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 March 31, 2018

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 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, smaller reporting company, or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company," and "emerging growth company" in Rule 12b-2 of the Exchange Act.

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

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act. 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 May 15, 2018, there were 171,350,166 shares of common stock, par value $0.0001 per share, outstanding, of which 131,048,929 are voting shares and 40,301,237 are non-voting shares. The company also had 5,524,926 shares of convertible preferred stock outstanding.

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PART I. — FINANCIAL INFORMATION

Item 1. Condensed Consolidated Financial Statements

JAGUAR HEALTH, INC.

CONDENSED CONSOLIDATED BALANCE SHEETS

	March 31, 2018 (Unaudited)	December 31, 2017 [1]
Assets		
Current assets:		
Cash and cash equivalents	$ 7,808,324	$ 520,698
Restricted cash	—	239,169
Accounts receivable	362,809	467,658
Other receivable	2,414	1,380
Inventory	2,328,520	2,072,817
Prepaid expenses and other current assets	365,335	497,373
Total current assets	10,867,402	3,799,095
Land, property and equipment, net	1,213,564	1,222,068
Goodwill	5,210,821	5,210,821
Intangible assets, net	32,975,555	33,397,222
Total assets	$ 50,267,342	$ 43,629,206
Liabilities, Convertible Preferred Stock and Stockholders' Equity		
Current liabilities:		
Accounts payable	$ 3,162,179	$ 7,354,932
Deferred collaboration revenue	—	177,389
Deferred rent	3,240	4,584
Accrued expenses	1,664,234	2,199,549
Warrant liability	192,960	103,860
Derivative liability	15,000	11,000
Conversion option liability	—	111,841
Convertible notes payable	690,683	2,672,215
Notes payable	3,656,099	1,141,153
Current portion of long-term debt	—	1,609,244
Total current liabilities	9,384,395	15,385,767
Convertible long-term debt, net of discount	10,875,300	10,982,437
Total liabilities	$ 20,259,695	$ 26,368,204
Commitments and Contingencies (See Note 7)		
Series A convertible preferred stock: $0.0001 par value, 10,000,000 shares authorized at March 31, 2018 and December 31, 2017; 5,524,926 and 0 shares issued and outstanding at March 31, 2018 and December 31,	$ 9,000,002	$ —

2017; (liquidation preference of $9,199,002 at March 31, 2018)		
Stockholders' Equity:		
Common stock: $0.0001 par value, 500,000,000 shares and 250,000,000 authorized at March 31, 2018 and December 31, 2017, respectively; 125,698,191 and 62,707,480 shares issued and outstanding at March 31, 2018 and December 31, 2017, respectively.	12,570	6,271
Common stock - non-voting: $0.0001 par value, 50,000,000 shares authorized at March 31, 2018 and December 31, 2017; 42,617,893 shares issued and outstanding at March 31, 2018 and December 31, 2017, respectively.	4,262	4,262
Additional paid-in capital	89,092,172	79,655,191
Accumulated deficit	(68,101,359)	(62,404,722)
Total stockholders' equity	21,007,645	17,261,002
Total liabilities, convertible preferred stock and stockholders' equity	$ 50,267,342	$ 43,629,206

(1) The condensed balance sheet at December 31, 2017 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 April 9, 2018.

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

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JAGUAR HEALTH, INC.

CONDENSED CONSOLIDATED STATEMENTS OF OPERATIONS AND COMPREHENSIVE LOSS

(Unaudited)

	Three Months Ended	
	March 31, 2018	March 31, 2017
Product revenue	$ 626,967	$ 74,544
Collaboration revenue	177,389	747,866
Total revenue	804,356	822,410
Operating Expenses		
Cost of product revenue	464,161	16,145
Research and development expense	757,866	1,255,452
Sales and marketing expense	1,712,190	122,912
General and administrative expense	2,998,400	3,303,503
Total operating expenses	5,932,617	4,698,012
Loss from operations	(5,128,261)	(3,875,602)
Interest expense	(602,022)	(180,072)
Other income	297,500	1,448
Change in fair value of warrants and conversion option liability	(263,854)	(453,419)
Loss on extinguishment of debt	—	(207,713)
Net loss and comprehensive loss	(5,696,637)	(4,715,358)
Deemed dividend attributable to preferred stock	(995,000)	—
Net loss attributable to common shareholders	$ (6,691,637)	$ (4,715,358)
Net loss per share, basic and diluted	$ (0.05)	$ (0.33)
Weighted-average common shares outstanding, basic and diluted	129,467,132	14,157,351

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

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JAGUAR HEALTH, INC.

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

(Unaudited)

	Series A Convertible Preferred Stock		Common Stock		Common Stock - Non-voting		Additional Paid-in		Total Stockholders'
	Shares	Amount	Shares	Amount	Shares	Amount	Capital	Accumulated Deficit	Equity (Deficit)

Balances - December 31, 2016	—	$ —	14,007,132	$ 1,401	—	$ —	$ 37,980,522	$ (40,436,108)	$ (2,454,185)
Issuance of common stock in association with a June 2016 private investment in public entities offering, net of offering costs of $72,710	—	—	3,972,510	397	—	—	2,313,977	—	2,314,374
Issuance of common stock in a private investment in public entities offering, net of offering costs of $6,000 June 2017	—	—	200,000	20	—	—	93,980	—	94,000
Issuance of common stock through a stock purchase agreement with a private investor, net of offering costs of $44,738 November 2017	—	—	5,100,000	510	—	—	554,752	—	555,262
Issuance of common stock in a private investment in public entities offering	—	—	4,010,000	401	—	—	400,599	—	401,000
Issuance of common stock in the merger	—	—	2,282,445	228	—	—	1,277,941	—	1,278,169
Issuance of common stock in a July 2017 CSPA	—	—	3,243,243	325	—	—	2,999,675	—	3,000,000
Issuance of common stock in a follow-on offering registration statement October 2017, net of commissions and offering costs of $763,502	—	—	21,687,500	2,169	—	—	3,571,829	—	3,573,998
Issuance of common stock - non-voting in the merger	—	—	—	—	43,173,288	4,317	24,172,725	—	24,177,042
Conversion of non-voting common stock to common stock	—	—	555,395	55	(555,395)	(55)	—	—	—
Issuance of warrants in the merger	—	—	—	—	—	—	630,859	—	630,859
Issuance of stock options in the merger	—	—	—	—	—	—	5,691	—	5,691
Issuance of RSUs in the merger	—	—	—	—	—	—	3,300,555	—	3,300,555
Issuance of common stock in exchange for warrants	—	—	908,334	91	—	—	386,243	—	386,334
Stock-based compensation	—	—	—	—	—	—	814,613	—	814,613
Warrants, issued in conjunction with debt extinguishment	—	—	—	—	—	—	207,713	—	207,713
Issuance of common stock in exchange for vested restricted stock units	—	—	13,703	1	—	—	(1)	—	—
Issuance of common stock in exchange for redemption of convertible debt	—	—	6,492,084	649	—	—	899,713	—	900,362
Issuance of common stock in exchange for services	—	—	235,134	24	—	—	43,805	—	43,829
Net and comprehensive loss	—	—	—	—	—	—	—	(21,968,614)	(21,968,614)
Balances - December 31, 2017	—	$ —	62,707,480	$ 6,271	42,617,893	$ 4,262	$ 79,655,191	$ (62,404,722)	$ 17,261,002
Issuance of preferred stock and common stock in a private investment in public entities March 2018	5,524,926	$ 9,000,002	29,411,766	2,940	—	—	4,997,060	—	5,000,000
Beneficial conversion feature	—	(995,000)	—	—	—	—	995,000	—	995,000

of the series A convertible preferred stock									
Deemed dividend on the series A convertible preferred stock	—	995,000	—	—	—	—	(995,000)	—	(995,000)
Issuance of common stock in a private investment in public entities November 2017	—	—	9,746,413	975	—	—	1,304,799	—	1,305,774
Issuance of common stock in a private investment in public entities January 2018	—	—	7,182,818	718	—	—	749,382	—	750,100
Issuance of common stock in exchange for redemption of convertible debt	—	—	12,314,291	1,232	—	—	1,402,781	—	1,404,013
Issuance of common stock in exchange for services	—	—	50,000	5	—	—	6,420	—	6,425
Issuance of common stock in exchange for payment of interest expense	—	—	4,285,423	429	—	—	704,296	—	704,725
Stock-based compensation	—	—	—	—	—	—	272,243	—	272,243
Net and comprehensive loss	—	—	—	—	—	—	—	(5,696,637)	(5,696,637)
Balances - March 31, 2018	5,524,926	$ 9,000,002	125,698,191	$12,570	42,617,893	$ 4,262	$ 89,092,172	$ (68,101,359)	$ 21,007,645

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

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JAGUAR HEALTH, INC.
CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS
(Unaudited)

	Three Months Ended	
	March 31, 2018	March 31, 2017
Cash Flows from Operating Activities		
Net loss	$ (5,696,637)	$ (4,715,358)
Adjustments to reconcile net loss to net cash used in operating activities:		
Depreciation and amortization expense	329,561	15,031
Interest paid on the conversion of debt to equity	20,496	—
Common stock issued in exchange for services rendered	6,425	—
Loss on extinguishment of debt	—	207,713
Stock-based compensation	272,243	228,036
Amortization of debt issuance costs and debt discount	403,824	96,772
Change in fair value of warrants and conversion option liability	263,854	453,419
Change in fair value of derivative liability	4,000	—
Changes in assets and liabilities		
Accounts receivable	104,849	4,963
Other receivable	(1,034)	(288,166)
Inventory	(255,703)	20,114
Prepaid expenses and other current assets	132,038	(85,218)
Deferred offering costs	—	7,632
Due from former parent	—	78,226
Deferred collaboration revenue	(177,389)	2,088,989
Deferred product revenue	—	(16,196)
Deferred rent	(1,344)	158
Accounts payable	(4,192,753)	931,340
Accrued expenses	(834,123)	683,825
Total cash used in operations	(9,621,693)	(288,720)
Cash Flows from Investing Activities		
Purchase of equipment	(6,527)	—
Total cash used in investing activities	(6,527)	—
Cash Flows from Financing Activities		
Proceeds from issuance of long-term debt	2,310,000	—
Repayment of long-term debt	(1,689,199)	(490,101)

Proceeds from issuance of common stock in a private investment in public entities June 2016	—	550,434
Issuance costs associated with the issuance of common stock in a private investment in public entities June 2016	—	(7,632)
Proceeds from issuance of common stock through a stock purchase agreement with a private investor November 2017	1,305,774	
Proceeds from the issuance of common stock in a private investment in public entities December 2017	750,100	
Proceeds from the issuance of common stock in a private investment in public entities March 2018	5,000,000	—
Proceeds from the issuance of convertible preferred stock in private investment in public entities March 2018	9,199,002	—
Issuance costs associated with the issuance of convertible preferred stock in a private investment in public entities March 2018	(199,000)	
Total Cash Provided by Financing Activities	16,676,677	52,701
Net decrease in cash, cash equivalents and restricted cash	7,048,457	(236,019)
Cash, cash equivalents and restricted cash at beginning of period	759,867	1,462,272
Cash, cash equivalents and restricted cash at end of period	$ 7,808,324	$ 1,226,253
Supplemental Schedule of Non-Cash Financing and Investing Activities		
Interest paid on long-term debt	$ 19,344	$ —
Common stock issued as redemption of Jaguar notes payable and related interest	$ 950,000	$ —
Common stock issued as redemption of Napo notes payable and related interest	$ 1,158,308	$ —
Deemed dividend attributable to preferred stock	$ 995,000	$ —

Cash, Cash Equivalents and Restricted Cash:

	March 31, 2018	March 31, 2017
Cash and cash equivalents	$ 7,808,324	$ 1,205,061
Restricted cash	—	21,192
Total cash, cash equivalents and restricted cash	$ 7,808,324	$ 1,226,253

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

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JAGUAR HEALTH, INC.
NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS

1. Organization and Business

Jaguar Health, Inc. (“Jaguar” or the “Company”), formerly known as Jaguar Animal Health, Inc., 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. 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 manages its operations through two segments—human health and animal health 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. See Note 9 for additional information regarding the capital contributions and Note 5 for the Service Agreement and license agreement details. Effective July 1, 2016, Napo agreed to reimburse the Company for the use of the Company’s employee’s time and related expenses, including rent and a fixed overhead amount to cover office supplies and copier use (Note 5).

On July 31, 2017, Jaguar completed a merger with Napo pursuant to the Agreement and Plan of Merger dated March 31, 2017 by and among Jaguar, Napo, Napo Acquisition Corporation (“Merger Sub”), and Napo’s representative (the “Merger Agreement”). In accordance with the terms of the Merger Agreement, upon the completion of the merger, Merger Sub merged with and into Napo, with Napo surviving as our wholly-owned subsidiary (the “Merger” or “Napo Merger”). Immediately following the Merger, Jaguar changed its name from “Jaguar Animal Health, Inc.” to “Jaguar Health, Inc.” Napo now operates as a wholly-owned subsidiary of Jaguar focused on human health and the ongoing commercialization of Mytesi, a Napo drug product approved by the U.S. FDA for the symptomatic relief of noninfectious diarrhea in adults with HIV/AIDS on antiretroviral therapy.

The Company manages its operations through two segments—human health and animal health and is headquartered in San Francisco, California.

Liquidity

The accompanying consolidated 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 $68,101,359 as of March 31, 2018. 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, as well as the securing of additional financing. There is no assurance that profitable operations, if ever achieved, could be sustained on a continuing basis.

The Company plans to finance its operations and capital funding needs through equity and/or debt financing, collaboration arrangements with other entities, 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 within one year after issuance date of the financial statements. 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. Through March 31, 2018 the Company sold 6,000,000 shares for gross cash proceeds of $5,063,785. The CSPA limited the number of shares that the Company can sell thereunder to 2,027,490 shares, which equals 19.99% of the Company's outstanding shares as of the date of the CSPA (such limit, the "19.99% exchange cap"), unless either (i) the Company obtains stockholder approval to issue more than such 19.99% exchange cap or (ii) the average price paid for all shares of the Company's common stock issued under the CSPA is equal to or greater than $1.32 per share (the closing price on the date the CSPA was signed), in either case in compliance with Nasdaq Listing Rule 5635(d).

At the 2017 Annual Stockholders' Meeting on May 8, 2017, the Company's stockholders voted on the approval, pursuant to Nasdaq Listing Rule 5635(d), of the issuance of an additional 3,555,514 shares of the Company's common stock under the CSPA, which when combined with the 2,444,486 shares that the Company has already sold pursuant to the CSPA, equals an aggregate of 6,000,000 shares.

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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") and applicable rules and regulations of the Securities and Exchange Commission ("SEC"). Our unaudited condensed financial statements reflect all adjustments, which are, in the opinion of management, necessary for a fair presentation of our financial position and results of operations. Such adjustments are of a normal recurring nature, unless otherwise noted. The balance sheet as of March 31, 2018 and the results of operations for the three months ended March 31, 2018 are not necessarily indicative of the results to be expected for the entire year.

Principles of Consolidation

The consolidated financial statements have been prepared in accordance with US GAAP and applicable rules and regulations of the Securities and Exchange Commission ("SEC") and include the accounts of the Company and its wholly owned subsidiaries. All inter-company transactions and balances have been eliminated in consolidation.

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; valuation of derivative liability, impairment testing of goodwill, IPR&D, and long lived assets; useful lives for depreciation and amortization; valuation adjustments for excess and obsolete inventory; allowance for doubtful accounts; deferred taxes and valuation allowances on deferred tax assets; evaluation and measurement of contingencies; and recognition of revenue, including estimates for product returns. 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

Cash is the financial instrument that potentially subjects the Company to a concentration of credit risk as cash is deposited with a bank and cash balances are generally in excess of Federal Deposit Insurance Corporation insurance limits. The carrying value of cash approximates fair value at March 31, 2018 and December 31, 2017.

Fair Values

The Company's financial instruments include, cash and cash equivalents, accounts receivable, accounts payable, accrued expenses, warrant liabilities, derivative liability, debt conversion option liability, and debt. Cash is reported at fair value. The recorded carrying amount of accounts receivable, accounts payable and accrued expenses reflect 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 4 for the fair value measurements, and Note 8 for the fair value of the Company's warrant liabilities, derivative liability, and debt conversion option liability.

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, along with subsequent loan amendments, required the Company to maintain a base minimum cash balance of varying amounts. The restricted cash balance related to the loan was $0 and $239,169 at March 31, 2018 and December 31, 2017, respectively.

Inventories

Inventories are stated at the lower of cost or net realizeable value. The Company calculates inventory valuation adjustments when conditions indicate that market 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 net realizeable value.

Land, Property and Equipment

Land is stated at cost, reflecting fair value of the property at July 31, 2017, the date of the merger with Napo.

Equipment and furniture and fixtures are 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 the statements of operations and comprehensive loss.

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.

Definite-lived intangible assets are amortized on a straight-line basis over the estimated periods benefited, and are reviewed regularly for possible impairment.

Goodwill and Indefinite-lived Intangible Assets

Goodwill is tested for impairment on an annual basis and in between annual tests if events or circumstances indicate that an impairment loss may have occurred. The test is based on a comparison of the reporting unit's book value to its estimated fair market value. The Company performs annual impairment test during the fourth quarter of each fiscal year using the opening consolidated balance sheet as of the first day of the fourth quarter, with any resulting impairment recorded in the fourth quarter of the fiscal year.

If the carrying value of a reporting unit's net assets exceeds its fair value, the goodwill would be considered impaired and would be reduced to its fair value. The goodwill was entirely allocated to the human health reporting unit as the goodwill relates to the Napo Merger. The decline in market capitalization during the year ended December 31, 2017 was determined to be a triggering event for potential goodwill impairment. Accordingly the Company performed the goodwill impairment analysis. The Company utilized the market capitalization plus a reasonable control premium in the performance of its impairment test. The market capitalization was based on the outstanding shares and the average market share price for the 30 days prior to December 31, 2017. Based on the results of the Company's impairment test, the Company recorded an impairment charge of $16,827,000 during the year ended December 31, 2017. If the market capitalization decreases in the future, a reasonable possibility exists that goodwill could be further impaired in the near term and that such impairment may be material to the financial statements.

Fair value determinations require considerable judgment and are sensitive to changes in underlying assumptions, estimates and market factors. Estimating the fair value of individual reporting units and indefinite-lived intangible assets requires us to make assumptions and estimates regarding our future plans, as well as industry and economic conditions. These assumptions and estimates include projected revenues and income growth rates, terminal growth rates, competitive and consumer trends, market-based discount rates, and other market factors. If current expectations of future growth rates are not met or market factors outside of our control, such as discount rates, change significantly, this may lead to a further goodwill impairment in the future. Acquired in-process research and development (IPR&D) are intangible assets initially recognized at fair value and classified as indefinite-lived assets until the successful completion or abandonment of the associated research and development efforts. During the development period, these assets will not be amortized as charges to earnings; instead these assets will be tested for impairment on an annual basis or more frequently if impairment indicators are identified. We booked an impairment of $2,300,000 in the year ended December 31, 2017. The impairment loss is measured based on the excess of the carrying amount over the asset's fair value. The loss resulted from the Company's termination of the clostridium dificil infection program.

Additionally, as goodwill and intangible assets associated with recently acquired businesses are recorded on the balance sheet at their estimated acquisition date fair values, those amounts are more susceptible to an impairment risk if business operating results or macroeconomic conditions deteriorate.

In connection with each annual impairment assessment and any interim impairment assessment in which indicators of impairment have been identified, the Company compares the fair value of the asset as of the date of the assessment with the carrying value of the asset on the consolidated balance sheet. If impairment is indicated by this test, the intangible asset is written down by the amount by which the discounted cash flows expected from the intangible asset exceeds its carrying value.

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

The Company recognizes revenue in accordance with ASC Topic 606, Revenue from Contracts with Customers ("ASC 606"), which was adopted on January 1, 2018, using the modified retrospective method, which was elected to apply to all contracts. Application of the modified retrospective method did not impact amounts previously reported by the Company, nor did it require a cumulative effect adjustment upon adoption, as the Company's method of

recognizing revenue under ASC 606 was similar to the method utilized immediately prior to adoption. Accordingly, there is no need for the Company to dislose the amount by which each financial statement line item was affected as a result of applying the new revenue standard and an explanation of significant changes.

The Company recognizes revenue in accordance with the core principal of ASC 606 or when there is a transfer of promised goods or services to customers in an amount that reflects the consideration that the Company expects to be entitled to in exchange for those goods or services.

Contracts

Napo has a Marketing and Distribution Agreement ("M&D Agreement") with BexR Logistix, LLC ("BexR" or "Mission Pharmacal" or "Mission"), in April 2016 to appoint BexR as its distributor with the right to market and sell, and the exclusive right to distribute Mytesi (formerly Fulyzaq) in US. The term of the M&D Agreement is 4 years. The M&D Agreement will renew automatically for successive one year terms unless either party provides a written notice of termination not less than 90 days prior to the expiration of the initial or subsequent terms. Napo retains control of Mytesi held at Mission.

Napo sells Mytesi through Mission, who then sells Mytesi to its distributors and wholesalers — McKesson, Cardinal Health, AmerisourceBergen Drug Corporation ("ABC"), HD Smith, Smith Drug and Publix (together "Distributors"). Mission sells Mytesi to their Distributors, on behalf of Napo, under agreements executed by Mission with these Distributors and Napo abides by the terms and conditions of sales agreed between Mission and their Distributors. Health care providers order Mytesi through pharmacies who obtain Mytesi through Mission's Distributors. Napo considers the Distributors of Mission as its customers.

Mission's Distributors are the customers of the Company with respect to purchase of Mytesi. The M&D Agreement with Mission, Mission's agreement with its Distributors and the related purchase order will together meet the contract existence criteria under ASC 606-10-25-1.

Jaguar's Neonorm and Botanical extract products are primarily sold to distributors, who then sell the products to the end customers. Since 2014, the Company has entered into several distribution agreements with established distributors such as Animart, Vedco, VPI, RJ Matthews, Henry Schein, and Stockmen Supply to distribute the Company's products in the United States, Japan, and China. The distribution agreements and the related purchase order together meet the contract existence criteria under ASXC 606-10-25-1.

Performance obligations

For the products sold by each of Napo and Jaguar, the single performance obligation identified above is Company's promise to transfer the Company's product Mytesi to Distributors based on specified payment and shipping terms in the arrangement.

Transaction price

For both Jaugar and Napo, the transaction price is the amount of consideration to which the Company expects to collect in exchange for transferring promised goods or services to a customer. The transaction price of Mytesi and Neonorm is the Wholesaler Aquistion Cost ("WAC"), net of variable considerations and price adjustments.

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Allocate transaction price

For both Napo and Jaguar, the entire transaction price is allocated to the single performance obligaton contained in each contract.

Point in time recognition

For both Napo and Jaguar, a single performance obligation is satisfied at a point in time, upon the FOB terms of each contract when control, including title and all risks, has transferred to the customer.

Disaggregation of Product Revenue

Human

Sales of Mytesi are recognized as revenue when the products are delivered to the wholesalers. Revenues from the sale of Mytesi were $583,269 and $0 in the three months ended March 2018 and 2017, respectively. The Company recorded a reserve for estimated product returns under terms of agreements with wholesalers based on its historical returns experience. Reserves for returns at March 31, 2018 and December 31, 2017 were immaterial. If actual returns differed from our historical experience, changes to the reserved could be required in future periods.

Animal

The Company recognized Neonorm revenues of $43,698 and $44,544 for the three months ended March 31, 2018 and 2017, respectively, and Botanical Extract revenues of $0 and $30,000 in the three months ended March 31, 2018 and 2017, respectively. Revenues are recognized when title has transferred to the buyer. 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. Reserves for returns are analyzed periodically and are estimated based on historical return data. Reserves for returns and price adjustments at March 31, 2018 and December 31, 2017 were immaterial. Sales of Botanical Extract are recognized as revenue when the product is delivered to the customer which do not provide for return rights.

Collaboration Revenue

On January 27, 2017, the Company entered into a licensing, development, co-promotion and commercialization agreement with Elanco US Inc. ("Elanco") to license, develop and commercialize Canalevia, the Company's drug product candidate under investigation for treatment of acute and chemotherapy-induced diarrhea in dogs, and other drug product formulations of crofelemer for treatment of gastrointestinal diseases, conditions and

symptoms in cats and other companion animals. Under the terms of the agreement, the Company received an initial upfront payment of $2,548,689, inclusive of reimbursement of past product and development expenses of $1,048,689, which was recognized as revenue ratably over the estimated development period of one year resulting in $177,389 and $459,700 in collaboration revenue in the three months ended March 31, 2018 and 2017, respectively. In addition to the upfront payments, Elanco reimbursed the Company for $0 and $288,166 in the three months ended March 31, 2018 and 2017 for certain development and regulatory expenses related to the planned target animal safety study and the completion of the Canalevia field study for acute diarrhea in dogs which were also included in collaboration revenue.

On November 1, 2017, the Company received a letter from Elanco serving as formal notice of their decision to terminate the agreement by giving the Company 90 days written notice. According to the agreement, termination became effective on January 30, 2018, which is 90 days after the date of the Notice. On the effective date of termination of the Elanco Agreement, all licenses granted to Elanco by the Company under the Elanco Agreement were revoked and the rights granted thereunder reverted back to the Company. Provisions in the agreement providing for the receipt of additional payments upon achievement of certain development, regulatory and sales milestones in an aggregate amount of up to $61.0 million payable throughout the term of the Elanco Agreement, as well as product development expense reimbursement for any additional product development expenses incurred, and royalty payments on global sales terminated on termination of the agreement.

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.

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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 should be classified as liabilities or equity and whether beneficial conversion features exist. Financial instruments such as warrants that are evaluated to be classified as liabilities are fair valued upon issuance and are remeasured at fair value at subsequent reporting periods with the resulting change in fair value recorded in other income/(expense). The fair value of warrants is estimated using the Black-Scholes-Merton model and requires the input of subjective assumptions including expected stock price volatility and expected life.

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). There was no difference between net loss and comprehensive loss for the three months ended March 31, 2018 and 2017.

Segment Data

Prior to the merger with Napo, the Company managed its operation as a single segment for the purposes of assessing performance and making operating decisions. The Company reorganized their segments to reflect the change in the organizational structure resulting from the merger with Napo. Post-merger with Napo, the Company manages its operations through two segments. The Company has two reportable segments—human health and animal health. The animal health segment is focused on developing and commercializing prescription and non-prescription products for companion and production animals. The human health segment is focused on developing and commercializing of human products and the ongoing commercialization of Mytesi™, which is approved by the U.S. FDA for the symptomatic relief of noninfectious diarrhea in adults with HIV/AIDS on antiretroviral therapy.

The Company's reportable segments net sales and net income consisted of:

	Three Months Ended March 31, 2018	2017
Revenue from external customers		
Human Health	$ 583,269	$ —
Animal Health	43,698	822,410
Consolidated Totals	$ 626,967	$ 822,410
Interest expense		
Human Health	$ 105,891	$ —
Animal Health	496,131	180,072
Consolidated Totals	$ 602,022	$ 180,072
Depreciation and amortization		
Human Health	$ 314,530	$ —
Animal Health	15,031	15,031
Consolidated Totals	$ 329,561	$ 15,031
Segment profit		
Human Health	$ (2,899,306)	$ —
Animal Health	(2,797,331)	(4,715,358)
Consolidated Totals	$ (5,696,637)	$ (4,715,358)

The Company's reportable segments assets consisted of the following:

	As of March 31, 2018	As of December 31, 2017
Segment assets		
Human Health	$ 41,520,244	$ 41,754,603
Animal Health	50,982,480	36,807,184
Total	$ 92,502,724	$ 78,561,787

The reconciliation of segments assets to the consolidated assets is as follows:

	As of March 31, 2018	As of December 31, 2017
Total assets for reportable segments	$ 92,502,724	$ 78,561,787
Less: investment in subsidiary	(29,240,965)	(29,240,965)
Less: Intercompany loan	(2,000,000)	(2,000,000)
Less: intercompany receivable	(10,994,417)	(3,691,616)
Consolidated Totals	$ 50,267,342	$ 43,629,206

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 months ended March 31, 2018 and 2017.

Recent Accounting Pronouncements

In July 2017, the Financial Accounting Standards Board ("FASB") issued Accounting Standards Update ("ASU") No. 2017-11, "Earnings Per Share (Topic 260); Distinguishing Liabilities from Equity (Topic 480); Derivatives and Hedging (Topic 815): (Part I) Accounting for Certain Financial Instruments with Down Round Features, (Part II) Replacement of the Indefinite Deferral for

Mandatorily Redeemable Financial Instruments of Certain Nonpublic Entities and Certain Mandatorily Redeemable Non-controlling Interests with a Scope Exception" ("ASU 2017-11"), which addresses the complexity of accounting for certain financial instruments with down round features. Down round features are features of certain equity-linked instruments (or embedded features) that result in the strike price being reduced on the basis of the pricing of future equity offerings. Current accounting guidance creates cost and complexity for entities that issue financial instruments (such as warrants and convertible instruments) with down round features that require fair value measurement of the entire instrument or conversion option. The amendments in Part I of this ASU are effective for public business entities for fiscal years, and interim periods within those fiscal years, beginning after December 15, 2018. The Company is currently evaluating the impact of the adoption of ASU 2017-11 on its consolidated financial statements.

In May 2017, the FASB issued ASU No. 2017-09, "Compensation—Stock Compensation (Topic 718): Scope of Modification Accounting" ("ASU 2017-09"), which provides guidance on determining which changes to the terms and conditions of share-based payment awards require an entity to apply modification accounting under Topic 718. The amendments in this ASU are effective for all entities for annual periods, and interim periods within those annual periods, beginning after December 15, 2017. Early adoption is permitted, including adoption in any interim period, for (1) public business entities for reporting periods for which financial statements have not yet been issued and (2) all other entities for reporting periods for which financial statements have

not yet been made available for issuance. The amendments in this ASU should be applied prospectively to an award modified on or after the adoption date. The Company adopted this guidance on January 1, 2018 and such adoption did not have a material impact on the Company's condensed consolidated financial statements.

In February 2017, the FASB issued ASU No. 2017-05, "Other Income—Gains and Losses from the Derecognition of Nonfinancial Assets (Subtopic 610-20): Clarifying the Scope of Asset Derecognition Guidance and Accounting for Partial Sales of Nonfinancial Assets" ("ASU 2017-05"), which clarifies the scope of the nonfinancial asset guidance in Subtopic 610-20. This ASU also clarifies that the derecognition of all businesses and nonprofit activities (except those related to conveyances of oil and gas mineral rights or contracts with customers) should be accounted for in accordance with the derecognition and deconsolidation guidance in Subtopic 810-10. The amendments in this ASU also provide guidance on the accounting for what often are referred to as partial sales of nonfinancial assets within the scope of Subtopic 610-20 and contributions of nonfinancial assets to a joint venture or other noncontrolled investee. The amendments in this ASU are effective for annual reporting reports beginning after December 15, 2017, including interim reporting periods within that reporting period. Public entities may apply the guidance earlier but only as of annual reporting periods beginning after December 15, 2016, including interim reporting periods within that reporting period. The Company adopted this guidance on January 1, 2018 and such adoption did not have a material impact on the Company's condensed consolidated financial statements.

In January 2017, the FASB issued ASU No. 2017-04 related to goodwill impairment testing. This ASU eliminates Step 2 from the goodwill impairment test. Under the new guidance, if a reporting unit's carrying amount exceeds its fair value, the entity will record an impairment charge based on that difference. The impairment charge will be limited to the amount of goodwill allocated to that reporting unit. Previously, if the fair value of a reporting unit was lower than its carrying amount (Step 1), an entity was required to calculate any impairment charge by comparing the implied fair value of goodwill with its carrying amount (Step 2). Additionally, under the new standard, entities that have reporting units with zero or negative carrying amounts will no longer be required to perform the qualitative assessment to determine whether to perform Step 2 of the goodwill impairment test. As a result, reporting units with zero or negative carrying amounts will generally be expected to pass the simplified impairment test; however, additional disclosure will be required of those entities. This ASU will be effective beginning in the first quarter of our fiscal year 2020. Early adoption is permitted for annual and interim goodwill impairment testing dates after January 1, 2017. The new guidance must be adopted on a prospective basis. The Company early adopted this ASU in 2017. For impact of the adoption of this standard, refer to Note 6 "Goodwill".

In November 2016, the FASB issued Accounting Standards Update No. 2016-18, Statement of Cash Flows: Restricted Cash, or ASU 2016-18, that will require entities to show the changes in the total of cash, cash equivalents, restricted cash and restricted cash equivalents in the statement of cash flows. As a result, entities will no longer present transfers between cash and cash equivalents and restricted cash and restricted cash equivalents in the statement of cash flows. When cash, cash equivalents, restricted cash and restricted cash equivalents are presented in more than one line item on the balance sheet, the new guidance requires a reconciliation of the totals in the statement of cash flows to the related captions in the balance sheet. This reconciliation can be presented either on the face of the statement of cash flows or in the notes to the financial statements. Entities will also have to disclose the nature of their restricted cash and restricted cash equivalent balances. ASU 2016-18 becomes effective for fiscal years beginning after December 15, 2017, and interim periods within those years, with early adoption permitted. Any adjustments must be reflected as of the beginning of the fiscal year that includes that interim period. The Company adopted this guidance on January 1, 2018 and such adoption did not have a material impact on the Company's condensed consolidated financial statements.

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In October 2016, the FASB issued Accounting Standards Update 2016-16, Accounting for Income Taxes: Intra-Entitiy Asset Transfers of Assets Other than Inventory. Under current GAAP, the tax effects of intra-entity asset transfers (intercompany sales) are deferred until the transferred asset is sold to a third party or otherwise recovered through use. This is an exception to the principle in ASC 740, Income Taxes, that generally requires comprehensive recognition of current and deferred income taxes. The new guidance eliminates the exception for all intra-entity sales of assets other than inventory. As a result, a reporting entity would recognize the tax expense from the sale of the asset in the seller's tax jurisdiction when the transfer occurs, even though the pre-tax effects of that transaction are eliminated in consolidation. Any deferred tax asset that arises in the buyer's jurisdiction would also be recognized at the time of the transfer. The new guidance does not apply to intra-entity transfers of inventory. The ASU will be effective for public business entities in fiscal years beginning after December 15, 2017, including interim periods within those years. The Company adopted this guidance on January 1, 2018 and such adoption did not have a material impact on the Company's condensed consolidated financial statements.

In August 2016, the FASB issued Accounting Standards Update, or ASU, No. 2016-15, Statement of Cash Flows (Topic 230): Classification of Certain Cash Receipts and Cash Payments, which addresses the following cash flow issues: (1) debt prepayment or debt extinguishment costs; (2) settlement of zero-coupon debt instruments or other debt instruments with coupon interest rates that are insignificant in relation to the effective interest rate of the borrowing; (3) contingent consideration payments made after a business combination; (4) proceeds from the settlement of insurance claims; (5) proceeds from the settlement of corporate-owned life insurance policies, including bank-owned life insurance policies; (6) distributions received from equity method investees; (7) beneficial interests in securitization transactions; and (8) separately identifiable cash flows and application of the predominance principle. The amendments in this ASU are effective for public business entities for fiscal years beginning after December 15, 2017 and interim periods within those fiscal years and are effective for all other entities for fiscal years beginning after December 15, 2018 and interim periods within fiscal years beginning after December 15, 2019. Early adoption is permitted, including adoption in an interim period. The Company adopted this guidance on January 1, 2018 and such adoption did not have a material impact on the Company's condensed consolidated financial statements.

In March 2016 the FASB issued ASU No. 2016-07, Investments—Equity Method and Joint Ventures (Topic 323): Simplifying the Transition to the Equity Method of Accounting. This new standard eliminates the requirement that when an investment qualifies for use of the equity method as a result of an increase in the level of ownership interest or degree of influence, an adjustment must be made to the investment, results of operations and retained earnings retroactively on a step-by-step basis as if the equity method had been in effect during all previous periods that the investment has been held. ASU 2016-07 is effective for fiscal years, and interim periods within those fiscal years, beginning after December 15, 2017. The Company adopted this guidance on January 1, 2018 and such adoption did not have a material impact on the Company's condensed consolidated financial statements.

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. The Company is currently evaluating the impact of the adoption of ASU 2016-02 on our consolidated financial statements.

In May 2014, the FASB issued ASU No. 2014-09, "Revenue from Contracts with Customers (Topic 606)" (ASU 2014-09), and subsequently issued modifications or clarifications in ASU No. 2015-14, "Revenue from Contracts with Customers (Topic 606): Deferral of the Effective Date," ASU 2016-08,

"Revenue from Contracts with Customers (Topic 606): Principal versus Agent Considerations (Reporting Revenue Gross versus Net)," ASU No. 2016-10, "Revenue from Contracts with Customers (Topic 606): Identifying Performance Obligations and Licensing," and ASU No. 2016-12, "Revenue from Contracts with Customers (Topic 606): Narrow-Scope Improvements and Practical Expedients." The revenue recognition principle in ASU 2014-09 and the related guidance is that an entity should recognize revenue to depict the transfer of 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. ASU 2014-09 prescribes a five-step process for evaluating contracts and determining revenue recognition. In addition, new and enhanced disclosures are required. Companies may adopt the new standard either using the full retrospective approach, a modified retrospective approach with practical expedients, or a cumulative effect upon adoption approach. The Company has completed the process of evaluating the effects of the adoption of Topic 606 and determined that the timing and measurement of our revenues under the new standard is similar to that recognized under the previous revenue guidance. Similar to the current guidance, the Company will need to make significant estimates related to variable consideration at the point of sale, including chargebacks, rebates and product returns. Revenue will be recognized at a point in time upon the transfer of control of the Company's products, which occurs upon delivery for substantially all of the Company's sales. The Company adopted the new revenue guidance effective January 1, 2018, by recognizing the cumulative effect of initially applying the new standard as an increase to the opening balance of retained earnings as prescribed by the modified retrospective method of adoption. The adoption of ASU 2014-09, ASU 2016-10 and ASU 2016-12 did not have a material impact on Company's condensed consolidated financial statements.

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3. Business Combination

As discussed in Note 1—Organization and Business, the Company completed a merger with Napo on July 31, 2017. Napo now operates as a wholly-owned subsidiary of Jaguar focused on human health and the ongoing commercialization of Mytesi, a Napo drug product approved by the U.S. FDA for the symptomatic relief of noninfectious diarrhea in adults with HIV/AIDS on antiretroviral therapy.

The merger was accounted for under the acquisition method of accounting for business combinations and Jaguar was considered to be the acquiring company. Under the acquisition method of accounting, total consideration exchanged was:

	(Unaudited)
Fair value of Jaguar common stock	$ 25,303,859
Fair value of Jaguar common stock warrants	630,859
Fair value of replacement restricted stock units	3,300,555
Fair value of replacement stock options	5,691
Cash	2,000,000
Effective settlement of receivable from Napo	464,295
Total consideration exchanged	$ 31,705,259

The purchase price allocation to assets and liabilities assumed in the transaction was:

Current assets	$ 2,578,114
Non-current assets	396,247
Identifiable intangible assets	36,400,000
Current liabilities	(4,052,180)
Convertible notes payable	(12,473,501)
Deferred tax liability	(13,181,242)
Net assets acquired	9,667,438
Goodwill on acquisition	22,037,821
Total consideration	$ 31,705,259

Under the acquisition method of accounting, certain identifiable assets and liabilities of Napo including identifiable intangible assets, inventory, debt and deferred revenue were recorded based on their estimated fair values as of the effective time of the Napo Merger. Tangible and other assets and liabilities were valued at their respective carrying amounts, which management believes approximate their fair values.

The Developed Technology (DT) is for the development and commercial processing of Mytesi™ (crofelemer 125mg delayed-release tablets), which is an antidiarrheal indicated for the symptomatic relief of noninfectious diarrhea in adult patients with HIV/AIDS on antiretroviral therapy. The DT is a definite lived asset and is being amortized over a 15-year estimated useful life.

The acquired trademarks include Mytesi product trademark, domain names, and other brand related intellectual property. Trademark is a definite lived asset and is being amortized over a 15-year estimated useful life.

The acquired IPR&D projects relate to developing the proprietary technology into a commercially viable product for the several follow-on indications related to formulations of crofelemer. Crofelemer is in development for rare disease indications for infants and children with congenital diarrheal disorders (CDD) and short bowel syndrome (SBS), and for irritable bowel syndrome (IBS). These indications have completed some studies of clinical testing for safety and/or proof of concept efficacy at the time of the merger and the projects were determined to have substance. IPR&D is not amortized during the development period and is tested for impairment at least annually, or more frequently if indicators of impairment are identified. The Company terminated development of the indication for C. difficile infection (CDI) in Q4 2017. This indication was included as part of IPR&D at the time of the merger, and an impairment loss of $2,300,000 was recorded as a result of the decision to abandon the project in favor of the prioritization of the following: Mytesi is in development for follow-on indications in cancer therapy-related diarrhea (CTD), an important supportive care indication for patients undergoing primary or adjuvant therapy for cancer treatment; as supportive care for post-surgical inflammatory bowel disease patients (IBD); and as a second-generation anti-secretory agent for use in cholera patients. These indications did not have substance at the time of the merger and were not recognized as an asset apart from Goodwill.

The fair value of IPR&D, trademark, and DT was determined using the income approach, which was based on forecasts prepared by management.

The Napo Merger resulted in $22,037,821 of goodwill relating principally to synergies expected to be achieved from the combined operations and planned growth in new markets. Goodwill has been allocated to the human health segment.

As none of the goodwill, IPR&D, and developed technology acquired are expected to be deductible for income tax purposes, it was determined that a deferred income tax liability of $14,498,120 was required to reflect the book to tax differences of the merger. A deferred tax asset of $1,316,878 was accounted as an element of consideration for the replacement share-based payment awards as the replacement awards are expected to result in a future tax deduction.

The Company valued finished goods using a net realizable value approach, which resulted in a step-up of $84,806. Raw material was valued using the replacement cost approach.

The Company valued convertible debt assumed in the Napo Merger based on the value of the debt and the conversion option at $12,473,501 (see note 8). The Company incurred total acquisition related costs of $3,554,250. The acquisition related costs includes the fair value of $151,351 for 270,270 shares of Company's common stock issued to a former creditor of Napo towards reimbursement of acquisition related costs. Acquisition related costs were expensed as incurred to general and administrative expenses in the condensed consolidated statements of operations and comprehensive loss.

The following table provides unaudited proforma results, prepared in accordance with ASC 805, for the three months ended March 31, 2018 and 2017, as if Napo was acquired on January 1, 2016.

	For the Three Months Ended March 31,	
	2018	2017
Net sales	804,356	1,340,544
Net loss	(5,696,637)	(7,647,024)
Net loss per share, basic and diluted	(0.04)	(0.54)

The unaudited proforma results include adjustments to eliminate the interest on Napo's historical convertible debt not assumed by Jaguar and debt exchanged for Jaguar common stock, record interest on convertible debt assumed by Jaguar, eliminate Napo impairment of investment in related party, and eliminate Napo's loss from investment in related party. The Company made proforma adjustments to exclude the acquisition related costs for the three months ended March 31, 2017 because such costs are nonrecurring and are directly related to the Napo Merger.

The unaudited pro forma condensed results do not give effect to the potential impact of current financial conditions, regulatory matters, operating efficiencies or other savings or expenses that may be associated with the Napo Merger.The Company made proforma adjustments to exclude the acquisition related costs for the three months ended March 31, 2017. Unaudited pro forma amounts are not necessarily indicative of results had the Napo Merger occurred on January 1, 2016 or of future results.

4. 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.

The following table presents information about the Company's derivative, conversion option and warrant liabilities that were measured at fair value on a recurring basis as of March 31, 2018 and December 31, 2017 and indicates the fair value hierarchy of the valuation:

	March 31, 2018			
	Level 1	Level 2	Level 3	Total
Warrant liability	$ —	$ —	$ 192,960	$ 192,960
Derivative liability	—	—	15,000	15,000
Conversion option liability	—	—	—	—
Total fair value	$ —	$ —	$ 207,960	$ 207,960

	December 31, 2017			
	Level 1	Level 2	Level 3	Total
Warrant liability	$ —	$ —	$ 103,860	$ 103,860
Derivative liability	—	—	11,000	11,000
Conversion option liability	—	—	111,841	111,841

Total fair value	$ —	$ —	$ 226,701	$ 226,701

The change in the estimated fair value of level 3 liabilities is summarized below:

	For The Three Months Ended			
	March 31, 2018			March 31, 2017
	Warrant liability	Derivative Liability	Conversion Option Liability	Warrant liability
Beginning fair value of level 3 liability	$ 103,860	$ 11,000	$ 111,841	$ 799,201
Extinguishment	—	—	(286,595)	—
Change in fair value of level 3 liability	89,100	4,000	174,754	453,419
Ending fair value of level 3 liability	$ 192,960	$ 15,000	$ —	$ 1,252,620

Warrant Liability

The warrants associated with the level 3 liability were issued in 2016 and were originally valued on November 29, 2016 using the Black-Scholes-Merton model with the following assumptions: stock price of $0.69, exercise price of $0.75, term of 5.5 years expiring May 2022, volatility of 71.92%, dividend yield of 0%, and risk-free interest rate of 1.87%. The $103,860 valuation at December 31, 2017 was computed using the Black-Scholes-Merton pricing model using a stock price of $0.1398, the strike price was $0.75 per share, the expected life was 4.41 years, the volatility was 96.36% and the risk free rate was 2.14%. The $192,960 valuation at March 31, 2018 was computed using the Black-Scholes-Merton pricing model using a stock price of $0.195, the strike price was $0.75 per share, the expected life was 4.16 years, the volatility was 109.62% and the risk free rate was 2.49%. The resulting $89,100 loss is included in change in fair value of warrants in the statement of income and comprehensive loss.

Derivative Liability

The derivative liability associated with the level 3 liability were associated with the June 2017 issuance of a convertible note payable. The Company computed fair values at the date of issuance of $15,000 and $5,000 for the repayment and the interest rate increase feature, respectively, using the Binomial Lattice Model, which was based on the generalized binomial option pricing formula. The $20,000 combined fair value was carved out and is included as a derivative liability on the Balance Sheet. The derviatives were revalued at December 31, 2017 using the same Model resulting in a combined fair value of $11,000. The resulting $9,000 gain is included in other income and expense in the Company's statement of income and comprehensive loss. The derviatives were revalued again at March 31, 2018 using the same Model resulting in a combined fair value of $15,000. The resulting $4,000 loss is included in other income and expense in the Company's statement of income and comprehensive loss.

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Conversion Option Liability

In March 2017, Napo entered into an exchangeable note purchase agreement with two lenders for the funding of face amount of $1,312,500 in two $525,000 tranches of face amount $656,250. The Company assumed the notes at fair value of $1,312,500 as part of the Napo Merger. In December 2017, Napo amended the exchangeable note purchase agreement to extend the maturity of the first tranche and second tranche of notes to February 15, 2018 and April 1, 2018, respectively, increase the principal amount by 12%, and reduce the conversion price from $0.56 per share to $0.20 per share. The Company also issued 2,492,084 shares of common stock to the lenders in connection with this amendment to partially redeem $299,050 from the first tranche of the notes. The optional conversion option in the notes was bifurcated and accounted as a derivative liability at its fair value of $111,841 using the Black-Scholes-Merton model and the following criteria: stock price of $0.14 per share, conversion prices of $0.20 per share, expected life of 0.13 to 0.25 years, volatility of 86.29% to 160.78%, risk free rate of 1.28% to 1.39% and dividend rate of 0%. The $111,841 was included in conversion option liability on the balance sheet and in loss on extinguishment of debt on the statement of operations and comprehensive loss. The fair value of the conversion option liability was again revalued at March 23, 2018 using the Black-Scholes-Merton model using the following criteria: stock price of $0.21 per share, expected life of 0.11 years, volatility of 288.16%, risk free rate of 1.69% and dividend rate of 0%, resulting in an increase of $174,754 to the fair value of the conversion option liability and included in the change in fair value of warrants and conversion option liability in the statements of operations and comprehensive loss. The underlying debt was paid off in March of 2018 and the $286,595 conversion option liability was written off to other income in the statement of operations and comprehensive loss.

5. Related Party Transactions

Due from former parent

The Company was a majority-owned subsidiary of Napo until May 18, 2015, the date of the Company's IPO. Additionally, Lisa A. Conte, Chief Executive Officer of the Company, was also the Interim Chief Executive Officer of Napo Pharmaceuticals, Inc. The Company completed a merger with Napo on July 31, 2017, from which date Napo operates as a wholly-owned subsidiary of the Company—see Note 3—Business Combination.

The Company has total outstanding receivables (payables) from Napo at March 31, 2017 as follows:

	March 31, 2017
Due from former parent	$ 221,429
Royalty payable to former parent	(7)
Net receivable (payable) to former parent	$ 221,422

Due from former parent

Employee leasing and overhead allocation

Effective July 1, 2016, Napo agreed to reimburse the Company for the use of the Company's employee's time and related expenses, including rent and a fixed overhead amount to cover office supplies and copier use. The balance of unpaid employee leasing charges due from Napo was $277,529 at

December 31, 2016. The total amount of such services was $407,267 and Napo remitted $465,625 for the three months ended March 31, 2017. The remaining unpaid balance of $219,171 is included in due from former parent in current assets on the Company's balance sheet, and the receivable from Napo was effectively settled on merger and is included in the purchase consideration for the acquisition of Napo.

Loan to Napo

The Company loaned $2.0 million from proceeds of shares issued to an investor in connection with the merger to Napo, to partially extinguish Napo's debt. The Company accounted for this amount as purchase consideration for the acquisition of Napo.

Other transactions

The Company periodically makes purchases on behalf of Napo, primarily including travel expenses and investor relations expenses. The balance of unpaid non-employee leasing charges due from Napo was $22,290 at December 31, 2016. The total amount of such purchases was $5,376 and Napo remitted $25,408 in the three months ended March 31, 2017. The remaining unpaid balance of $2,258 is included in due from former parent in current assets on the Company's balance sheet, and the receivable from Napo was effectively settled on merger and is included in the purchase consideration for the acquisition of Napo.

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Royalty payable to former parent and license fee payable to former parent and related 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).

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. 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. Given that Napo was a significant shareholder of the Company, the abatement of the license fee amount was recorded as a capital contribution in the accompanying condensed financial statements. The Company paid the final $425,000 in the three months ended March 31, 2016.

Milestone payments aggregating $3,150,000 were also potentially due to Napo based on regulatory approvals of various veterinary products. In addition to the milestone payments, the Company would 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 would 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 non-prescription 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 non-prescription 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 had unpaid royalties of $171 at December 31, 2016, which are netted with other receivables due from former parent in current assets in the Company's balance sheet. The Company incurred $284 in royalties in the three months ended March 31, 2017, which are included in sales and marketing expense in the Company's statement of operations and comprehensive loss, and paid $447 to Napo in the three months ended March 31, 2017. The remaining balance of unpaid royalties of $7 are netted with other receivables due from the former parent and are included in current assets in the Company's balance sheet. The Company may, at its sole discretion, elect to remit any milestone payments and/or royalties in the form of the Company's common stock.

In March 2018, the Company entered into a stock purchase agreement with Sagard Capital Partners, L.P. pursuant to which the Company, in a private placement, agreed to issue and sell to Sagard 5,524,926 shares of the Company's series A convertible participating preferred stock, $0.0001 par value per share, for an aggregate purchase price of $9,199,001. As part of the agreement, Sagard will provide consulting and management advisory services in exchange for $450,000 in annual consulting fees, not to exceed $1,350,000 in aggregate payments.

6. Balance Sheet Components

Land, Property and Equipment

Land, property and equipment at March 31, 2018 and December 31, 2017 consisted of the following:

	March 31, 2018	December 31, 2017
Land	$ 396,247	$ 396,247
Lab equipment	811,087	811,087
Clinical equipment	64,870	64,870
Software	62,637	62,637
Furniture and fixtures	6,527	—
Total property and equipment at cost	1,341,368	1,334,841
Accumulated depreciation	(127,804)	(112,773)
Property and equipment, net	$ 1,213,564	$ 1,222,068

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Depreciation and amortization expense was $15,031 in the three months ended March 31, 2018 and 2017 and was included in the statements of operations and comprehensive loss as follows:

	Three Months Ended March 31,	
	2018	2017
Depreciation - lab equipment - research and development expense	$ 6,568	$ 6,568
Depreciation - clinical equipment - research and development expense	3,243	3,243
Depreciation - software - general and administrative expense	5,220	5,220
Total depreciation expense	$ 15,031	$ 15,031

Goodwill

The change in the carrying amount of goodwill at March 31, 2018 and December 31, 2017 was as follows:

	March 31, 2018	December 31, 2017
Beginning balance	$ 5,210,821	$ —
Goodwill acquired in conjunction with the Napo merger	—	22,037,821
Impairment	—	(16,827,000)
Ending balance	5,210,821	5,210,821

Intangible assets

Intangible assets at March 31, 2018 and December 31, 2017 consisted of the following:

	March 31, 2018	December 31, 2017
Developed technology	$ 25,000,000	$ 25,000,000
Accumulated developed technology amortization	(1,111,112)	(694,445)
Developed technology, net	23,888,888	24,305,555
In process research and development	11,100,000	11,100,000
Impairment	(2,300,000)	(2,300,000)
	8,800,000	8,800,000
Trademarks	300,000	300,000
Accumulated trademark amortization	(13,333)	(8,333)
Trademarks, net	286,667	291,667
Total intangible assets, net	$ 32,975,555	$ 33,397,222

Amortization expense was $421,667 and $0 in the three months ended March 31, 2018 and 2017.

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Accrued Expenses

Accrued expenses at March 31, 2018 and December 31, 2017 consist of the following:

	March 31, 2018	December 31, 2017
Accrued compensation and related:		
Accrued vacation	$ 287,522	$ 264,304
Accrued payroll	1,150	150
Accrued payroll tax	28,016	30,617
	316,688	295,071
Accrued interest	342,498	659,961
Accrued research and development costs	668,850	668,850
Accrued audit	6,250	40,000
Accrued other	329,948	535,667
Total	$ 1,664,234	$ 2,199,549

7. Commitments and Contingencies

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 are included in prepaid expenses and other current assets on the Company's balance sheet.

Future minimum lease payments under non-cancelable operating leases as of December 31, 2017 are as follows:

Years ending December 31,	Amount

2018	$	153,705
Total minimum lease payments	$	153,705

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 for the three months ended March 31, 2018 and 2017, respectively. Rent expense is included in general and administrative expense in the statements of operations and comprehensive loss.

Asset transfer and transition commitment

On September 25, 2017, Napo entered into the Termination, Asset Transfer and Transition Agreement dated September 22, 2017 with Glenmark Pharmaceuticals Ltd. ("Glenmark"). As a result of the agreement, Napo now controls commercial rights for Mytesi® for all indications, territories and patient populations globally, and also holds commercial rights to the existing regulatory approvals for crofelemer in Brazil, Ecuador, Zimbabwe and Botswana. In exchange, Napo agrees to pay Glenmark 25% of any payment it receives from a third party to whom Napo grants a license or sublicense or with whom Napo partners in respect of, or sells or otherwise transfers any of the transferred assets, subject to certain exclusions, until Glenmark has received a total of $7 million.

Revenue sharing commitment

On December 14, 2017, the Company announced its entry into a collaboration agreement with Seed Mena Businessmen Services LLC ("SEED") for Equilevia™, the Company's non-prescription, personalized, premium product for total gut health in equine athletes. According to the terms of the Agreement, the Company will pay SEED 15% of total revenue generated from any clients or partners introduced to the Company by SEED in the form of fees, commissions, payments or revenue received by the Company or its business associates or partners, and the agreed-upon revenue percentage increases to 20% after the first million dollars of revenue. In return, SEED will provide the Company access to its existing UAE network and contacts and assist the Company with any legal or financial requirements. The agreement became effective on December 13, 2017 and will continue indefinitely until terminated by either party pursuant to the terms of the Agreement. Upon termination for any reason, the Company remains obligated to make Revenue Sharing Payments to SEED until the end of 2018.

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Purchase Commitment

As of March 31, 2018, the Company had issued non-cancelable purchase orders to a vendor for $1.3 million.

Debt Obligations

See Note 8—Debt and Warrants.

Legal Proceedings

On July 20, 2017, a putative class action complaint was filed in the United States District Court, Northern District of California, Civil Action No. 3:17-cv-04102, by Tony Plant (the "Plaintiff") on behalf of shareholders of the Company who held shares on June 30, 2017 and were entitled to vote at the 2017 Special Shareholders Meeting, against the Company and certain individuals who were directors as of the date of the vote (collectively, the "Defendants"), in a matter captioned Tony Plant v. Jaguar Animal Health, Inc., et al., making claims arising under Section 14(a) and Section 20(a) of the Exchange Act and Rule 14a-9, 17 C.F.R. § 240.14a-9, promulgated thereunder by the SEC. The claims allege false and misleading information provided to investors in the Joint Proxy Statement/Prospectus on Form S-4 (File No. 333-217364) declared effective by the Commission on July 6, 2017 related to the solicitation of votes from shareholders to approve the merger and certain transactions related thereto. The Company accepted service of the complaint and summons on behalf of itself and the United States-based director Defendants on November 1, 2017. The Company has not accepted service on behalf of, and Plaintiff has not yet served, the non-U.S.-based director Defendants. On October 3, 2017, Plaintiff filed a motion seeking appointment as lead plaintiff and appointment of Monteverde & Associates PC as lead counsel. That motion has been granted. Plaintiff filed an amended complaint against the Company and the United States-based director Defendants on January 10, 2018. If the Plaintiff were able to prove its allegations in this matter and to establish the damages it asserts, then an adverse ruling could have a material impact on the Company. However, the Company disputes the claims asserted in this putative class action case and is vigorously contesting the matter. On March 12, 2018, the Defendants moved to dismiss the amended complaint for failure to state a claim upon which relief may be granted. The Company believes that it is not probable that an asset has been impaired or a liability has been incurred as of the date of the financial statements and the amount of any potential loss is not reasonably estimable. The court has ordered a briefing schedule on the motion to dismiss and has tentatively set a hearing date of June 14, 2018.

Other than as described above, there are currently no claims or actions pending against us, the ultimate disposition of which could have a material adverse effect on our results of operations, financial condition or cash flows.

Contingencies

From time to time, the Company may be involved in legal proceedings (other than those noted above) 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.

8. Debt and Warrants

Convertible Notes

Convertible notes at March 31, 2018 and December 31, 2017 consist of the following:

	March 31, 2018	December 31, 2017

February 2015 convertible notes payable	150,000	150,000
June 2017 convertible note payable	683,585	1,613,089
Napo convertible notes	10,875,300	12,153,389
	$ 11,708,885	$ 13,916,478
Less: unamortized debt discount and debt issuance costs	(142,902)	(261,826)
Net convertible notes payable obligation	$ 11,565,983	$ 13,654,652
Convertible notes payable - non-current	10,875,300	10,982,437
Convertible notes payable - current	$ 690,683	$ 2,672,215

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Interest expense on the convertible notes for the three months ended March 31, 2018 and 2017 follows:

	Three Months Ended March 31,	
	2018	2017
February 2015 convertible note nominal interest	$ 4,438	$ 4,438
June 2017 convertible note nominal interest	18,864	—
June 2017 convertible note accretion of debt discount	118,923	—
Napo convertibles note nominal interest	87,828	—
Total interest expense on convertible debt	$ 230,053	$ 4,438

Interest expense is classified as such in the statements of operations and comprehensive income.

February 2015 Convertible Note

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 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 for the full face value was recorded as a discount to the notes payable and to additional paid-in capital. The full amount of the BCF was amortized to interest expense by the end of June 2015.

The remaining outstanding note of $150,000 is payable to an 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 lender 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 amendment and related warrant issuance resulted in the Company treating the debt as having been extinguished and replaced with new debt for accounting purposes due to meeting the 10% cash flow test.

**** Extinguishment of debt***

On January 31, 2017, the Company entered into another amendment to extend the maturity date of the remaining note from January 1, 2017 to January 1, 2018. In exchange for the extension of the maturity date, on January 31, 2017, the Company's board of directors granted the lender a warrant to purchase 370,916 shares of the Company's common stock for $0.51 per share. The warrant is exercisable at any time on or before January 31, 2019, the expiration date of the warrant. The amendment and related warrant issuance resulted in the Company treating the debt as having been extinguished and replaced with new debt for accounting purposes due to meeting the 10% cash flow test. The Company calculated a loss on the extinguishment of debt of $207,713, or the equivalent to the fair value of the warrants granted, which is included in loss on extinguishment of debt in the statements of operations and comprehensive loss in the year ended December 31, 2017. In March of 2018, the debtor agreed to accept the Company's common stock as payment for all outstanding principal and interest. And in April of 2018, the Company issued 2,034,082 shares of common stock to pay off the principal and interest balance.

The $150,000 note is included in convertible notes payable on the balance sheet. The Company has unpaid accrued interest of $56,367 and $38,367, which is included in accrued expenses on the balance sheet as of March 31, 2018 and 2017, respectively, and incurred interest expense of $4,438 in the three months ended March 31, 2018 and 2017 which are included in interest expense in the statement of operations and comprehensive loss.

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June 2017 Convertible Note

On June 29, 2017, the Company issued a secured convertible promisorry note to a lendor in the aggregate principal amount of $2,155,000 less an original issue discount of $425,000 and less $30,000 to cover the lender's legal fees for net cash proceeds of $1,700,000. Interest on the outstanding balance will be paid 8% per annum from the purchase price date until the balance is paid in full. All interest calculations are computed on the basis of a 360-day year comprised of twelve (12) thirty (30) day months compounded daily and payable in accordance with the terms of the Note. All principal and interest on the debt is due in full on August 2, 2018. The Company accrued interest of $4,548 and $6,180 at March 31, 2018 and December 31, 2017, which is included in accrued expenses on the balance sheet, and incurred nominal interest of $18,864 in interest expense in the three months ended March 31, 2018 which is

included in interest expense in the statement of operations and comprehensive loss. The Company accreted debt discount of $118,923 for the three months ended March 31, 2018 which is included in interest expense in the statement of operations and comprehensive loss. The lender has the right to convert all or any portion of the outstanding balance into the Company's common stock at $1.00 per share. The Note provides the lender with an optional monthly redemption that allows for the monthly payment of up to $350,000 at the creditor's option.

The Note provides for two separate features that result in a derivative liability:

1. Repayment of mandatory default amount upon an event of default—upon the occurrence of any event of default, the lendor may accelerate the Note resulting in the outstanding balance becoming immediately due and payable in cash; and

2. Automatic increase in the interest rate on and during an event of default—during an event of default, the interest rate will increase to the lesser of 17% per annum or the maximum rate permitted under applicable law.

The Company computed fair values at June 30, 2017 of $15,000 and $5,000 for the repayment and the interest rate increase feature, respectively, using the Binomial Lattice Model, which was based on the generalized binomial option pricing formula. The $20,000 combined fair value was carved out and is included as a derivative liability on the Balance Sheet. The derviatives were revalued at December 31, 2017 and March 31, 2018 using the same Model resulting in a combined fair value of $11,000 and $15,000, respectively. The $4,000 loss is included in other income and expense in the statement of income and comprehensive income.

The balance of the note payable of $540,684, consisting of the $2,155,000 face value of the note less note discounts and debt issuance costs of $509,000, less the $20,000 derivative liability, less principal payments of $1,451,454, plus the accretion of the debt discount and debt issuance costs of $366,098, is included in convertible notes payable on the balance sheet.

Interest payable on the accumulation of all convertible notes was $121,018 and $118,228 at March 31, 2018 and December 31, 2017.

Convertible Notes Payable

In March 2017, Napo entered into an exchangeable Note Purchase Agreement with two lenders for the funding of face amount of $1,312,500 in two $525,000 tranches of face amount $656,250. The notes bear interest at 3% and mature on December 1, 2017. Interest may be paid at maturity in either cash or shares of Jaguar per terms of the exchangeable note purchase agreement. The notes may be exchanged for up to 2,343,752 shares of Jaguar common stock, prior to maturity date. The Company assumed the notes at fair value of $1,312,500 as part of the Napo Merger. At December 31, 2017, the accrued interest on these notes is $29,774. The fair value was calculated using the Binomial Lattice Model using the following criteria: stock price of $0.5893, expected term of tranche 1 of 0.34 years and tranche 2 of 0.42 years, conversion price of $0.56, volatility of tranche 1 of 70% and tranche 2 of 100%, and risk free rate of tranche 1 of 1.09% and tranche 2 of 1.13%.

First Amendment to Note Purchase Agreement and Notes

In December 2017, Napo amended the exchangeable note purchase agreement to extend the maturity of the first tranche and second tranche of notes to February 15, 2018 and April 1, 2018, respectively, increase the principal amount by 12%, and reduce the conversion price from $0.56 per share to $0.20 per share. The Company also issued 2,492,084 shares of common stock to the lenders in connection with this amendment to partially redeem $299,050 from the first tranche of the notes. The amended face value of the notes is $1,170,950. This amendment resulted in the Company treating the notes as having been extinguished and replaced with new notes for accounting purposes due to meeting the 10% cash flow test. The Company calculated a loss on extinguishment of notes of $157,500, which is included in loss on extinguishment of debt in the Company's consolidated statement of operations and comprehensive income. The conversion option in the notes was bifurcated and accounted as a conversion option liability at its fair value of $111,841 using the Black-Scholes-Merton model and the following criteria: stock price of $0.14 per share, conversion prices of $0.20 per share, expected life of 0.13 to 0.25 years, volatility of 86.29% to 160.78%, risk free rate of 1.28% to 1.39% and dividend rate of 0%. The $111,841 was included in conversion option liability on the balance sheet and in loss on extinguishment of debt on the statement of operations and comprehensive loss.

At December 31, 2017, the balance of the notes payable of $1,170,950 was included in convertible notes payable in current liabilities on the consolidated balance sheet. The accrued interest on these notes of $29,774 is included in accrued expenses in current liabilities on the consolidated balance sheet.

Second Amendment to Note Purchase Agreement and Notes

On February 16, 2018, Napo amended the exchangeable note purchase agreement to extend the maturity date of the Second Tranche Notes from April 1, 2018 to May 1, 2018. In addition, the Company also issued 3,783,444 shares of Common Stock to the Purchasers as repayment of the remaining $435,950 aggregate principal amount of the original issue discount exchangeable promissory notes previously issued by Napo to the Purchasers on March 1, 2017 pursuant to the Note Purchase Agreement (the "First Tranche Notes") and $18,063 in accrued and unpaid interest thereon. On March 23, 2018, the Company paid off the remaining $735,000 of principal and $20,699.38 in interest due on the second tranche debt in cash with proceeds from the March 23, 2018 equity financing. The fair value of the conversion option liability was again revalued at March 23, 2018 using the Black-Scholes-Merton model using the following criteria: stock price of $0.21 per share, expected life of 0.11 years, volatility of 288.16%, risk free rate of 1.69% and dividend rate of 0%, resulting in an increase of $174,754 to the fair value of the conversion option liability and included in the change in fair value of warrants and conversion option liability in the statements of operations and comprehensive loss. The underlying debt was paid off in March of 2018 and the $286,595 conversion option liability was written off to other income in the statement of operations and comprehensive loss.

Convertible Long-term Debt

In December 2016, Napo entered into a note purchase agreement which provided for the sale of up to $12,500,000 face amount of notes and issued convertible promissory notes (the Napo December 2016 Notes) in the aggregate face amount of $2,500,000 to three lenders and received proceeds of $2,000,000 which resulted in $500,000 of original issue discount. In July 2017, Napo issued convertible promissory notes (the Napo July 2017 Notes) in the aggregate face amount of $7,500,000 to four lenders and received proceeds of $6,000,000 which resulted in $1,500,000 of original issue discount. The Napo

December 2016 Notes and the Napo July 2017 Notes mature on December 30, 2019 and bear interest at 10% with interest due each six-month period after December 30, 2016. On June 30, 2017, the accrued interest of $125,338 was added to principal of the Napo December Notes, and the new principal balance became $2,625,338. Interest may be paid in cash or in the stock of Jaguar per terms of the note purchase agreement. In each one year period beginning December 30, 2016, up to one-third of the principal and accrued interest on the notes may be converted into the common stock of the merged entity at a conversion price of $0.925 per share. The Company assumed these convertible notes at fair value of $11,161,000 as part of the Napo Merger. The fair value was calculated using the Binomial Lattice Model using the following criteria: stock price of $0.5893, expected term of 2.42 years, conversion price of $0.925, volatility of 115%, and risk free rate of 1.41%. The $1,035,661 difference between the fair value of the notes and the principal balance is being amortized over the twenty-nine (29) month period from July 31, 2017 to December 31, 2019 or $178,562 and is recorded as a contra interest expense in the statement of operations and comprehensive loss. Interest expense is paid every six months through the issuance of common stock. On March 16, 2018, $534,775 of interest accrued through January 31, 2018 and $169,950 of certain legal expenses were paid through the issuance of 4,285,423 shares of the Company's common stock. At March 31, 2018 and December 31, 2017, the unamortized balance of the note payable is $10,875,300 and $10,982,438 which are included in Convertible Long-term Debt on the balance sheet, and the accrued interest on these notes is $163,670 and $448,779 as of March 31, 2018 and December 31, 2017, and are included in accrued interest on the balance sheets. Interest of $249,666 less $107,167 of debt appreciation amortization or $142,529 was included in interest expense in the statements of operations and comprehensive income in the three months ended March 31, 2018.

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Long-term Debt

As of March 31, 2018 and December 31, 2017, the net Jaguar long-term debt obligation was as follows:

	March 31, 2018	December 31, 2017
Debt and unpaid accrued end-of-term payment	$ —	$ 1,636,639
Unamortized note discount	—	(6,615)
Unamortized debt issuance costs	—	(20,780)
Net debt obligation	$ —	$ 1,609,244
Current portion of long-term debt	$ —	$ 1,609,244
Long-term debt, net of discount	—	—
Total	$ —	$ 1,609,244

Interest expense on the Jaguar long-term debt for the three months ended March 31, 2018 and 2017 was as follows:

	Three Months Ended March 31,	
	2018	2017
Nominal interest	$ 19,344	$ 78,861
Accretion of debt discount	20,779	11,678
Accretion of end-of-term payment	52,561	48,655
Accretion of debt issuance costs	6,616	36,439
	$ 99,300	$ 175,633

Interest payable on the Jaguar long-term debt was $0 and $9,422 at March 31, 2018 and December 31, 2017, respectively.

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 $600,000 on August 1, 2018 (as modified in the third amendment to the Loan Agreement). 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.

On July 7, 2017, the Company entered into the third amendment to the Loan Agreement upon which the Company paid $1.0 million of the outstanding loan balance, and the Lender waived the Prepayment Charge associated with such prepayment. The Third Amendment modified the repayment schedule providing a three-month period of interest only payments for the period from August 2017 through October 2017, and reduced the required cash amount that the Company must keep on hand to $500,000, which will be reduced following the Lender's receipt of each principal repayment subsequent to the $1.0 million. As the present value of the cash flows under the terms of the third amendment is less than 10% different from the remaining cash flows under the terms of the loan agreement prior to the amendment, the third amendment was accounted as a debt modification.

On March 23, 2018, the Company paid off the remaining $689,345 of principal, $4,471 of interest, and the end-of-term payment of $600,000 in cash with proceeds from the March 23, 2018 equity financing.

Notes Payable

As of March 31, 2018 and December 31, 2017, the net Jaguar short-term notes payable was as follows:

	Notes Payable	
	March 31, 2018	December 31, 2017
December 2017 note payable	$ 1,587,500	$ 1,587,500
February 2018 note payable	2,240,909	—
March 2018 note payable	1,090,341	—
	4,918,750	1,587,500
Less: unamortized net discount and debt issuance costs	(1,262,651)	(446,347)
Net convertible notes payable obligation	$ 3,656,099	$ 1,141,153

Interest expense on the Jaguar short-term notes payable for the three months ended March 31, 2018 and 2017 was as follows:

	Three Months Ended March 31,	
	2018	2017
Nominal interest	$ 49,659	$ —
Accretion of debt discount	204,946	—
Total interest expense on notes payable	$ 254,605	$ —

Interest payable on the Jaguar short-term notes payable was $57,793 and $8,134 at March 31, 2018 and December 31, 2017, respectively.

On December 8, 2017, the Company entered into a securities purchase agreement with CVP pursuant to which the Company issued a promissory note in the aggregate principal amount of $1,587,500 for an aggregate purchase price of $1,100,000. The Note carries an original issue discount of $462,500, and the initial principal balance also includes $25,000 to cover CVP's transaction expenses. The Company will use the proceeds for general corporate purposes. The Note bears interest at the rate of 8% per annum and matures on September 8, 2018. The balance of the note payable of $1,301,783 consists of the $1,587,500 face value of the note less note discounts and debt issuance costs of $487,500, plus the accretion of the debt discount and debt issuance costs of $201,783, is included in notes payable in the current liabilities section of the balance sheet. The Company accrued interest of $40,364 and $8,333 at March 31, 2018 and December 31, 2017, which is included in accrued expenses on the balance sheet, and incurred nonmal interest of $32,230 in the three months ended March 31, 2018 which is included in interest expense in the statement of operations and comprehensive loss. The Company accreted debt discount of $160,630 in the three months ended March 31, 2018 which is included in interest expense in the statement of operations and comprehensive loss.

In addition, beginning on January 31, 2018, CVP will have the right to redeem a portion of the outstanding balance of the Note in any amount up to $350,000 per month for the first six months following the Purchase Price Date and $500,000 per month thereafter. For purposes of calculating the maximum amount that may be redeemed in any month, the amounts redeemed under the Note will be aggregated with all redemption amounts under the Secured Convertible Promissory Note in the original principal amount of $2,155,000 issued by the Company in favor of the creditor on June 29, 2017.

On February 26, 2018, the Company entered into a securities purchase agreement with Chicago Venture Partners, L.P. ("CVP"), pursuant to which the Company issued to CVP a promissory note in the aggregate principal amount of $2,240,909 for an aggregate purchase price of $1,560,000. The Note carries an original issue discount of $655,909, and the initial principal balance also includes $25,000 to cover CVP's transaction expenses. The Company will use the proceeds for general corporate purposes and working capital. The Note bears interest at the rate of 8% per annum and matures on (i) August 26, 2019 if the Company has raised at least $12 million in equity after the issuance date of the Note (the "Redemption Start Condition") and on or before April 1, 2018 or (ii) November 26, 2018 if the Redemption Start Condition is not satisfied on or before April 1, 2018. The balance of the note payable of $1,599,217 consisting of the $2,240,909 face value of the note less note discounts and debt issuance costs of $680,909, plus the accretion of the debt discount and debt issuance costs of $39,217, is included in notes payable in the current liabilities section of the balance sheet. The Company accrued interest of $15,489 at March 31, 2018, which is included in accrued expenses on the balance sheet, and incurred nonmal interest of $15,489 in the three months ended March 31, 2018 which is included in interest expense in the statement of operations and comprehensive loss. The Company accreted debt discount of $39,217 in interest expense for the three months ended March 31, 2018 which is included in interest expense in the statement of operations and comprehensive loss.

In addition, beginning on the Redemption Start Date (as defined below), the Company has the right to redeem all or any portion of the outstanding balance of the Note in cash or as otherwise mutually agreed upon between the parties. The Redemption Start Date is the date that is (i) seven months from the effective date of the Note (the "Effective Date") if the Redemption Start Condition is satisfied by April 1, 2018 or (ii) six months from the Effective Date if (x) the Redemption Start Condition is not satisfied by April 1, 2018 or (y) at any time after the Effective Date CVP breaches any of the covenants set forth in the Securities Purchase Agreement.

If the Redemption Start Condition is satisfied by April 1, 2018, the Company and CVP also agree to amend that certain Secured Convertible Promissory Note in the original amount of $2,155,000 issued by Company in favor of CVP on June 29, 2017 (the "June 2017 Note") and that certain Secured Promissory Note in the original amount of $1,587,500 issued by Company in favor of CVP on December 8, 2017 (the "December 2017 Note," and together with the June 2017 Note, the "Prior Notes") to (i) extend the maturity date of the Prior Notes to August 26, 2019, (ii) postpone the date on which CVP can exercise its right to redeem the Prior Notes to September 26, 2018 and (iii) limit the aggregate amount that CVP is permitted to redeem on a monthly basis to $500,000, which amount is the maximum aggregate redemption amount for the Prior Notes and the Note collectively.

The Securities Purchase Agreement and the other transaction documents and obligations of the Company thereunder are subject in all respects to the terms of that certain subordination agreement and right to purchase debt (the "Subordination Agreement") that the Company entered into with CVP with

Hercules Capital, Inc. ("Hercules") on June 29, 2017, pursuant to which (i) CVP subordinated (a) all of the Company's debt and obligations to CVP to all of the Company's indebtedness and obligations to Hercules and (b) all of CVP's security interest, if any, in the Company's assets to all of Hercules' security interest in the Company's assets and (ii) Hercules granted CVP the right to purchase 100% of the debt under the Company's term loan so long as the purchase includes the full pay-out of funds owed to Hercules under the term loan at such time.

The Company also entered into a security agreement with CVP, pursuant to which CVP will receive a security interest in substantially all of the Company's assets. The security interest is effective upon CVP's purchase of the Company's outstanding obligations under that certain loan and security agreement, dated August 18, 2015, between the Company and Hercules Capital, Inc. or upon such time that the Hercules Loan is otherwise repaid in full.

On March 21, 2018, the Company entered into a securities purchase agreement with CVP, pursuant to which the Company issued to CVP a promissory note in the aggregate principal amount of $1,090,341 for an aggregate purchase price of $750,000. The Note carries an original issue discount of $315,341, and the initial principal balance also includes $25,000 to cover CVP's transaction expenses. The Company will use the proceeds to fully repay certain prior secured and unsecured indebtedness. The Note bears interest at the rate of 8% per annum and matures on September 21, 2019.

Under the Securities Purchase Agreement, the Company is subject to certain covenants, including the obligations of the Company to: (i) timely file all reports required to be filed under Sections 13 or 15(d) of the Securities Exchange Act of 1934, as amended (the "Exchange Act") and not terminate its status as an issuer required to file reports under the Exchange Act; (ii) maintain listing of the Company's common stock on a securities exchange; (iii) avoid trading in the Company's common stock from being suspended, halted, chilled, frozen or otherwise ceased; (iv) not issue any variable securities (i.e., Company securities that (a) have conversion rights of any kind in which the number of shares that may be issued pursuant to the conversion right varies with the market price of the Company's common stock or (b) are or may become convertible into shares of the Company's common stock with a conversion price that varies with the market price of such stock) that generate gross cash proceeds to the Company of less than the lesser of $1 million and the then-current outstanding balance of the Note without CVP's prior consent; (v) not grant a security interest in its assets without CVP's prior consent; (vi) not issue any shares of common stock to certain institutional investors; (vii) repay the Hercules Loan (as defined below) on or before March 26, 2018; (viii) repay all outstanding amounts owed to certain noteholders within five trading days of the date of issuance of the Note; (ix) not incur any debt other than in the ordinary course of business, and in no event greater than $10,000, without CVP's prior consent; and (x) other customary covenants and obligations, for which the Company's failure to comply may be subject to certain liquidated damages. The Hercules Loan was repaid in full on March 23, 2018, simultaneously with the closing of the Preferred Stock Offering.

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In addition, beginning seven months from the effective date of the Note or at any time after the Effective Date if the Company breaches any of the covenants set forth in the Securities Purchase Agreement, CVP has the right to redeem all or any portion of the outstanding balance of the Note in cash or as otherwise mutually agreed upon between the parties.

Since the Redemption Start Condition (i.e., the Company raised at least $12 million in equity after the issuance date of the Note) was satisfied by April 1, 2018 as a result of the consummation of the Preferred Stock Offering and Common Stock Offering, the Company and CVP agreed to amend the Notes issued to CVP on June 29, 2017, December 8, 2017 and February 26, to limit the aggregate amount that CVP is permitted to redeem on a monthly basis to $500,000, which amount is the maximum aggregate redemption amount for the Notes collectively.

Warrants

On November 22, 2016, the Company entered into a Securities Purchase Agreement, or the 2016 Purchase Agreement, with certain institutional investors, pursuant to which the Company sold securities to such investors in a private placement transaction, which we refer to herein as the 2016 Private Placement. In the 2016 Private Placement, the Company sold an aggregate of 1,666,668 shares of the Company's common stock at a price of $0.60 per share for gross proceeds of approximately $1.0 million. The investors in the 2016 Private Placement also received (i) warrants to purchase up to an aggregate of 1,666,668 shares of the Company's common stock, at an exercise price of $0.75 per share, or the Series A Warrants, and the Placement Agent received warrants to purchase 133,333 shares of our common stock in lieu of cash for service fees with the same terms as the investors; (ii) warrants to purchase up to an aggregate 1,666,668 shares of the Company's common stock, at an exercise price of $0.90 per share, or the Series B Warrants, and (iii) warrants to purchase up to an aggregate 1,666,668 shares of our common stock, at an exercise price of $1.00 per share, or the Series C Warrants and, together with the Series A Warrants and the Series B Warrants, the 2016 Warrants. The warrants were granted in three series with different terms. The warrants were valued using the Black-Scholes-Merton warrant pricing model as follows:

- Series A Warrants and Placement Agent Warrants: 1,666,668 warrant shares with a strike price of $0.75 per share and an expiration date of May 29, 2022; and 133,333 warrant shares to the placement agent with a strike price of $0.75 and an expiration date of May 29, 2022; the expected life is 5.5 years, the volatility is 71.92% and the risk free rate is 1.87% in valuing these warrants.

- Series B Warrants: 1,666,668 warrant shares with a strike price of $0.90 per share and an expiration date of November 29, 2017; the expected life is one year, the volatility is 116.65% and the risk free rate is 0.78% in valuing these warrants.

- Series C Warrants: 1,666,668 warrant shares with a strike price of $1.00 per share and an expiration date of May 29, 2018; the expected life is 1.5 years, the volatility is 116.92% and the risk free rate is 0.94%.

The warrant valuation date was November 29, 2016 and the closing price of $0.69 per share was used in determining the fair value of the warrants. The series A warrants and placement agent warrants were valued at $756,001 and were classified as a warrant liability in the Company's balance sheet. The series A warrants and placement agent warrants were revalued on December 31, 2016 at $799,201 which is included in the Company's balance sheet, and the $43,200 increase is included in the Company's statements of operations and comprehensive loss. The stock price was $0.716, the strike price was $0.75 per share, the expected life was 5.41 years, the volatility was 73.62% and the risk free rate was 2.0%. The series B and C warrants were classified as equity, and as such were not subject to revaluation at year end. Costs incurred in connection with the issuance were allocated based on the relative fair values of the Series A and the Series B and C warrants. The series A warrants and placement agent warrants were revalued on December 31, 2017 at $103,860 and is included in the Company's balance sheet. The valuation reflects a reduction of $695,341 from the $799,201 December 31, 2016 valuation. The reduction is included in the Company's statements of operations and comprehensive loss. The $103,860 valuation at December 31, 2017 was computed using the Black-Scholes-Merton pricing model using a stock price of $0.1398, the strike price was $0.75 per share, the expected life was 4.41 years, the volatility was 96.36% and the risk free rate was 2.14%.

On July 31, 2017, the Company entered into Warrant Exercise Agreements (the "Exercise Agreements") with certain holders of Series C Warrants (the "Exercising Holders"), which Exercising Holders own, in the aggregate, Series C Warrants exercisable for 908,334 shares of the Company's common stock. Pursuant to the Exercise Agreements, the Exercising Holders and the Company agreed that the Exercising Holders would exercise their Series C Warrants with respect to 908,334 shares of common stock underlying such Series C Warrants for a reduced exercise price equal to $0.40 per share. The Company received aggregate gross proceeds of approximately $363,334 from the exercise of the Series C Warrants by the Exercising Holders. The difference between the pre-modification and post-modification fair value of $23,000 was expensed in general and administrative expense in the statements of operations and comprehensive income. The pre-modification fair value was computed using the Black-Scholes-Merton model using a stock price of $0.56 (fair market value on modification date), original strike price of $1.00, expected life of 0.83 years, volatility of 115.28%, risk-free rate of 1.20% to arrive at a fair value of $0.1347 per share. The post-modification fair value was computed using the intrinsic value on the date of modification or $0.16 per share.

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The Company granted warrants to purchase the 1,224,875 shares of common stock of the Company at an exercise price price of $0.08 per share to replace Napo warrants upon the consummation of the Merger. Of the 1,224,875 warrants, 145,457 warrants expire on December 31, 2018 and 1,079,418 warrants expire on December 31, 2025. The warrants were valued at $630,859, using the Black-Scholes-Merton warrant pricing model as follows: exercise price of $0.08 per share, stock price of $0.56 per share, expected life ranging from 1.42 years to 8.42 years, volatility ranging from 75.07% to 110.03%, and risk free rate ranging from 1.28% to 2.14%. The warrants were accounted in equity.

The Company's warrant activity is summarized as follows:

	Three Months Ended March 31, 2018	Year Ended December 31, 2017
	(in shares)	
Beginning balance	4,820,025	5,968,876
Warrants granted	—	1,595,791
Warrants exercised	—	(908,334)
Warrants cancelled	—	(1,836,308)
Ending balance	4,820,025	4,820,025

9. Stockholders' Equity

Common Stock

On July 31, 2017, the Company filed a third amended and restated certificate of incorporation authorizing the Company to issue 250,000,000 shares of common stock $0.0001 par value and 50,000,000 of convertible non-voting common stock, $0.0001 par value per share. The holders of common stock are entitled to one vote for each share of common stock held at all meetings of stockholders. The holders of non-voting common stock are not entitled to vote, except on an as converted basis with respect to any change of control of the Company that is submitted to the stockholders of the Company for approval.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. Shares of Jaguar non-voting common stock have the same rights to dividends and other distributions and are convertible into shares of Jaguar common stock on a one-for-one basis upon transfers to non-affiliates of Nantucket ("former creditor of Napo"), upon the release from escrow of certain non-voting shares held by the former creditors of Napo to the legacy stockholders of Napo under specified conditions and at any time on or after April 1, 2018 at the option of the respective holders thereof. And on March 12, 2018, the Company filed a fourth amended and restated certificate of incorporation authorizing the Company to issue 500,000,000 shares of common stock $0.0001 par value and 50,000,000 of convertible non-voting common stock, $0.0001 par value per share.

On June 28, 2017, the Company entered into a Common Stock Purchase Agreement with an existing private investor. Upon execution of the agreement the Company sold 100,000 shares of its common stock in exchange for $50,000 in cash proceeds.

On July 31, 2017, the Company entered into a Common Stock Purchase Agreement with an existing investor. Upon execution of the agreement the Company sold 3,243,243 shares of voting common stock in exchange for $3.0 million in cash proceeds.

On July 31, 2017, the Company completed the merger with Napo and changed it's name to Jaguar Health, Inc. The Company issued 2,282,445 shares of voting common stock and 43,173,288 shares of non-voting stock at the time the merger was consummated.

In November 2017, the Company issued 235,134 shares of common stock to an existing investor in exchange for $43,829 in services rendered.

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In November and December 2017, the Company issued 6,492,084 shares of common stock to a convertible debt holder as redemption of $900,362 of debt principal and interest.

In November and December 2017, in a private investment in public entitites, the Company issued 5,100,000 shares of its common stock with a single investor in exchange for $555,262 in cash. And in January, February and March 2018, the Company issued an additional 9,746,413 shares of its common stock to the investor for an additional $1,305,774.

In December 2017, in a private investment in public entities, the Company entered into various purchase agreements with existing investors and issued 4,010,000 shares of the Company's common stock in exchange for $401,000 in cash. And in January 2018, the Company entered into stock purchase agreements with existing investors and issued 7,182,818 shares of the Company's common stock in exchange for $750,100 in cash.

In January 2018, the Company issued 50,000 shares of common stock to an existing investor in exchange for $6,425 in services rendered.

In the first quarter of 2018, the Company issued 12,314,291 shares of its common stock in exchange for redemption of certain convertible debt.

In March of 2018, the Company issued 4,285,423 shares of its common stock in exchange for payment of interest expense on certain long-term convertible debt.

Concurrently with the consummation of the preferred stock offering as more fully discussed in Note 10, in March 2018, the Company entered into share purchase agreements with certain institutional investors pursuant to which the Company issued 29,411,766 shares of the Company's common stock in exhcnage for $5.0 million in cash.

As of March 31, 2018 and 2017, the Company had reserved shares of common stock for issuance as follows:

	March 31, 2018	March 31, 2017
Options issued and outstanding	15,646,054	2,528,650
Options available for grant	30,986,066	362,700
RSUs issued and outstanding	5,893,849	20,789
Warrants issued and outstanding	4,820,025	6,339,792
Convertible notes	11,767,883	69,869
Total	69,113,877	9,321,800

10. Convertible Preferred Stock

The Company's third amended and restated certificate of incorporation dated July 31, 2017 authorizes the Company to issue 10,000,000 shares of preferred stock $0.0001 par value.

In March 2018, the Company entered into a stock purchase agreement with Sagard Capital Partners, L.P. pursuant to which the Company, in a private placement, agreed to issue and sell to Sagard 5,524,926 shares of the Company's series A convertible participating preferred stock, $0.0001 par value per share, for an aggregate purchase price of $9,199,001. Each share of preferred stock is initially convertible into nine shares of common stock at the option of the holder at an effective conversion price of $0.185 per share (based on an original price per Preferred Share of $1.665), provided that, at any time prior to the time the Company obtains stockholder approval, as required pursuant to Nasdaq Rule 5635(b) any conversion of Preferred Stock by a holder into shares of the Common Stock would be prohibited if, as a result of such conversion, the holder, together with such holder's attribution parties, would beneficially own more than 19.99% of the total number of shares of the Common Stock issued and outstanding after giving effect to such conversion. Subject to certain limited exceptions, the shares of Preferred Stock cannot be offered, pledged or sold by Sagard for one year from the date of issuance. The conversion price is subject to certain adjustments in the event of any stock dividend, stock split, reverse stock split, combination or other similar recapitalization.

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Holders of the Series A shares are entitled to participate equally and ratably with the holders of common stock shares in all dividends paid and distributions made to the holders of the common stock as if, immediately prior to each record date of the common stock, the shares of Series A then outstanding were converted into shares of common stock.

In the event of any voluntary or involuntary liquidation, dissolution or winding up of the Company or deemed liquidation event, the holders of Series A shares then outstanding shall be entitled to be paid in cash out of the assets of the Company before any payment shall be made to the holders of common stock or shares of any series or class of preferred or other capital stock then outstanding that by its terms is junior to the Series A in respect of the preferences as to distributions and payments upon such liquidation event by reason of their ownership, an amount per share of Series A equal to one (1) times the Series A original issue price.

The redemption and liquidation value of the series A preferred stock is $12,738,822 and $9,199,002, respectively. If a Redemption Event occurs as of the Measurement Date (the later of April 30, 2021 and the date on which the Company files its Form 10-Q for the three months ending March 31, 2021, but in no event later than June 30, 2021), the holders of at least a majority of the shares of Series A then outstanding may require the Company to redeem all Series A shares at a per share purchase price equal to $2.3057; any one of the following conditions can result in a Redemption Event that is not solely within the Company's control: Revenues attributable to the Mytesi product for the six-month period ended March 31, 2021 are less than $22m or the average VWAP for the Company's common stock for the 30 days prior to a Measurement Date is less than $1.00.

The effective conversion price is $0.185 per share while the fair value of the Company's common stock at the commitment date was $0.205 per share based on the closing price of common stock on March 23, 2018. As a result, the Company determined that there is a Beneficial Conversion Feature ("BCF") amounting to approximately $995,000, which is computed by taking the difference between the closing price of the stock on March 23, 2018 and the conversion price multiplied by the as if converted 49,724,334 shares (5,524,926 preferred shares multiplied by the conversion factor of 9). The Company's Series A shares do not have a stated conversion date and are immediately convertible at the issuance date. As such, the Company will record an accretion of the BCF to net loss. Based on the guidance above, the Company recorded a deemed dividend charge of $995,000 for the accretion of the discount on the Series A shares. The deemed dividend was a non-cash transaction and is reflected below net loss to arrive at net loss available to common stockholders on the Company's condensed consolidated statement of operations for the three months ended March 31, 2018.

As of March 31, 2018, there were 5,524,926 and 0 shares of convertible preferred stock were issued and outstanding at March 31, 2018 and December 31, 2017.

The preferred stock has been classified outside of stockholders' equity in accordance with authoritative guidance for the classification and measurement of potentially redeemable securities.

11. Stock Incentive Plans

2013 Equity Incentive Plan

Effective November 1, 2013, the Company's board of directors and sole stockholder adopted the Jaguar 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. There were 565,377 option shares outstanding at December 31, 2017.

2014 Stock Incentive Plan

Effective May 12, 2015, the Company adopted the Jaguar 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. On January 1, 2018, 2017 and 2016, the Company added 2,106,507, and 280,142, and 162,498 shares to the option pool in accordance with the 2014 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.

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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 2016 annual stockholders meeting. In July 2017, the Company amended the 2014 Plan reserving an additional 6,500,188 shares under the plan, which was approved at the special stockholders meeting on July 27, 2017.

In March 2018, the Company amended the 2014 Plan reserving an additional 41,060,000 shares under the plan.

Stock Options and Restricted Stock Units ("RSUs")

The following table summarizes incentive plan activity for the years ended March 31, 2018 and December 31, 2017:

	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, 2017	53,026	3,444,663	5,893,849	$ 1.87	8.31	$ —
Additional shares authorized	43,166,507					
Options granted	(12,767,961)	12,767,961				
Options cancelled	534,494	(566,570)				
Combined Incentive Plan Balance —March 31, 2018	30,986,066	15,646,054	5,893,849	$ 0.84	1.65	$ 51,247
Options vested and exercisable— March 31, 2018		1,615,043		$ 3.06	3.06	$ 49,927
Options vested and expected to vest —March 31, 2018		12,711,812		$ 0.88	9.07	$ 50,902

* Fair market value of JAGX stock on March 29 (31), 2018 was $0.195 per share.

The weighted average grant date fair value of stock options granted was $0.17 and $0.46 per share during the three months ended March 31, 2018 and 2017.

The number of option shares that vested in the three months ended March 31, 2018 and 2017 was 3,525,395 shares and 185,005 shares, respectively. The grant date weighted average fair value of option shares that vested in the three months ended March 31, 2018 and 2017 was $251,060 and $185,646, respectively.

No options were exercised in the three months ended March 31, 2018 and 2017.

The intrinsic value is computed as the options granted multiplied by the difference between the fair market value of the Company's common stock of $0.195 on March 31, 2018 and the grant date stock option exercise price.

Stock-Based Compensation

The following table summarizes stock-based compensation expense related to stock options and RSUs for the three months ended March 31, 2018 and 2017, and are included in the statements of operations and comprehensive loss as follows:

	Three Months Ended March 31,	
	2018	2017
Research and development expense	$ 79,714	$ 65,799
Sales and marketing expense	2,385	7,658

General and administrative expense	190,144	154,579
Total	$ 272,243	$ 228,036

As of March 31, 2018, the Company had $1,922,627 of unrecognized stock-based compensation expense for options and restricted stock units outstanding, which is expected to be recognized over a weighted-average period of 2.11 years.

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

	Three Months Ended March 31,	
	2018	2017
Weighted-average volatility	87.38-92.42%	74.26%
Weighted-average expected term (years)	5.07-5.82	5.82
Risk-free interest rate	2.58-2.65%	1.98%
Expected dividend yield	—	—

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

	Three Months Ended March 31,	
	2018	2017
Weighted-average volatility	85.29-89.5%	—
Weighted-average expected term (years)	9.55-9.75	—
Risk-free interest rate	2.63-2.86%	—
Expected dividend yield	—	—

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 months ended March 31, 2018 and 2017:

	Three Months Ended	
	March 31, 2018	March 31, 2017
Net loss attributable to common shareholders	$ (6,691,637)	$ (4,715,358)
Shares used to compute net loss per common share, basic and diluted	129,467,132	14,157,351
Net loss per share attributable to common shareholders, basic and diluted	$ (0.05)	$ (0.33)

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 months ended March 31, 2018 and 2017 because their inclusion would be anti-dilutive:

	March 31, 2018	March 31, 2017
Options issued and outstanding	15,646,054	2,528,650
Warrants to purchase common stock	4,820,025	6,339,792
Restricted stock units	5,893,849	20,789
Total	26,359,928	8,889,231

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13. Income Taxes

The forecasted effective tax rate for the three months ended March 31, 2018 and 2017 was zero percent, primarily as a result of the estimated tax loss for the year and the change in valuation allowance.

14. 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 March 31, 2018.

15. Subsequent Events

In April of 2018, the Company issued 2,034,082 shares of common stock in exchange for $203,000 of proceeds which were used to pay off the $150,000 principal balance and $53,000 of unpaid accrued interest on the February 2015 convertible debt.

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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, 2017.

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 a commercial stage natural-products pharmaceuticals company focused on developing novel, sustainably derived gastrointestinal products on a global basis. Our wholly-owned subsidiary, Napo Pharmaceuticals, Inc. ("Napo"), focuses on developing and commercializing proprietary human gastrointestinal pharmaceuticals for the global marketplace from plants used traditionally in rainforest areas. Our Mytesi (crofelemer) product is approved by the U.S. Food and Drug Administration ("FDA") for the symptomatic relief of noninfectious diarrhea in adults with HIV/AIDS on antiretroviral therapy. In the field of animal health, we are focused on developing and commercializing first-in-class gastrointestinal products for companion and production animals, foals, and high value horses.

Jaguar was founded in San Francisco, California as a Delaware corporation on June 6, 2013. Napo formed Jaguar to develop and commercialize animal health products. Effective as of December 31, 2013, Jaguar was a wholly-owned subsidiary of Napo, and, until May 13, 2015, Jaguar was a majority-owned subsidiary of Napo. On July 31, 2017, the merger of Jaguar Animal Health, Inc. and Napo became effective, at which point Jaguar Animal Health's name changed to Jaguar Health, Inc. and Napo began operating as a wholly-owned subsidiary of Jaguar focused on human health and the ongoing commercialization of, and development of follow-on indications for, Mytesi.

With the merger effective, we believe that our newly combined company is poised to realize a number of synergistic, value adding benefits—and an expanded pipeline of potential blockbuster human follow-on indications, a second-generation anti-secretory agent, as well as a pipeline of important animal indications for crofelemer, upon which to build global partnerships. As previously announced, Jaguar, through Napo, now controls commercial rights for Mytesi for all indications, territories and patient populations globally, and crofelemer manufacturing is being conducted at a new, multimillion-dollar commercial manufacturing facility that has been FDA-inspected and approved. Additionally, several of the drug product candidates in Jaguar's Mytesi pipeline are backed by strong Phase 2 evidence from completed Phase 2 trials.

Mytesi is a novel, first-in-class anti-secretory agent which has a basic normalizing effect locally on the gut, and this mechanism of action has the potential to benefit multiple disorders. Mytesi is in development for multiple possible follow-on indications, including cancer therapy-related diarrhea; orphan-drug indications for infants and children with congenital diarrheal disorders and short bowel syndrome (SBS); supportive care for inflammatory bowel disease (IBD); irritable bowel syndrome (IBS); and as a second-generation anti-secretory agent for use in cholera patients. Mytesi has received orphan-drug designation for SBS.

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.

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On July 31, 2017, Jaguar Animal Health, Inc., or Jaguar, completed a merger with Napo pursuant to the Agreement and Plan of Merger dated March 31, 2017 by and among Jaguar, Napo, Napo Acquisition Corporation ("Merger Sub"), and Napo's representative (the "Merger Agreement"). In accordance with the terms of the Merger Agreement, upon the completion of the merger, Merger Sub merged with and into Napo, with Napo surviving as our wholly-owned subsidiary. Immediately following the Napo Merger, Jaguar changed its name from "Jaguar Animal Health, Inc." to "Jaguar Health, Inc." Napo now operates as a wholly-owned subsidiary of Jaguar focused on human health and the ongoing commercialization of Mytesi, a Napo drug product approved by the U.S. FDA for the symptomatic relief of noninfectious diarrhea in adults with HIV/AIDS on antiretroviral therapy.

On a consolidated basis, we have not yet generated enough revenue to date to achieve break even or positive cash flow, and we expect to continue to incur significant research and development and other expenses. Our net loss and comprehensive loss was $5,696,637 and $4,715,358 for the three months ended March 31, 2018 and 2017, respectively. As of March 31, 2018, we had total stockholders' equity of $30,007,647, accumulated deficit of $68,101,359, and cash and cash equivalents of $7,808,324. We expect to continue to incur losses and experience increased expenditures 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 additional commercialization activities.

Revenue Recognition

The Company recognizes revenue in accordance with ASC Topic 606, Revenue from Contracts with Customers ("ASC 606"), which was adopted on January 1, 2018, using the modified retrospective method, which was elected to apply to all contracts. Application of the modified retrospective method did not impact amounts previously reported by the Company, nor did it require a cumulative effect adjustment upon adoption, as the Company's method of recognizing revenue under ASC 606 was similar to the method utilized immediately prior to adoption. Accordingly, there is no need for the Company to dislose the amount by which each financial statement line item was affected as a result of applying the new revenue standard and an explanation of significant changes.

The Company recognizes revenue in accordance with the core principal of ASC 606 or when there is a transfer of promised goods or services to customers in an amount that reflects the consideration that the Company expects to be entitled to in exchange for those goods or services.

Contracts

Napo has a Marketing and Distribution Agreement ("M&D Agreement") with BexR Logistix, LLC ("BexR" or "Mission Pharmacal" or "Mission"), in April 2016 to appoint BexR as its distributor with the right to market and sell, and the exclusive right to distribute Mytesi (formerly Fulyzaq) in US. The term of the M&D Agreement is 4 years. The M&D Agreement will renew automatically for successive one year terms unless either party provides a written notice of termination not less than 90 days prior to the expiration of the initial or subsequent terms. Napo retains control of Mytesi held at Mission.

Napo sells Mytesi through Mission, who then sells Mytesi to its distributors and wholesalers — McKesson, Cardinal Health, AmerisourceBergen Drug Corporation ("ABC"), HD Smith, Smith Drug and Publix (together "Distributors"). Mission sells Mytesi to their Distributors, on behalf of Napo, under agreements executed by Mission with these Distributors and Napo abides by the terms and conditions of sales agreed between Mission and their Distributors. Health care providers order Mytesi through pharmacies who obtain Mytesi through Mission's Distributors. Napo considers the Distributors of Mission as its customers.

Mission's Distributors are the customers of the Company with respect to purchase of Mytesi. The M&D Agreement with Mission, Mission's agreement with its Distributors and the related purchase order will together meet the contract existence criteria under ASC 606-10-25-1.

Jaguar's Neonorm and Botanical extract products are primarily sold to distributors, who then sell the products to the end customers. Since 2014, the Company has entered into several distribution agreements with established distributors such as Animart, Vedco, VPI, RJ Matthews, Henry Schein, and Stockmen Supply to distribute the Company's products in the United States, Japan, and China. The distribution agreements and the related purchase order together meet the contract existence criteria under ASXC 606-10-25-1.

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Performance obligations

For the products sold by each of Napo and Jaguar, the single performance obligation identified above is Company's promise to transfer the Company's product Mytesi to Distributors based on specified payment and shipping terms in the arrangement.

Transaction price

For both Jaugar and Napo, the transaction price is the amount of consideration to which the Company expects to collect in exchange for transferring promised goods or services to a customer. The transaction price of Mytesi and Neonorm is the Wholesaler Aquistion Cost ("WAC"), net of variable considerations and price adjustments.

Allocate transaction price

For both Napo and Jaguar, the entire transaction price is allocated to the single performance obligaton contained in each contract.

Point in time recognition

For both Napo and Jaguar, a single performance obligation is satisfied at a point in time, upon the FOB terms of each contract when control, including title and all risks, has transferred to the customer.

Disaggregation of Product Revenue

Human

Sales of Mytesi are recognized as revenue when the products are delivered to the wholesalers. Revenues from the sale of Mytesi were $583,269 and $0 in the three months ended March 2018 and 2017, respectively. The Company recorded a reserve for estimated product returns under terms of agreements with wholesalers based on its historical returns experience. Reserves for returns at March 31, 2018 and December 31, 2017 were immaterial. If actual returns differed from our historical experience, changes to the reserved could be required in future periods.

Animal

The Company recognized Neonorm revenues of $43,698 and $44,544 for the three months ended March 31, 2018 and 2017, respectively, and Botanical Extract revenues of $0 and $30,000 in the three months ended March 31, 2018 and 2017, respectively. Revenues are recognized when title has transferred to the buyer. 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. Reserves for returns are analyzed periodically and are estimated based on historical return data. Reserves for returns and price adjustments at March 31, 2018 and December 31, 2017 were immaterial. Sales of Botanical Extract are recognized as revenue when the product is delivered to the customer which do not provide for return rights.

Collaboration Revenue

On January 27, 2017, the Company entered into a licensing, development, co-promotion and commercialization agreement with Elanco US Inc. ("Elanco") to license, develop and commercialize Canalevia, the Company's drug product candidate under investigation for treatment of acute and chemotherapy-induced diarrhea in dogs, and other drug product formulations of crofelemer for treatment of gastrointestinal diseases, conditions and symptoms in cats and other companion animals. Under the terms of the agreement, the Company received an initial upfront payment of $2,548,689, inclusive of reimbursement of past product and development expenses of $1,048,689, which was recognized as revenue ratably over the estimated development period of one year resulting in $177,389 and $459,700 in collaboration revenue in the three months ended March 31, 2018 and 2017, respectively. In addition to the upfront payments, Elanco reimbursed the Company for $0 and $288,166 in the three months ended March 31, 2018 and 2017 for certain development and regulatory expenses related to the planned target animal safety study and the completion of the Canalevia field study for acute diarrhea in dogs which were also included in collaboration revenue.

On November 1, 2017, the Company received a letter from Elanco serving as formal notice of their decision to terminate the agreement by giving the Company 90 days written notice. According to the agreement, termination became effective on January 30, 2018, which is 90 days after the date of the Notice. On the effective date of termination of the Elanco Agreement, all licenses granted to Elanco by the Company under the Elanco Agreement were revoked and the rights granted thereunder reverted back to the Company. Provisions in the agreement providing for the receipt of additional payments upon achievement of certain development, regulatory and sales milestones in an aggregate amount of up to $61.0 million payable throughout the term of the Elanco Agreement, as well as product development expense reimbursement for any additional product development expenses incurred, and royalty payments on global sales terminated on termination of the agreement.

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Cost of Product Revenue

Cost of product revenue expenses consist of costs to manufacture, package and distribute Neonorm related to those products that prior to December 2017 distributors have sold through to their customers, and beginning December 2017 products sold to distributors and other customers. Cost of product revenue also includes charges associated with inventory reserves.

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. 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.

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, stock-based compensation expense, direct sales and marketing expense, employee travel expense, and management consulting expense. We currently incur sales and marketing expenses to promote Mytesi and Neonorm calf and foal sales.

We expect sales and marketing expense to increase significantly as we develop and commercialize new products and grow our existing Mytesi and Neonorm markets. 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.

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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, promisorry notes, and the loan and security agreement (long-term debt arrangement). We also include accretion of debt issuance costs, debt discount amortization and the accretion of an end-of-term long-term debt payment in interest expense in the statements of operations and comprehensive loss.

Results of Operations

Comparison of the three months ended March 31, 2018 and 2017

The following table summarizes the Company's results of operations with respect to the items set forth in such table for the three months ended March 31, 2018 and 2017 together with the change in such items in dollars and as a percentage:

	Three Months Ended March 31,			
	2018	2017	Variance	Variance %
Product revenue	$ 626,967	$ 74,544	$ 552,423	741.1%
Collaboration revenue	177,389	747,866	(570,477)	(76.3)%
Total revenue	804,356	822,410	(18,054)	(2.2)%
Operating Expenses				
Cost of revenue	464,161	16,145	448,016	2775.0%
Research and development expense	757,866	1,255,452	(497,586)	(39.6)%
Sales and marketing expense	1,712,190	122,912	1,589,278	1293.0%
General and administrative expense	2,998,400	3,303,503	(305,103)	(9.2)%
Total operating expenses	5,932,617	4,698,012	1,234,605	26.3%
Loss from operations	(5,128,261)	(3,875,602)	(1,252,659)	(32.3)%
Interest expense, net	(602,022)	(180,072)	(421,950)	(234.3)%
Other income	297,500	1,448	296,052	20445.6%
Change in fair value of warrants	(263,854)	(453,419)	189,565	41.8%
Loss on extinguishment of debt	—	(207,713)	207,713	100.0%
Net loss and comprehensive loss	(5,696,637)	(4,715,358)	(981,279)	(20.8)%
Deemed dividend attributable to preferred stock	(995,000)	—	(995,000)	N/A
Net loss attributable to common shareholders	$ (6,691,637)	$ (4,715,358)	$ (1,976,279)	(41.9)%

Revenue and Cost of Revenue

Product revenue

Our product revenue of $626,967 and related cost of revenue of $464,161 for the three months ended March 31, 2018 reflects revenue from the sale of our human drug Mytesi, our animal products branded as Neonorm Calf and Neonorm Foal and botanical extract. Product revenues of $74,544 and related cost of revenue of $16,145 only includes the sale of our branded animal products.

Human

Sales of Mytesi are recognized as revenue when the products are delivered to the wholesalers. Revenues from the sale of Mytesi were $583,269 and $0 in the three months ended March 2018 and 2017, respectively. We recorded a reserve for estimated product returns under terms of agreements with wholesalers based on its historical returns experience. Reserves for returns at March 31, 2018 were immaterial. If actual returns differed from our historical experience, changes to the reserved could be required in future periods.

Animal

We recognized Neonorm revenues of $43,698 and $44,544 for the three months ended March 31, 2018 and 2017, respectively, and Botanical Extract revenues of $0 and $30,000 in the three months ended March 31, 2018 and 2017, respectively. Revenues are recognized when title has transferred to the buyer. 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. Reserves for returns are analyzed periodically and are estimated based on historical return data. Sales of Botanical Extract are recognized as revenue when the product is delivered to the customer which do not provide for return rights.

Collaboration Revenue

On January 27, 2017, we entered into a licensing, development, co-promotion and commercialization agreement with Elanco US Inc. to license, develop and commercialize Canalevia, the Company's drug product candidate under investigation for treatment of acute and chemotherapy-induced diarrhea in dogs, and other drug product formulations of crofelemer for treatment of gastrointestinal diseases, conditions and symptoms in cats and other companion animals. Under the terms of the agreement, we received an initial upfront payment of $2,548,689, inclusive of reimbursement of past product and development expenses of $1,048,689, which was recognized as revenue ratably over the estimated development period of one year resulting in $177,389 and $459,700 in collaboration revenue in the three months ended March 31, 2018 and 2017, respectively. In addition to the upfront payments, Elanco reimbursed us for $0 and $288,166 in the three months ended March 31, 2018 and 2017 for certain development and regulatory expenses related to the planned target animal safety study and the completion of the Canalevia field study for acute diarrhea in dogs which were also included in collaboration revenue. Elanco terminated the arrangement effective January 30, 2018.

Cost of Revenue

The following table presents the components of cost of revenue for the three months ended March 31, 2018 and 2017 together with the change in such components in dollars and as a percentage:

	Three Months Ended March 31,			
	2018	2017	Variance	Variance %
Cost of Revenue				
Material cost	$ 229,271	$ 16,145	$ 213,126	1320.1%
Direct labor	151,015	—	151,015	N/A
Distribution fees	68,950	—	68,950	N/A
Royalties	11,496	—	11,496	N/A
Other	3,429	—	3,429	N/A
Total	$ 464,161	$ 16,145	$ 448,016	2775.0%

Cost of revenue increased $448,016 from $16,145 in the three months ended March 31, 2017 to $464,161 for the same period in 2018. Napo related cost of revenue related to Mytesi was $449,635 and $0 in the three months ended March 31, 2018 and 2017 as the merger was effective July 31, 2017.

Research and Development Expense

The following table presents the components of research and development expense for the three months ended March 31, 2018 and 2017 together with the change in such components in dollars and as a percentage:

	Three Months Ended March 31,			
	2018	2017	Variance	Variance %
R&D:				
Personnel and related benefits	$ 586,133	$ 460,619	$ 125,514	27.2%
Materials expense and tree planting	62,009	38,101	23,908	62.7%
Travel, other expenses	20,494	72,570	(52,076)	(71.8)%
Clinical and contract manufacturing	25,470	295,504	(270,034)	(91.4)%
Stock-based compensation	79,714	65,799	13,915	21.1%
Other	(15,954)	322,859	(338,813)	(104.9)%
Total	$ 757,866	$ 1,255,452	$ (497,586)	(39.6)%

Our research and development expense decreased $497,586 from $1,255,452 from the three months ended March 31, 2017 to $757,866 for the same period in 2018. Personnel and related benefits increased $125,514 from $460,619 in the three months ended March 31, 2017 to $586,133 in the same period in 2018 due to an increase in headcount and related salaries and benefits quarter over quarter. Travel expenses decreased $52,076 from $72,570 in the three months ended March 31, 2017 to $20,494 in the same period in 2018 due primarily to a decrease in clinical activity. Clinical trial work decreased resulting in a reduction of expense of $270,034 from $295,504 in the three months ended March 31, 2017 to $25,470 in the same period in 2018. Stock-based compensation increased $13,915 from $65,799 in the three months ended March 31, 2017 to $79,714 in the same period in 2018 primarily due to an increase in the number of option grants and outstanding options quarter over quarter. Other expenses, consisting primarily of consulting, formulation and regulatory fees, decreased $338,813 from $322,859 in the three months ended March 31, 2017 to ($15,954) in the same period in 2018. Consulting expenses decreased $69,784 from $211,010 in the three months ended March 31, 2017 to $141,226 in the same period in 2018 consistent with the decrease in contractor utilization to assist in our clinical trials and in chemistry, manufacturing and controls ("CMC") activities. Formulation expenses decreased $20,922 from $63,465 in the three months ended March 31, 2017 to $42,543 for the same period in 2018 due to an decrease in work needed for clinical operations. Regulatory expenses decreased $245,278 from $25,775 in the three months ended March 31, 2017 to ($219,503) in the same period in 2018 due to Napo receiving a waiver from the FDA for previously accrued FDA fees. We plan to increase our research and development expense as we continue developing our drug candidates. Our research and development expenses include $313,240 of Napo research and development expenses for the three month period ended March 31, 2018 compared to $0 in the same period in 2017 as the merger with Napo occurred on July 31, 2017.

We continued to increase our level of support for the reforestation of croton lechleri trees in South America, which is reflected in an increase in spend of $23,909 from $38,100 in the three months ended March 31, 2017 to $62,009 in the same period in 2018. 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

The following table presents the components of sales and marketing expense for the three months ended March 31, 2018 and 2017 together with the change in such components in dollars and as a percentage:

	Three Months Ended March 31,			
	2018	2017	Variance	Variance %
S&M:				
Personnel and related benefits	$ 631,864	$ 64,890	$ 566,974	873.7%
Stock-based compensation	2,385	7,658	(5,273)	(68.9)%
Direct Marketing Fees	1,032,078	29,876	1,002,202	3354.5%
Other	45,863	20,488	25,375	123.9%
Total	$ 1,712,190	$ 122,912	$ 1,589,278	1293.0%

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Our sales and marketing expense increased $1,589,278 from $122,912 in the three months ended March 31, 2017 to $1,712,190 in the same period in 2018. Personnel and related benefits increased $566,974 from $64,890 in the three months ended March 31, 2017 to $631,864 in the same period in 2018 due to headcount changes quarter over quarter primarily to drive sales of Mytesi. Stock based compensation expense decreased $5,273 from $7,658 in the three months ended March 31, 2017 to $2,385 in the same period in 2018 due to new options granted at a much lower fair value due to a lower strike price and a lower fair market value. Direct marketing and sales expense increased $1,002,202 from $29,876 in the three months ended March 31, 2017 to $1,032,078 for the same period in 2018 due to an increase in marketing programs to promote the Napo Mytesi product. Other expenses, consisted primarily of travel expense, consulting expense and royalty expense, which collectively increased $25,375 from $20,488 in the three months ended March 31, 2017 to $45,863 in the same period in 2018. We plan to expand sales and marketing spend to promote our Mytesi products. Sales and marketing expenses include $1,658,887 in Napo sales and marketing expenses for the three months ended March 31, 2018 compared to $0 in the same period in 2017 as the merger with Napo occurred on July 31, 2017.

General and Administrative Expense

The following table presents the components of general and administrative expense for the three months ended March 31, 2018 and 2017 together with the change in such components in dollars and as a percentage:

	Three Months Ended March 31,			
	2018	2017	Variance	Variance %
G&A:				
Personnel and related benefits	$ 406,043	$ 382,112	$ 23,931	6.3%
Accounting fees	249,606	177,178	72,428	40.9%
Third-party consulting fees and Napo service fees	397,817	944,261	(546,444)	(57.9)%
Legal fees	729,570	1,201,215	(471,645)	(39.3)%
Travel	74,254	67,381	6,873	10.2%
Stock-based compensation	190,144	154,579	35,565	23.0%
Rent and lease expense	100,829	78,987	21,842	27.7%
Public company expenses	197,528	79,424	118,104	148.7%
Other	652,609	218,366	434,243	198.9%
Total	$ 2,998,400	$ 3,303,503	$ (305,103)	(9.2)%

Our general and administrative expenses decreased $305,103 from $3,303,503 in the three months ended March 31, 2017 to $2,998,400 for the same period in 2018 due primarily to a decrease of $1,794,777 in merger related expenses incurred in the three months ended March 31, 2018 compared to the same period in 2017 as significantly all merger related work occurred in 2017. Personnel and related benefits increased $23,931 from $382,112 in the three months ended March 31, 2017 to $406,043 in the same period in 2018 due to changes in headcount personnel and related salaries quarter over quarter. Personnel and related benefits for the three months ended March 31, 2018 include $168,518 for Napo's personnel and related benefits. Stock-based compensation increased $35,565 from $154,579 in the three months ended March 31, 2017 to $190,144 in the same period in 2018 due primarily to expense associated with new grants to existing employees. Public company expenses increased $118,104 from $79,424 in the three months ended March 31, 2017 to $197,528 in the same period in 2018 due primarily to and increase of $105,606 in printer fees, NASDAQ fees, and Investor relations and investor services fees quarter over quarter. Accounting fees increased $72,428 from $177,178 in the three months ended March 31, 2017 to $249,606 in the same period in 2018 due primarily to an increase in complexity of accounting due to the merger with Napo and due to an increasing number of complex debt and equity transactions. Legal fees decreased $471,645 from $1,201,215 in the three months ended March 31, 2017 to $729,570 in the same period in 2018 due to a reduction of $916,674 in merger related legal fees quarter over quarter, net of increases due to $445,029 in an increase in non-merger related general corporate legal fees quarter over quarter. Consulting expenses decreased $546,444 from $944,261 in the three months ended March 31, 2017, consisting of the $858,103 fairness opinion consulting related to the merger and $86,158 in other consulting fees, to $397,818 in the same period in 2018 due primarily to Napo related consulting services of $234,154 in the three months ended March 31, 2018 compared to $0 in 2017. Rent and lease expense increased $21,842 from $78,987 in the three months ended March 31, 2017 to $100,829 in the same period in 2018 due primarily to an increase of $31,866 in employee leasing chargebacks to Napo in the three months ended March 31, 2017 for space used in connection with our employees providing services to Napo during the seven months ended July 31, 2017. Other expenses, including warrant expense, insurance costs, office and facilities expenses increased $434,243 from $218,366 in the three months ended March 31, 2017 to $652,609 in the same period in 2018 primarily due to $435,557 of Napo expenses related primarily to $421,667 in intangible asset amortization. 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. General and administrative expenses include $1,081,668 in Napo general and administrative expenses for the three month period ended March 31, 2018 compared to $0 in the same period in 2017 as the merger with Napo occurred on July 31, 2017.

Liquidity and Capital Resources

Sources of Liquidity

We had an accumulated deficit of $68,101,359 as a result of incurring net losses since our inception primarily because we have not generated enough revenue to cover costs and expenses through the current fiscal year. Our net loss and comprehensive loss was $5,696,637 for the three months ended March 31, 2018. We expect to continue to incur additional losses through the end of fiscal year 2018 and into 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.

We had cash and cash equivalents of $7,808,324 as of March 31, 2018. 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 for the years ended December 31, 2017 and 2016 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 our commercial products:

- 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 the 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 June 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 1,348,601 shares in exchange for net proceeds of $2,122,570, reflecting gross proceeds of $2,176,700 net of $54,130 offering expenses under the CSPA in the year ended December 31, 2016. And in the nine months ended September 30, 2017, we sold another 3,972,510 shares of the Company's common stock in exchange for $2,387,085 of gross cash proceeds. Of the $15.0 million available under the CSPA, we have received $5,063,785 from the sale of 6,000,000 shares of our common stock as of December 31, 2017.

- 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.

- On November 22, 2016, we entered into a Securities Purchase Agreement, or the 2016 Purchase Agreement, with certain institutional investors, pursuant to which we sold securities to such investors in a private placement transaction, which we refer to herein as the 2016 Private Placement. In the 2016 Private Placement, we sold an aggregate of 1,666,668 shares of our common stock at a price of $0.60 per share for gross proceeds of approximately $1.0 million. The investors in the 2016 Private Placement also received (i) warrants to purchase up to an aggregate of 1,666,668 shares of our common stock, at an exercise price of $0.75 per share, or the Series A Warrants, (ii) warrants to purchase up to an aggregate 1,666,668 shares of our common stock, at an exercise price of $0.90 per share, or the Series B Warrants, and (iii) warrants to purchase up to an aggregate 1,666,668 shares of our common stock, at an exercise price of $1.00 per share, or the Series C Warrants and, together with the Series A Warrants and the Series B Warrants, the 2016 Warrants.

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- On January 27, 2017, we entered into a licensing, development, co-promotion and commercialization agreement with Elanco to license, develop and commercialize Canalevia, our drug product candidate under investigation for treatment of acute and chemotherapy-induced diarrhea in dogs, and other drug product formulations of crofelemer for treatment of gastrointestinal diseases, conditions and symptoms in cats and other companion animals. The Elanco Agreement grants Elanco exclusive global rights to Canalevia, a product whose active pharmaceutical ingredient is sustainably isolated and purified from the Croton lechleri tree, for use in companion animals. Pursuant to the Elanco Agreement, Elanco will have exclusive rights globally outside the U.S. and co-exclusive rights with us in the U.S. to direct all marketing, advertising, promotion, launch and sales activities related to the Licensed Products.

- Under the terms of the Elanco Agreement, we received an initial upfront payment of $2,548,689 inclusive of reimbursement of past product and development expenses of $1,048,689 and we will receive additional payments upon achievement of certain development, regulatory and sales milestones in an aggregate amount of up to $61.0 million payable throughout the term of the Elanco Agreement, as well as product development expense reimbursement, and royalty payments on global sales. The Elanco Agreement specifies that we will supply the Licensed Products to Elanco, and that the parties will agree to set a minimum sales requirement that Elanco must meet to maintain exclusivity. Elanco will also reimburse us for Canalevia-related expenses, including reimbursement for Canalevia-related expenses in Q4 2016, certain development and regulatory expenses related to our planned target animal safety study and the completion of our field study of Canalevia for acute diarrhea in dogs. On November 1, 2017, Elanco notified the Company of its intention to terminate the Elanco Agreement, effective January 30, 2018.

- On March 31, 2017, we entered into a merger agreement with Napo, pursuant to which we are required, among other things, to issue approximately 69,299,346 shares of our common stock and non-voting common stock to Napo creditors, noteholders, holders of Napo warrants, options or restricted stock units, and Invesco upon consummation of the merger.

- On June 28, 2017, we closed a private investment in public entities, or PIPE, with a member of our board of directors. We received gross proceeds of $50,000 in exchange for 100,000 shares of our common stock.

- On June 29, 2017, we issued a secured convertible promisorry note to a lendor in the aggregate principal amount of $2,155,000 less an original issue discount of $425,000 and less $30,000 to cover the lender’s legal fees for net cash proceeds of $1,700,000. Interest on the outstanding balance will be paid 8% per annum from the purchase price date until the balance is paid in full. All interest calculations are computed on the basis of a 360-day year comprised of twelve (12) thirty (30) day months compounded daily and payable in accordance with the terms of the Note. All principal and interest on the debt is due in full on August 2, 2018.

- On July 13, 2017, we closed a PIPE, with an investor. We received gross proceeds of $50,000 in exchange for 100,000 shares of our common stock.

- On July 31, 2017, as part of the merger with Napo, we sold 3,243,243 shares of our common stock to an investor in exchange for $1,000,000 in cash and $2,000,000 in a direct payoff of Napo debt.

- On July 31, 2017, we entered into Warrant Exercise Agreements, or Exercise Agreements, with certain holders of Series C Warrants, or the Exercising Holders, which Exercising Holders own, in the aggregate, Series C Warrants exercisable for 908,334 shares of the Company’s common stock. Pursuant to the Exercise Agreements, the Exercising Holders and the Company agreed that the Exercising Holders would exercise their Series C Warrants with respect to 908,334 shares of common stock underlying such Series C Warrants for a reduced exercise price equal to $0.40 per share. The Company received aggregate gross proceeds of approximately $363,334 from the exercise of the Series C Warrants by the Exercising Holders.

- On October 3, 2017, we issued 21,250,000 shares of our common stock in exchange for net proceeds of $3,494,173 upon the closing of our follow-on public offering, consisting of gross proceeds of $4,250,000 net of $297,500 of underwriting discounts and commissions and $458,377 of offering expenses. On November 1, 2017, we issued an additional 437,500 shares for net proceeds of $81,331 consisting of gross proceeds of $87,500 net of $6,125 of underwriting discounts and commissions and $1,500 in expenses.

- On November 24, 2017, we entered into a share purchase agreement with an investor wherein during the year ended December 31, 2017 we received net proceeds of $555,000 in exchange for 5,100,000 shares of our common stock.

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- On December 8, 2017, we issued a secured promisorry note to CVP in the aggregate principal amount of $1,587,500 less an original issue discount of $462,500 and less $25,000 to cover the lender’s legal fees for net cash proceeds of $1,100,000. Interest on the outstanding balance will be paid 8% per annum from the purchase price date until the balance is paid in full. All interest calculations are computed on the basis of a 360-day year comprised of twelve (12) thirty (30) day months compounded daily and payable in accordance with the terms of the Note. All principal and interest on the debt is due in full on September 8, 2018.

- In December 2017, in a private investment in public entities, the Company entered into various purchase agreements with existing investors and issued 4,010,000 shares of the Company's common stock in exchange for $401,000 in cash. And in January 2018, the Company entered into stock purchase agreements with existing investors and issued 7,182,818 shares of the Company's common stock in exchange for $750,100 in cash.

- In November and December 2017, in a private investment in public entitites, the Company issued 5,100,000 shares of its common stock with a single investor in exchange for $555,262 in cash. And in January, February and March 2018, the Company issued an additional 9,746,413 shares of its common stock to the investor for an additional $1,305,774.

- In January 2018, the Company issued 50,000 shares of common stock to an existing investor in exchange for $6,425 in services rendered.

- In the first quarter of 2018, the Company issued 12,314,291 shares of its common stock in exchange for redemption of certain convertible debt.

- On February 26, 2018, the Company entered into a securities purchase agreement with CVP, pursuant to which the Company issued to CVP a promissory note in the aggregate principal amount of $2,240,909 for an aggregate purchase price of $1,560,000. The Note carries an original issue discount of $655,909, and the initial principal balance also includes $25,000 to cover CVP's transaction expenses. The Note bears interest at the rate of 8% per annum and matures on (i) August 26, 2019 if the Company has raised at least $12 million in equity after the issuance date of the Note (the "Redemption Start Condition") and on or before April 1, 2018 or (ii) November 26, 2018 if the Redemption Start Condition is not satisfied on or before April 1, 2018.

- On March 21, 2018, the Company entered into a securities purchase agreement with CVP, pursuant to which the Company issued to CVP a promissory note in the aggregate principal amount of $1,090,341 for an aggregate purchase price of $750,000. The Note carries an original issue discount of $315,341, and the initial principal balance also includes $25,000 to cover CVP's transaction expenses. The Note bears interest at the rate of 8% per annum and matures on September 21, 2019.

- In March of 2018, the Company issued 4,285,423 shares of its common stock in exchange for payment of interest expense on certain long-term convertible debt.

- In March 2018, the Company entered into a stock purchase agreement with Sagard Capital Partners, L.P. pursuant to which the Company, in a private placement, agreed to issue and sell to Sagard 5,524,926 shares of the Company's series A convertible participating preferred stock, $0.0001 par value per share, for an aggregate purchase price of $9,199,001. Each share of preferred stock is initially convertible into nine shares of common stock at an effective conversion price of $0.185 per share (based on an original price per Preferred Share of $1.665), provided that, at any time prior to the time the Company obtains stockholder approval, as required pursuant to Nasdaq Rule 5635(b) any conversion of Preferred Stock by a holder into shares of the Common Stock would be prohibited if, as a result of such conversion, the holder, together with such holder's attribution parties, would beneficially own more than 19.99% of the total number of shares of the Common Stock issued and outstanding after giving effect to such conversion. Subject to certain limited exceptions, the shares of Preferred Stock cannot be offered, pledged or sold by Sagard for one year from the date of issuance. The conversion price is subject to certain adjustments in the event of any stock dividend, stock split, reverse stock split, combination or other similar recapitalization. Concurrently with the consummation of the preferred stock offering, the Company entered into share purchase agreements with certain institutional investors pursuant to which the Company issued 29,411,766 shares of the Company's common stock in exhcnage for $5.0 million in cash.

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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 our pipeline in the near term. We do not believe our current capital is sufficient to fund our operating plan through March 2019. We will need to seek additional funds 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. We plan to finance our 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 us on acceptable terms on a timely basis, if at all, or that we will generate sufficient cash from operations to adequately fund operating needs or ultimately achieve profitability. If we are unable to obtain an adequate level of financing needed for the long-term development and commercialization of our products, we will need to curtail planned activities and reduce costs. Doing so will likely have an adverse effect on our ability to execute on our business plan. These matters raise substantial doubt about the ability of the Company to continue in existence as a going concern within one year after issuance date of the financial statements.

Cash Flows for Three Months Ended March 31, 2018 Compared to the Three Months Ended March 31, 2017

The following table shows a summary of cash flows for the three months ended March 31, 2018 and 2017:

	Three Months Ended	
	March 31, 2018	March 31, 2017
Total cash used in operations	$ (9,621,693)	$ (288,720)
Total cash used in investing activities	(6,527)	—
Total cash provided by financing activities	16,676,677	52,701
	$ 7,048,457	$ (236,019)

Cash Used in Operating Activities

During the three months ended March 31, 2018, cash used in operating activities of $9,621,692 resulted from our net loss of $5.7 million, adjusted by non-cash accretion of end of term payment, debt discounts and debt issuance costs of $404,000, stock-based compensation of $272,000, reduction in the fair value of warrant liability of $89,000, common stock issued in exchange for services rendered of $6,000, depreciation and amortization expenses of $330,000, interest paid on the conversion of debt to equity of $20,000, and loss on revaluation of derivative liability of $4,000, net of changes in operating assets and liabilities of $5.1 million.

During the three months ended March 31, 2017, cash used in operating activities of $288,720 resulted from our net loss of $4.7 million, offset by non-cash accretion of end of term payment, debt discounts and debt issuance costs of $97,000, stock-based compensation of $228,000, change in the fair value of warrants of $453,000, loss on extinguishment of debt of $208,000, depreciation expense of $15,000, net of changes in operating assets and liabilities of $3.4 million.

Cash Provided By/Used In Investing Activities

During the three months ended March 31, 2018, cash used in investing activities of $6,527 consisted of cash used to purchase land, property and equipment.

Cash Provided by Financing Activities

During the three months ended March 31, 2018, cash provided by financing activities of $10,676,677 primarily consisted of $1.3 million and $750,000 received in separate PIPE financings, $14.0 million in net proceeds from the Sagard financing, including $5.0 million in net proceeds received from the issuance of common stock and $9.0 million in net proceeds received from the issuance of convertible preferred stock, $2.3 million received in the issuance of non-convertible debt, and $363,000 received in the exercise of certain warrants, offset by $1.7 million in principal payments of our long-term debt.

During the three months ended March 31, 2017, cash provided by financing activities of $52,701 primarily consisted of $543,000 in net proceeds received in the CSPA, offset by $490,000 in principal payments on our long-term debt.

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Standby Lines of Credit, Convertible Notes and Warrant Issuances

Convertible Notes

Convertible notes at March 31, 2018 and December 31, 2017 consist of the following:

	March 31, 2018	December 31, 2017
February 2015 convertible notes payable	150,000	150,000
June 2017 convertible note payable	683,585	1,613,089
Napo convertible notes	10,875,300	12,153,389
	$ 11,708,885	$ 13,916,478
Less: unamortized debt discount and debt issuance costs	(142,902)	(261,826)
Net convertible notes payable obligation	$ 11,565,983	$ 13,654,652
Convertible notes payable - non-current	10,875,300	10,982,437
Convertible notes payable - current	$ 690,683	$ 2,672,215

Interest expense on the convertible notes for the three months ended March 31, 2018 and 2017 follows:

	Three Months Ended March 31,	
	2018	2017
February 2015 convertible note nominal interest	$ 4,438	$ 4,438
June 2017 convertible note nominal interest	18,864	—
June 2017 convertible note accretion of debt discount	118,923	—
Napo convertibles note nominal interest	87,828	—
Total interest expense on convertible debt	$ 230,053	$ 4,438

Interest expense is classified as such in the statements of operations and comprehensive income.

February 2015 Convertible Note

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 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 for the full face value was recorded as a discount to the notes payable and to additional paid-in capital. The full amount of the BCF was amortized to interest expense by the end of June 2015.

The remaining outstanding note of $150,000 is payable to an 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 lender 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 amendment and related warrant issuance resulted in the Company treating the debt as having been extinguished and replaced with new debt for accounting purposes due to meeting the 10% cash flow test.

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**** Extinguishment of debt***

On January 31, 2017, the Company entered into another amendment to extend the maturity date of the remaining note from January 1, 2017 to January 1, 2018. In exchange for the extension of the maturity date, on January 31, 2017, the Company's board of directors granted the lender a warrant to purchase 370,916 shares of the Company's common stock for $0.51 per share. The warrant is exercisable at any time on or before January 31, 2019, the expiration date of the warrant. The amendment and related warrant issuance resulted in the Company treating the debt as having been extinguished and replaced with new debt for accounting purposes due to meeting the 10% cash flow test. The Company calculated a loss on the extinguishment of debt of $207,713, or the equivalent to the fair value of the warrants granted, which is included in loss on extinguishment of debt in the statements of operations and comprehensive loss in the year ended December 31, 2017. In March of 2018, the debtor agreed to accept the Company's common stock as payment for all outstanding principal and interest. And in April of 2018, the Company issued 2,034,082 shares of common stock to pay off the principal and interest balance.

The $150,000 note is included in convertible notes payable on the balance sheet. The Company has unpaid accrued interest of $56,367 and $38,367, which is included in accrued expenses on the balance sheet as of March 31, 2018 and 2017, respectively, and incurred interest expense of $4,438 in the three months ended March 31, 2018 and 2017 which are included in interest expense in the statement of operations and comprehensive loss.

June 2017 Convertible Note

On June 29, 2017, the Company issued a secured convertible promisorry note to a lendor in the aggregate principal amount of $2,155,000 less an original issue discount of $425,000 and less $30,000 to cover the lender's legal fees for net cash proceeds of $1,700,000. Interest on the outstanding balance will be paid 8% per annum from the purchase price date until the balance is paid in full. All interest calculations are computed on the basis of a 360-day year comprised of twelve (12) thirty (30) day months compounded daily and payable in accordance with the terms of the Note. All principal and interest on the debt is due in full on August 2, 2018. The Company accrued interest of $4,548 and $6,180 at March 31, 2018 and December 31, 2017, which is included in accrued expenses on the balance sheet, and incurred nominal interest of $18,864 in interest expense in the three months ended March 31, 2018 which is included in interest expense in the statement of operations and comprehensive loss. The Company accreted debt discount of $118,923 for the three months ended March 31, 2018 which is included in interest expense in the statement of operations and comprehensive loss. The lender has the right to convert all or any portion of the outstanding balance into the Company's common stock at $1.00 per share. The Note provides the lender with an optional monthly redemption that allows for the monthly payment of up to $350,000 at the creditor's option.

The Note provides for two separate features that result in a derivative liability:

1. Repayment of mandatory default amount upon an event of default—upon the occurrence of any event of default, the lendor may accelerate the Note resulting in the outstanding balance becoming immediately due and payable in cash; and

2. Automatic increase in the interest rate on and during an event of default—during an event of default, the interest rate will increase to the lesser of 17% per annum or the maximum rate permitted under applicable law.

The Company computed fair values at June 30, 2017 of $15,000 and $5,000 for the repayment and the interest rate increase feature, respectively, using the Binomial Lattice Model, which was based on the generalized binomial option pricing formula. The $20,000 combined fair value was carved out and is included as a derivative liability on the Balance Sheet. The derviatives were revalued at December 31, 2017 and March 31, 2018 using the same Model resulting in a combined fair value of $11,000 and $15,000, respectively. The $4,000 loss is included in other income and expense in the statement of income and comprehensive income.

The balance of the note payable of $540,684, consisting of the $2,155,000 face value of the note less note discounts and debt issuance costs of $509,000, less the $20,000 derivative liability, less principal payments of $1,451,454, plus the accretion of the debt discount and debt issuance costs of $366,098, is included in convertible notes payable on the balance sheet.

Interest payable on the accumulation of all convertible notes was $121,018 and $118,228 at March 31, 2018 and December 31, 2017.

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Convertible Notes Payable

In March 2017, Napo entered into an exchangeable Note Purchase Agreement with two lenders for the funding of face amount of $1,312,500 in two $525,000 tranches of face amount $656,250. The notes bear interest at 3% and mature on December 1, 2017. Interest may be paid at maturity in either cash or shares of Jaguar per terms of the exchangeable note purchase agreement. The notes may be exchanged for up to 2,343,752 shares of Jaguar common stock, prior to maturity date. The Company assumed the notes at fair value of $1,312,500 as part of the Napo Merger. At December 31, 2017, the accrued interest on these notes is $29,774. The fair value was calculated using the Binomial Lattice Model using the following criteria: stock price of $0.5893, expected term of tranche 1 of 0.34 years and tranche 2 of 0.42 years, conversion price of $0.56, volatility of tranche 1 of 70% and tranche 2 of 100%, and risk free rate of tranche 1 of 1.09% and tranche 2 of 1.13%.

First Amendment to Note Purchase Agreement and Notes

In December 2017, Napo amended the exchangeable note purchase agreement to extend the maturity of the first tranche and second tranche of notes to February 15, 2018 and April 1, 2018, respectively, increase the principal amount by 12%, and reduce the conversion price from $0.56 per share to $0.20 per share. The Company also issued 2,492,084 shares of common stock to the lenders in connection with this amendment to partially redeem $299,050 from the first tranche of the notes. The amended face value of the notes is $1,170,950. This amendment resulted in the Company treating the notes as having been extinguished and replaced with new notes for accounting purposes due to meeting the 10% cash flow test. The Company calculated a loss on extinguishment of notes of $157,500, which is included in loss on extinguishment of debt in the Company's consolidated statement of operations and comprehensive income. The conversion option in the notes was bifurcated and accounted as a conversion option liability at its fair value of $111,841 using the Black-Scholes-Merton model and the following criteria: stock price of $0.14 per share, conversion prices of $0.20 per share, expected life of 0.13 to 0.25 years, volatility of 86.29% to 160.78%, risk free rate of 1.28% to 1.39% and dividend rate of 0%. The $111,841 was included in conversion option liability on the balance sheet and in loss on extinguishment of debt on the statement of operations and comprehensive loss.

At December 31, 2017, the balance of the notes payable of $1,170,950 was included in convertible notes payable in current liabilities on the consolidated balance sheet. The accrued interest on these notes of $29,774 is included in accrued expenses in current liabilities on the consolidated balance sheet.

Second Amendment to Note Purchase Agreement and Notes

On February 16, 2018, Napo amended the exchangeable note purchase agreement to extend the maturity date of the Second Tranche Notes from April 1, 2018 to May 1, 2018. In addition, the Company also issued 3,783,444 shares of Common Stock to the Purchasers as repayment of the remaining $435,950 aggregate principal amount of the original issue discount exchangeable promissory notes previously issued by Napo to the Purchasers on March 1, 2017 pursuant to the Note Purchase Agreement (the "First Tranche Notes") and $18,063 in accrued and unpaid interest thereon. On March 23, 2018, the Company paid off the remaining $735,000 of principal and $20,699.38 in interest due on the second tranche debt in cash with proceeds from the March 23, 2018 equity financing. The fair value of the conversion option liability was again revalued at March 23, 2018 using the Black-Scholes-Merton model using the following criteria: stock price of $0.21 per share, expected life of 0.11 years, volatility of 288.16%, risk free rate of 1.69% and dividend rate of 0%, resulting in an increase of $174,754 to the fair value of the conversion option liability and included in the change in fair value of warrants and conversion option liability in the statements of operations and comprehensive loss. The underlying debt was paid off in March of 2018 and the $286,595 conversion option liability was written off to other income in the statement of operations and comprehensive loss.

Convertible Long-term Debt

In December 2016, Napo entered into a note purchase agreement which provided for the sale of up to $12,500,000 face amount of notes and issued convertible promissory notes (the Napo December 2016 Notes) in the aggregate face amount of $2,500,000 to three lenders and received proceeds of $2,000,000 which resulted in $500,000 of original issue discount. In July 2017, Napo issued convertible promissory notes (the Napo July 2017 Notes) in the aggregate face amount of $7,500,000 to four lenders and received proceeds of $6,000,000 which resulted in $1,500,000 of original issue discount. The Napo December 2016 Notes and the Napo July 2017 Notes mature on December 30, 2019 and bear interest at 10% with interest due each six-month period after December 30, 2016. On June 30, 2017, the accrued interest of $125,338 was added to principal of the Napo December Notes, and the new principal balance became $2,625,338. Interest may be paid in cash or in the stock of Jaguar per terms of the note purchase agreement. In each one year period beginning December 30, 2016, up to one-third of the principal and accrued interest on the notes may be converted into the common stock of the merged entity at a conversion price of $0.925 per share. The Company assumed these convertible notes at fair value of $11,161,000 as part of the Napo Merger. The fair value was calculated using the Binomial Lattice Model using the following criteria: stock price of $0.5893, expected term of 2.42 years, conversion price of $0.925, volatility of 115%, and risk free rate of 1.41%. The $1,035,661 difference between the fair value of the notes and the principal balance is being amortized over the twenty-nine (29) month period from July 31, 2017 to December 31, 2019 or $178,562 and is recorded as a contra interest expense in the statement of operations and comprehensive loss. Interest expense is paid every six months through the issuance of common stock. On March 16, 2018, $534,775 of interest accrued through January 31, 2018 and $169,950 of certain legal expenses were paid through the issuance of 4,285,423 shares of the Company's common stock. At March 31, 2018 and December 31, 2017, the unamortized balance of the note payable is $10,875,300 and $10,982,438 which are included in Convertible Long-term Debt on the balance sheet, and the accrued interest on these notes is $163,670 and $448,779 as of March 31, 2018 and December 31, 2017, and are included in accrued interest on the balance sheets. Interest of $249,666 less $107,167 of debt appreciation amortization or $142,529 was included in interest expense in the statements of operations and comprehensive income in the three months ended March 31, 2018.

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Long-term Debt

As of March 31, 2018 and December 31, 2017, the net Jaguar long-term debt obligation was as follows:

	March 31, 2018	December 31, 2017
Debt and unpaid accrued end-of-term payment	$ —	$ 1,636,639
Unamortized note discount	—	(6,615)
Unamortized debt issuance costs	—	(20,780)
Net debt obligation	$ —	$ 1,609,244
Current portion of long-term debt	$ —	$ 1,609,244
Long-term debt, net of discount	—	—
Total	$ —	$ 1,609,244

Interest expense on the Jaguar long-term debt for the three months ended March 31, 2018 and 2017 was as follows:

	Three Months Ended March 31,	
	2018	2017
Nominal interest	$ 19,344	$ 78,861
Accretion of debt discount	20,779	11,678
Accretion of end-of-term payment	52,561	48,655

Accretion of debt issuance costs	6,616	36,439
	$ 99,300	$ 175,633

Interest payable on the Jaguar long-term debt was $0 and $9,422 at March 31, 2018 and December 31, 2017, respectively.

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 $600,000 on August 1, 2018 (as modified in the third amendment to the Loan Agreement). 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.

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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.

On July 7, 2017, the Company entered into the third amendment to the Loan Agreement upon which the Company paid $1.0 million of the outstanding loan balance, and the Lender waived the Prepayment Charge associated with such prepayment. The Third Amendment modified the repayment schedule providing a three-month period of interest only payments for the period from August 2017 through October 2017, and reduced the required cash amount that the Company must keep on hand to $500,000, which will be reduced following the Lender's receipt of each principal repayment subsequent to the $1.0 million. As the present value of the cash flows under the terms of the third amendment is less than 10% different from the remaining cash flows under the terms of the loan agreement prior to the amendment, the third amendment was accounted as a debt modification.

On March 23, 2018, the Company paid off the remaining $689,345 of principal, $4,471 of interest, and the end-of-term payment of $600,000 in cash with proceeds from the March 23, 2018 equity financing.

Notes Payable

As of March 31, 2018 and December 31, 2017, the net Jaguar short-term notes payable was as follows:

	Notes Payable	
	March 31, 2018	December 31, 2017
December 2017 note payable	$ 1,587,500	$ 1,587,500
February 2018 note payable	2,240,909	—
March 2018 note payable	1,090,341	—
	4,918,750	1,587,500
Less: unamortized net discount and debt issuance costs	(1,262,651)	(446,347)
Net convertible notes payable obligation	$ 3,656,099	$ 1,141,153

Interest expense on the Jaguar short-term notes payable for the three months ended March 31, 2018 and 2017 was as follows:

	Three Months Ended March 31,	
	2018	2017
Nominal interest	$ 49,659	$ —
Accretion of debt discount	204,946	—
Total interest expense on notes payable	$ 254,605	$ —

Interest payable on the Jaguar short-term notes payable was $57,793 and $8,134 at March 31, 2018 and December 31, 2017, respectively.

On December 8, 2017, the Company entered into a securities purchase agreement with CVP pursuant to which the Company issued a promissory note in the aggregate principal amount of $1,587,500 for an aggregate purchase price of $1,100,000. The Note carries an original issue discount of $462,500, and the initial principal balance also includes $25,000 to cover CVP's transaction expenses. The Company will use the proceeds for general corporate purposes. The Note bears interest at the rate of 8% per annum and matures on September 8, 2018. The balance of the note payable of $1,301,783 consists of the $1,587,500 face value of the note less note discounts and debt issuance costs of $487,500, plus the accretion of the debt discount and debt issuance costs of $201,783, is included in notes payable in the current liabilities section of the balance sheet. The Company accrued interest of $40,364 and $8,333 at March 31, 2018 and December 31, 2017, which is included in accrued expenses on the balance sheet, and incurred nonmal interest of $32,230 in the three months ended March 31, 2018 which is included in interest expense in the statement of operations and comprehensive loss. The Company accreted debt discount of $160,630 in the three months ended March 31, 2018 which is included in interest expense in the statement of operations and comprehensive loss.

In addition, beginning on January 31, 2018, CVP will have the right to redeem a portion of the outstanding balance of the Note in any amount up to $350,000 per month for the first six months following the Purchase Price Date and $500,000 per month thereafter. For purposes of calculating the maximum amount that may be redeemed in any month, the amounts redeemed under the Note will be aggregated with all redemption amounts under the Secured Convertible Promissory Note in the original principal amount of $2,155,000 issued by the Company in favor of the creditor on June 29, 2017.

On February 26, 2018, the Company entered into a securities purchase agreement with Chicago Venture Partners, L.P. ("CVP"), pursuant to which the Company issued to CVP a promissory note in the aggregate principal amount of $2,240,909 for an aggregate purchase price of $1,560,000. The Note carries an original issue discount of $655,909, and the initial principal balance also includes $25,000 to cover CVP's transaction expenses. The Company will use the proceeds for general corporate purposes and working capital. The Note bears interest at the rate of 8% per annum and matures on (i) August 26, 2019 if the Company has raised at least $12 million in equity after the issuance date of the Note (the "Redemption Start Condition") and on or before April 1, 2018 or (ii) November 26, 2018 if the Redemption Start Condition is not satisfied on or before April 1, 2018. The balance of the note payable of $1,599,217 consisting of the $2,240,909 face value of the note less note discounts and debt issuance costs of $680,909, plus the accretion of the debt discount and debt issuance costs of $39,217, is included in notes payable in the current liabilities section of the balance sheet. The Company accrued interest of $15,489 at March 31, 2018, which is included in accrued expenses on the balance sheet, and incurred nonmal interest of $15,489 in the three months ended March 31, 2018 which is included in interest expense in the statement of operations and comprehensive loss. The Company accreted debt discount of $39,217 in interest expense for the three months ended March 31, 2018 which is included in interest expense in the statement of operations and comprehensive loss.

In addition, beginning on the Redemption Start Date (as defined below), the Company has the right to redeem all or any portion of the outstanding balance of the Note in cash or as otherwise mutually agreed upon between the parties. The Redemption Start Date is the date that is (i) seven months from the effective date of the Note (the "Effective Date") if the Redemption Start Condition is satisfied by April 1, 2018 or (ii) six months from the Effective Date if (x) the Redemption Start Condition is not satisfied by April 1, 2018 or (y) at any time after the Effective Date CVP breaches any of the covenants set forth in the Securities Purchase Agreement.

If the Redemption Start Condition is satisfied by April 1, 2018, the Company and CVP also agree to amend that certain Secured Convertible Promissory Note in the original amount of $2,155,000 issued by Company in favor of CVP on June 29, 2017 (the "June 2017 Note") and that certain Secured Promissory Note in the original amount of $1,587,500 issued by Company in favor of CVP on December 8, 2017 (the "December 2017 Note," and together with the June 2017 Note, the "Prior Notes") to (i) extend the maturity date of the Prior Notes to August 26, 2019, (ii) postpone the date on which CVP can exercise its right to redeem the Prior Notes to September 26, 2018 and (iii) limit the aggregate amount that CVP is permitted to redeem on a monthly basis to $500,000, which amount is the maximum aggregate redemption amount for the Prior Notes and the Note collectively.

The Securities Purchase Agreement and the other transaction documents and obligations of the Company thereunder are subject in all respects to the terms of that certain subordination agreement and right to purchase debt (the "Subordination Agreement") that the Company entered into with CVP with Hercules Capital, Inc. ("Hercules") on June 29, 2017, pursuant to which (i) CVP subordinated (a) all of the Company's debt and obligations to CVP to all of the Company's indebtedness and obligations to Hercules and (b) all of CVP's security interest, if any, in the Company's assets to all of Hercules' security interest in the Company's assets and (ii) Hercules granted CVP the right to purchase 100% of the debt under the Company's term loan so long as the purchase includes the full pay-out of funds owed to Hercules under the term loan at such time.

The Company also entered into a security agreement with CVP, pursuant to which CVP will receive a security interest in substantially all of the Company's assets. The security interest is effective upon CVP's purchase of the Company's outstanding obligations under that certain loan and security agreement, dated August 18, 2015, between the Company and Hercules Capital, Inc. or upon such time that the Hercules Loan is otherwise repaid in full.

On March 21, 2018, the Company entered into a securities purchase agreement with CVP, pursuant to which the Company issued to CVP a promissory note in the aggregate principal amount of $1,090,341 for an aggregate purchase price of $750,000. The Note carries an original issue discount of $315,341, and the initial principal balance also includes $25,000 to cover CVP's transaction expenses. The Company will use the proceeds to fully repay certain prior secured and unsecured indebtedness. The Note bears interest at the rate of 8% per annum and matures on September 21, 2019.

Under the Securities Purchase Agreement, the Company is subject to certain covenants, including the obligations of the Company to: (i) timely file all reports required to be filed under Sections 13 or 15(d) of the Securities Exchange Act of 1934, as amended (the "Exchange Act") and not terminate its status as an issuer required to file reports under the Exchange Act; (ii) maintain listing of the Company's common stock on a securities exchange; (iii) avoid trading in the Company's common stock from being suspended, halted, chilled, frozen or otherwise ceased; (iv) not issue any variable securities (i.e., Company securities that (a) have conversion rights of any kind in which the number of shares that may be issued pursuant to the conversion right varies with the market price of the Company's common stock or (b) are or may become convertible into shares of the Company's common stock with a conversion price that varies with the market price of such stock) that generate gross cash proceeds to the Company of less than the lesser of $1 million and the then-current outstanding balance of the Note without CVP's prior consent; (v) not grant a security interest in its assets without CVP's prior consent; (vi) not issue any shares of common stock to certain institutional investors; (vii) repay the Hercules Loan (as defined below) on or before March 26, 2018; (viii) repay all outstanding amounts owed to certain noteholders within five trading days of the date of issuance of the Note; (ix) not incur any debt other than in the ordinary course of business, and in no event greater than $10,000, without CVP's prior consent; and (x) other customary covenants and obligations, for which the Company's failure to comply may be subject to certain liquidated damages. The Hercules Loan was repaid in full on March 23, 2018, simultaneously with the closing of the Preferred Stock Offering.

In addition, beginning seven months from the effective date of the Note or at any time after the Effective Date if the Company breaches any of the covenants set forth in the Securities Purchase Agreement, CVP has the right to redeem all or any portion of the outstanding balance of the Note in cash or as otherwise mutually agreed upon between the parties.

Since the Redemption Start Condition (i.e., the Company raised at least $12 million in equity after the issuance date of the Note) was satisfied by April 1, 2018 as a result of the consummation of the Preferred Stock Offering and Common Stock Offering, the Company and CVP agreed to amend the Notes issued to CVP on June 29, 2017, December 8, 2017 and February 26, to limit the aggregate amount that CVP is permitted to redeem on a monthly basis to $500,000, which amount is the maximum aggregate redemption amount for the Notes collectively.

Warrants

On November 22, 2016, the Company entered into a Securities Purchase Agreement, or the 2016 Purchase Agreement, with certain institutional investors, pursuant to which the Company sold securities to such investors in a private placement transaction, which we refer to herein as the 2016 Private Placement. In the 2016 Private Placement, the Company sold an aggregate of 1,666,668 shares of the Company's common stock at a price of $0.60 per share for gross proceeds of approximately $1.0 million. The investors in the 2016 Private Placement also received (i) warrants to purchase up to an aggregate of 1,666,668 shares of the Company's common stock, at an exercise price of $0.75 per share, or the Series A Warrants, and the Placement Agent received warrants to purchase 133,333 shares of our common stock in lieu of cash for service fees with the same terms as the investors; (ii) warrants to purchase up to an aggregate 1,666,668 shares of the Company's common stock, at an exercise price of $0.90 per share, or the Series B Warrants, and (iii) warrants to purchase up to an aggregate 1,666,668 shares of our common stock, at an exercise price of $1.00 per share, or the Series C Warrants and, together with the Series A Warrants and the Series B Warrants, the 2016 Warrants. The warrants were granted in three series with different terms. The warrants were valued using the Black-Scholes-Merton warrant pricing model as follows:

- Series A Warrants and Placement Agent Warrants: 1,666,668 warrant shares with a strike price of $0.75 per share and an expiration date of May 29, 2022; and 133,333 warrant shares to the placement agent with a strike price of $0.75 and an expiration date of May 29, 2022; the expected life is 5.5 years, the volatility is 71.92% and the risk free rate is 1.87% in valuing these warrants.

- Series B Warrants: 1,666,668 warrant shares with a strike price of $0.90 per share and an expiration date of November 29, 2017; the expected life is one year, the volatility is 116.65% and the risk free rate is 0.78% in valuing these warrants.

- Series C Warrants: 1,666,668 warrant shares with a strike price of $1.00 per share and an expiration date of May 29, 2018; the expected life is 1.5 years, the volatility is 116.92% and the risk free rate is 0.94%.

The warrant valuation date was November 29, 2016 and the closing price of $0.69 per share was used in determining the fair value of the warrants. The series A warrants and placement agent warrants were valued at $756,001 and were classified as a warrant liability in the Company's balance sheet. The series A warrants and placement agent warrants were revalued on December 31, 2016 at $799,201 which is included in the Company's balance sheet, and the $43,200 increase is included in the Company's statements of operations and comprehensive loss. The stock price was $0.716, the strike price was $0.75 per share, the expected life was 5.41 years, the volatility was 73.62% and the risk free rate was 2.0%. The series B and C warrants were classified as equity, and as such were not subject to revaluation at year end. Costs incurred in connection with the issuance were allocated based on the relative fair values of the Series A and the Series B and C warrants. The series A warrants and placement agent warrants were revalued on December 31, 2017 at $103,860 and is included in the Company's balance sheet. The valuation reflects a reduction of $695,341 from the $799,201 December 31, 2016 valuation. The reduction is included in the Company's statements of operations and comprehensive loss. The $103,860 valuation at December 31, 2017 was computed using the Black-Scholes-Merton pricing model using a stock price of $0.1398, the strike price was $0.75 per share, the expected life was 4.41 years, the volatility was 96.36% and the risk free rate was 2.14%.

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On July 31, 2017, the Company entered into Warrant Exercise Agreements (the "Exercise Agreements") with certain holders of Series C Warrants (the "Exercising Holders"), which Exercising Holders own, in the aggregate, Series C Warrants exercisable for 908,334 shares of the Company's common stock. Pursuant to the Exercise Agreements, the Exercising Holders and the Company agreed that the Exercising Holders would exercise their Series C Warrants with respect to 908,334 shares of common stock underlying such Series C Warrants for a reduced exercise price equal to $0.40 per share. The Company received aggregate gross proceeds of approximately $363,334 from the exercise of the Series C Warrants by the Exercising Holders. The difference between the pre-modification and post-modification fair value of $23,000 was expensed in general and administrative expense in the statements of operations and comprehensive income. The pre-modification fair value was computed using the Black-Scholes-Merton model using a stock price of $0.56 (fair market value on modification date), original strike price of $1.00, expected life of 0.83 years, volatility of 115.28%, risk-free rate of 1.20% to arrive at a fair value of $0.1347 per share. The post-modification fair value was computed using the intrinsic value on the date of modification or $0.16 per share.

The Company granted warrants to purchase the 1,224,875 shares of common stock of the Company at an exercise price price of $0.08 per share to replace Napo warrants upon the consummation of the Merger. Of the 1,224,875 warrants, 145,457 warrants expire on December 31, 2018 and 1,079,418 warrants expire on December 31, 2025. The warrants were valued at $630,859, using the Black-Scholes-Merton warrant pricing model as follows: exercise price of $0.08 per share, stock price of $0.56 per share, expected life ranging from 1.42 years to 8.42 years, volatility ranging from 75.07% to 110.03%, and risk free rate ranging from 1.28% to 2.14%. The warrants were accounted in equity.

The Company's warrant activity is summarized as follows:

	Three Months Ended March 31, 2018	Year Ended December 31, 2017
	(in shares)	
Beginning balance	4,820,025	5,968,876
Warrants granted	—	1,595,791
Warrants exercised	—	(908,334)
Warrants cancelled	—	(1,836,308)
Ending balance	4,820,025	4,820,025

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.

Revenue Recognition

The Company recognizes revenue in accordance with ASC Topic 606, Revenue from Contracts with Customers ("ASC 606"), which was adopted on January 1, 2018, using the modified retrospective method, which was elected to apply to all contracts. Application of the modified retrospective method did not impact amounts previously reported by the Company, nor did it require a cumulative effect adjustment upon adoption, as the Company's method of recognizing revenue under ASC 606 was similar to the method utilized immediately prior to adoption. Accordingly, there is no need for the Company to dislose the amount by which each financial statement line item was affected as a result of applying the new revenue standard and an explanation of significant changes.

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The Company recognizes revenue in accordance with the core principal of ASC 606 or when there is a transfer of promised goods or services to customers in an amount that reflects the consideration that the Company expects to be entitled to in exchange for those goods or services.

Contracts

Napo has a Marketing and Distribution Agreement ("M&D Agreement") with BexR Logistix, LLC ("BexR" or "Mission Pharmacal" or "Mission"), in April 2016 to appoint BexR as its distributor with the right to market and sell, and the exclusive right to distribute Mytesi (formerly Fulyzaq) in US. The term of the M&D Agreement is 4 years. The M&D Agreement will renew automatically for successive one year terms unless either party provides a written notice of termination not less than 90 days prior to the expiration of the initial or subsequent terms. Napo retains control of Mytesi held at Mission.

Napo sells Mytesi through Mission, who then sells Mytesi to its distributors and wholesalers — McKesson, Cardinal Health, AmerisourceBergen Drug Corporation ("ABC"), HD Smith, Smith Drug and Publix (together "Distributors"). Mission sells Mytesi to their Distributors, on behalf of Napo, under agreements executed by Mission with these Distributors and Napo abides by the terms and conditions of sales agreed between Mission and their Distributors. Health care providers order Mytesi through pharmacies who obtain Mytesi through Mission's Distributors. Napo considers the Distributors of Mission as its customers.

Mission's Distributors are the customers of the Company with respect to purchase of Mytesi. The M&D Agreement with Mission, Mission's agreement with its Distributors and the related purchase order will together meet the contract existence criteria under ASC 606-10-25-1.

Jaguar's Neonorm and Botanical extract products are primarily sold to distributors, who then sell the products to the end customers. Since 2014, the Company has entered into several distribution agreements with established distributors such as Animart, Vedco, VPI, RJ Matthews, Henry Schein, and Stockmen Supply to distribute the Company's products in the United States, Japan, and China. The distribution agreements and the related purchase order together meet the contract existence criteria under ASXC 606-10-25-1.

Performance obligations

For the products sold by each of Napo and Jaguar, the single performance obligation identified above is Company's promise to transfer the Company's product Mytesi to Distributors based on specified payment and shipping terms in the arrangement.

Transaction price

For both Jaugar and Napo, the transaction price is the amount of consideration to which the Company expects to collect in exchange for transferring promised goods or services to a customer. The transaction price of Mytesi and Neonorm is the Wholesaler Aquistion Cost ("WAC"), net of variable considerations and price adjustments.

Allocate transaction price

For both Napo and Jaguar, the entire transaction price is allocated to the single performance obligaton contained in each contract.

Point in time recognition

For both Napo and Jaguar, a single performance obligation is satisfied at a point in time, upon the FOB terms of each contract when control, including title and all risks, has transferred to the customer.

Disaggregation of Product Revenue

Human

Sales of Mytesi are recognized as revenue when the products are delivered to the wholesalers. Revenues from the sale of Mytesi were $583,269 and $0 in the three months ended March 2018 and 2017, respectively. The Company recorded a reserve for estimated product returns under terms of agreements with wholesalers based on its historical returns experience. Reserves for returns at March 31, 2018 and December 31, 2017 were immaterial. If actual returns differed from our historical experience, changes to the reserved could be required in future periods.

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Animal

The Company recognized Neonorm revenues of $43,698 and $44,544 for the three months ended March 31, 2018 and 2017, respectively, and Botanical Extract revenues of $0 and $30,000 in the three months ended March 31, 2018 and 2017, respectively. Revenues are recognized when title has transferred to the buyer. 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. Reserves for returns are analyzed periodically and are estimated based on historical return data. Reserves for returns and price adjustments at March 31, 2018 and December 31, 2017 were immaterial. Sales of Botanical Extract are recognized as revenue when the product is delivered to the customer which do not provide for return rights.

Collaboration Revenue

On January 27, 2017, the Company entered into a licensing, development, co-promotion and commercialization agreement with Elanco US Inc. ("Elanco") to license, develop and commercialize Canalevia, the Company's drug product candidate under investigation for treatment of acute and chemotherapy-induced diarrhea in dogs, and other drug product formulations of crofelemer for treatment of gastrointestinal diseases, conditions and symptoms in cats and other companion animals. Under the terms of the agreement, the Company received an initial upfront payment of $2,548,689, inclusive of reimbursement of past product and development expenses of $1,048,689, which was recognized as revenue ratably over the estimated development period of one year resulting in $177,389 and $459,700 in collaboration revenue in the three months ended March 31, 2018 and 2017, respectively. In addition to the upfront payments, Elanco reimbursed the Company for $0 and $288,166 in the three months ended March 31, 2018 and 2017 for certain development and regulatory expenses related to the planned target animal safety study and the completion of the Canalevia field study for acute diarrhea in dogs which were also included in collaboration revenue.

On November 1, 2017, the Company received a letter from Elanco serving as formal notice of their decision to terminate the agreement by giving the Company 90 days written notice. According to the agreement, termination became effective on January 30, 2018, which is 90 days after the date of the Notice. On the effective date of termination of the Elanco Agreement, all licenses granted to Elanco by the Company under the Elanco Agreement were revoked and the rights granted thereunder reverted back to the Company. Provisions in the agreement providing for the receipt of additional payments upon achievement of certain development, regulatory and sales milestones in an aggregate amount of up to $61.0 million payable throughout the term of the Elanco Agreement, as well as product development expense reimbursement for any additional product development expenses incurred, and royalty payments on global sales terminated on termination of the agreement.

Goodwill and Indefinite-lived Intangible Assets

Goodwill is tested for impairment on an annual basis and in between annual tests if events or circumstances indicate that an impairment loss may have occurred. The test is based on a comparison of the reporting unit's book value to its estimated fair market value. We perform annual impairment test during the fourth quarter of each fiscal year using the opening consolidated balance sheet as of the first day of the fourth quarter, with any resulting impairment recorded in the fourth quarter of the fiscal year.

If the carrying value of a reporting unit's net assets exceeds its fair value, the goodwill would be considered impaired and would be reduced to its fair value. The goodwill was entirely allocated to the human health reporting unit as the goodwill relates to the Napo Merger. The decline in market capitalization during the year ended December 31, 2017 was determined to be a triggering event for potential goodwill impairment. Accordingly we performed the goodwill impairment analysis. The Company utilized the market capitalization plus a reasonable control premium in the performance of its impairment test. The market capitalization was based on the outstanding shares and the average market share price for the 30 days prior to December 31, 2017. Based on the results of our impairment test, the Company recorded an impairment charge of $16,827,000 during the year ended December 31, 2017. If the market capitalization decreases in the future, a reasonable possibility exists that goodwill could be further impaired in the near term and that such impairment may be material to the financial statements.

Fair value determinations require considerable judgment and are sensitive to changes in underlying assumptions, estimates and market factors. Estimating the fair value of individual reporting units and indefinite-lived intangible assets requires us to make assumptions and estimates regarding our future plans, as well as industry and economic conditions. These assumptions and estimates include projected revenues and income growth rates, terminal growth rates, competitive and consumer trends, market-based discount rates, and other market factors. If current expectations of future growth rates are not met or market factors outside of our control, such as discount rates, change significantly, this may lead to a further goodwill impairment in the future. Acquired in-process research and development (IPR&D) are intangible assets initially recognized at fair value and classified as indefinite-lived assets until the successful completion or abandonment of the associated research and development efforts. During the development period, these assets will not be amortized as charges to earnings; instead these assets will be tested for impairment on an annual basis or more frequently if impairment indicators are identified. Based on the results of our impairment test, the Company recorded an impairment charge of $2,300,000 during the year ended December 31, 2017. In connection with each annual impairment assessment and any interim impairment assessment in which indicators of impairment have been identified, we compare the fair value of the asset as of the date of the assessment with the carrying value of the asset on the consolidated balance sheet. If impairment is indicatd by this test, the intangible asset is written down by the amount by which the discounted cash flows expected from the intangible asset exceeds its carrying value.

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Additionally, as goodwill and intangible assets associated with recently acquired businesses are recorded on the balance sheet at their estimated acquisition date fair values, those amounts are more susceptible to an impairment risk if business operating results or macroeconomic conditions deteriorate.

In connection with each annual impairment assessment and any interim impairment assessment in which indicators of impairment have been identified, we compare the fair value of the asset as of the date of the assessment with the carrying value of the asset on the consolidated balance sheet. If impairment is indicatd by this test, the intangible asset is written down by the amount by which the discounted cash flows expected from the intangible asset exceeds its carrying value.

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

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. 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.

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.

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- 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.

- 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 market 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.

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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. Financial instruments such as warrants that are evaluated to be classified as liabilities are fair valued upon issuance and are remeasured at fair value at subsequent reporting periods with the resulting change in fair value recorded in other income/(expense). The fair value of warrants is estimated using the Black Scholes Merton model and requires the input of subjective assumptions including expected stock price volatility and expected life.

Income Taxes

As of December 31, 2017, the Company had federal and state net operating loss carryovers of approximately $20,777,790 and $21,432,738, respectively The federal and state net operating losses will begin to expire in 2033. 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, 2017, 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. Utilization of the domestic NOL and tax credit forwards may be subject to a substantial annual limitation due to ownership change limitations that may have occurred or that could occur in the future, as required by the Internal Revenue Code Section 382, as well as similar state provisions.

Recent Accounting Pronouncements

In July 2017, the Financial Accounting Standards Board ("FASB") issued Accounting Standards Update ("ASU") No. 2017-11, "Earnings Per Share (Topic 260); Distinguishing Liabilities from Equity (Topic 480); Derivatives and Hedging (Topic 815): (Part I) Accounting for Certain Financial Instruments with Down Round Features, (Part II) Replacement of the Indefinite Deferral for Mandatorily Redeemable Financial Instruments of Certain Nonpublic Entities and Certain Mandatorily Redeemable Non-controlling Interests with a Scope Exception" ("ASU 2017-11"), which addresses the complexity of accounting for certain financial instruments with down round features. Down round features are features of certain equity-linked instruments (or embedded features) that result in the strike price being reduced on the basis of the pricing of future equity offerings. Current accounting guidance creates cost and complexity for entities that issue financial instruments (such as warrants and convertible instruments) with down round features that require fair value measurement of the entire instrument or conversion option. The amendments in Part I of this ASU are effective for public business entities for fiscal years, and interim periods within those fiscal years, beginning after December 15, 2018. The Company is currently evaluating the impact of the adoption of ASU 2017-11 on its consolidated financial statements.

In May 2017, the FASB issued ASU No. 2017-09, "Compensation—Stock Compensation (Topic 718): Scope of Modification Accounting" ("ASU 2017-09"), which provides guidance on determining which changes to the terms and conditions of share-based payment awards require an entity to apply modification accounting under Topic 718. The amendments in this ASU are effective for all entities for annual periods, and interim periods within those annual periods, beginning after December 15, 2017. Early adoption is permitted, including adoption in any interim period, for (1) public business entities for reporting periods for which financial statements have not yet been issued and (2) all other entities for reporting periods for which financial statements have not yet been made available for issuance. The amendments in this ASU should be applied prospectively to an award modified on or after the adoption date. The Company adopted this guidance on January 1, 2018 and such adoption did not have a material impact on the Company's condensed consolidated financial statements.

In February 2017, the FASB issued ASU No. 2017-05, "Other Income—Gains and Losses from the Derecognition of Nonfinancial Assets (Subtopic 610-20): Clarifying the Scope of Asset Derecognition Guidance and Accounting for Partial Sales of Nonfinancial Assets" ("ASU 2017-05"), which clarifies the scope of the nonfinancial asset guidance in Subtopic 610-20. This ASU also clarifies that the derecognition of all businesses and nonprofit activities (except those related to conveyances of oil and gas mineral rights or contracts with customers) should be accounted for in accordance with the derecognition and deconsolidation guidance in Subtopic 810-10. The amendments in this ASU also provide guidance on the accounting for what often are referred to as partial sales of nonfinancial assets within the scope of Subtopic 610-20 and contributions of nonfinancial assets to a joint venture or other noncontrolled investee. The amendments in this ASU are effective for annual reporting reports beginning after December 15, 2017, including interim reporting periods within that reporting period. Public entities may apply the guidance earlier but only as of annual reporting periods beginning after December 15, 2016, including interim reporting periods within that reporting period. The Company adopted this guidance on January 1, 2018 and such adoption did not have a material impact on the Company's condensed consolidated financial statements.

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In January 2017, the FASB issued ASU No. 2017-04 related to goodwill impairment testing. This ASU eliminates Step 2 from the goodwill impairment test. Under the new guidance, if a reporting unit's carrying amount exceeds its fair value, the entity will record an impairment charge based on that difference. The impairment charge will be limited to the amount of goodwill allocated to that reporting unit. Previously, if the fair value of a reporting unit was lower than its carrying amount (Step 1), an entity was required to calculate any impairment charge by comparing the implied fair value of goodwill with its carrying amount (Step 2). Additionally, under the new standard, entities that have reporting units with zero or negative carrying amounts will no longer be required to perform the qualitative assessment to determine whether to perform Step 2 of the goodwill impairment test. As a result, reporting units with zero or negative carrying amounts will generally be expected to pass the simplified impairment test; however, additional disclosure will be required of those entities. This ASU will be effective beginning in the first quarter of our fiscal year 2020. Early adoption is permitted for annual and interim goodwill impairment testing dates after January 1, 2017. The new guidance must be adopted on a prospective basis. The Company early adopted this ASU in 2017. For impact of the adoption of this standard, refer to Note 6 "Goodwill".

In November 2016, the FASB issued Accounting Standards Update No. 2016-18, Statement of Cash Flows: Restricted Cash, or ASU 2016-18, that will require entities to show the changes in the total of cash, cash equivalents, restricted cash and restricted cash equivalents in the statement of cash flows. As a result, entities will no longer present transfers between cash and cash equivalents and restricted cash and restricted cash equivalents in the statement of cash flows. When cash, cash equivalents, restricted cash and restricted cash equivalents are presented in more than one line item on the balance sheet, the new guidance requires a reconciliation of the totals in the statement of cash flows to the related captions in the balance sheet. This reconciliation can be presented either on the face of the statement of cash flows or in the notes to the financial statements. Entities will also have to disclose the nature of their restricted cash and restricted cash equivalent balances. ASU 2016-18 becomes effective for fiscal years beginning after December 15, 2017, and interim periods within those years, with early adoption permitted. Any adjustments must be reflected as of the beginning of the fiscal year that includes that interim period. The Company adopted this guidance on January 1, 2018 and such adoption did not have a material impact on the Company's condensed consolidated financial statements.

In October 2016, the FASB issued Accounting Standards Update 2016-16, Accounting for Income Taxes: Intra-Entitiy Asset Transfers of Assets Other than Inventory. Under current GAAP, the tax effects of intra-entity asset transfers (intercompany sales) are deferred until the transferred asset is sold to a third party or otherwise recovered through use. This is an exception to the principle in ASC 740, Income Taxes, that generally requires comprehensive recognition of current and deferred income taxes. The new guidance eliminates the exception for all intra-entity sales of assets other than inventory. As a result, a reporting entity would recognize the tax expense from the sale of the asset in the seller's tax jurisdiction when the transfer occurs, even though the pre-tax effects of that transaction are eliminated in consolidation. Any deferred tax asset that arises in the buyer's jurisdiction would also be recognized at the time of the transfer. The new guidance does not apply to intra-entity transfers of inventory. The ASU will be effective for public business entities in fiscal years beginning after December 15, 2017, including interim periods within those years. The Company adopted this guidance on January 1, 2018 and such adoption did not have a material impact on the Company's condensed consolidated financial statements.

In August 2016, the FASB issued Accounting Standards Update, or ASU, No. 2016-15, Statement of Cash Flows (Topic 230): Classification of Certain Cash Receipts and Cash Payments, which addresses the following cash flow issues: (1) debt prepayment or debt extinguishment costs; (2) settlement of zero-coupon debt instruments or other debt instruments with coupon interest rates that are insignificant in relation to the effective interest rate of the borrowing; (3) contingent consideration payments made after a business combination; (4) proceeds from the settlement of insurance claims; (5) proceeds from the settlement of corporate-owned life insurance policies, including bank-owned life insurance policies; (6) distributions received from equity method investees; (7) beneficial interests in securitization transactions; and (8) separately identifiable cash flows and application of the predominance principle. The amendments in this ASU are effective for public business entities for fiscal years beginning after December 15, 2017 and interim periods within those fiscal years and are effective for all other entities for fiscal years beginning after December 15, 2018 and interim periods within fiscal years beginning after December 15, 2019. Early adoption is permitted, including adoption in an interim period. The Company adopted this guidance on January 1, 2018 and such adoption did not have a material impact on the Company's condensed consolidated financial statements.

In March 2016 the FASB issued ASU No. 2016-07, Investments—Equity Method and Joint Ventures (Topic 323): Simplifying the Transition to the Equity Method of Accounting. This new standard eliminates the requirement that when an investment qualifies for use of the equity method as a result of an increase in the level of ownership interest or degree of influence, an adjustment must be made to the investment, results of operations and retained earnings retroactively on a step-by-step basis as if the equity method had been in effect during all previous periods that the investment has been held. ASU 2016-07 is effective for fiscal years, and interim periods within those fiscal years, beginning after December 15, 2017. The Company adopted this guidance on January 1, 2018 and such adoption did not have a material impact on the Company's condensed consolidated financial statements.

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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. The Company is currently evaluating the impact of the adoption of ASU 2016-02 on our consolidated financial statements.

In May 2014, the FASB issued ASU No. 2014-09, "Revenue from Contracts with Customers (Topic 606)" (ASU 2014-09), and subsequently issued modifications or clarifications in ASU No. 2015-14, "Revenue from Contracts with Customers (Topic 606): Deferral of the Effective Date," ASU 2016-08, "Revenue from Contracts with Customers (Topic 606): Principal versus Agent Considerations (Reporting Revenue Gross versus Net)," ASU No. 2016-10, "Revenue from Contracts with Customers (Topic 606): Identifying Performance Obligations and Licensing," and ASU No. 2016-12, "Revenue from Contracts with Customers (Topic 606): Narrow-Scope Improvements and Practical Expedients." The revenue recognition principle in ASU 2014-09 and the related guidance is that an entity should recognize revenue to depict the transfer of 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. ASU 2014-09 prescribes a five-step process for evaluating contracts and determining revenue recognition. In addition, new and enhanced disclosures are required. Companies may adopt the new standard either using the full retrospective approach, a modified retrospective approach with practical expedients, or a cumulative effect upon adoption approach. The Company has completed the process of evaluating the effects of the adoption of Topic 606 and determined that the timing and measurement of our revenues under the new standard is similar to that recognized under the previous revenue guidance. Similar to the current guidance, the Company will need to make significant estimates related to variable consideration at the point of sale, including chargebacks, rebates and product returns. Revenue will be recognized at a point in time upon the transfer of control of the Company's products, which occurs upon delivery for substantially all of the Company's sales. The Company adopted the new revenue guidance effective January 1, 2018, by recognizing the cumulative effect of initially applying the new standard as an increase to the opening balance of retained earnings as prescribed by the modified retrospective method of adoption. The adoption of ASU 2014-09, ASU 2016-10 and ASU 2016-12 did not have a material impact on Company's condensed consolidated financial statements.

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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

Disclosure Controls and Procedures

We maintain "disclosure controls and procedures," as such term is defined in Rule 13a-15(e) and 15d-15(c) under the Securities Exchange Act of 1934, as amended (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 not effective due to the existence of a material weakness in the design and operating effectiveness of an internal control related to review of our tax provision. This conclusion was based on the material weakness in our internal control over financial reporting further described below.

A material weakness is a deficiency, or combination of deficiencies, in internal control over financial reporting such that there is a reasonable possibility that a material misstatement of our annual or interim financial statements will not be prevented or detected in a timely basis. In connection with the audit of our financial statements as of and for the year ended December 31, 2017, we did not adequately and timely review the accounting for income taxes. While we utilize the assistance of an external income tax specialist to prepare our annual tax provision, management has concluded there to be a material weakness in the design of our income tax controls in that our policy that governs the data validation controls over data provided to and received from the external income tax specialist and the management review controls were not designed with appropriate levels of precision and were not undertaken in a timely manner, which resulted in an extension to file our Annual Report on Form 10-K. We plan to enhance existing controls and design and implement new controls applicable to our tax accounting, to ensure that our income tax balances are accurately calculated and appropriately reflected in our financial statements on a timely basis. We plan to devote significant time and attention to remediate the above material weakness as soon as reasonably possible. As we continue to evaluate our controls, we will make the necessary changes to improve the overall design and operation of our controls. We believe these actions will be sufficient to remediate the identified material weakness and strengthen our internal control over financial reporting; however, there can be no guarantee that such remediation will be sufficient. We will continue to monitor the effectiveness of our controls and will make any further changes management determines appropriate.

Changes in Internal Control over Financial Reporting

There was no change in our internal control over financial reporting 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.

On July 20, 2017, a putative class action complaint was filed in the United States District Court, Northern District of California, Civil Action No. 3:17-cv-04102, by Tony Plant (the "Plaintiff") on behalf of shareholders of the Company who held shares on June 30, 2017 and were entitled to vote at the 2017 Special Shareholders Meeting, against the Company and certain individuals who were directors as of the date of the vote (collectively, the "Defendants"), in a matter captioned Tony Plant v. Jaguar Animal Health, Inc., et al., making claims arising under Section 14(a) and Section 20(a) of the Exchange Act and Rule 14a-9, 17 C.F.R. § 240.14a-9, promulgated thereunder by the SEC. The claims allege false and misleading information provided to investors in the Joint Proxy Statement/Prospectus on Form S-4 (File No. 333-217364) declared effective by the Commission on July 6, 2017 related to the solicitation of votes from shareholders to approve the merger and certain transactions related thereto. The Company accepted service of the complaint and summons on behalf of itself and the United States-based director Defendants on November 1, 2017. The Company has not accepted service on behalf of, and Plaintiff has not yet served, the non-U.S.-based director Defendants. On October 3, 2017, Plaintiff filed a motion seeking appointment as lead plaintiff and appointment of Monteverde & Associates PC as lead counsel. That motion has been granted. Plaintiff filed an amended complaint against the Company and

the United States-based director Defendants on January 10, 2018. If the Plaintiff were able to prove its allegations in this matter and to establish the damages it asserts, then an adverse ruling could have a material impact on the Company. However, the Company disputes the claims asserted in this putative class action case and is vigorously contesting the matter. On March 12, 2018, the Defendants moved to dismiss the amended complaint for failure to state a claim upon which relief may be granted. The Company believes that it is not probable that an asset has been impaired or a liability has been incurred as of the date of the financial statements and the amount of any potential loss is not reasonably estimable. The court has ordered a briefing schedule on the motion to dismiss and has tentatively set a hearing date of June 14, 2018.

Other than as described above, there are currently no claims or actions pending against us, the ultimate disposition of which could have a material adverse effect on our results of operations, financial condition or cash flows.

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

In January 2018, pursuant to a consulting agreement dated August 14, 2017, we issued 50,000 shares of our common stock to Investor Awareness, Inc. as partial consideration for financial public relations services rendered.

In January 2018, pursuant to a share purchase agreement dated January 18, 2018, we issued 9,215,900 shares of our common stock to certain investors for gross proceeds of approximately $954,000. We used net proceeds from the offering for commercialization activities relating to the launch of Mytesi, our FDA-approved human health product, and general corporate purposes.

In January through March 2018, through a series of partial redemptions pursuant to the terms of the Secured Convertible Promissory Note issued to Chicago Venture Partners, L.P. (the “CVP Note”) as disclosed in our Form 8-K filed with the SEC on July 3, 2017, we issued 8,542,637 shares of common stock to redeem $950,000 of the CVP Note, including accrued and unpaid interest thereon.

On March 23, 2018, pursuant to a stock purchase agreement, we issued 5,524,926 shares of our Series A Convertible Participating Preferred Stock, $0.0001 par value per share, to Sagard Capital Partners, L.P. for gross proceeds of $9,199,001. The Company intends to use the proceeds from the offering for ongoing commercialization activities for Mytesi and general corporate purposes.

On March 23, 2018, pursuant to share purchase agreements, we issued 29,411,766 shares of our common stock to certain investors for gross proceeds of approximately $5 million. We used net proceeds from the offering to repay certain aged payables relating to our acquisition of Napo in July 2017.

The offers, sales, and issuances of the securities described above were deemed to be exempt from registration under the Securities Act in reliance on Section 4(a)(2) of the Securities Act, Regulation D or Regulation S promulgated thereunder as transactions by an issuer not involving a public offering. The recipients of securities in each of these transactions acquired the securities for investment only and not with a view to or for sale in connection with any distribution thereof and appropriate legends were affixed to the securities issued in these transactions. Each of the recipients of securities in these transactions was an accredited or sophisticated person and had adequate access, through employment, business or other relationships, to information about us.

Other than as provided above and the shares of our common stock sold pursuant to the common stock purchase agreement with L2 Capital, LLC, as disclosed on our Form 8-K filed with the SEC on November 24, 2017, there were no unregistered sales of equity securities during the period.

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Item 6. Exhibits

Exhibit No.	Description
3.1	Third Amended and Restated Certificate of Incorporation of Jaguar Health, Inc. (f/k/a Jaguar Animal Health, Inc.) (incorporated by reference to Exhibit 3.1 to the Current Report on Form 8-K (No. 001-36714) filed on August 1, 2017).
3.2	Certificate of Amendment of the Third Amended and Restated Certificate of Incorporation (incorporated by reference to Exhibit 3.2 to the Annual Report on Form 10-K (No. 001-36714) filed with the Securities and Exchange Commission on April 9, 2018).
3.3	Certificate of Designation of Series A Convertible Participating Preferred Stock (incorporated by reference to Exhibit 3.1 to the Current Report on Form 8-K (filed with the Securities and Exchange Commission on March 27, 2018).
4.1	Secured Promissory Note, dated February 26, 2018, by and between Jaguar Health, Inc. and Chicago Venture Partners, L.P. (incorporated by reference to Exhibit 4.1 to the Form 8-K of Jaguar Health, Inc. filed March 2, 2018, File No. 001-36714).
4.2	Secured Promissory Note, dated March 21, 2018, by and between Jaguar Health, Inc. and Chicago Venture Partners, L.P. (incorporated by reference to Exhibit 4.1 to the Form 8-K of Jaguar Health, Inc. filed March 27, 2018, File No. 001-36714).
10.1	Form of Second Amended Original Issue Discount Exchangeable Promissory Note (incorporated by reference to Exhibit 4.1 to the Form 8-K of Jaguar Health, Inc. filed February 16, 2018, File No. 001-36714).
10.2	Second Amendment to the Note Purchase Agreement and Notes and Payoff Agreement, dated February 16, 2018, by and among Jaguar Health, Inc. and the purchasers named therein (incorporated by reference to Exhibit 10.1 to the Form 8-K of Jaguar Health, Inc. filed February 16, 2018, File No. 001-36714).
10.3	Consent and Payoff Agreement, dated February 27, 2018, by and between Napo Pharmaceuticals, Inc. and the purchasers named therein (incorporated by reference to Exhibit 10.1 to the Form 8-K of Jaguar Health, Inc. filed February 28, 2018, File No. 001-36714).
10.4	Securities Purchase Agreement, dated February 26, 2018, by and between Jaguar Health, Inc. and Chicago Venture Partners, L.P. (incorporated by reference to Exhibit 10.1 to the Form 8-K of Jaguar Health, Inc. filed March 2, 2018, File No. 001-36714).
10.5	Security Agreement, dated February 26, 2018, by and between Jaguar Health, Inc. and Chicago Venture Partners, L.P. (incorporated by reference to Exhibit 10.2 to the Form 8-K of Jaguar Health, Inc. filed March 2, 2018, File No. 001-36714).
10.6	Series A Preferred Stock Purchase Agreement, dated March 23, 2018, by and between Jaguar Health, Inc. and Sagard Capital Partners, L.P. (incorporated by reference to Exhibit 10.1 to the Form 8-K of Jaguar Health, Inc. filed March 27, 2018, File No. 001-36714).
10.7	Registration Rights Agreement, dated March 23, 2018, by and between Jaguar Health, Inc. and Sagard Capital Partners, L.P. (incorporated by reference to Exhibit 10.2 to the Form 8-K of Jaguar Health, Inc. filed March 27, 2018, File No. 001-36714).
10.8	Form of Common Stock Purchase Agreement, dated March 23, 2018, by and between Jaguar Health, Inc. and the purchasers named therein (incorporated by reference to Exhibit 10.3 to the Form 8-K of Jaguar Health, Inc. filed March 27, 2018, File No. 001-36714).
10.9	Management Services Agreement, dated March 23, 2018, by and between Jaguar Health, Inc. and Sagard Capital Partners Management Corp. (incorporated by reference to Exhibit 10.4 to the Form 8-K of Jaguar Health, Inc. filed March 27, 2018, File No. 001-36714).

10.10	Securities Purchase Agreement, dated March 21, 2018, by and between Jaguar Health, Inc. and Chicago Venture Partners, L.P. (incorporated by reference to Exhibit 10.5 to the Form 8-K of Jaguar Health, Inc. filed March 27, 2018, File No. 001-36714).
10.11	Security Agreement, dated March 21, 2018, by and between Jaguar Health, Inc. and Chicago Venture Partners, L.P. (incorporated by reference to Exhibit 10.6 to the Form 8-K of Jaguar Health, Inc. filed March 27, 2018, File No. 001-36714).
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

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101.LAB	XBRL Taxonomy Extension Label Linkbase Document
101.PRE	XBRL Taxonomy Extension Presentation Linkbase Document

* Filed herewith.

** 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.

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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: May 15, 2018

JAGUAR HEALTH, INC.

By: /s/ Karen S. Wright
Karen S. Wright
Chief Financial Officer
Principal Financial and Accounting Officer

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 Health, Inc. for the quarter ended March 31, 2018;

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)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

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

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

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

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

5. The registrant's other certifying officer(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: May 15, 2018

/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 Health, Inc. for the quarter ended March 31, 2018;

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)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

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

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

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

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

5. The registrant's other certifying officer(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: May 15, 2018

/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 Health, Inc. (the "Company") on Form 10-Q for the quarter ended March 31, 2018, 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: May 15, 2018

/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 Health, Inc. (the "Company") on Form 10-Q for the quarter ended March 31, 2018, 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: May 15, 2018

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