officer of the Company certifies, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that, to such officer's knowledge:

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

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

Date: November 14, 2016

/s/ Karen S. Wright
Karen S. Wright
Chief Financial Officer
(Principal Financial and Accounting Officer)