

**UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION**

Washington, D.C. 20549

**FORM S-3  
REGISTRATION STATEMENT  
UNDER  
THE SECURITIES ACT OF 1933  
JAGUAR HEALTH, INC.**

(Exact name of registrant as specified in its charter)

**Delaware**  
(State or Other Jurisdiction of  
Incorporation or Organization)

**46-2956775**  
(I.R.S. Employer  
Identification No.)

**201 Mission Street, Suite 2375  
San Francisco, California 94105  
(415) 371-8300**  
(Address, Including Zip Code, and Telephone Number, Including  
Area Code, of Registrant's Principal Executive Offices)

**Lisa A. Conte**  
**Chief Executive Officer and President**  
**Jaguar Health, Inc.**  
**201 Mission Street, Suite 2375**  
**San Francisco, California 94105**  
**(415) 371-8300**  
(Name, Address, Including Zip Code, and Telephone Number, Including Area Code, of Agent for Service)

**Copies of all correspondence to:**  
**Donald C. Reinke, Esq.**  
Reed Smith LLP  
1510 Page Mill Road, Suite 110  
Palo Alto, California 94304  
(650) 352-0500

**Approximate date of commencement of proposed sale of the securities to the public:  
From time to time after the effective date of this registration statement.**

If the only securities being registered on this Form are being offered pursuant to dividend or interest reinvestment plans, please check the following box:

If any of the securities being registered on this Form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933, other than securities offered only in connection with dividend or interest reinvestment plans, check the following box:

If this Form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

If this Form is a post-effective amendment filed pursuant to Rule 462(c) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

If this Form is a registration statement pursuant to General Instruction I.D. or a post-effective amendment thereto that shall become effective upon filing with the Commission pursuant to Rule 462(e) under the Securities Act, check the following box.

If this Form is a post-effective amendment to a registration statement filed pursuant to General Instruction I.D. filed to register additional securities or additional classes of securities pursuant to Rule 413(b) under the Securities Act, check the following box.

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  Accelerated filer  Non-accelerated filer  Smaller reporting company  Emerging growth company

(Do not check if a smaller reporting company)

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 7(a)(2)(B) of the Securities Act.

**CALCULATION OF REGISTRATION FEE**

Title of Each Class of Securities to be Registered	Amount to be Registered <sup>(1)</sup>	Proposed Maximum Offering Price per Share <sup>(2)</sup>	Proposed Maximum Aggregate Offering Price	Amount of Registration Fee
Common Stock, par value \$0.0001 per share	264,866	\$ 0.18	\$ 47,675.88	\$ 5.94
Common Stock, par value \$0.0001 per share, underlying Non-Voting Common Stock	4,167,172	\$ 0.18	\$ 750,090.96	\$ 93.39
Common Stock, par value \$0.0001 per share, issuable upon the exercise of warrants	1,224,875	\$ 0.18	\$ 220,477.50	\$ 27.45
Common Stock, par value \$0.0001 per share, issuable upon conversion of Convertible Promissory Notes due December 30, 2019	23,315,544	\$ 0.18	\$ 4,196,797.92	\$ 522.50
Common Stock, par value \$0.0001 per share, issuable upon conversion of Exchangeable Promissory Notes due December 1, 2017	2,492,084	\$ 0.18	\$ 448,575.12	\$ 55.85
Common Stock, par value \$0.0001 per share, issuable upon conversion of Secured Convertible Promissory Notes due August 2, 2018	4,000,000	\$ 0.18	\$ 720,000.00	\$ 89.64
<b>Total</b>	<b>35,464,541</b>	<b>\$ 0.18</b>	<b>\$ 6,383,617.38</b>	<b>\$ 794.76</b>

- (1) Pursuant to Rule 416(a) under the Securities Act of 1933, as amended, this registration statement shall be deemed to cover additional securities that may be offered or issued to prevent dilution resulting from splits, dividends or similar transactions.
- (2) Estimated solely for purposes of calculation of the registration fee in accordance with Rule 457(c) of the Securities Act, as amended, based on the average of the high and low prices reported for the shares of common stock as reported on the NASDAQ Capital Market on October 18, 2017.
- The Registrant hereby amends this Registration Statement on such date or dates as may be necessary to delay its effective date until the Registrant shall file a further amendment which specifically states that this Registration Statement shall thereafter become effective in accordance with Section 8(a) of the Securities Act of 1933 or until the Registration Statement shall become effective on such date as the Securities and Exchange Commission, acting pursuant to said Section 8(a), may determine.**

PROSPECTUS



**JAGUAR HEALTH, INC.**

**36,032,344 Shares of Common Stock**

This prospectus relates to the proposed resale or other disposition from time to time of up to 35,464,541 shares of Jaguar Health, Inc. voting common stock, \$0.0001 par value per share, by the selling shareholders identified in this prospectus. Of these shares, (i) 264,866 shares are outstanding shares of voting common stock, (ii) 4,167,172 shares are shares of voting common stock issuable upon conversion of shares of Jaguar Health, Inc. non-voting common stock, \$0.0001 par value per share, (iii) 1,224,875 shares are shares of voting common stock issuable upon exercise of warrants with an exercise price of \$0.08, (iv) 23,315,544 shares are shares of voting common stock issuable upon conversion of Convertible Promissory Notes due December 30, 2019 (plus accrued interest), (v) 2,492,084 shares are shares of voting common stock issuable upon conversion of Exchangeable Promissory Notes due December 1, 2017, and (vi) 4,000,000 shares are shares of voting common stock issuable upon conversion of Secured Convertible Promissory Notes due August 2, 2018. We are not selling any shares of common stock under this prospectus and will not receive any of the proceeds from the sale or other disposition of common stock by the selling shareholders. We will, however, receive the net proceeds of any warrants exercised for cash.

The selling shareholders or their pledgees, assignees or successors-in-interest may offer and sell or otherwise dispose of the shares of common stock described in this prospectus from time to time through public or private transactions at prevailing market prices, at prices related to prevailing market prices or at privately negotiated prices. The selling shareholders will bear all commissions and discounts, if any, attributable to the sales of shares. We will bear all other costs, expenses and fees in connection with the registration of the shares. See “Plan of Distribution” beginning on page 14 for more information about how the selling shareholders may sell or dispose of their shares of common stock.

Our common stock is listed on the NASDAQ Capital Market, under the symbol “JAGX.” On October 18, 2017, the last reported sale price of our common stock on the NASDAQ Capital Market was \$0.18 per share.

**Investing in our common stock involves a high degree of risk. Before deciding whether to invest in our securities, you should consider carefully the risks that we have described on page 7 of this prospectus under the caption “Risk Factors” and in the documents incorporated by reference into this prospectus.**

**Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or determined if this prospectus is truthful or complete. Any representation to the contrary is a criminal offense.**

The date of this prospectus is \_\_\_\_\_, 2017.

[Table of Contents](#)

**TABLE OF CONTENTS**

<a href="#">ABOUT THIS PROSPECTUS</a>	1
<a href="#">PROSPECTUS SUMMARY</a>	2
<a href="#">RISK FACTORS</a>	7
<a href="#">CAUTIONARY NOTE REGARDING FORWARD-LOOKING STATEMENTS</a>	8
<a href="#">UNAUDITED PRO FORMA CONSOLIDATED FINANCIAL INFORMATION</a>	9
<a href="#">USE OF PROCEEDS</a>	10
<a href="#">SELLING SHAREHOLDERS</a>	11
<a href="#">PLAN OF DISTRIBUTION</a>	14
<a href="#">LEGAL MATTERS</a>	16
<a href="#">EXPERTS</a>	16
<a href="#">WHERE YOU CAN FIND MORE INFORMATION</a>	16
<a href="#">INCORPORATION OF INCORPORATION BY REFERENCE</a>	16

[Table of Contents](#)

**ABOUT THIS PROSPECTUS**

This prospectus is part of a registration statement that we have filed with the Securities and Exchange Commission (the “SEC”) pursuant to which the selling shareholders named herein may, from time to time, offer and sell or otherwise dispose of the securities covered by this prospectus. You should not assume that the information contained in this prospectus is accurate on any date subsequent to the date set forth on the front cover of this prospectus or that any information we have incorporated by reference is correct on any date subsequent to the date of the document incorporated by reference, even though this prospectus is delivered or securities are sold or otherwise disposed of on a later date. It is important for you to read and consider all information contained in

this prospectus, including the Information Incorporated by Reference herein, in making your investment decision. You should also read and consider the information in the documents to which we have referred you under the captions “Where You Can Find More Information” and “Incorporation of Information by Reference” in this prospectus.

Neither we nor the selling shareholders have authorized any dealer, salesman or other person to give any information or to make any representation other than those contained or incorporated by reference in this prospectus. You must not rely upon any information or representation not contained or incorporated by reference in this prospectus. This prospectus does not constitute an offer to sell or the solicitation of an offer to buy any of our securities other than the securities covered hereby, nor does this prospectus constitute an offer to sell or the solicitation of an offer to buy any securities in any jurisdiction to any person to whom it is unlawful to make such offer or solicitation in such jurisdiction. Persons who come into possession of this prospectus in jurisdictions outside the United States are required to inform themselves about, and to observe, any restrictions as to the offering and the distribution of this prospectus applicable to those jurisdictions.

We further note that the representations, warranties and covenants made in any agreement that is filed as an exhibit to any document that is incorporated by reference in the accompanying prospectus were made solely for the benefit of the parties to such agreement, including, in some cases, for the purpose of allocating risk among the parties to such agreements, and should not be deemed to be a representation, warranty or covenant to you. Moreover, such representations, warranties or covenants were accurate only as of the date when made. Accordingly, such representations, warranties and covenants should not be relied on as accurately representing the current state of our affairs.

Unless the context otherwise requires, references in this prospectus to “Jaguar,” the “Company,” “we,” “us,” and “our” refer to Jaguar Health, Inc.

[Table of Contents](#)

## PROSPECTUS SUMMARY

*The following is a summary of what we believe to be the most important aspects of our business and the offering of our securities under this prospectus. We urge you to read this entire prospectus, including the more detailed financial statements, notes to the financial statements and other information incorporated by reference from our other filings with the SEC. Each of the risk factors could adversely affect our business, operating results and financial condition, as well as adversely affect the value of an investment in our securities.*

### Overview

We are a natural-products pharmaceuticals company focused on the development and commercialization of novel, sustainably derived gastrointestinal products for both human prescription use and animals on a global basis. Our wholly-owned subsidiary, Napo Pharmaceuticals, Inc. (“Napo”), focuses on the development and commercialization of 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. FDA for the symptomatic relief of noninfectious diarrhea in adults with HIV/AIDS on antiretroviral therapy. In the animal health space, we focus on developing and commercializing first-in-class gastrointestinal products for companion and production animals, foals, and high value horses.

We are pursuing a follow-on indication for Mytesi in chemotherapy-induced diarrhea, an important supportive care indication for patients undergoing primary or adjuvant chemotherapy for cancer treatment. Mytesi is in development for orphan-drug indications for infants and children with congenital diarrheal disorders and short bowel syndrome; as a second-generation anti-secretory agent for use in cholera patients; and for supportive care for irritable bowel syndrome (IBS) and inflammatory bowel disease (IBD). Mytesi<sup>®</sup> has demonstrated benefit to D-IBS patients in published Phase 2 studies.

Canalevia is our lead veterinary prescription drug product candidate, intended for treatment of various forms of diarrhea in dogs. We achieved statistically significant results in a multicenter canine proof-of-concept study completed in February 2015, supporting the conclusion that Canalevia treatment is superior to placebo. As we announced in December 2015, the pivotal clinical field study to evaluate the safety and effectiveness of Canalevia for acute diarrhea in dogs is underway. Two-hundred dogs were enrolled in the Canalevia pivotal study, which completed enrollment in January 2017. We have received Minor Use in a Minor Species (MUMS) designation for Canalevia for Chemotherapy-Induced Diarrhea (CID) in dogs, and we are pursuing MUMS designation for Canalevia for the indication of exercise-induced diarrhea (EID) in dogs. If Canalevia is approved for CID in dogs, we expect to conduct the commercial launch of Canalevia for this indication in 2018.

Canalevia is a canine-specific formulation of crofelemer, an active pharmaceutical ingredient isolated and purified from the *Croton lechleri* tree, which is sustainably harvested. Members of our management team developed crofelemer while at Napo, which was our parent company until May 13, 2015. Canalevia utilizes the same mechanism of action as Mytesi, as do Neonorm Foal and Neonorm Calf—our lead non-prescription products. Each of these products normalizes ion and water flow into the intestinal lumen. Because this is a physiological pathway generally present in mammals, we have validated its low risk strategy of extending the clinical success in humans to preweaned dairy calves, foals, piglets, and dogs; and we believe these clinical benefits will continue to be confirmed in other mammalian species.

Neonorm is a standardized botanical extract derived from the *Croton lechleri* tree. The reception among users of Neonorm Calf and Neonorm Foal, an anti-diarrheal product we launched for newborn horses in early 2016—has been positive. We launched Neonorm Calf in the United States at the end of 2014 for preweaned dairy calves. In June 2017 we launched neonorm.com, a commercial website for both Neonorm products. As we announced on June 14, 2017, the Organic Materials Review Institute (OMRI) has reviewed Neonorm Calf and determined that it is allowed for use in compliance with the U.S. Department of Agriculture National Organic Program. OMRI is an international nonprofit organization that determines which input products are allowed for use in organic production and processing.

The clinically-proven performance of Neonorm Foal, in combination with our heightened understanding of market needs within the global equine space, is driving our increased focus on equine product development. Equilevia is our non-prescription product for total gut health in equine athletes. Gut health is important in horses, as colic can cause an otherwise healthy horse to die in a matter of hours. Although we are still assessing the size of this opportunity, we expect to launch sales of Equilevia in the fall of 2017. Equilevia is a pharmaceutical formulation of a standardized botanical extract.

[Table of Contents](#)

We, through Napo, own the intellectual property rights and technology related to our products and product candidates, including rights to a library of over 2,300 medicinal plants, for all veterinary treatment uses and indications for all species of animals. This includes rights to Neonorm, Canalevia, and other distinct prescription drug product candidates in our pipeline along with the corresponding existing preclinical and clinical data packages. We also recently expanded this intellectual property portfolio to include combinations of our proprietary anti-secretory product lines, Canalevia and Neonorm, with the non-absorbed antibiotic, rifaximin, for gastrointestinal indications in all animals.

Our management team has significant experience in gastrointestinal and animal health product development. This experience includes the development of crofelemer for human use, from discovery and preclinical and clinical toxicity studies, including the existing animal studies to be used for Canalevia regulatory approvals, through human clinical development. Our team also includes individuals who have prior animal health experience at major pharmaceutical companies.

**About Mytesi**

Mytesi (crofelemer) is an antidiarrheal indicated for the symptomatic relief of noninfectious diarrhea in adult patients with HIV/AIDS on antiretroviral therapy (ART). Mytesi is not indicated for the treatment of infectious diarrhea. Rule out infectious etiologies of diarrhea before starting Mytesi. If infectious etiologies are not considered, there is a risk that patients with infectious etiologies will not receive the appropriate therapy and their disease may worsen. In clinical studies, the most common adverse reactions occurring at a rate greater than placebo were upper respiratory tract infection (5.7%), bronchitis (3.9%), cough (3.5%), flatulence (3.1%), and increased bilirubin (3.1%).

Crofelemer, the active ingredient in Mytesi, is a botanical (plant-based) drug extracted and purified from the red bark sap of the medicinal *Croton lechleri* tree in the Amazon rainforest. Napo has established a sustainable harvesting program for crofelemer to ensure a high degree of quality and ecological integrity.

**Private Placement of Shares, Promissory Notes and Warrants**

On July 31, 2017, we completed the acquisition of Napo Pharmaceuticals, Inc. (“Napo”) pursuant to the Agreement and Plan of Merger, dated March 31, 2017 (the “Merger Agreement”), by and among the Company, Napo, Napo Acquisition Corporation (“Merger Sub”), and Napo’s representative (the “Merger”). In accordance with the terms of the Merger Agreement, Merger Sub merged with and into Napo, with Napo surviving as our wholly-owned subsidiary.

**Private Placement of Voting Shares**

On June 28, 2017 and July 13, 2017, we issued in the aggregate 200,000 shares of our voting common stock to James Bochnowski and Gregory Stock for gross proceeds of \$100,000 in private placements pursuant to securities purchase agreements (the “Securities Purchase Agreements”). The securities purchase agreements require that we file one or more registration statements as permissible and necessary to register under the Securities Act of 1933, as amended (the “Securities Act”) the resale of the shares of our voting common stock sold to the investors thereto.

On July 31, 2017, we issued 64,866 shares of our voting common stock to KCSA Strategic Communications (“KCSA”) pursuant to the Merger Agreement and an agreement between Napo and KCSA as a complete settlement and satisfaction of Napo’s outstanding obligations to KCSA.

**Private Placement of Non-Voting Shares and Warrants**

In order to induce us to enter into the Merger Agreement, Napo entered into debt settlement agreements with Dorsar Investment Company, Alco Investment Company, Two Daughters LLC, Boies Schiller Flexner LLP and Dan Becka on or about March 31, 2017 (collectively, the “Debt Settlement Agreements”), pursuant to which Napo agreed to cause us to issue in the aggregate 4,167,172 shares of our non-voting common stock and warrants to purchase 1,224,875 shares of our voting common stock, with an exercise price of \$0.08 per share (the “Warrants”), to such creditors and their respective affiliates upon consummation of the Merger as a complete settlement and satisfaction of Napo’s outstanding obligations to such creditors. We also agreed to register the resale of these shares on one or more registration statements. We issued the non-voting shares and warrants upon consummation of the Merger on July 31, 2017.

[Table of Contents](#)

Pursuant to the Debt Settlement Agreements, as amended by letter agreements dated on or about September 1, 2017, Napo agreed to cause us to register the shares of our voting common stock, the shares of our voting common stock issuable upon conversion of the shares of our non-voting common stock, and the shares of our voting common stock underlying the warrants, in each case as issued under the Debt Settlement Agreements.

**Private Placement of Promissory Notes**

**MEF/Riverside Notes**

On March 1, 2017, Napo entered into a Note Purchase Agreement with MEF I, LP and Riverside Merchant Partners (the “MEF/Riverside NPA”), pursuant to which Napo issued \$656,250 in aggregate principal amount of Original Issue Discount Exchangeable Promissory Notes (the “Initial MEF/Riverside Notes”) to such purchasers at a purchase price of \$525,000. The Initial MEF/Riverside Notes accrue interest at a rate of 3% per annum and have a maturity date of December 1, 2017. Accrued and unpaid interest on the Initial MEF/Riverside Notes will be paid on the maturity date, at Napo’s election subject to certain exceptions, in either cash or shares of our voting common stock. In the event that Napo elects to pay such interest in shares of our voting common stock, the number of shares issued will be determined by dividing the amount of interest then due on the Initial MEF/Riverside Notes by the volume weighted average of the closing price of a share of our common stock for the 30 consecutive trading days up to and including the trading day on the third trading day prior to the interest payment due date. The holders of the Initial MEF/Riverside Notes may exchange the principal amount of the Initial MEF/Riverside Notes for an aggregate of 1,171,875 shares of our voting common stock at any time prior to the maturity date.

Pursuant to the terms of the MEF/Riverside NPA, on April 27, 2017, Napo issued an additional \$656,250 in aggregate principal amount of Original Issue Discount Exchangeable Promissory Notes (the “Additional MEF/Riverside Notes” and, together with the Initial MEF/Riverside Notes, the “MEF/Riverside Notes”) to such purchasers at a purchase price of \$525,000. The Additional MEF/Riverside Notes have a maturity date of January 27, 2018, but otherwise have terms identical to those of the Initial MEF/Riverside Notes. We agreed to file a registration statement to register the resale of shares of our voting common stock issuable upon exchange of the MEF/Riverside Notes by October 20, 2017.

### ***Kingdon Notes***

On March 31, 2017, Napo entered into an Amended and Restated Note Purchase Agreement (the “Kingdon NPA”) with Kingdon Associates, M. Kingdon Offshore Master Fund L.P., Kingdon Family Partnership, L.P., and Kingdon Credit Master Fund L.P. (and, together with any other party purchasing Kingdon Notes (as defined below) pursuant to the Kingdon NPA, the “Kingdon Purchasers”), under which remains outstanding \$2,500,000 in aggregate principal amount of convertible promissory notes (the “Initial Kingdon Notes” and, together with the Additional Kingdon Notes (as defined herein), the “Kingdon Notes”) issued by Napo on December 30, 2016 to such purchasers at a purchase price of \$2,000,000. Holders of the Kingdon Notes may convert the Kingdon Notes into shares of our voting common stock at a conversion price of \$0.925 (i) from the date of the Kingdon Note until the day immediately preceding the one-year anniversary of the Kingdon Note, all, but not less than all, of one-third of the outstanding principal and interest of the Kingdon Note, (ii) from the one-year anniversary of the Kingdon Note until the day immediately preceding the two-year anniversary of the Kingdon Note, all, but not less than all, of an additional one-third of the outstanding principal and interest of the Kingdon Note, and (iii) from the two-year anniversary of the Kingdon Note and thereafter, all, but not less than all, of the outstanding principal and interest of the Kingdon Note. Pursuant to the terms of the Kingdon NPA, upon consummation of the Merger, each purchaser purchased its pro rata portion of additional Kingdon Notes (the “Additional Kingdon Notes”) with an aggregate original principal amount of \$7,500,000 for an aggregate purchase price of \$6,000,000. The Kingdon Notes accrue interest at a rate of 10% per annum and mature on the first date after December 30, 2019 on which a majority of the Kingdon Purchasers has provided written notice to Napo requesting payment in full of the outstanding principal and interest of the Kingdon Notes.

Pursuant to the Kingdon NPA, we are required to register the shares of our voting common stock issuable upon conversion of the Conversion Stock (as defined therein), together with any shares of our voting common stock issuable in connection with interest payments under the Kingdon Notes issued thereunder.

### ***CVP Notes***

On June 29, 2017, we entered into a securities purchase agreement (the “CVP SPA”) with Chicago Venture Partners, L.P. (“CVP”), pursuant to which we issued to CVP a convertible promissory note (the “CVP Note”) in the aggregate principal amount of \$2,155,000 for an aggregate purchase price of \$1,700,000. The CVP Note bears interest at the rate of 8% per annum and matures on August 2, 2018. The CVP Note is convertible at the option of the holder into shares of our voting common stock (the “CVP Conversion Shares”) at a conversion price of \$1.00 per share, subject to adjustments as provided in the CVP Note, any time after the earlier of (i) the date that is six months after the date that CVP delivers the purchase price of the CVP Note to us (the “CVP Note Purchase Price Date”) and (ii) the effective date of the resale registration statement that the Company is required to file to register the resale of the CVP Conversion Shares (the “Resale S-3 Effective Date”).

## [Table of Contents](#)

In addition, beginning on the earlier of (i) the Resale S-3 Effective Date and (ii) the CVP Note Purchase Price Date, CVP will have the right to redeem a portion of the outstanding balance of the CVP Note in any amount up to \$350,000 per month. The redemption(s) may be satisfied in cash or stock (so long as the various conditions to paying stock set forth in the CVP Note are satisfied), at our election; provided, however, that if our common stock is trading below \$1.15 per share, the redemption(s) must be in cash.

### ***Security Agreements***

In connection with the sale of the Kingdon Notes, Napo entered into a security agreement, dated December 30, 2016, by and among Napo, Kingdon Capital Management L.L.C. and the purchasers named therein (the “Napo Security Agreement”). Pursuant to the Napo Security Agreement, Napo granted the Kingdon Purchasers a security interest in substantially all of Napo’s assets, including Napo’s intellectual property, to secure the payment and performance of all of Napo’s obligations under the Kingdon Notes.

In connection with the sale of the CVP Notes, we entered into a security agreement, dated June 29, 2017, between us and CVP (the “Jaguar Security Agreement”) and a subordination agreement and right to purchase debt, dated June 29, 2017 (the “Subordination Agreement”), by and among us, CVP and Hercules Capital, Inc. (f/k/a Hercules Technology Growth Capital, Inc.) (“Hercules”). Pursuant to the Jaguar Security Agreement and the Subordination Agreement, CVP may acquire a security interest in substantially all of our veterinary related assets, including intellectual property, to secure the payment and performance of all of our obligations under the CVP Notes upon the earlier of (i) CVP purchasing our obligations to Hercules under the loan and security agreement, dated August 18, 2015, between us and Hercules, as amended (the “Hercules Debt”), or (ii) the repayment in full of the Hercules Debt.

The description of the Merger Agreement, Debt Settlement Agreements, the MEF/Riverside NPA, the Kingdon NPA, the CVP SPA, the Napo Security Agreement, the Jaguar Security Agreement and the Subordination Agreement are not complete and are qualified in their entirety by reference to the respective agreements, each of which has been filed as an exhibit to the registration statement of which this prospectus is a part. See “Where You Can



Find More Information” and “Incorporation of Information by Reference.” The representations, warranties and covenants made in such agreements were made solely for the benefit of the parties to such agreements, including, in some cases, for the purpose of allocating risk among the parties thereto, and should not be deemed to be a representation, warranty or covenant to you. Moreover, such representations, warranties or covenants were made as of an earlier date. Accordingly, such representations, warranties and covenants should not be relied on as accurately representing the current state of our affairs.

### **Corporate Information**

We were incorporated in the State of Delaware on June 6, 2013. Our principal executive offices are located at 201 Mission Street, Suite 2375, San Francisco, CA 94015 and our telephone number is (415) 371-8300. Our website address is [www.jaguaranimalhealth.com](http://www.jaguaranimalhealth.com). The information contained on, or that can be accessed through, our website is not part of this prospectus. Our common stock is listed on the NASDAQ Capital Market and trades under the symbol “JAGX.”

Jaguar Health, our logo, Canalevia, Neonom and Mytesi are our trademarks that are used in this prospectus. This prospectus also includes trademarks, tradenames and service marks that are the property of other organizations. Solely for convenience, trademarks and tradenames referred to in this prospectus appear without the ©, ® or ™ symbols, but those references are not intended to indicate that we will not assert, to the fullest extent under applicable law, our rights or that the applicable owner will not assert its rights, to these trademarks and tradenames.

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[Table of Contents](#)

### **The Offering**

This prospectus relates to the resale of 35,464,541 shares of our voting common stock, of which (i) 264,866 shares are outstanding shares of voting common stock, (ii) 4,167,172 shares are shares of voting common stock issuable upon conversion of shares of non-voting common stock, (iii) 1,224,875 shares are shares of voting common stock issuable upon exercise of the Warrants, (iv) 23,315,544 shares are shares of voting common stock issuable upon conversion of the Kingdon Notes (plus accrued interest), (v) 2,492,084 shares are shares of voting common stock issuable upon conversion of the MEF/Riverside Notes (plus accrued interest), and (vi) 4,000,000 shares are shares of voting common stock issuable upon conversion of the CVP Notes (plus accrued interest), in each case held by the selling shareholders identified in this prospectus, including its transferees, pledgees, donees or successors. See “Selling Shareholders.”

The selling shareholders may offer to sell the shares being offered in this prospectus at fixed prices, at prevailing market prices at the time of sale, at varying prices or at negotiated prices. Our common stock is listed on the NASDAQ Capital Market under the symbol “JAGX.”

We have agreed to register the offer and sale of the common stock to satisfy registration rights we have granted to the selling shareholders. We will not receive any proceeds from the sale of the securities by the selling shareholders. We will, however, receive the net proceeds of any warrants exercised for cash.

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[Table of Contents](#)

### **RISK FACTORS**

Please carefully consider the risk factors described in our periodic reports filed with the SEC, which are incorporated by reference in this prospectus. Before making an investment decision, you should carefully consider these risks as well as other information we include or incorporate by reference in this prospectus. Additional risks and uncertainties not presently known to us or that we deem currently immaterial may also impair our business operations or adversely affect our results of operations or financial condition.

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[Table of Contents](#)

### **CAUTIONARY NOTE REGARDING FORWARD-LOOKING STATEMENTS**

This prospectus and the documents incorporated by reference into it contain forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, or the Securities Act, and Section 21E of the Securities Exchange Act of 1934, as amended (the “Exchange Act”). We have made these statements in reliance on the safe harbor provisions of the Private Securities Litigation Reform Act of 1995. All statements other than statements of historical facts contained in or incorporated by reference into this prospectus, including statements regarding our future results of operations and financial position, business strategy, prospective products, product approvals, research and development costs, timing of receipt of clinical trial, field study and other study data, and likelihood of success, commercialization plans and timing, other plans and objectives of management for future operations, and future results of current and anticipated products are forward-looking statements. These statements involve known and unknown risks, uncertainties and other important factors that may cause our actual results, performance or achievements to be materially different from any future results, performance or achievements expressed or implied by the forward-looking statements.

In some cases, you can identify forward-looking statements by terms such as “may,” “will,” “should,” “expect,” “plan,” “aim,” “anticipate,” “could,” “intend,” “target,” “project,” “contemplate,” “believe,” “estimate,” “predict,” “potential” or “continue” or the negative of these terms or other similar expressions. The forward-looking statements in this prospectus are only predictions. We have based these forward-looking statements largely on our current expectations and projections about future events and financial trends that we believe may affect our business, financial condition and results of operations. These forward-looking statements speak only as of the date of this prospectus and are subject to a number of risks, uncertainties and assumptions including

those listed in the “Risk Factors” incorporated by reference into this prospectus from our Annual Report on Form 10-K, as updated by subsequent reports. Forward-looking statements are subject to inherent risks and uncertainties, some of which cannot be predicted or quantified and some of which are beyond our control. The events and circumstances reflected in our forward-looking statements may not be achieved or occur and actual results could differ materially from those projected in the forward-looking statements. Moreover, we operate in a dynamic industry and economy. New risk factors and uncertainties may emerge from time to time, and it is not possible for management to predict all risk factors and uncertainties that we may face. Except as required by applicable law, we do not plan to publicly update or revise any forward-looking statements contained herein, whether as a result of any new information, future events, changed circumstances or otherwise.

[Table of Contents](#)

### UNAUDITED PRO FORMA CONSOLIDATED FINANCIAL INFORMATION

Incorporated by reference herein is the unaudited pro forma consolidated financial information reflecting the consummation of the Merger and related transactions. This financial information is included in Exhibit 99.2 to our Current Report on Form 8-K, filed with the SEC on August 29, 2017 and consists of (i) the unaudited pro forma combined condensed statement of operations for the six months ended June 30, 2017, (ii) the unaudited pro forma consolidated balance sheet, as of June 30, 2017 and (iii) the unaudited pro forma combined condensed statement of operations, for the year ended December 31, 2016. The unaudited pro forma consolidated financial information should be read in conjunction with the historical consolidated financial statements and the related notes of the Company, included in the Company’s periodic reports filed with the SEC, and of Napo, included in Exhibit 99.2 to our Current Report on Form 8-K/A, filed with the SEC on August 4, 2017, and Exhibit 99.1 to our Current Report on Form 8-K, filed with the SEC on August 29, 2017, each of which are incorporated by reference herein. See “Incorporation of Information by Reference.”

[Table of Contents](#)

### USE OF PROCEEDS

We will not receive any of the proceeds from the sale of shares of our common stock in this offering. The selling shareholders will receive all of the proceeds from this offering.

A portion of the shares covered by this prospectus are issuable upon the exercise of warrants to purchase shares of our common stock. Pursuant to conditions set forth in the warrants, the warrants are exercisable under certain circumstances on a cashless basis, and should a selling shareholder elect to exercise on a cashless basis we will not receive any proceeds from the sale of common stock issued upon the cashless exercise of the warrant. Upon any exercise for cash of the warrants, the selling shareholders will pay us the exercise price of the warrants of \$0.08 per share. If the selling shareholders exercise, on a cash basis, all of the warrants underlying the shares being registered, we would receive gross proceeds of approximately \$98,000. We intend to use such proceeds, if any, for general corporate purposes, including working capital. The exercise price and number of shares of common stock issuable upon exercise of the warrants may be adjusted in certain circumstances, including subdivisions and stock splits, stock dividends, combinations, reorganizations, reclassifications, consolidations, mergers or sales of properties and assets and upon the issuance of certain assets or securities to holders of our common stock, as applicable.

The selling shareholders will pay any underwriting discounts and commissions and expenses incurred by the selling shareholders for brokerage, accounting, tax or legal services or any other expenses incurred by the selling shareholder in disposing of the shares. We will bear all other costs, fees and expenses incurred in effecting the registration of the shares covered by this prospectus, including, without limitation, all registration and filing fees, fees and expenses of our counsel, certain expenses of counsel to the selling shareholders and our independent registered public accountants.

[Table of Contents](#)

### SELLING SHAREHOLDERS

The shares of voting common stock being offered by the selling shareholders are those previously issued to the selling shareholders, and those issuable to the selling shareholders, upon conversion of the non-voting common stock or convertible notes or exercise of warrants. For additional information regarding the issuances of those shares of voting common stock, non-voting common stock, convertible notes and warrants and the relationship between the selling shareholders and us, see “Prospectus Summary—Description of the Private Placement and Transfer of Shares in Connection with the Merger” above. We are registering the shares of voting common stock in order to permit the selling shareholders to offer the shares for resale from time to time.

The following table sets forth:

- the selling shareholders and other information regarding the beneficial ownership of the shares of common stock by the selling shareholders;
- the number of shares of common stock beneficially owned by the selling shareholders, based on their respective ownership of the shares of common stock and non-voting common stock and warrants, as of October 15, 2017, assuming the conversion of the non-voting common stock, the conversion of the convertible notes, and the exercise of the warrants held by the selling shareholders on that date, without regard to any limitations on conversions or exercises prior to the sale of the shares covered by this prospectus;
- the number of shares that may be offered by the selling shareholders pursuant to this prospectus;
- the number of shares to be beneficially owned by the selling shareholders and their respective affiliates following the sale of any shares covered by this prospectus; and

- the percentage of our issued and outstanding voting common stock to be beneficially owned by the selling shareholders and their respective affiliates following the sale of all shares covered by this prospectus.

This prospectus generally covers the resale of all shares received by the selling shareholders in connection with the transactions contemplated by the Securities Purchase Agreements, the Debt Settlement Agreements, MEF/Riverside NPA, Kingdon NPA, CVP SPA, including any shares of voting common stock issued or issuable upon the conversion of shares of non-voting common stock and promissory notes received by the selling shareholders.

The selling shareholders may sell all, some or none of their shares in this offering. See “Plan of Distribution.”

Name of Selling Shareholders	Number of shares of Common Stock Owned Prior to Offering <sup>(1)</sup>	Maximum Number of shares of Common Stock to be Sold Pursuant to this Prospectus <sup>(2)</sup>	Number of shares of Common Stock Owned After Offering <sup>(3)(4)</sup>	
			Number	Percent
Entities affiliated with Kingdon Capital Management L.L.C. <sup>(5)</sup>	25,457,532	23,315,544	2,141,988	2.29%
Chicago Venture Partners <sup>(6)</sup>	4,000,000	4,000,000	0	—
Riverside Merchant Partners LLC <sup>(7)</sup>	1,246,042	1,246,042	0	—
MEF I, LP <sup>(8)</sup>	1,246,042	1,246,042	0	—
Dorsar Investment Company <sup>(9)</sup>	975,686	975,686	0	—
Continental Properties <sup>(10)</sup>	333,289	333,289	0	—
Dorsar Partners, LP <sup>(11)</sup>	337,170	337,170	0	—
Stephen L. Feinberg <sup>(12)</sup>	18,207	18,207	0	—
Alco Investment Company <sup>(13)</sup>	1,589,410	1,589,410	0	—
Two Daughters LLC <sup>(14)</sup>	124,154	124,154	0	—
Boies, Schiller & Flexner LLP <sup>(15)</sup>	2,014,131	2,014,131	0	—
James J. Bochnowski <sup>(16)</sup>	1,015,942	100,000	915,942	*
Gregory Stock <sup>(17)</sup>	100,000	100,000	0	—
KCSA Strategic Communications <sup>(18)</sup>	64,866	64,866	0	—

\* Represents less than 1% of the issued and outstanding shares of common stock as of October 15, 2017.

## [Table of Contents](#)

- Excludes contingent rights to receive an indeterminate number of shares of voting common stock held by certain selling shareholders pursuant to the terms of the Merger Agreement.
- Assumes the conversion of all shares of non-voting common stock, the conversion of all convertible notes, the exchange of all exchangeable notes, and the exercise for cash of all warrants held by the selling shareholders into shares of voting common stock.
- Assumes that the selling shareholders sell all shares of voting common stock registered under this prospectus held by such selling shareholders.
- Based upon 89,050,655 shares of common stock outstanding as of October 15, 2017. For purposes of computing the percentage of outstanding shares of the common stock held by the selling shareholders named above, any shares which any selling shareholder has the right to acquire within 60 days of October 15, 2017 are deemed to be outstanding.
- Represents (i) 1,291,986 shares of voting common stock, (ii) 850,002 shares of voting common stock issuable upon exercise of warrants, and (iii) 10,946,312 shares of voting common stock issuable upon conversion of the Kingdon Notes owned by Kingdon Capital Management, L.L.C. and 12,369,232 shares of voting common stock issuable upon payment of interest on the Kingdon Notes in lieu of cash convertible at \$0.20 per share.
- Represents the minimum number of shares of voting common stock that we are contractually obligated to register for the benefit of CVP pursuant to the CVP SPA, which shares would be issuable upon conversion of the CVP Note (including shares of voting common stock issuable upon payment of interest on the CVP Note in lieu of cash convertible at \$1.00 per share).
- Represents 1,171,876 shares of voting common stock issuable upon conversion of the MEF/Riverside Notes owned by Riverside Merchant Partners LLC and 74,166 issuable upon payment of interest on the MEF/Riverside Notes in lieu of cash convertible at \$0.20 per share.
- Represents 1,171,876 shares of voting common stock issuable upon conversion of the MEF/Riverside Notes owned by MEF I, LP and 74,166 issuable upon payment of interest on the MEF/Riverside Notes in lieu of cash convertible at \$0.20 per share.
- Represents (i) 678,483 shares of voting common stock issuable upon conversion of non-voting common stock and (ii) 297,203 shares of voting common stock issuable upon exercise of warrants owned by Dorsar Investment Company. Prior to the Merger, Dorsar Investment Company held 56,128 shares of common stock of Napo. Pursuant to the terms of the Merger Agreement, upon consummation of the Merger, such shares of Napo common stock were exchanged for contingent rights to receive an indeterminate number of shares of our voting common stock, which contingent rights are excluded from the shares listed in the table above.
- Represents 333,289 shares of voting common stock issuable upon exercise of warrants owned by Continental Properties.
- Represents 337,170 shares of voting common stock issuable upon exercise of warrants owned by Dorsar Partners, L.P.
- Represents (i) 4,370 shares of voting common stock issuable upon exercise of warrants held by the Andrew Feinberg Lifetime Trust, (ii) 2,731 shares of voting common stock issuable upon exercise of warrants held by the Deborah Feinberg Rosen Lifetime Trust, and (iii) 11,106 shares of



voting common stock issuable upon exercise of warrants held by the Stephen L. Feinberg Lifetime Trust. Stephen L. Feinberg is the trustee of the Andrew Feinberg Lifetime Trust, Deborah Feinberg Rosen Lifetime Trust and Stephen L. Feinberg Lifetime Trust and has voting and investment control over such shares.

- (13) Represents (i) 1,367,903 shares of voting common stock issuable upon conversion of non-voting common stock and (ii) 221,507 shares of voting common stock issuable upon exercise of warrants owned by Alco Investment Company.

12

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[Table of Contents](#)

- (14) Represents (i) 106,655 shares of voting common stock issuable upon conversion of non-voting common stock and (ii) 17,499 shares of voting common stock issuable upon exercise of warrants owned by Two Daughters LLC. Prior to the Merger, Two Daughters LLC held 37,703 shares of common stock of Napo. Pursuant to the terms of the Merger Agreement, upon consummation of the Merger, such shares of Napo common stock were exchanged for contingent rights to receive an indeterminate number of shares of our voting common stock, which contingent rights are excluded from the shares listed in the table above.
- (15) Represents 2,014,131 shares of voting common stock issuable upon conversion of non-voting common stock owned by Boies, Schiller & Flexner LLP.
- (16) Represents (i) 801,028 shares of voting common stock, (ii) 92,243 shares of voting common stock issuable upon exercise of stock options, and (iii) 122,671 shares of voting common stock issuable upon exercise of warrants. All securities other than stock options are held by the Bochnowski Family Trust. Mr. Bochnowski, the chairman of our board of directors, is a co-trustee and beneficiary of such trust and shares voting and investment control over such shares with his spouse.
- (17) Represents 100,000 shares of voting common stock held by Mr. Stock. Prior to the Merger, Mr. Stock was a member of Napo's board of directors.
- (18) Represents 64,866 shares of voting common stock issuable upon conversion of non-voting common stock owned by KCSA Strategic Communications.

13

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[Table of Contents](#)

## PLAN OF DISTRIBUTION

The selling shareholders of the securities and any of their pledgees, assignees and successors-in-interest may, from time to time, sell any or all of their securities covered hereby on the Nasdaq Stock Market or any other stock exchange, market or trading facility on which the securities are traded or in private transactions. These sales may be at fixed or negotiated prices. A selling shareholder may use any one or more of the following methods when selling securities:

- ordinary brokerage transactions and transactions in which the broker-dealer solicits purchasers;
- block trades in which the broker-dealer will attempt to sell the securities as agent but may position and resell a portion of the block as principal to facilitate the transaction;
- purchases by a broker-dealer as principal and resale by the broker-dealer for its account;
- an exchange distribution in accordance with the rules of the applicable exchange;
- privately negotiated transactions;
- settlement of short sales;
- in transactions through broker-dealers that agree with the selling shareholders to sell a specified number of such securities at a stipulated price per security;
- through the writing or settlement of options or other hedging transactions, whether through an options exchange or otherwise;
- a combination of any such methods of sale; or
- any other method permitted pursuant to applicable law.

The selling shareholders may also sell securities under Rule 144 under the Securities Act of 1933, as amended (the "Securities Act"), if available, or pursuant to other available exemptions rather than under this prospectus.

Broker-dealers engaged by the selling shareholders may arrange for other brokers-dealers to participate in sales. Broker-dealers may receive commissions or discounts from the selling shareholders (or, if any broker-dealer acts as agent for the purchaser of securities, from the purchaser) in amounts to be negotiated, but, except as set forth in a supplement to this prospectus, in the case of an agency transaction not in excess of a customary brokerage commission in compliance with FINRA Rule 2440; and in the case of a principal transaction a markup or markdown in compliance with FINRA IM-2440.

In connection with the sale of the securities or interests therein, the selling shareholders may enter into hedging transactions with broker-dealers or other financial institutions, which may in turn engage in short sales of the securities in the course of hedging the positions they assume. The selling shareholders may also sell securities short and deliver these securities to close out their short positions, or loan or pledge the securities to broker-dealers that

in turn may sell these securities. The selling shareholders may also enter into option or other transactions with broker-dealers or other financial institutions or create one or more derivative securities which require the delivery to such broker-dealer or other financial institution of securities offered by this prospectus, which securities such broker-dealer or other financial institution may resell pursuant to this prospectus (as supplemented or amended to reflect such transaction).

The selling shareholders and any broker-dealers or agents that are involved in selling the securities may be deemed to be “underwriters” within the meaning of the Securities Act in connection with such sales. In such event, any commissions received by such broker-dealers or agents and any profit on the resale of the securities purchased by them may be deemed to be underwriting commissions or discounts under the Securities Act. Each selling shareholder has informed the Company that it does not have any written or oral agreement or understanding, directly or indirectly, with any person to distribute the securities.

The Company is required to pay certain fees and expenses incurred by the Company incident to the registration of the securities. The Company has agreed to indemnify the selling shareholders against certain losses, claims, damages and liabilities, including liabilities under the Securities Act.

14

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[Table of Contents](#)

We agreed to keep this prospectus effective until the earliest to occur of (i) the time at which all of the securities covered by the registration statement of which this prospectus forms a part have been sold (either pursuant to the registration statement or otherwise), (ii) the time at which all of the securities covered by the registration statement of which this prospectus forms a part are eligible to be sold by holders without compliance with the volume limitations or public information requirements of Rule 144, (iii) twelve months following the last date on which shares of our common stock are issuable under the Kingdon Notes, MEF/Riverside Notes and CVP Notes, and (iv) the consummation of a merger, consolidation or other business combination of the Company with any entity in which the stockholders of the Company immediately prior to such transaction in the aggregate cease to own at least 50% of the voting power of the voting securities of the entity surviving or resulting from such transaction (or the ultimate parent thereof) or a sale of all or substantially all of the Company’s assets. The resale securities will be sold only through registered or licensed brokers or dealers if required under applicable state securities laws. In addition, in certain states, the resale securities covered hereby may not be sold unless they have been registered or qualified for sale in the applicable state or an exemption from the registration or qualification requirement is available and is complied with.

Under applicable rules and regulations under the Exchange Act, any person engaged in the distribution of the resale securities may not simultaneously engage in market making activities with respect to the common stock for the applicable restricted period, as defined in Regulation M, prior to the commencement of the distribution. In addition, the selling shareholders will be subject to applicable provisions of the Exchange Act and the rules and regulations thereunder, including Regulation M, which may limit the timing of purchases and sales of the common stock by the selling shareholders or any other person. We will make copies of this prospectus available to the selling shareholders and have informed them of the need to deliver a copy of this prospectus to each purchaser at or prior to the time of the sale (including by compliance with Rule 172 under the Securities Act).

15

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[Table of Contents](#)

## LEGAL MATTERS

The validity of the common stock offered by this prospectus will be based upon by Reed Smith LLP, Palo Alto, California.

## EXPERTS

The financial statements of the Company as of December 31, 2016 and 2015 and for each of the two years in the period ended December 31, 2016 incorporated by reference in this prospectus and the registration statement have been so incorporated in reliance on the reports of BDO USA, LLP, an independent registered public accounting firm (the reports on the financial statements contains an explanatory paragraph regarding the Company’s ability to continue as a going concern), incorporated herein by reference, given on the authority of said firm as experts in auditing and accounting.

The consolidated financial statements of Napo as of December 31, 2016 and 2015 and for each of the two years in the period ended December 31, 2016 incorporated by reference in this prospectus and the registration statement have been audited by Macias Gini & O’Connell LLP, as stated in their report incorporated by reference in this registration statement (which report contains an explanatory paragraph regarding Napo’s ability to continue as a going concern), and are incorporated by reference in reliance upon such report and upon the authority of such firm as experts in auditing and accounting.

## WHERE YOU CAN FIND MORE INFORMATION

We are subject to the reporting requirements of the Securities Exchange Act of 1934, as amended, and file annual, quarterly and current reports, proxy statements and other information with the SEC. You may read and copy these reports, proxy statements and other information at the SEC’s public reference facilities at 100 F Street, N.E., Room 1580, Washington, D.C. 20549. You can request copies of these documents by writing to the SEC and paying a fee for the copying cost. Please call the SEC at 1-800-SEC-0330 for more information about the operation of the public reference facilities. SEC filings are also available at the SEC’s web site at <http://www.sec.gov>.

This prospectus is only part of a registration statement on Form S-3 that we have filed with the SEC under the Securities Act and therefore omits certain information contained in the registration statement. We have also filed exhibits and schedules with the registration statement that are excluded from this prospectus, and you should refer to the applicable exhibit or schedule for a complete description of any statement referring to any contract or other document. You may inspect a copy of the registration statement, including the exhibits and schedules, without charge, at the public reference room or obtain a copy from the SEC upon payment of the fees prescribed by the SEC.

We also maintain a website at [www.jaguaranimalhealth.com](http://www.jaguaranimalhealth.com), through which you can access our SEC filings. The information set forth on, or accessible from, our website is not part of this prospectus.

## INCORPORATION OF INFORMATION BY REFERENCE

The SEC allows us to “incorporate by reference” information that we file with them. Incorporation by reference allows us to disclose important information to you by referring you to those other documents. The information incorporated by reference is an important part of this prospectus, and information that we file later with the SEC will automatically update and supersede this information. This prospectus omits certain information contained in the registration statement, as permitted by the SEC. You should refer to the registration statement and any prospectus supplement filed hereafter, including the exhibits, for further information about us and the securities we may offer pursuant to this prospectus. Statements in this prospectus regarding the provisions of certain documents filed with, or incorporated by reference in, the registration statement are not necessarily complete and each statement is qualified in all respects by that reference. Copies of all or any part of the registration statement, including the documents incorporated by reference or the exhibits, may be obtained upon payment of the prescribed rates at the offices of the SEC listed above in “Where You Can Find More Information.” The documents we are incorporating by reference are:

- our Annual Report on Form 10-K/A for the fiscal year ended December 31, 2016 filed on May 26, 2017;
- our definitive proxy statement and definitive additional materials, on Schedule 14A, relating to our Annual Meeting of Stockholders held on May 8, 2017, filed on April 17, 2017;

[Table of Contents](#)

- our Quarterly Report on Form 10-Q/A for the fiscal quarter ended March 31, 2017 filed on June 23, 2017 and our Quarterly Report on Form 10-Q for the fiscal quarter ended June 30, 2017 filed on August 9, 2017;
- our Current Reports on Form 8-K filed on January 31, 2017, February 9, 2017, February 24, 2017, March 31, 2017, April 6, 2017, May 2, 2017, May 8, 2017, May 19, 2017, July 3, 2017, July 7, 2017, July 28, 2017, July 31, 2017, August 1, 2017, August 4, 2017, August 16, 2017, August 29, 2017, September 14, 2017, September 15, 2017, September 25, 2017 and October 3, 2017;
- the description of our common stock contained in our registration statement on Form 8-A filed on October 30, 2014 (Registration No. 001-36714) with the SEC, including any amendment or report filed for the purpose of updating such description; and
- all reports and other documents subsequently filed by us pursuant to Sections 13(a), 13(c), 14 and 15(d) of the Exchange Act after the date of this prospectus and prior to the termination or completion of the offering of securities under this prospectus shall be deemed to be incorporated by reference in this prospectus and to be a part hereof from the date of filing such reports and other documents.

Unless otherwise noted, the SEC file number for each of the documents listed above is 001-36714.

In addition, all reports and other documents filed by us pursuant to the Exchange Act after the date of the initial registration statement and prior to effectiveness of the registration statement shall be deemed to be incorporated by reference into this prospectus.

Any statement contained in this prospectus or in a document incorporated or deemed to be incorporated by reference into this prospectus will be deemed to be modified or superseded for purposes of this prospectus to the extent that a statement contained in this prospectus or any other subsequently filed document that is deemed to be incorporated by reference into this prospectus modifies or supersedes the statement. Any statement so modified or superseded will not be deemed, except as so modified or superseded, to constitute a part of this prospectus.

You may request, orally or in writing, a copy of any or all of the documents incorporated herein by reference. These documents will be provided to you at no cost, by contacting: Investor Relations, Jaguar Health, Inc., 201 Mission Street, Suite 2375, San Francisco, CA, 94105 or call (415) 371-8300.

You should rely only on information contained in, or incorporated by reference into, this prospectus and any prospectus supplement. We have not authorized anyone to provide you with information different from that contained in this prospectus or incorporated by reference in this prospectus. We are not making offers to sell the securities in any jurisdiction in which such an offer or solicitation is not authorized or in which the person making such offer or solicitation is not qualified to do so or to anyone to whom it is unlawful to make such offer or solicitation.

[Table of Contents](#)

**PART II  
INFORMATION NOT REQUIRED IN PROSPECTUS**

**Item 14. Other Expenses of Issuance and Distribution**

The following table sets forth an itemization of the various expenses, all of which we will pay, in connection with the issuance and distribution of the securities being registered. All of the amounts shown are estimated except the SEC Registration Fee.

SEC Registration Fee	\$ 794.76
Legal Fees and Expenses	45,000.00
Accounting Fees and Expenses	10,000.00
Miscellaneous	5,205.24
<b>Total</b>	<b>\$ 61,000.00</b>

**Item 15. Indemnification of Directors and Officers**

Section 102(b)(7) of the DGCL authorizes a corporation in its certificate of incorporation to eliminate or limit personal liability of directors of the corporation for violations of the directors’ fiduciary duty of care. However, directors remain liable for breaches of duties of loyalty, failing to act in good

faith, engaging in intentional misconduct, knowingly violating a law, paying a dividend or approving a stock repurchase which was illegal under DGCL Section 174 or obtaining an improper personal benefit. In addition, equitable remedies for breach of fiduciary duty of care, such as injunction or recession, are available.

Our current certificate of incorporation eliminates the personal liability of the members of our board of directors to the fullest extent permitted by the DGCL. Any repeal or modification of that provision by the stockholders of the corporation will not adversely affect any right or protection of a director of the corporation existing at the time of such repeal or modification.

Section 145 of the DGCL provides that a corporation has the power to indemnify a director, officer, employee or agent of the corporation, or a person serving at the request of the corporation for another corporation, partnership, joint venture, trust or other enterprise in related capacities against expenses (including attorneys' fees), judgments, fines and amounts paid in settlement actually and reasonably incurred by the person in connection with an action, suit or proceeding to which he was or is a party or is threatened to be made a party to any threatened, ending or completed action, suit or proceeding by reason of such position, if such person acted in good faith and in a manner he reasonably believed to be in or not opposed to the best interests of the corporation, and, in any criminal action or proceeding, had no reasonable cause to believe his conduct was unlawful, except that, in the case of actions brought by or in the right of the corporation, no indemnification shall be made with respect to any claim, issue or matter as to which such person shall have been adjudged to be liable to the corporation unless and only to the extent that the Court of Chancery or other adjudicating court determines that, despite the adjudication of liability but in view of all of the circumstances of the case, such person is fairly and reasonably entitled to indemnity for such expenses which the Court of Chancery or such other court shall deem proper.

Our current bylaws provide for indemnification of its officers and directors to the fullest extent permitted by the DGCL.

We have entered into indemnification agreements with each of its directors and officers, pursuant to which we agreed, to the maximum extent permitted by applicable law and subject to the specified terms and conditions set forth in each agreement, to indemnify a director or officer who acts on our behalf and is made or threatened to be made a party to any action or proceeding against expenses, judgments, fines and amounts paid in settlement that are incurred by such officer or director in connection with the action or proceeding. The indemnification provisions apply whether the action was instituted by a third party or by us.

We have purchased and maintain insurance on behalf of our officers and directors that provides coverage for expenses and liabilities incurred by them in their capacities as officers and directors.

#### Item 16. Exhibits

The exhibits to this registration statement are listed in the Exhibit Index to this registration statement, which Exhibit Index is hereby incorporated by reference.

II-1

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#### [Table of Contents](#)

#### Item 17. Undertakings

(a) The undersigned registrant hereby undertakes:

(1) To file, during any period in which offers or sales are being made, a post-effective amendment to this registration statement:

(i) To include any prospectus required by section 10(a)(3) of the Securities Act of 1933;

(ii) To reflect in the prospectus any facts or events arising after the effective date of the registration statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in the registration statement. Notwithstanding the foregoing, any increase or decrease in volume of securities offered (if the total dollar value of securities offered would not exceed that which was registered) and any deviation from the low or high end of the estimated maximum offering range may be reflected in the form of prospectus filed with the SEC pursuant to Rule 424(b) if, in the aggregate, the changes in volume and price represent no more than a 20% change in the maximum aggregate offering price set forth in the "Calculation of Registration Fee" table in the effective registration statement; and

(iii) To include any material information with respect to the plan of distribution not previously disclosed in the registration statement or any material change to such information in the registration statement;

*provided, however*, that paragraphs (a)(1)(i), (a)(1)(ii) and (a)(1)(iii) do not apply if the information required to be included in a post-effective amendment by those paragraphs is contained in reports filed with or furnished to the SEC by the registrant pursuant to section 13 or section 15(d) of the Securities Exchange Act of 1934 that are incorporated by reference in the registration statement, or is contained in a form of prospectus filed pursuant to Rule 424(b) that is part of the registration statement.

(2) That, for the purpose of determining any liability under the Securities Act of 1933, each such post-effective amendment shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

(3) To remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of the offering.

(4) That, for the purpose of determining liability under the Securities Act of 1933 to any purchaser:

(A) Each prospectus filed by the registrant pursuant to Rule 424(b)(3) shall be deemed to be part of the registration statement as of the date the filed prospectus was deemed part of and included in the registration statement; and

(B) Each prospectus required to be filed pursuant to Rule 424(b)(2), (b)(5) or (b)(7) as part of a registration statement in reliance on Rule 430B relating to an offering made pursuant to Rule 415(a)(1)(i), (vii) or (x) for the purpose of providing the information required by Section 10(a) of the Securities Act of 1933 shall be deemed to be part of and included in the registration statement as of the earlier of the date such form of prospectus is first used after effectiveness or the date of the first contract of sale of securities in the offering described in the prospectus. As provided in Rule 430B, for liability purposes of the issuer and any person that is at that date an underwriter, such date shall be deemed to be a new effective date of the registration statement relating to the securities in the registration statement to which the prospectus relates, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof. Provided, however, that no statement made in a registration statement or prospectus that is part of the registration statement or made in a document incorporated or deemed incorporated by reference into the registration statement or prospectus that is part of the registration statement will, as to a purchaser with a time of contract of sale prior to such effective date, supersede or modify any statement that was made in the registration statement or prospectus that was part of the registration statement or made in any such document immediately prior to such effective date.

II-2

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[Table of Contents](#)

(5) That, for the purpose of determining liability of the registrant under the Securities Act of 1933 to any purchaser in the initial distribution of the securities, the undersigned registrant undertakes that in a primary offering of securities of the undersigned registrant pursuant to this registration statement, regardless of the underwriting method used to sell the securities to the purchaser, if the securities are offered or sold to such purchaser

by means of any of the following communications, the undersigned registrant will be a seller to the purchaser and will be considered to offer or sell such securities to such purchaser:

- (i) Any preliminary prospectus or prospectus of the undersigned registrant relating to the offering required to be filed pursuant to Rule 424;
- (ii) Any free writing prospectus relating to the offering prepared by or on behalf of the undersigned registrant or used or referred to by the undersigned registrant;
- (iii) The portion of any other free writing prospectus relating to the offering containing material information about the undersigned registrant or its securities provided by or on behalf of the undersigned registrant; and
- (iv) Any other communication that is an offer in the offering made by the undersigned registrant to the purchaser.

(6) The undersigned registrant hereby undertakes that, for purposes of determining any liability under the Securities Act of 1933, each filing of the registrant's annual report pursuant to section 13(a) or section 15(d) of the Securities Exchange Act of 1934 (and, where applicable, each filing of an employee benefit plan's annual report pursuant to section 15(d) of the Securities Exchange Act of 1934) that is incorporated by reference in the registration statement shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial *bona fide* offering thereof.

(7) Insofar as indemnification for liabilities arising under the Securities Act of 1933 may be permitted to directors, officers and controlling persons of the registrant pursuant to the foregoing provisions, or otherwise, the registrant has been advised that in the opinion of the Securities and Exchange Commission such indemnification is against public policy as expressed in the Securities Act of 1933 and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the registrant of expenses incurred or paid by a director, officer or controlling person of the registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Securities Act of 1933 and will be governed by the final adjudication of such issue.

II-3

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[Table of Contents](#)

**EXHIBIT INDEX**

<u>Exhibit No.</u>	<u>Description</u>
2.1	<a href="#">Agreement and Plan of Merger, dated as of March 31, 2017, by and among Jaguar Health, Inc. (f/k/a Jaguar Animal Health, Inc.), Napo Acquisition Corporation, Napo Pharmaceuticals, Inc. and Gregory Stock (incorporated by reference to Exhibit 2.1 to the Current Report on Form 8-K of Jaguar Health, Inc. filed March 31, 2017, File No. 001-36714).</a>
3.1	<a href="#">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).</a>
3.2	<a href="#">Amended and Restated Bylaws (incorporated by reference to Exhibit 3.2 to the Current Report on Form 8-K (No. 001-36714) filed on May 18, 2015).</a>
4.1	<a href="#">Specimen Common Stock Certificate of Jaguar Health, Inc. (f/k/a Jaguar Animal Health, Inc.) (incorporated by reference to Exhibit 4.1 to the Registration Statement on Form S-1/A (No. 333-198383) filed on October 10, 2014).</a>
4.2	<a href="#">Specimen Non-Voting Common Stock Certificate of Jaguar Health, Inc. (incorporated by reference to Exhibit 4.1 to the Form 8-K of Jaguar Health, Inc. filed July 31, 2017, File No. 001-36714).</a>
4.3	<a href="#">Secured Convertible Promissory Note, dated June 29, 2017, 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 July 3, 2017, File No. 001-36714).</a>
5.1*	<a href="#">Opinion of Reed Smith LLP as to validity of the securities being registered.</a>
10.1	<a href="#">Note Purchase Agreement, dated March 1, 2017, by and among Napo Pharmaceuticals, Inc. and the purchasers named therein (incorporated by reference to Exhibit 10.45 to the Registration Statement on Form S-4 (No. 333-217364) filed on April 18, 2017).</a>



- 10.2 [Form of Original Issue Discount Exchange Promissory Note issued pursuant to the Note Purchase Agreement dated as of March 1, 2017, by and among Napo Pharmaceuticals, Inc. and the Purchasers as defined therein \(incorporated by reference to Exhibit 10.46 to the Registration Statement on Form S-4 \(No. 333-217364\) filed on April 18, 2017\).](#)
- 10.3 [Amended and Restated Note Purchase Agreement, dated March 31, 2017, by and among Napo Pharmaceuticals, Inc., Kingdon Associates, M. Kingdon Offshore Master Fund L.P., and Kingdon Family Partnership, L.P. \(incorporated by reference to Exhibit 10.47 to the Registration Statement on Form S-4 \(No. 333-217364\) filed on April 18, 2017\).](#)
- 10.4 [Form of Kingdon Convertible Promissory Note issued pursuant to the Amended and Restated Note Purchase Agreement, dated March 31, 2017, by and among Napo Pharmaceuticals, Inc., Kingdon Associates, M. Kingdon Offshore Master Fund L.P., and Kingdon Family Partnership, L.P. \(incorporated by reference to Exhibit 10.48 to the Registration Statement on Form S-4 \(No. 333-217364\) filed on April 18, 2017\).](#)
- 10.5 [Limited Subordination Agreement, dated December 30, 2016, by and among Napo Pharmaceuticals, Inc., Kingdon Capital Management, L.L.C., Nantucket Investments Limited, the lenders under the Nantucket Financing Agreement party thereto, Dorsar Investment Company, Alco Investment Company and Two Daughters LLC \(incorporated by reference to Exhibit 10.49 to the Registration Statement on Form S-4 \(No. 333-217364\) filed on April 18, 2017\).](#)
- 10.6 [Security Agreement, dated December 30, 2016, by and among Napo Pharmaceuticals, Inc., Kingdon Capital Management, L.L.C., and the purchasers named therein \(incorporated by reference to Exhibit 10.50 to the Registration Statement on Form S-4 \(No. 333-217364\) filed on April 18, 2017\).](#)
- 10.7 [Debt and Warrant Settlement Agreement, dated March 31, 2017, by and among Dorsar Investment Company, Alco Investment Company, Two Daughters LLC, and Napo Pharmaceuticals, Inc. \(incorporated by reference to Exhibit 10.53 to the Registration Statement on Form S-4 \(No. 333-217364\) filed on April 18, 2017\).](#)
- 10.8 [Debt Settlement Agreement, dated March 31, 2017, by and between Boies Schiller Flexner LLP and Napo Pharmaceuticals, Inc. \(incorporated by reference to Exhibit 10.54 to the Registration Statement on Form S-4 \(No. 333-217364\) filed on April 18, 2017\).](#)
- 10.9 [Debt Settlement Agreement, dated March 31, 2017, by and between Dan Becka and Napo Pharmaceuticals, Inc. \(incorporated by reference to Exhibit 10.55 to the Registration Statement on Form S-4 \(No. 333-217364\) filed on April 18, 2017\).](#)
- 10.10 [Securities Purchase Agreement, dated June 29, 2017, by and between Jaguar Health, Inc. and Chicago Venture Partners, L.P. \(incorporated by reference to Exhibit 10.1 to the Form 8-K of Jaguar Health, Inc. filed July 3, 2017, File No. 001-36714\).](#)
- 10.11 [Subordination Agreement and Right to Purchase Debt, dated June 29, 2017, by and between Chicago Venture Partners, L.P., Jaguar Health, Inc. and Hercules Capital, Inc. \(incorporated by reference to Exhibit 10.2 to the Form 8-K of Jaguar Health, Inc. filed July 3, 2017, File No. 001-36714\).](#)

II-4

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[Table of Contents](#)

- 10.12 [Security Agreement, dated June 29, 2017, by and between Jaguar Health, Inc. and Chicago Venture Partners, L.P. \(incorporated by reference to Exhibit 10.3 to the Form 8-K of Jaguar Health, Inc. filed July 3, 2017, File No. 001-36714\).](#)
- 10.13 [Letter Agreement, dated September 1, 2017, by and among Napo Pharmaceuticals, Inc., MEF I, L.P. and Riverside Merchant Partners \(incorporated by reference to Exhibit 10.33 to the Form 8-K/A of Jaguar Health, Inc. filed September 14, 2017, File No. 001-36714\).](#)
- 10.14 [Letter Agreement, dated August 31, 2017, by and among Napo Pharmaceuticals, Inc., M. Kingdon Offshore Master Fund L.P., Kingdon Family Partnership, L.P. and Kingdon Credit Master Fund L.P. \(incorporated by reference to Exhibit 10.34 to the Form 8-K/A of Jaguar Health, Inc. filed September 14, 2017, File No. 001-36714\).](#)
- 10.15 [Letter Agreement, dated August 28, 2017, by and among Napo Pharmaceuticals, Inc., Dorsar Investment Company, Alco Investment Company and Two Daughters LLC \(incorporated by reference to Exhibit 10.35 to the Form 8-K/A of Jaguar Health, Inc. filed September 14, 2017, File No. 001-36714\).](#)
- 10.16 [Letter Agreement, dated September 1, 2017, by and between Napo Pharmaceuticals, Inc. and Boies Schiller Flexner LLP \(incorporated by reference to Exhibit 10.36 to the Form 8-K/A of Jaguar Health, Inc. filed September 14, 2017, File No. 001-36714\).](#)
- 10.17 [Letter Agreement, dated August 30, 2017, by and between Jaguar Health, Inc. and Chicago Venture Partners, L.P. \(incorporated by reference to Exhibit 10.37 to the Form 8-K/A of Jaguar Health, Inc. filed September 14, 2017, File No. 001-36714\).](#)
- 23.1\* [Consent of BDO USA, LLP, independent registered public accounting firm for Jaguar Health, Inc.](#)
- 23.2\* [Consent of Macias Gini & O'Connell LLP, independent auditor for Napo Pharmaceuticals, Inc.](#)
- 23.3\* [Consent of Reed Smith LLP \(included in Exhibit 5.1 hereto\).](#)
- 24.1\* [Power of Attorney \(included on the signature page hereto\).](#)

\* Filed herewith.

II-5

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[Table of Contents](#)

**SIGNATURES**

Pursuant to the requirements of the Securities Act of 1933, the registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-3 and has duly caused this registration statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of San Francisco, State of California, on this 20<sup>th</sup> day of October, 2017.

**JAGUAR HEALTH, INC.,**

By: \_\_\_\_\_ /s/ LISA A. CONTE

Lisa A. Conte

Chief Executive Officer and President

## POWER OF ATTORNEY

We, the undersigned officers and directors of Jaguar Health, Inc., a Delaware corporation, hereby severally constitute and appoint Lisa A. Conte and/or Karen Wright, our true and lawful attorney-in-fact and agents, with full power of substitution and resubstitution for her or him and in her or his name, place and stead, and in any and all capacities, to sign for us and in our names in the capacities indicated below any and all amendments (including post-effective amendments) to this registration statement (or any other registration statement for the same offering that is to be effective upon filing pursuant to Rule 462(b) under the Securities Act of 1933, as amended), and to file the same, with all exhibits thereto and other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorney-in-fact and agent, full power and authority to do and perform each and every act and thing requisite or necessary to be done in and about the premises, as full to all intents and purposes as he might or could do in person, hereby ratifying and confirming all that said attorney-in-fact and agent, or her or his substitute or substitutes, may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Act of 1933, this Registration Statement has been signed by the following persons in the capacities and on the date indicated.

<u>Signature</u>	<u>Title</u>	<u>Date</u>
<u>/s/ LISA A. CONTE</u> Lisa A. Conte	Chief Executive Officer, President and Director (Principal Executive Officer)	October 20, 2017
<u>/s/ KAREN WRIGHT</u> Karen Wright	Chief Financial Officer and Treasurer (Principal Financial and Accounting Officer)	October 20, 2017
<u>/s/ JAMES J. BOCHNOWSKI</u> James J. Bochnowski	Chairman of the Board	October 20, 2017
<u>Jiahao Qiu</u>	Director	
<u>Zhi Yang, Ph.D.</u>	Director	
<u>/s/ FOLKERT KAMPHUIS</u> Folkert Kamphuis	Director	October 20, 2017
<u>/s/ JOHN MICEK III</u> John Micek III	Director	October 20, 2017
<u>/s/ ARI AZHIR</u> Ari Azhir	Director	October 20, 2017



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 Tel +1 415 543 8700  
 Fax +1 415 391 8269  
 reedsmith.com

October 20, 2017

Jaguar Health, Inc.  
 201 Mission Street, Suite 2375  
 San Francisco, California 94105

Ladies and Gentlemen:

This opinion is furnished to you in connection with the Registration Statement on Form S-3 (the "Registration Statement") filed by Jaguar Health, Inc. (f/k/a Jaguar Animal Health, Inc.), a Delaware corporation (the "Company"), with the Securities and Exchange Commission (the "Commission") on the date hereof in connection with the registration under the Securities Act of 1933, as amended (the "Securities Act"), for resale by the selling stockholders named in the Registration Statement (the "Selling Stockholders") of a total of 35,464,541 shares of the Company's voting common stock, par value \$0.0001 per share (the "Voting Common Stock"), consisting of (i) up to 264,866 shares of Voting Common Stock (the "Shares"), (ii) up to 4,167,172 shares of Voting Common Stock (the "Non-Voting Conversion Shares") that are issuable upon conversion of the Company's non-voting common stock, par value \$0.0001 per share (the "Non-Voting Common Stock"), issued by the Company to certain Selling Stockholders, (iii) up to 1,224,875 shares of Voting Common Stock (the "Warrant Shares") that are issuable upon the exercise of warrants at an exercise price of \$0.08 per share (the "Warrants") issued by the Company to certain Selling Stockholders, (iv) up to 23,315,544 shares of Voting Common Stock (the "Kingdon Conversion Shares") that are issuable upon conversion of the Convertible Promissory Notes due December 30, 2019 (the "Kingdon Notes") issued by Napo Pharmaceuticals, Inc. ("Napo") to certain Selling Stockholders, (v) up to 2,492,084 shares of Voting Common Stock (the "MEF/Riverside Exchange Shares") that are issuable upon exchange of Exchangeable Promissory Notes due December 1, 2017 (the "MEF/Riverside Notes") issued by Napo to certain Selling Stockholders and (vi) up to 4,000,000 shares of Voting Common Stock (the "CVP Conversion Shares" and, together with the Non-Voting Conversion Shares, the Warrant Shares, the Kingdon Conversion Shares and the MEF/Riverside Exchange Shares, the "Conversion Shares") that are issuable upon conversion of the Convertible Promissory Notes due August 2, 2018 (the "CVP Notes") issued by the Company to certain Selling Stockholders. We are acting as counsel for the Company in connection with the registration of the Shares and Conversion Shares by the Company.

In rendering the opinion set forth herein, we have examined originals or copies, certified or otherwise identified to our satisfaction, of such documents, corporate records, certificates of public officials and other instruments as we have deemed necessary or advisable.

NEW YORK □ LONDON □ HONG KONG □ CHICAGO □ WASHINGTON, D.C. □ BEIJING □ PARIS □ LOS ANGELES □ SAN FRANCISCO □ PHILADELPHIA □ SHANGHAI □ PITTSBURGH □ HOUSTON SINGAPORE □ MUNICH □ ABU DHABI □ PRINCETON □ NORTHERN VIRGINIA □ WILMINGTON □ SILICON VALLEY □ DUBAI □ CENTURY CITY □ RICHMOND □ GREECE □ KAZAKHSTAN

In such examination, we have assumed the genuineness of all signatures, the legal capacity of natural persons, the authenticity of all items submitted to us as originals, the conformity with originals of all items submitted to us as copies, and the authenticity of the originals of such copies. As to any facts material to the opinions expressed herein that we did not independently establish or verify, we have relied upon statements and representations of officers and other representatives of the Company and public officials.

This opinion is based solely on the General Corporation Law of the State of Delaware (including all related provisions of the Delaware Constitution and all reported judicial decisions interpreting the General Corporation Law of the State of Delaware and the Delaware Constitution).

Based upon and subject to the foregoing, we are of the opinion that (i) the Shares have been validly issued, fully paid and nonassessable; (ii) the Non-Voting Conversion Shares have been duly authorized for issuance and, when issued and delivered in accordance with the terms of the Non-Voting Common Stock, the Non-Voting Conversion Shares will be validly issued, fully paid and nonassessable; (iii) the Warrant Shares have been duly authorized for issuance and, when issued and delivered in accordance with the terms of the Warrants, the Warrant Shares will be validly issued, fully paid and nonassessable; (iv) the Kingdon Conversion Shares have been duly authorized for issuance, and when issued and delivered in accordance with the terms of the Kingdon Notes, the Kingdon Conversion Shares will be validly issued, fully paid and nonassessable; (v) the MEF/Riverside Exchange Shares have been duly authorized for issuance, and when issued and delivered in accordance with the terms of the MEF/Riverside Notes, the MEF/Riverside Exchange Shares will be validly issued, fully paid and nonassessable; and (vi) the CVP Conversion Shares have been duly authorized for issuance, and when issued and delivered in accordance with the terms of the CVP Notes, the CVP Conversion Shares will be validly issued, fully paid and nonassessable.

We consent to the inclusion of this opinion as an exhibit to the Registration Statement and further consent to all references to us under the caption "Legal Matters" in the Prospectus. In giving this consent, we do not admit that we are in the category of persons whose consent is required under Section 7 of the Securities Act or the rules and regulations of the Commission.

Very truly yours,

/s/ REED SMITH LLP  
 REED SMITH LLP



Tel: 415-397-7900  
Fax: 415-397-2161  
www.bdo.com

One Bush Street  
Suite 1800  
San Francisco, CA 94104

Consent of Independent Registered Public Accounting Firm

Jaguar Health, Inc.  
San Francisco, California

We hereby consent to the incorporation by reference in this Registration Statement Form S-3 of our report dated February 15, 2017, relating to the financial statements of Jaguar Health, Inc. (formerly known as Jaguar Animal Health, Inc.) appearing in the Company's Annual Report on Form 10-K for the year ended December 31, 2016. Our report contains an explanatory paragraph regarding the Company's ability to continue as a going concern.

We also consent to the reference to us under the caption "Experts" in the Registration Statement.

**BDO USA, LLP**  
BDO USA, LLP  
San Francisco, California

October 20, 2017

BDO USA, LLP, a Delaware limited liability partnership, is the U.S. member of BDO International Limited, a UK company limited by guarantee, and forms part of the international BDO network of independent member firms.

BDO is the brand name for the BDO network and for each of the BDO Member Firms.

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Consent of Independent Auditors

Napo Pharmaceuticals, Inc.  
San Francisco, California

We hereby consent to the incorporation by reference in the Prospectus constituting a part of this Registration Statement on Form S-3 of our report dated March 24, 2017, except for Note 15-Additional Subsequent Events, the first and second paragraphs as to which the date is March 31, 2017, the third paragraph as to which the date is June 27, 2017 and the fourth paragraph as to which the date is July 31, 2017 (the report contains an explanatory paragraph regarding Napo Pharmaceuticals, Inc.'s ability to continue as a going concern), with respect to the consolidated financial statements of Napo Pharmaceuticals, Inc., appearing in the Form 8-K/A of Jaguar Health, Inc. filed on August 4, 2017.

We also consent to the reference to us under the caption "Experts" in the Prospectus.

/s/ Macias Gini & O'Connell LLP

San Francisco, California  
October 20, 2017

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