Jaguar Animal Health, Inc.
Form S-4/A
April 20, 2017

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**As filed with the Securities and Exchange Commission on April 20, 2017**

**Registration No. 333-217364**

# SECURITIES AND EXCHANGE COMMISSION

**Washington, D.C. 20549**

**Amendment No. 1**
**to**

# FORM S-4

**REGISTRATION STATEMENT**
**UNDER**
**THE SECURITIES ACT OF 1933**

# JAGUAR ANIMAL HEALTH, INC.

(Exact name of Registrant as specified in its charter)

| **Delaware** | **2834** | **46-2956775** |
|---|---|---|
| (State or Other Jurisdiction of Incorporation or Organization) | (Primary Standard Industrial Classification Code Number) | (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 Animal 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.**
**David T. Mittelman, 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:**
**As soon as practicable after the effectiveness of this registration statement and the satisfaction or waiver of all other conditions under the merger agreement described herein.**

If the securities being registered on this Form are being offered in connection with the formation of a holding company and there is compliance with General Instruction G, check the following box. o

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. o

If this Form is a post-effective amendment filed pursuant to Rule 462(d) 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. o

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

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

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. ý

If applicable, please an X in the box to designate the appropriate rule provision relied upon in conducting this transaction:

Exchange Act Rule 13c-4(i) (Cross-Border Issuer Tender Offer) o

Exchange Act Rule 14d-1(d) (Cross-Border Third-Party Tender Offer) o

**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.**

**EXPLANATORY NOTE**

The purpose of this Amendment No. 1 to the Registration Statement on Form S-4 (333-217364), or the Registration Statement, is to correct certain typographical errors in the initial Registration Statement filed April 18, 2017, including within the unaudited pro forma financial statements and the number of existing authorized shares of Jaguar common stock.

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**The information in this joint proxy statement/prospectus is not complete and may be changed. We may not sell these securities until the registration statement filed with the Securities and Exchange Commission is effective. This joint proxy statement/prospectus is not an offer to sell these securities and it is not soliciting an offer to buy these securities in any state where the offer, solicitation or sale is not permitted.**

**Subject to completion, dated April 20, 2017**

[ • ], 2017

Dear Stockholders of Jaguar Animal Health, Inc. and Napo Pharmaceuticals, Inc.,

We are pleased to enclose the joint proxy statement/prospectus relating to the acquisition of Napo Pharmaceuticals, Inc. (sometimes referred to as Napo) by Jaguar Animal Health, Inc. (sometimes referred to as Jaguar) through a merger. We believe that this merger will enable both companies, through a joint management team, to enhance potential value for stockholders, and that both Jaguar and Napo will benefit from the synergies and economies of scale that a merger should create in manufacturing and commercialization of crofelemer for various human and animal indications.

At the effective time of the merger, (i) each issued and outstanding share of Napo common stock (other than dissenting shares and shares held by Jaguar or Napo) will be converted into a contingent right to receive (x) up to a whole number of shares of Jaguar common stock comprising in the aggregate up to approximately 21.5% of the fully diluted shares of Jaguar common stock immediately following the consummation of the merger, which contingent right will vest only if the resale of certain shares of Jaguar common stock (sometimes referred to herein as the Tranche A Shares) issued by Jaguar to Nantucket Investments Limited (sometimes referred to herein as Nantucket) pursuant to the Napo debt settlement provides Nantucket with specified cash returns over a specified period of time (sometimes referred to herein as the Hurdle Amounts), and (y) if the applicable Hurdle Amount is achieved before all of the Tranche A Shares are sold, additional shares of the Jaguar common stock (equal to 50% of the unsold Tranche A shares), which will be distributed pro rata among holders of contingent rights and holders of Napo restricted stock units, (ii) existing creditors of Napo (inclusive of Nantucket) will be issued in the aggregate approximately 43,156,649 shares of Jaguar non-voting common stock and 2,005,245 shares of Jaguar voting common stock in full satisfaction of all existing indebtedness then owed by Napo to such creditors, and (iii) an existing Napo stockholder (sometimes referred to herein as Invesco) will be issued an aggregate of approximately 3,243,243 shares of Jaguar common stock in return for $3 million of new funds invested into Jaguar by such investor, which will be immediately loaned to Napo to partially facilitate the extinguishment of the debt that Napo owes to Nantucket.

Shares of Jaguar non-voting common stock have the same rights to dividends and other distributions and are convertible into shares of common stock on a one-for-one basis (x) upon transfers to non-affiliates of Nantucket, (y) upon the release from escrow of certain non-voting shares held by Nantucket to the legacy stockholders of Napo under specified conditions and (z) at any time on or after April 1, 2018 at the option of the respective holders thereof.

Jaguar will also assume (i) each outstanding and unexercised option to purchase Napo common stock, which will be converted into options to purchase Jaguar common stock, (ii) each outstanding warrant to purchase Napo common stock, which will be converted into warrants to purchase Jaguar common stock, and (iii) each outstanding restricted stock unit to acquire Napo common stock, which will be converted into restricted stock units to acquire Jaguar common stock.

The stockholders of Jaguar will continue to own their existing shares and the rights and privileges of their existing shares will not be affected by the merger. However, because Jaguar will be issuing new shares of Jaguar common stock and non-voting common stock to Napo creditors, and options, warrants and restricted stock units exercisable for Jaguar common stock to holders of Napo options, warrants and restricted stock units in the merger, the stockholders of Jaguar will experience dilution as a result of the issuance of shares in the merger and each outstanding share of Jaguar common stock immediately prior to the merger will represent a smaller percentage of the total number of shares of Jaguar common stock and non-voting common stock issued and outstanding after the merger. It is expected that Jaguar stockholders before the merger will hold approximately 25% of the total Jaguar common stock and non-voting common stock issued and outstanding on a fully diluted basis immediately following completion of the merger. Thus, Jaguar stockholders before the merger will experience dilution in the amount of approximately 75% as a result of the merger.

We estimate that Jaguar may issue up to an aggregate of approximately 69,299,346 shares of its common stock and non-voting common stock to Napo creditors, noteholders, holders of Napo warrants, options or restricted stock units, and Invesco (sometimes referred to herein collectively as the Napo Stakeholders) as contemplated by the merger agreement. Immediately following completion of the merger, Jaguar stockholders immediately prior to the merger will own approximately 25% of Jaguar's outstanding common stock and non-voting common stock and the Napo Stakeholders will own approximately 75% of Jaguar's outstanding common stock and non-voting common stock, in each case calculated based on a fully diluted basis of Jaguar as of March 31, 2017, assuming the exercise or conversion of all outstanding options and warrants other than those options and warrants exercisable or convertible for approximately 300,000 shares of Jaguar common stock with an exercise/conversion price of $5.00 or more. Jaguar's common stock will continue to be listed on The NASDAQ Capital Market

under the symbol "JAGX", subject to NASDAQ's determination on delisting. See "Risk Factors Risks Related to Ownership of Jaguar's Common Stock Jaguar's failure to meet the continued listing requirements of The NASDAQ Capital Market could result in a delisting of its common stock." Jaguar's non-voting common stock will not be listed on any stock exchange.

Jaguar stockholders are cordially invited to attend Jaguar's special meeting of stockholders to be held at 201 Mission Street, Suite 2375, San Francisco, CA 94105 on [ • ], 2017 at [ • ] a.m., local time, at which time the holders of Jaguar common stock will be asked to consider and vote upon proposals related to the merger including (i) a proposal to approve the issuance of Jaguar common stock and non-voting common stock to certain of Napo's existing creditors in connection with the proposed merger, (ii) a proposal to approve the issuance of Jaguar common stock upon conversion of the Convertible Promissory Notes, due December 30, 2019, issued or issuable by Napo to certain investors in the original principal amount of up to $12,500,000, as amended on March 31, 2017, (iii) a proposal to approve the issuance of $3,000,000 of Jaguar common stock at a price equal to $0.925 per share to Invesco Asset Management Limited, or Invesco, pursuant to the Commitment Letter, dated February 21, 2017, between Jaguar and Invesco (sometimes referred to herein as the Invesco Commitment Letter), (iv) a proposal to amend the Jaguar 2014 Stock Incentive Plan (sometimes referred to herein as the 2014 Plan) to increase the number of shares of Jaguar common stock authorized for issuance under the 2014 Plan by 6,500,188 shares, (v) a proposal to adopt Jaguar's Third Amended and Restated Certificate of Incorporation to increase the number of authorized shares of common stock from 50 million shares to 225 million shares, authorize a class of non-voting common stock, require Nantucket's prior written consent before the issuance of dividends to holders of Jaguar common stock and/or non-voting common stock for so long as Nantucket or its affiliates own any shares of Jaguar non-voting common stock, and change the Jaguar corporate name to "Jaguar Health, Inc.", and (vi) a proposal to adjourn Jaguar's special meeting if necessary or advisable to permit further solicitation of proxies in the event there are not sufficient votes at the time of the special meeting to approve the above matters.

Napo stockholders are cordially invited to attend a special meeting of the stockholders to be held at 201 Mission Street, Suite 2375, San Francisco, CA 94105 on [ • ], 2017 at [ • ], a.m., local time, at which time the stockholders of Napo will be asked to consider and vote upon (i) a proposal to adopt the merger agreement and approve the merger and (ii) a proposal to adjourn Napo's special meeting if necessary or advisable to permit further solicitation of proxies in the event there are not sufficient votes at the time of the special meeting to adopt the merger agreement and approve the merger.

We urge you to read the enclosed joint proxy statement/prospectus, which includes important information about the merger, Jaguar's special meeting and Napo's special meeting. **In particular, see "Risk Factors" beginning on page 24 of the joint proxy statement/prospectus for a description of the risks that you should consider in evaluating the merger.**

**Jaguar's board of directors (sometimes referred to as the Jaguar Board) unanimously recommends that Jaguar stockholders vote "FOR" the issuance of the shares of common stock and non-voting common stock, "FOR" the issuance of shares of Jaguar common stock upon conversion of the Convertible Promissory Notes, due December 30, 2019, "FOR" the proposal respecting the issuance of shares of Jaguar common stock to Invesco, "FOR" the amendment of the 2014 Plan, "FOR" the adoption of Jaguar's Third Amended and Restated Certificate of Incorporation, and "FOR" the other matters to be considered at the Jaguar special meeting.**

**Napo's board of directors (sometimes referred to as the Napo Board) unanimously recommends that Napo stockholders vote "FOR" the adoption of the merger agreement and "FOR" the other matters to be considered at the Napo special meeting. It should be noted that in connection with the merger, the Napo Board will receive indemnification for acts or omissions occurring prior to the effective time of the merger.**

**Your vote is very important. Whether or not you plan to attend your respective company's meeting of stockholders, please submit your proxy as soon as possible to make sure that your shares are represented at that meeting.** Information about these meetings, the merger and the other business to be considered by stockholders is contained in this joint proxy statement/prospectus. We urge you to read this joint proxy statement/prospectus carefully.

Sincerely,

/s/ LISA A. CONTE

Lisa A. Conte
*Chief Executive Officer and President*
Jaguar Animal Health, Inc.
*Interim Chief Executive Officer*
Napo Pharmaceuticals, Inc.

**Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of the securities to be issued in connection with the merger or determined if this joint proxy statement/prospectus is accurate or complete. Any representation to the contrary is a criminal offense.**

The enclosed joint proxy statement/prospectus is dated [ • ], 2017, and is first being mailed or otherwise delivered to stockholders of Jaguar and Napo on or about [ • ], 2017.

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# JAGUAR ANIMAL HEALTH, INC.

**201 Mission Street**
**Suite 2375**
**San Francisco, CA 94105**
**NOTICE OF 2017 SPECIAL MEETING OF STOCKHOLDERS**
**TO BE HELD [ • ], 2017**

To the Stockholders of Jaguar Animal Health, Inc.:

Jaguar Animal Health, Inc.'s special meeting of all stockholders will be held at 201 Mission Street, Suite 2375, San Francisco, CA 94105 on [ • ], 2017 at [ • ] a.m., local time, for the following purposes:

1. To approve the issuance of shares of Jaguar common stock and non-voting common stock in connection with the transactions contemplated by the Agreement and Plan of Merger, dated as of March 31, 2017, by and among Jaguar Animal Health, Inc., Napo Acquisition Corporation, Napo Pharmaceuticals, Inc. and a representative of Napo Pharmaceuticals, Inc. (sometimes referred to as the merger agreement). A copy of the merger agreement has been included as *Annex A* to this joint proxy statement/prospectus.

2. To approve the issuance of Jaguar common stock upon conversion of the Convertible Promissory Notes, due December 30, 2019, issued or issuable by Napo to certain investors in the original principal amount of up to $12,500,000, as amended on March 31, 2017.

3. To approve the issuance of $3,000,000 of Jaguar common stock at a price equal to $0.925 per share to Invesco Asset Management Limited, or Invesco, pursuant to the Commitment Letter, dated February 21, 2017, between Jaguar and Invesco (sometimes referred to herein as the Invesco Commitment Letter).

4. To approve the amendment of the Jaguar 2014 Stock Incentive Plan (sometimes referred to herein as the 2014 Plan) to increase the number of shares of Jaguar common stock authorized for issuance under the 2014 Plan by 6,500,188 shares.

5. To approve Jaguar's Third Amended and Restated Certificate of Incorporation to (i) increase the number of authorized shares of common stock from 50 million shares to 225 million shares, (ii) authorize a class of non-voting common stock, (iii) require Nantucket's prior written consent before the issuance of dividends to holders of Jaguar common stock and/or non-voting common stock for so long as Nantucket or its affiliates own any shares of Jaguar non-voting common stock, and (iv) change the Jaguar corporate name to "Jaguar Health, Inc." A copy of Jaguar's Third Amended and Restated Certificate of Incorporation has been included as *Annex B* to this joint proxy statement/prospectus.

6. To adjourn the special meeting if necessary or advisable to permit further solicitation of proxies in the event there are not sufficient votes at the time of the special meeting to approve (i) the issuance of shares of Jaguar common stock described in Proposals 1, 2 and 3, (ii) the amendment of the 2014 Plan described in Proposal 4, and/or (iii) the adoption of Jaguar's Third Amended and Restated Certificate of Incorporation described in Proposal 5.

7. To transact such other business as may properly come before the special meeting or any adjournment or postponement thereof.

If you held shares of Jaguar common stock at the close of business on [ • ], 2017, you are entitled to notice of and to vote at the special meeting and any adjournments or postponements thereof. If a new record date is set, you will be entitled to vote at the special meeting if you held shares in Jaguar as of such record date.

**The Jaguar Board unanimously recommends that you vote "FOR" all of these proposals, which are described in detail in the accompanying joint proxy statement/prospectus. Your attention is**

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**directed to the accompanying joint proxy statement/prospectus for a discussion of the merger and the merger agreement, as well as the other matters that will be considered at the meeting.**

**Your vote is very important. Approval of each of Proposals 1, 2, 3, 4 and 5 by the Jaguar stockholders is integral to the completion of the merger.** If you do not submit your proxy by telephone, the Internet, or return your signed proxy card(s) by mail or vote in person at the special meeting, it will be more difficult for Jaguar to obtain the necessary quorum to hold its special meeting.

**Whether or not you plan to attend the special meeting in person, please complete, sign, date and return the enclosed proxy in the accompanying self-addressed postage pre-paid envelope or complete your proxy by following the instructions supplied on the proxy card for voting by telephone or via the Internet (or, if your shares are held in "street name" by a broker, nominee, fiduciary or other custodian, follow the directions given by the broker, nominee, fiduciary or other custodian regarding how to instruct it to vote your shares) as soon as possible. If you attend the special meeting, you may withdraw your proxy and vote in person.**

**IMPORTANT NOTICE REGARDING THE INTERNET AVAILABILITY OF PROXY MATERIALS FOR THE JAGUAR 2017 SPECIAL MEETING OF STOCKHOLDERS TO BE HELD [ • ], 2017**

This Joint Proxy Statement/Prospectus and Jaguar's Annual Report on Form 10-K for the year ended December 31, 2016 are available at the following website address: www.jaguaranimalhealth.com. You are encouraged to access and review all of the important information contained in the proxy materials before voting. The Jaguar Annual Report is not to be regarded as proxy soliciting material or as a communication through which any solicitation of proxies is made.

By Order of the Board of Directors,

/s/ JAMES J. BOCHNOWSKI

James J. Bochnowski
*Chairman of the Board*

San Francisco, CA
[•], 2017

**PLEASE VOTE YOUR SHARES PROMPTLY. YOU CAN FIND INSTRUCTIONS FOR VOTING ON THE ENCLOSED PROXY CARD. IF YOU HAVE QUESTIONS ABOUT THE PROPOSALS OR ABOUT VOTING YOUR SHARES, PLEASE CALL JAGUAR'S PROXY SOLICITOR, [ • ], AT [ • ].**

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# Napo Pharmaceuticals, Inc.

**201 Mission Street**
**Suite 2375**
**San Francisco, CA 94105**

**NOTICE OF SPECIAL MEETING OF STOCKHOLDERS**
**TO BE HELD ON [ • ], 2017**

To the Stockholders of Napo Pharmaceuticals, Inc.:

A special meeting of stockholders of Napo Pharmaceuticals, Inc. will be held at 201 Mission Street, Suite 2375, San Francisco, CA 94105, on [ • ], 2017 at [ • ] a.m., local time, for the following purposes:

1. To adopt the Agreement and Plan of Merger, dated as of March 31, 2017, by and among Jaguar Animal Health, Inc., Napo Acquisition Corporation, Napo Pharmaceuticals, Inc. and a representative of Napo Pharmaceuticals, Inc., (sometimes referred to as the merger agreement) and thereby approve the merger. A copy of the merger agreement has been included as *Annex A* to this joint proxy statement/prospectus.

2. To adjourn the special meeting if necessary or advisable to permit further solicitation of proxies in the event there are not sufficient votes at the time of the special meeting to adopt the merger agreement and approve the merger.

3. To transact such other business as may properly come before the special meeting or any adjournment or postponement thereof.

If you held shares of Napo common stock at the close of business on [ • ], 2017, you are entitled to notice of and to vote at the special meeting and any adjournments or postponements thereof. If a new record date is set, you will be entitled to vote at the special meeting if you held shares in Napo as of such record date.

**The Napo Board has unanimously approved the merger agreement, has determined that the merger agreement and the transactions contemplated thereby, including the merger, are advisable and in the best interests of Napo and its stockholders, and unanimously recommends that Napo stockholders vote "FOR" the Napo merger proposal and "FOR" the Napo adjournment proposal.**

**Your vote is very important. The conditions to the merger include that the Napo stockholders approve the adoption of the merger agreement.** If you do not return your signed proxy card(s) by mail or vote in person at your special meeting, it will be more difficult for Napo to obtain the necessary quorum to hold its special meeting.

**Whether or not you plan to attend the special meeting in person, please complete, sign, date and return the enclosed proxy in the accompanying self-addressed postage pre-paid envelope (or, if your shares are held in "street name" by a broker, nominee, fiduciary or other custodian, follow the directions given by the broker, nominee, fiduciary or other custodian regarding how to instruct it to vote your shares) as soon as possible. If you attend the special meeting, you may withdraw your proxy and vote in person.**

By Order of the Board of Directors,

/s/ LISA A. CONTE

Lisa A. Conte
*Interim Chief Executive Officer*

San Francisco, CA
[•], 2017

**PLEASE VOTE YOUR SHARES PROMPTLY. YOU CAN FIND INSTRUCTIONS FOR VOTING ON THE ENCLOSED PROXY CARD. IF YOU HAVE QUESTIONS ABOUT THE PROPOSALS OR ABOUT VOTING YOUR SHARES, PLEASE CALL [ • ] AT [ • ] OR VIA EMAIL AT [ • ].**

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## ADDITIONAL INFORMATION

Jaguar files annual, quarterly and current reports with the SEC that include important business and financial information about Jaguar. This information is available for you to review at the public reference room of the Securities and Exchange Commission, or SEC, located at 100 F Street, N.E., Washington, D.C. 20549, and through the SEC's website at www.sec.gov. You can also obtain these documents or copies of this joint proxy statement/prospectus free of charge on the investor relations page of Jaguar's website at www.jaguaranimalhealth.com or by requesting it in writing or by telephone from Jaguar at the following address or telephone number:

201 Mission Street, Suite 2375
San Francisco, CA 94105
(415) 371-8300
Attn.: Investor Relations
Website: www.jaguaranimalhealth.com

**To obtain timely delivery, you must request the information no later than five business days before [ • ], 2017. If you would like to request any documents, please do so by [ • ], 2017 in order to receive them before Jaguar's special meeting. See "Where You Can Find More Information."**

You should rely only on the information contained in this document. No one has been authorized to provide you with information that is different from that contained in this document. This document is dated [ • ], 2017, and you should assume that the information in this document is accurate only as of such date. Neither the mailing of this document to Napo stockholders nor the issuance by Jaguar of shares of Jaguar common stock and/or non-voting common stock in connection with the merger will create any implication to the contrary.

## IMPORTANT NOTICE REGARDING THE INTERNET AVAILABILITY OF PROXY MATERIALS FOR THE JAGUAR 2017 SPECIAL MEETING OF STOCKHOLDERS TO BE HELD [ • ], 2017

This Joint Proxy Statement/Prospectus and Jaguar's Annual Report on Form 10-K for the year ended December 31, 2016 are available at the following website address: [ • ]. You are encouraged to access and review all of the important information contained in the proxy materials before voting. The Jaguar Annual Report is not to be regarded as proxy soliciting material or as a communication through which any solicitation of proxies is made.

**This document does not constitute an offer to sell, or a solicitation of an offer to buy, any securities, or the solicitation of a proxy, in any jurisdiction to or from any person to whom it is unlawful to make any such offer or solicitation in such jurisdiction. Except where the context otherwise indicates, information contained in this document regarding Napo has been provided by Napo and information contained in this document regarding Jaguar has been provided by Jaguar.**

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## QUESTIONS AND ANSWERS ABOUT THIS JOINT PROXY STATEMENT/PROSPECTUS

*The following are some questions that you, as a stockholder of Jaguar and/or Napo, may have regarding this joint proxy statement/prospectus, the Jaguar special meeting of stockholders and the Napo special meeting of stockholders, together with brief answers to those questions. Jaguar and Napo urge you carefully read this joint proxy statement/prospectus in its entirety, including the annexes and other documents attached and/or referred to in this joint proxy statement/prospectus, because the information in this section does not provide all of the information that will be important to you with respect to the Jaguar special meeting of stockholders and/or the Napo special meeting of stockholders.*

**Q:** **Why am I receiving this document?**

A: You are receiving this document because you have been identified as a stockholder of Jaguar Animal Health, Inc. (sometimes referred to as Jaguar) or Napo Pharmaceuticals, Inc. (sometimes referred to as Napo) as of the applicable record date, and you are entitled, as applicable, to vote at Jaguar's special meeting of stockholders or Napo's special meeting of stockholders to approve the matters set forth below.

In connection with the proposed acquisition of Napo by Jaguar through a merger, holders of Jaguar common stock are being asked to approve at the special meeting: (i) the issuance of shares of Jaguar common stock and non-voting common stock in connection with the transactions contemplated by the Agreement and Plan of Merger, dated as of March 31, 2017 (sometimes referred to as the merger agreement), by and among Jaguar, Napo Acquisition Corporation (sometimes referred to as Merger Sub), Napo, and a Napo representative, (ii) the issuance of Jaguar common stock upon conversion of the Convertible Promissory Notes, due December 30, 2019, issued or issuable by Napo to certain investors in the original principal amount of up to $12,500,000, as amended on March 31, 2017, (iii) the issuance of $3,000,000 of Jaguar common stock at a price equal to $0.925 per share to Invesco Asset Management Limited, or Invesco, pursuant to the Commitment Letter, dated February 21, 2017, between Jaguar and Invesco (sometimes referred to herein as the Invesco Commitment Letter), (iv) the amendment of the Jaguar 2014 Stock Incentive Plan (sometimes referred to herein as the 2014 Plan) to increase the number of shares of Jaguar common stock authorized for issuance under the 2014 Plan by 6,500,188 shares, (v) the adoption of Jaguar's Third Amended and Restated Certificate of Incorporation to increase the number of authorized shares of common stock from 50 million shares to 225 million shares, authorize a class of non-voting common stock, require Nantucket's prior written consent before the issuance of dividends to holders of Jaguar common stock and/or non-voting common stock for so long as Nantucket or its affiliates own any shares of Jaguar non-voting common stock, and change the Jaguar corporate name to "Jaguar Health, Inc.", and (vi) a proposal to adjourn Jaguar's special meeting if necessary or advisable to permit further solicitation of proxies in the event there are not sufficient votes at the time of the special meeting to approve the above matters.

Napo stockholders are being asked to adopt at a special meeting (i) the merger agreement, and thereby approve the merger, and (ii) a proposal to adjourn the special meeting if necessary or advisable to permit further solicitation of proxies in the event there are not sufficient votes at the time of the special meeting to adopt the merger agreement and approve the merger.

This document is serving as both a joint proxy statement of Jaguar and Napo and a prospectus of Jaguar. It is a joint proxy statement because it is being used by each of the Jaguar Board and Napo Board to solicit proxies from their respective stockholders with respect to the meetings. It is a prospectus because Jaguar is offering contingent rights to receive shares of its common stock in exchange for shares of Napo common stock if the merger is completed and such contingent rights may entitle the holders thereof to receive shares of Jaguar common stock if certain conditions are

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satisfied. A copy of the merger agreement is attached as *Annex A* to this joint proxy statement/prospectus.

**Q:**

**Who is entitled to vote at Jaguar's special meeting?**

A:

All holders of Jaguar common stock, who held shares at the record date for the Jaguar special meeting (the close of business on [ • ], 2017) are entitled to receive notice of, and to vote at, the Jaguar special meeting provided that those shares remain outstanding on the date of the Jaguar special meeting. As of the close of business on [ • ], 2017, there were [ • ] shares of Jaguar common stock issued and outstanding. Each holder of Jaguar outstanding common stock is entitled to one vote for each share of Jaguar common stock owned at the record date.

**Q:**

**Who is entitled to vote at the Napo special meeting?**

A:

All holders of Napo common stock who held shares at the record date for the Napo special meeting (the close of business on [ • ], 2017) are entitled to receive notice of, and to vote at, the Napo special meeting provided that those shares remain outstanding on the date of the Napo special meeting. As of the close of business on [ • ], 2017, there were [ • ] shares of Napo common stock issued and outstanding. Each holder of Napo common stock is entitled to one vote for each share of Napo common stock owned at the record date.

**Q:**

**What constitutes a quorum for the Jaguar special meeting?**

A:

A quorum is the number of shares that must be represented at a meeting to lawfully conduct business. The presence at the special meeting, in person, or by remote communication, if applicable, or by proxy, of the holders of a majority of the shares of Jaguar common stock issued and outstanding and entitled to vote at the special meeting constitutes a quorum for the transaction of business. Abstentions and broker non-votes, if any, will be included in the calculation of the number of shares considered to be present at the Jaguar special meeting for purposes of determining a quorum.

**Q:**

**What constitutes a quorum for the Napo special meeting?**

A:

A quorum is the number of shares that must be represented at a meeting to lawfully conduct business. The presence at the special meeting, in person or by proxy, of the holders of a majority of the shares of Napo common stock issued and outstanding and entitled to vote at the special meeting constitutes a quorum for the transaction of business. Abstentions and broker non-votes, if any, will be included in the calculation of the number of shares considered to be present at the meeting for quorum purposes.

**Q:**

**How will my proxy be voted?**

A:

If you are a Jaguar stockholder and you submit your proxy by telephone, by the Internet or by completing, signing, dating and returning your signed proxy card(s), your proxy will be voted in accordance with your instructions. If you are a Napo stockholder and you complete, sign, date and return your signed proxy card(s), your proxy will be voted in accordance with your instructions. If other matters are properly brought before the stockholders meetings, or any adjournments of the meetings, your proxy includes discretionary authority on the part of the individuals appointed to vote your shares to act on those matters according to their best judgment.

**Q:**

**May I vote in person?**

A:

Yes. If you hold shares directly in your name as a stockholder of record of Jaguar stock as of the close of business on [ • ], 2017, or of Napo common stock as of the close of business on [

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- ], 2017, you may attend your annual or special meeting, as applicable, and vote your shares in person, instead of submitting your proxy by telephone, by the Internet or returning your signed proxy card(s) by mail, as applicable. If you hold shares of Jaguar common stock or Napo common stock in "street name," meaning through a broker, nominee, fiduciary or other custodian, you must obtain a legal proxy from that institution and present it to the inspector of election with your ballot to be able to vote in person at the Jaguar special meeting or Napo special meeting, as applicable. To request a legal proxy, please contact your broker, nominee, fiduciary or other custodian. Jaguar and Napo highly recommend that you vote in advance by submitting your proxy by telephone, by the Internet or by mail, as applicable, even if you plan to attend the stockholders meeting of your company.

**Q:** **What are the voting requirements to approve each of the proposals that will be voted on at the Jaguar special meeting?**

A:

| | Proposal | Vote Required |
|---|---|---|
| 1. | Approval of the issuance of shares of Jaguar common stock and non-voting common stock in connection with the transactions contemplated by the merger agreement | If a quorum is present, a majority of the shares of Jaguar common stock represented at the special meeting, voting together as a single class, and entitled to vote. |
| 2. | Approval of the issuance of shares of Jaguar common stock upon conversion of the Convertible Promissory Notes, due December 30, 2019, issued or issuable by Napo to certain investors in the original principal amount of up to $12,500,000, as amended on March 31, 2017 | If a quorum is present, a majority of the shares of Jaguar common stock represented at the special meeting, voting together as a single class, and entitled to vote. |
| 3. | Approval of the issuance of shares of $3,000,000 in shares of Jaguar common stock at a price equal to $0.925 per share to Invesco Asset Management Limited pursuant to the Invesco Commitment Letter | If a quorum is present, a majority of the shares of Jaguar common stock represented at the special meeting, voting together as a single class, and entitled to vote. |
| 4. | Approval of the amendment of the 2014 Plan to increase the number of shares of Jaguar common stock authorized for issuance under the 2014 Plan by 6,500,188 shares | Affirmative vote of a majority of the outstanding shares of Jaguar common stock represented at the special meeting, voting together as a single class, and entitled to vote. |

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| | | |
|---|---|---|
| 5. | Adoption of Jaguar's Third Amended and Restated Certificate of Incorporation to (i) increase the number of authorized shares of common stock from 50 million shares to 225 million shares, (ii) authorize a class of non-voting common stock, (iii) require Nantucket's prior written consent before the issuance of dividends to holders of Jaguar common stock and/or non-voting common stock for so long as Nantucket or its affiliates own any shares of Jaguar non-voting common stock, and (iv) change the Jaguar corporate name to "Jaguar Health, Inc." | Affirmative vote of a majority of the outstanding shares of Jaguar common stock represented at the special meeting, voting together as a single class, and entitled to vote. |
| 6. | Approval of the adjournment of the Jaguar special meeting, if necessary, to solicit additional proxies if there are not sufficient votes to approve the first seven proposals | Affirmative vote of a majority of the outstanding shares of Jaguar common stock, represented at the meeting, voting together as a single class, and entitled to vote if a quorum is present or a majority of the voting stock represented in person, by remote communication, or by proxy if a quorum is not present. |

**Q:**

**What are the voting requirements to approve each of the proposals that will be voted on at the Napo special meeting?**

A:

| | Proposal | Vote Required |
|---|---|---|
| 1. | Adoption of the merger agreement, and approval of the merger | Affirmative vote of a majority of the outstanding shares of Napo common stock, voting together as a single class, and entitled to vote |
| 2. | Approval of adjournment of the Napo special meeting, if necessary, to solicit additional proxies if there are not sufficient votes to approve the first proposal | Affirmative vote of a majority of the shares of Napo common stock, represented at the special meeting, voting together as a single class, and entitled to vote if a quorum is present or a majority of the voting stock represented in person or by proxy if a quorum is not present |

**Q:**

**Does Jaguar's board of directors recommend that Jaguar stockholders approve the proposals regarding the merger including the issuance of shares of Jaguar common stock and non-voting common stock, the amendment of the 2014 Plan, and the adoption of Jaguar's Third Amended and Restated Certificate of Incorporation?**

A:

Yes. The board of directors of Jaguar (sometimes referred to as the Jaguar Board) has unanimously approved the merger agreement and the transactions contemplated thereby and determined that the issuance of shares of Jaguar common stock and non-voting common stock, the amendment of the 2014 Plan, and the adoption of Jaguar's Third Amended and Restated Certificate of Incorporation as contemplated by the merger agreement is in the best interests of Jaguar. Therefore, the Jaguar Board unanimously recommends that you vote **"FOR"** the proposal

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respecting the issuance of shares of Jaguar common stock and non-voting common stock as contemplated by the merger agreement, **"FOR"** the proposal respecting the issuance of shares of Jaguar common stock upon conversion of the Convertible Promissory Notes, due December 30, 2019, **"FOR"** the proposal respecting the issuance of shares of Jaguar common stock to Invesco pursuant to the Invesco Commitment Letter, **"FOR"** the proposal to amend the 2014 Plan, and **"FOR"** the proposal respecting the adoption of Jaguar's Third Amended and Restated Certificate of Incorporation at the annual Jaguar stockholders' meeting. See "The Proposed Merger  Recommendation of the Jaguar Board and its Reasons for the Merger" beginning on page 230 of this joint proxy statement/prospectus.

**Q:**

**Does Napo's board of directors recommend that Napo stockholders adopt the merger agreement and the transactions contemplated thereby?**

A:

Yes. The board of directors of Napo (sometimes referred to as the Napo Board) has unanimously approved the merger agreement and the transactions contemplated thereby, including the merger, and determined that these transactions are advisable and in the best interests of Napo and its stockholders. Therefore, the Napo Board unanimously recommends that you vote **"FOR"** the proposal to adopt the merger agreement and the transactions contemplated thereby at the Napo special meeting. See "The Proposed Merger  Recommendation of the Napo Board and its Reasons for the Merger" beginning on page 232 of this joint proxy statement/prospectus. In considering the recommendation of the board of directors of Napo with respect to the merger agreement and the transactions contemplated thereby, including the merger, you should be aware that certain directors and executive officers of Napo are parties to agreements or are participants in other arrangements that give them interests that may be different from, or in addition to, your interests as a stockholder of Napo. It should be noted that certain members of the Napo Board have equity interests in Napo capital stock and that in connection with the merger, the Napo Board will receive indemnification for acts or omissions occurring prior to the effective time of the merger. You should consider these interests in voting on this proposal. These different interests are described under "Additional Interests of Certain of Jaguar and Napo's Directors and Executive Officers in the Merger  Interests of the Napo Directors and Executive Officers in the Merger" beginning on page 252 of this joint proxy statement/prospectus.

**Q:**

**What if my shares are held in "street name"?**

A:

If some or all of your shares of Jaguar and/or Napo are held in "street name" by your broker, nominee, fiduciary or other custodian, you must provide your broker, nominee, fiduciary or other custodian with instructions on how to vote your shares; otherwise, your broker, nominee, fiduciary or other custodian will not be able to vote your shares on some of the proposals before your company's stockholders meeting.

As a result of the foregoing, please be sure to provide your broker, nominee, fiduciary or other custodian with instructions on how to vote your shares. Please check the voting form used by your broker, nominee, fiduciary or other custodian to see if it offers telephone or Internet submission of proxies.

**Q:**

**What are abstentions and broker non-votes?**

An "abstention" is the voluntary act of not voting by a stockholder who is present at a meeting in person or by proxy and entitled to vote. "Broker non-votes" refers to shares held by a brokerage firm or other nominee (for the benefit of its client) that are represented at the meeting, but with respect to which such broker or nominee is not instructed to vote on a particular proposal and does not have discretionary authority to vote on that proposal.

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If you are a beneficial owner whose shares are held in street name and you do not submit voting instructions to your broker, your broker may generally vote your shares in its discretion on routine matters. However, pursuant to rules of The NASDAQ Stock Market (sometimes referred to as NASDAQ), brokers do not have the discretion to vote their clients' shares on non-routine matters, unless the broker receives voting instructions from the beneficial owner. All the Jaguar Proposals and Napo Proposals are considered non-routine matters. Consequently, if your shares are held in street name, you must provide your broker with instructions on how to vote your shares in order for your shares to be voted on each of Jaguar's Proposals or each Napo's Proposals, as applicable.

**Brokers may not vote your shares on non-routine matters in the absence of your specific instructions as to how to vote, thus we strongly encourage you to provide instructions to your broker regarding the voting of your shares you hold in "street name" or through a broker or other nominee.**

**Q:**

**If I am a record holder of my shares, what happens if I abstain from voting (whether by returning my proxy card or submitting my proxy by telephone or via the Internet) or I don't submit a proxy?**

A:

Jaguar.

For the proposal to approve the issuance of shares of Jaguar common stock and non-voting common stock as contemplated by the merger agreement, an abstention or a failure to submit a proxy will not have an effect on the outcome of the vote for the proposal, but it will make it more difficult to meet the requirement under Jaguar's bylaws that the holders of a majority of the Jaguar common stock issued and outstanding and entitled to vote at the special meeting be present in person or by remote communication, if applicable, or represented by proxy to constitute a quorum at the special meeting.

For the proposal to approve the issuance of shares of Jaguar common stock upon conversion of the Convertible Promissory Notes, due December 30, 2019, an abstention or a failure to submit a proxy will not have an effect on the outcome of the vote for the proposal.

For the proposal to approve the issuance of $3,000,000 of Jaguar common stock at a price equal to $0.925 per share to Invesco pursuant to the Invesco Commitment Letter, an abstention or a failure to submit a proxy will not have an effect on the outcome of the vote for the proposal.

For the proposal to amend the 2014 Plan, an abstention or failure to submit a proxy will have the same effect as a vote **"AGAINST"** such proposal.

For the proposal to approve the adoption of Jaguar's Third Amended and Restated Certificate of Incorporation as contemplated by the merger agreement, an abstention or failure to submit a proxy will have the same effect as a vote **"AGAINST"** such proposal.

For the proposal to adjourn the Jaguar special meeting, if necessary or advisable, an abstention will have the same effect as a vote cast **"AGAINST"** such proposal. A failure to submit a proxy will not have an effect on the outcome of the vote for the proposal.

*Napo.*

For the proposal to adopt the merger agreement, an abstention or a failure to submit a proxy will have the same effect as a vote **"AGAINST"** such proposal.

For the proposal to adjourn the Napo special meeting, if necessary or advisable, an abstention will have the same effect as a vote cast **"AGAINST"** such proposal. A failure to submit a proxy will not have an effect on the outcome of the vote for the proposal.

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**Q:** **What will happen if I return my proxy card without indicating how to vote?**

A: If you are a Jaguar stockholder of record and submit your proxy but do not make specific choices, your proxy will follow the Jaguar Board's recommendations and your shares will be voted **"FOR"** each of Jaguar's proposals.

If you are a Napo stockholder of record and submit your proxy but do not make specific choices with respect to the proposals, your proxy will follow Napo Board's recommendations and your shares will be voted **"FOR"** the proposal to adopt the merger agreement (under such circumstances, your proxy will constitute a waiver of your right of appraisal under Section 262 of the of the General Corporation Law of the State of Delaware (sometimes referred to as Section 262) and will nullify any previously delivered written demand for appraisal under Section 262), and **"FOR"** the proposal to adjourn the special meeting if necessary or advisable to permit further solicitation of proxies in the event there are not sufficient votes at the time of the special meeting to adopt the merger agreement and approve the merger.

**Q:** **What happens if I sell my shares after the record date but before the stockholders meeting?**

A: The record date for the Jaguar special meeting (the close of business on [ • ], 2017) is earlier than the date of the Jaguar special meeting and earlier than the date that the merger is expected to be completed. If you sell or otherwise transfer shares of Jaguar stock after the record date but before the date of the Jaguar special meeting, you will retain your right to vote those shares at the Jaguar special meeting.

The record date for the Napo special meeting (the close of business on [ • ], 2017) is earlier than the date of the Napo special meeting and earlier than the date that the merger is expected to be completed. If you sell or otherwise transfer shares of Napo common stock after the record date but before the date of the Napo special meeting, you will retain your right to vote those shares at the Napo special meeting. However, you will not have the right to receive the merger consideration in respect of those shares. In order to receive the merger consideration, you must hold your shares through completion of the merger.

**Q:** **What does it mean if I receive more than one set of materials?**

A: This means you may own shares of both Jaguar and Napo, or you may own shares of Jaguar or Napo that are registered under different names or held in different brokerage accounts. For example, you may own some shares directly as a stockholder of record and other shares through a broker or you may own shares through more than one broker. In these situations, you may receive multiple sets of proxy materials. It is necessary for you to vote, sign and return all of the proxy cards or follow the instructions for any alternative voting procedure on each of the proxy cards you receive in order to vote all of the shares you own. Each proxy card you receive will come with its own prepaid return envelope; if you submit your proxy by mail; make sure you return each proxy card in the return envelope which accompanied that proxy card.

**Q:** **Can I revoke my proxy and change my vote?**

A: Yes. You have the right to revoke your proxy at any time prior to the time your shares are voted at your stockholders meeting. If you are a stockholder of record, your proxy can be revoked in several ways:

- by notifying your company's Corporate Secretary prior to the stockholders meeting that you are revoking your proxy;
- by executing and delivering a later dated proxy card or, for Jaguar stockholders only, by submitting a later dated vote by telephone or by the Internet; or

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by attending your stockholders meeting and voting your shares in person.

However, if your shares are held in "street name" through a broker, nominee, fiduciary or other custodian, you must check with your broker, nominee, fiduciary or other custodian to determine how to revoke your proxy.

**Q:**

**When and where are the stockholders meetings?**

A:

The Jaguar special meeting will take place on [ • ], 2017, at [ • ] a.m., local time, at 201 Mission Street, Suite 2375, San Francisco, CA 94105. The Napo special meeting will take place on [ • ], 2017, at [ • ] a.m., local time, at 201 Mission Street, Suite 2375, San Francisco, CA 94105.

**Q:**

**Who can attend the stockholders meetings? What must I bring to attend the stockholders meetings?**

A:

Admittance to the Jaguar special meeting will require a valid photo identification, such as a driver's license or passport. Attendance at the meeting will be limited to stockholders of record as of the record date and one guest per stockholder. Stockholders whose shares are held in "street name" by a broker, nominee, fiduciary or other custodian should bring with them a copy of a brokerage statement reflecting stock ownership as of the record date, together with a valid photo identification. If you want to vote your shares of Jaguar common stock held in "street name" in person at the Jaguar special meeting, you will have to obtain a legal proxy in your name from the broker, nominee, fiduciary or other custodian who holds your shares.

Admittance to the Napo special meeting will require a valid photo identification, such as a driver's license or passport. Attendance at the meeting will be limited to stockholders of record as of the record date. Stockholders whose shares are held in "street name" by a broker, nominee, fiduciary or other custodian should bring with them a copy of a brokerage statement reflecting stock ownership as of the record date, together with a valid photo identification. If you want to vote your shares of Napo common stock held in "street name" in person at the Napo special meeting, you will have to obtain a legal proxy in your name from the broker, nominee, fiduciary or other custodian who holds your shares.

**Q:**

**Who can answer any questions I may have about the stockholders meetings?**

A:

Jaguar stockholders may call [ • ], Jaguar's proxy solicitors for the special meeting, toll-free at [ • ]. Napo stockholders may call [ • ] at [ • ] or email [ • ].

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## QUESTIONS AND ANSWERS ABOUT THE MERGER

*The following are some questions that you, as a stockholder of Jaguar and/or Napo, may have regarding the merger, together with brief answers to those questions. Jaguar and Napo urge you carefully read this joint proxy statement/prospectus in its entirety, including the annexes and other documents attached and/or referred to in this joint proxy statement/prospectus, because the information in this section does not provide all of the information that will be important to you with respect to the merger.*

**Q:** **What will happen in the merger?**

A: In the merger, Merger Sub will merge with and into Napo. Napo will be the surviving entity in the merger as a wholly-owned subsidiary of Jaguar. Thus, Jaguar will acquire Napo through the merger.

**Q:** **What will Napo stockholders receive in the merger for their shares?**

A: At the effective time of the merger, (i) each issued and outstanding share of Napo common stock (other than dissenting shares and shares held by Jaguar or Napo) will be converted into a contingent right to receive (x) up to a whole number of shares of Jaguar common stock comprising in the aggregate up to approximately 21.5% of the fully diluted shares of Jaguar common stock (sometimes referred to herein as the Merger Shares) immediately following the consummation of the merger, which contingent right will vest only if the resale of certain shares of Jaguar common stock issued by Jaguar to Nantucket in the Napo debt settlement (sometimes referred to herein as the Tranche A Shares) provides Nantucket with specified cash returns over a specified period of time (sometimes referred to herein as the Hurdle Amounts), and (y) if the applicable Hurdle Amount is achieved before all of the Tranche A Shares are sold, additional shares of the Jaguar common stock (equal to 50% of the unsold Tranche A shares), which will be distributed pro rata among holders of contingent rights and holders of Napo restricted stock units, (ii) existing creditors of Napo will be issued in the aggregate approximately 43,156,649 shares of Jaguar non-voting common stock and 2,005,245 shares of Jaguar voting common stock in full satisfaction of all existing indebtedness then owed by Napo to such creditors and (iii) an existing Napo stockholder will be issued an aggregate of approximately 3,243,243 shares of Jaguar common stock in return for $3 million of new funds invested into Jaguar by such investor, which will be immediately loaned to Napo to partially facilitate the extinguishment of the debt that Napo owes to Nantucket. For a discussion of the specific groups of shares of Jaguar common stock from which the Merger Shares are drawn and the methodology for calculating the number of Merger Shares issuable to the holders of contingent rights, see "The Merger Agreement and Related Agreements  Merger Consideration  Calculation of Shares of Jaguar Common Stock Issuable to Holders of Contingent Rights" and *Annex E* to this joint proxy statement/prospectus. A summary of the Hurdle Amounts at different time periods is set forth in *Annex F* to this joint proxy statement/prospectus.

Shares of Jaguar non-voting common stock have the same rights to dividends and other distributions and are convertible into shares of Jaguar common stock on a one-for-one basis (x) upon transfers to non-affiliates of Nantucket, (y) upon the release from escrow of certain non-voting shares held by Nantucket to the legacy stockholders of Napo under specified conditions and (z) at any time on or after April 1, 2018 at the option of the respective holders thereof.

Jaguar will also assume (i) each outstanding and unexercised option to purchase Napo common stock, which will be converted into options to purchase Jaguar common stock, (ii) each outstanding warrant to purchase Napo common stock, which will be converted into warrants to purchase Jaguar common stock, and (iii) each outstanding restricted stock unit to acquire Napo common stock, which will be converted into restricted stock units to acquire Jaguar common stock.

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The stockholders of Jaguar will continue to own their existing shares and the rights and privileges of their existing shares will not be affected by the merger. However, because Jaguar will be issuing new shares of Jaguar common stock and non-voting common stock to Napo creditors, and options, warrants and restricted stock units exercisable for Jaguar common stock to holders of Napo options, warrants and restricted stock units in the merger, the stockholders of Jaguar will experience dilution as a result of the issuance of shares in the merger and each outstanding share of Jaguar common stock immediately prior to the merger will represent a smaller percentage of the total number of shares of Jaguar common stock and non-voting common stock issued and outstanding after the merger. It is expected that Jaguar stockholders before the merger will hold approximately 25% of the total Jaguar common stock and non-voting common stock issued and outstanding on a fully diluted basis immediately following completion of the merger. Thus, Jaguar stockholders before the merger will experience dilution in the amount of approximately 75% as a result of the merger.

**Q:**

**Will any fractional shares be issued in connection with the merger?**

A:

No fractional shares of Jaguar common stock or non-voting common stock will be issued. Instead, any fractional shares will be rounded down to the next whole number of shares. See "Risk Factors" beginning on page 24 of this joint proxy statement/prospectus.

**Q:**

**When will Napo stockholders know whether their contingent rights to receive Jaguar common stock are exchangeable for shares of Jaguar common stock?**

A:

A final determination as to the final number of Merger Shares, if any, that will be issued to holders of all contingent rights pursuant to the merger agreement, will be made no later than the later to occur of (x) the date on which both (a) the first anniversary of the consummation of the merger, which constitutes the expiration date of the representations, covenants and agreements in the merger agreement or in any writing delivered by Napo to Jaguar in connection with the merger agreement (such 12-month period following the consummation of the merger sometimes referred to herein as the Survival Period), has occurred, and (b) there are no outstanding claims for indemnification under Article VI of the merger agreement, and (y) the third anniversary of the date on which the merger is consummated (such later date referenced in clauses (x) and (y) above, sometimes referred to herein as the Final Determination Date).

Within 60 days of the Final Determination Date, solely to the extent holders of contingent rights are entitled to receive any Merger Shares under the terms of the Merger Agreement, Jaguar will mail to each contingent right holder (such date of mailing sometimes referred to as the Contingent Right Holders Notice Date) a letter of transmittal and instructions for use in effecting the surrender of such holder's Napo stock certificates representing the right to such Merger Shares in exchange for the Merger Shares. If you are a contingent right holder, you should carefully review and follow the instructions accompanying the letter of transmittal. The letter of transmittal will be mailed to each Napo stockholder on the record date. You will need to sign, date and complete the letter of transmittal and return it, along with your Napo stock certificates (or customary affidavits and indemnification regarding the loss or destruction of such certificates or the guaranteed delivery of such certificates), to the exchange agent, at the address and pursuant to the instructions given in the materials. The submission deadline is 5:00 p.m. Pacific Time on the one-year anniversary of the Contingent Right Holders Notice Date. If you do not submit a properly completed and signed letter of transmittal and surrender your Napo stock certificates to the exchange agent by the submission deadline, you will look only to Jaguar (subject to abandoned property, escheat and other similar laws) as a general creditor for payment of your claim for Merger Shares (if any) and any dividends or distributions with respect to Merger Shares. Jaguar will not be liable to any holder of Napo stock certificates (or dividends or distributions with respect thereto) or cash

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delivered to a public official pursuant to any applicable abandoned property, escheat or similar law.

**Q:**

**Should I send in my Napo stock certificates now?**

A:

No. The exchange agent will provide each Napo stockholder with a transmittal letter and instructions for surrendering each share of Napo common stock to the exchange agent in exchange for the merger consideration. See "The Merger Agreement and Related Agreements  Conversion of Shares; Exchange of Certificates" beginning on page 259 of this joint proxy statement/prospectus for more information regarding the procedure for exchanging your Napo stock certificates for the merger consideration. Jaguar stockholders will keep their existing stock certificates.

**Q:**

**What do I need to do now?**

A:

After you carefully read this joint proxy statement/prospectus, please respond by completing, signing, dating and returning your signed proxy card(s) in the enclosed prepaid return envelope(s), or, for Jaguar stockholders only, by submitting your proxy by telephone or by the Internet, as soon as possible, so that your shares may be represented at your stockholders meeting. If you hold your shares in "street name" through a broker, nominee, fiduciary or other custodian, follow the directions given by the broker, nominee, fiduciary or other custodian regarding how to instruct them to vote your shares. In order to ensure that your vote is recorded, please submit your proxy as instructed on your proxy card(s) even if you currently plan to attend your stockholders meeting in person.

**Q:**

**Why is my vote important?**

A:

If you do not submit your proxy by returning your signed proxy card(s) by mail, voting in person at your stockholders meeting, or, for Jaguar stockholders only, by submitting your proxy by telephone or by the Internet, it will be more difficult for Jaguar and Napo to obtain the necessary quorum to hold their respective annual and special meeting and to obtain the stockholder approvals necessary for the completion of the merger. If a quorum is not present at the Jaguar special meeting or the Napo special meeting, the stockholders of that company will not be able to take action on any of the proposals at that meeting.

While a failure to submit a proxy or vote in person at the stockholders meeting, or a failure to provide your broker, nominee, fiduciary or other custodian, as applicable, with instructions on how to vote your shares will not affect the outcome of the vote on the proposal to approve the issuance of shares of Jaguar common stock and non-voting common stock (Proposals 1-3), a failure to submit a proxy or vote in person at the special meeting will make it more difficult to meet the requirement under Jaguar's bylaws that the holders of a majority of the shares of Jaguar common stock and entitled to vote at the special meeting be present in person or by proxy to constitute a quorum at the special meeting.

For the Jaguar stockholders to approve the amendment of the 2014 Plan (Proposal 4), a majority of the outstanding shares of common stock entitled to vote on such matter must approve such proposal; thus an abstention from voting, a failure to submit a proxy or vote in person at the special meeting, or a failure to provide your broker, nominee, fiduciary or other custodian, as applicable, with instructions on how to vote your shares could have the same effect as a vote **"AGAINST"** the proposal.

For the proposal to adopt Jaguar's Third Amended and Restated Certificate of Incorporation (Proposal 5), a majority of the outstanding shares of common stock entitled to vote on such matter must approve such proposal; thus an abstention from voting, a failure to submit a proxy or vote in person at the special meeting, or a failure to provide your broker, nominee, fiduciary or other

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custodian, as applicable, with instructions on how to vote your shares will have the same effect as a vote **"AGAINST"** the proposal.

For the Napo stockholders to adopt the merger agreement and approve the merger, a majority of the outstanding shares of common stock entitled to vote on such matter must approve such proposal; thus an abstention from voting, a failure to submit a proxy or vote in person at the special meeting, or a failure to provide your broker, nominee, fiduciary or other custodian, as applicable, with instructions on how to vote your shares could have the same effect as a vote **"AGAINST"** the proposal.

**Your vote is very important. Jaguar and Napo cannot complete the merger unless (i) holders of Jaguar common stock approve the share issuances in connection with the transactions contemplated by the merger agreement, (ii) holders of Jaguar common stock approve the amendment of the 2014 Plan, (iii) holders of Jaguar common stock adopt the Third Amended and Restated Certificate of Incorporation, and (iv) Napo stockholders adopt the merger agreement and approve the merger.**

**Q:**

**Why have Jaguar and Napo agreed to the merger?**

A:

The board of directors and management team of each of Jaguar and Napo believe the merger to provide substantial strategic and financial benefits to their stockholders, customers and other stakeholders, including, among others:

- expected synergies and economies of scale in manufacturing and commercialization of crofelemer for various human and animal indications;
- the centrality of Napo's technology for proprietary gastrointestinal disease products to both Jaguar and Napo;
- expected support to the development of crofelemer to address the problem of chemotherapy-induced diarrhea in both humans and companion animals;
- expected efficiencies of combining the skillsets of the highly complementary Napo and Jaguar teams;
- the strong foundation for collaborations resulting from the combined company's possession of global unencumbered rights to Mytesi and a host of crofelemer-based human products, combined with horizontal product leverage to multiple animal species; and
- learning, modeling and efficiencies provided by the weaving of clinical indications between humans and animals.

Additional information on the reasons for the merger can be found below, beginning on page 230 of this joint proxy statement/prospectus for Jaguar and beginning on page 232 of this joint proxy statement/prospectus for Napo.

**Q:**

**Why is Jaguar asking to amend the 2014 Plan to increase the number of shares of Jaguar common stock authorized for issuance under the 2014 Plan?**

A:

Under the merger agreement, Jaguar will assume (i) each outstanding and unexercised option to purchase Napo common stock, which will be converted into options to purchase Jaguar common stock, (ii) each outstanding warrant to purchase Napo common stock, which will be converted into warrants to purchase Jaguar common stock, and (iii) each outstanding restricted stock unit to acquire Napo common stock, which will be converted into restricted stock units to acquire Jaguar common stock. Currently, Jaguar does not have a sufficient number of shares authorized for issuance under the 2014 Plan to cover the conversion of these Napo securities into Jaguar

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securities. Therefore, Jaguar must amend the 2014 Plan to authorize the issuance of additional shares so that Jaguar can meet its obligations to holders of the Napo options, warrants and restricted stock units under the merger agreement.

**Q:**

**Why is Jaguar asking to adopt its Third Amended and Restated Certificate of Incorporation to increase the number of authorized shares of common stock from 50 million shares to 225 million shares, authorize a class of non-voting common stock, require Nantucket's prior written consent before the issuance of dividends to holders of Jaguar common stock and/or non-voting common stock for so long as Nantucket or its affiliates own any shares of Jaguar non-voting common stock, and change the Jaguar corporate name to ''Jaguar Health, Inc.''?**

A:

Approval of Jaguar's Third Amended and Restated Certificate of Incorporation to increase the number of authorized shares of common stock from 50 million shares to 225 million shares, authorize a class of non-voting common stock, require Nantucket's prior written consent before the issuance of dividends to holders of Jaguar common stock and/or non-voting common stock for so long as Nantucket or its affiliates own any shares of Jaguar non-voting common stock, and change the Jaguar corporate name to "Jaguar Health, Inc." (which is the subject of Jaguar Proposal No. 5) is one of the conditions to the consummation of the merger. The merger consideration consists of a contingent right to receive Jaguar common stock for holders of Napo common stock and Jaguar common stock and non-voting common stock for Napo's creditors; thus, Jaguar must amend its Certificate of Incorporation to increase the number of authorized shares of common stock and to create this class of non-voting common stock. Shares of Jaguar non-voting common stock are the same in all respects to shares of Jaguar's common stock except that holders of shares of non-voting common stock are not entitled to vote on matters submitted to Jaguar stockholders other than a change of control of Jaguar, and shares of non-voting common stock are convertible into shares of common stock on a one-for-one basis (i) at the option of the respective holders thereof, at any time and from time to time on or after April 1, 2018 or (ii) automatically, without any payment of additional consideration by the holder thereof, (x) upon a transfer of such shares to any person or entity that is neither an affiliate of Nantucket nor an investment fund, investment vehicle or other account, that is, directly or indirectly, managed or advised by Nantucket or any of its affiliates pursuant to a sale of such stock to a third-party for cash in accordance with the terms and condition set forth in the Investor Rights Agreement, or (y) upon the release or transfer of such shares to the registered holders of Napo's outstanding shares of common stock immediately prior to the consummation of the merger (such shareholders sometimes referred to herein as the Napo Legacy Stockholders).

**Q:**

**When do you expect the merger to be completed?**

A:

Jaguar and Napo hope to complete the merger as soon as reasonably practicable, subject to receipt of stockholder approvals, which are proposals presented at the Jaguar special meeting and the Napo special meeting, and necessary regulatory approvals. Jaguar and Napo currently expect that the transaction will be completed in the second quarter of 2017. However, Jaguar and Napo cannot predict when regulatory review will be completed, whether or when regulatory or stockholder approval will be received or the potential terms and conditions of any regulatory approval that is received. In addition, certain other conditions to the merger, some of which are outside of the control of Jaguar and Napo, may not be satisfied until later in 2017 or at all. For a discussion of the conditions to the completion of the merger and of the risks associated with obtaining regulatory approvals in connection with the merger, see "The Merger Agreement and Related Agreements  Conditions to Completion of the Merger" beginning on page 265 of this joint proxy statement/prospectus and "The Proposed Merger  Regulatory Matters Relating to the Merger" beginning on page 249 of this joint proxy statement/prospectus.

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**Q:** **Will the merger be taxable to stockholders of Jaguar?**

A: No, the merger will not be taxable to stockholders of Jaguar, as they will continue to own their existing shares and the rights and privileges of their existing shares will not be affected by the merger.

**Q:** **Will the merger be taxable to stockholders of Napo?**

A: The merger will not qualify as a tax-free reorganization within the meaning of Section 368 of the Internal Revenue Code of 1986, as amended (sometimes referred to as the Code). Although it is not free from doubt, a Napo Stockholder should not recognize any taxable gain or loss until such Napo Stockholder's Certificate Delivery Date. The term "Certificate Delivery Date" means, with respect to each Napo Stockholder, the date on which such Napo Stockholder delivers to the Exchange Agent his, her or its Napo stock certificate(s) for cancellation, together with a letter of transmittal duly executed and completed in accordance with its terms and such other documents and/or payments of withholding taxes as may be reasonably required by the Exchange Agent or Jaguar. At that time, such Napo Stockholder will recognize gain or loss from the sale of his, her or its shares of Napo common stock in an amount equal to the difference between (i) the fair market value of a Merger Share on such Napo Stockholder's Certificate Delivery Date multiplied by the number of Merger Shares received by such Napo Stockholder (sometimes referred to as the Purchase Price) and (ii) such Napo Stockholder's tax basis in his, her or its shares of Napo common stock surrendered in the merger. Any such capital gain or capital loss will constitute long-term capital gain or loss if the Napo Stockholder's holding period for his, her or its shares of Napo common stock is more than one year as of the effective date of the merger. In addition, a portion of the Purchase Price received by each Napo Stockholder will constitute imputed interest that will be taxed at ordinary rates pursuant to Section 483 of the Code. The imputed interest rules of Section 483 apply regardless of whether a Napo Stockholder recognizes taxable gain or loss on the merger. However, if a Napo Stockholder recognizes capital gain on the merger, the amount of such capital gain is reduced dollar-for-dollar by the amount of the Napo Stockholder's imputed interest, and if a Napo Stockholder recognizes a capital loss on the merger, the amount of such capital loss will be increased dollar-for-dollar by the amount of the Napo Stockholder's imputed interest.

**Q:** **Will there be any changes to the Jaguar Board if the merger becomes effective?**

A: No. The merger agreement provides that the merger will not result in any change to the composition of the Jaguar Board. For more information, please see the section entitled "Management of the Combined Company After the Merger" beginning on page 173 of this joint proxy statement/prospectus.

**Q:** **Are there any Jaguar or Napo stockholders already committed to vote in favor of the merger-related proposals?**

A: Jaguar and Napo expect their respective executive officers and board members who own shares in the respective companies to vote in favor of the merger-related proposals. In addition, Napo, which owns in the aggregate approximately 19% of Jaguar common stock, is expected to vote in favor of the merger-related proposals.

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**Q:**

**What happens if Jaguar stockholders fail to approve the issuances of shares of Napo common stock and non-voting common stock, amend the 2014 Plan, or adopt Jaguar's Third Amended and Restated Certificate of Incorporation as contemplated by the merger agreement?**

A:

In this circumstance, either party is permitted to terminate the merger agreement, and no termination fee is payable by either Jaguar or Napo if the merger agreement is terminated upon the occurrence of this event. However, if the merger fails to close for any reason on or prior to July 31, 2017, other than as a result directly or indirectly of (x) lack of stockholder approval by either party or (y) Napo's failure to comply with, or breach of the provisions of the terms of the Binding Agreement of Terms for Jaguar Animal Health, Inc. Acquisition of Napo Pharmaceuticals, Inc., dated February 8 , 2017, between Jaguar and Napo (sometimes referred to herein as the Binding Agreement of Terms) or the merger documents, then on or before the close of business on August 7, 2017, Jaguar will issue 2,000,000 shares of its restricted common stock to Napo. See "The Merger Agreement and Related Agreements  Termination" and "  Termination Fee and Expenses" each beginning on page 266 of this joint proxy statement/prospectus.

Except as set forth above, whether or not the merger is completed, all costs and expenses incurred in connection with the merger agreement and the transactions contemplated by the merger agreement will be paid by the party incurring those costs or expenses.

**Q:**

**What happens if Napo stockholders fail to adopt the merger agreement and the transactions contemplated thereby?**

A:

In this circumstance, either party is permitted to terminate the merger agreement, and no termination fee is payable by either Napo or Jaguar if the merger agreement is terminated upon the occurrence of this event. See "The Merger Agreement and Related Agreements  Termination" and "  Termination Fee and Expenses" both beginning on page 266, of this joint proxy statement/prospectus.

**Q:**

**Am I entitled to exercise appraisal rights instead of receiving the per share merger consideration for my shares of Napo common stock?**

A:

Napo stockholders are entitled to appraisal rights under Section 262, provided they fully comply with and follow the procedures and satisfy the conditions set forth in Section 262. For more information regarding appraisal rights, see the section entitled "Appraisal Rights" beginning on page 23 of this joint proxy statement/prospectus. In addition, a copy of Section 262 is attached as *Annex D* to this joint proxy statement/prospectus. Failure to comply with Section 262 will result in your waiver of, or inability to exercise, appraisal rights.

**Q:**

**Are there risks that I, as a Jaguar stockholder, should consider in deciding to vote on the issuances of shares of Jaguar common stock and non-voting common stock, the amendment of the 2014 Plan, and the adoption of Jaguar's Third Amended and Restated Certificate of Incorporation, as contemplated by the merger agreement or, as a Napo stockholder, should consider in deciding to vote on the adoption of the merger agreement?**

A:

Yes. In evaluating the approval of the issuance of shares of Jaguar common stock and non-voting common stock, the amendment of the 2014 Plan, and/or the adoption of Jaguar's Third Amended and Restated Certificate of Incorporation as contemplated by the merger agreement, you should carefully read this joint proxy statement/prospectus, including the risk factors discussed in the section entitled "Risk Factors" beginning on page 24 of this joint proxy statement/prospectus.

**Q:**

**Who can answer any questions I may have about the merger?**

A:

Jaguar stockholders may call [ • ], Jaguar's proxy solicitors for the special meeting, toll-free at [ • ]. Napo stockholders may call [ • ] at [ • ] or email [ • ].

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## SUMMARY THE MERGER

*This summary highlights selected information contained in this joint proxy statement/prospectus and does not contain all the information that may be important to you. Jaguar and Napo urge you to read carefully this joint proxy statement/prospectus in its entirety, including the Annexes. Unless stated otherwise, all references in this joint proxy statement/prospectus to Jaguar refer to Jaguar Animal Health, Inc., a Delaware corporation, all references to Napo refer to Napo Pharmaceuticals, Inc., a Delaware corporation, all references to Merger Sub refer to Napo Acquisition Corporation, a Delaware corporation, and all references to the merger agreement refer to the Agreement and Plan of Merger, dated as of March 31, 2017, by and among Jaguar, Merger Sub, Napo and a Napo representative, a copy of which is attached as Annex A to this joint proxy statement/prospectus and is incorporated by reference into this joint proxy statement/prospectus. See "Where you Can Find More Information" beginning on page 293.*

### The Companies Involved in the Merger

*Jaguar*

**Jaguar Animal Health, Inc.**
201 Mission Street, Suite 2375
San Francisco, CA 94105
(415) 371-8300

Jaguar is an animal health company focused on developing and commercializing first-in-class gastrointestinal products for companion and production animals, foals, and high value horses. Jaguar was founded in San Francisco, California as a Delaware corporation on June 6, 2013. Napo formed Jaguar to develop and commercialize animal health products. Effective as of December 31, 2013, Jaguar was a wholly-owned subsidiary of Napo, and until May 13, 2015, Jaguar was a majority-owned subsidiary of Napo.

For additional information about Jaguar, see "Jaguar Business" beginning on page 86.

*Napo*

**Napo Pharmaceuticals, Inc.**
201 Mission Street, Suite 2375
San Francisco, CA 94105
(415) 963-9938

Napo Pharmaceuticals, Inc. ("Napo") focuses on the development and commercialization of proprietary pharmaceuticals for the global marketplace from plants traditionally used in rainforest areas. In October 2016 Napo launched Mytesi (formerly known as Fulyzaq), a human drug approved by the U.S. FDA for the symptomatic relief of noninfectious diarrhea in adults with HIV/AIDS on antiretroviral therapy (ART). The active pharmaceutical ingredient (API) in Mytesi is crofelemer, Napo's proprietary, patented gastrointestinal anti-secretory agent sustainably harvested from the rainforest. Napo was founded in San Francisco, California as a Delaware corporation on November 15, 2001.

For additional information about Napo, see "Napo Business" beginning on page 118.

*Merger Sub*

Merger Sub, a wholly-owned subsidiary of Jaguar, is a Delaware corporation formed on March 30, 2017 for the sole purpose of effecting the merger. Upon completion of the merger, Merger Sub will merge with and into Napo, with Napo surviving as a wholly-owned subsidiary of Jaguar after the merger.

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**The Proposed Merger**

Each of the Jaguar Board and Napo Board has approved the merger of Jaguar and Napo. Jaguar and Napo have entered into the merger agreement pursuant to which Napo will merge with Merger Sub, a newly formed, wholly-owned subsidiary of Jaguar, with Napo surviving the merger as a wholly-owned subsidiary of Jaguar. At the effective time of the merger, (i) each issued and outstanding share of Napo common stock (other than dissenting shares and shares held by Jaguar or Napo) will be converted into a contingent right to receive (x) up to a whole number of shares of Jaguar common stock comprising in the aggregate up to approximately 21.5% of the fully diluted shares of Jaguar common stock immediately following the consummation of the merger, which contingent right will vest only if the resale of the Tranche A Shares to third parties provides Nantucket with specified cash returns over a specified period of time (sometimes referred to herein as the Hurdle Amounts), and (y) if the applicable Hurdle Amount is achieved before all of the Tranche A Shares are sold, additional shares of the Jaguar common stock (equal to 50% of the unsold Tranche A shares), which will be distributed pro rata among holders of contingent rights and holders of Napo restricted stock units, (ii) existing creditors of Napo (inclusive of Nantucket) will be issued in the aggregate approximately 43,156,649 shares of Jaguar non-voting common stock and 2,005,245 shares of Jaguar voting common stock in full satisfaction of all existing indebtedness then owed by Napo to such creditors, and (iii) an existing Napo stockholder (sometimes referred to herein as Invesco) will be issued an aggregate of approximately 3,243,243 shares of Jaguar common stock in return for $3 million of new funds invested into Jaguar by such investor, which will be immediately loaned to Napo to partially facilitate the extinguishment of the debt that Napo owes to Nantucket. At closing, it is contemplated that unless consented to or waived by Jaguar, Napo will have no more than (a) $11.3 million in secured and unsecured debt for monies borrowed (a portion of such debt proceeds which will be used to pay off Napo's secured debt owed to Nantucket), (b) $6.2 million of trade payables and certain other debt, excluding transaction expenses and (c) Napo's cash at closing will be no less than $500,000.

Shares of Jaguar non-voting common stock have the same rights to dividends and other distributions and are convertible into shares of common stock on a one-for-one basis (x) upon transfers to non-affiliates of Nantucket, (y) upon the release from escrow of certain non-voting shares held by Nantucket to the legacy stockholders of Napo under specified conditions and (z) at any time on or after April 1, 2018 at the option of the respective holders thereof.

Jaguar will assume (i) each outstanding and unexercised option to purchase Napo common stock, which will be converted into options to purchase Jaguar common stock, (ii) each outstanding warrant to purchase Napo common stock, which will be converted into warrants to purchase Jaguar common stock, and (iii) each outstanding restricted stock unit to acquire Napo common stock, which will be converted into restricted stock units to acquire Jaguar common stock.

The stockholders of Jaguar will continue to own their existing shares and the rights and privileges of their existing shares will not be affected by the merger. However, because Jaguar will be issuing new shares of Jaguar common stock and non-voting common stock to Napo creditors, contingent rights to receive Jaguar common stock to Napo stockholders, and options, warrants and restricted stock units exercisable for Jaguar common stock to holders of Napo options, warrants and restricted stock units in the merger, the stockholders of Jaguar will experience dilution as a result of the issuance of shares in the transactions contemplated by the merger and each outstanding share of Jaguar common stock immediately prior to the merger will represent a smaller percentage of the total number of shares of Jaguar common stock and non-voting common stock issued and outstanding after the merger. It is expected that Jaguar stockholders before the merger will hold approximately 25% of the total Jaguar common stock and non-voting common stock issued and outstanding immediately following completion of the merger. Thus, Jaguar stockholders before the merger will experience dilution in the amount of 75% as a result of the merger.

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A copy of the merger agreement is attached as *Annex A* to this joint proxy statement/prospectus. Jaguar and Napo encourage you to read the entire merger agreement carefully because they are the principal documents governing the merger. For more information on the merger agreement, see "The Merger Agreement and Related Agreements" beginning on page 256.

The merger is expected to be completed during the second quarter of 2017, subject to the satisfaction or waiver of the closing conditions.

**Merger Consideration**

At the effective time of the merger:

(i) each issued and outstanding share of Napo common stock (other than dissenting shares and shares held by Jaguar or Napo) will be converted into a contingent right to receive (x) up to a whole number of shares of Jaguar common stock comprising in the aggregate up to approximately 21.5% of the fully diluted shares of Jaguar common stock immediately following the consummation of the merger, which contingent right will vest only if the resale of the Tranche A Shares to third parties provides Nantucket with sufficient proceeds to satisfy the applicable Hurdle Amount and (y) if the applicable Hurdle Amount is achieved before all of the Tranche A Shares are sold, additional shares of the Jaguar common stock (equal to 50% of the unsold Tranche A shares), which will be distributed pro rata among holders of contingent rights and holders of Napo restricted stock units;

(ii) existing creditors of Napo will receive an aggregate of not more than 2,005,245 shares of Jaguar common stock and not more than 43,156,649 shares of Jaguar non-voting common stock in full satisfaction of all existing indebtedness then owed by Napo to such creditors;

(iii) an existing Napo stockholder will be issued an aggregate of 3,243,243 shares of Jaguar common stock in return for $3 million of new funds invested into Jaguar by such investor, which will be immediately loaned to Napo to partially facilitate the extinguishment of the debt that Napo owes to Nantucket;

(iv) each option to purchase shares of Napo common stock outstanding and unexercised immediately prior to the effective time of the merger will be assumed by Jaguar and will become an option to purchase shares of Jaguar common stock, with the number of shares subject to each such option equal to the product of the number of shares of Napo common stock previously subject to the Napo option and 0.183823529 (subject to adjustment for various contingencies, such as any financing transaction by either Jaguar or Napo that is consummated during the period between the execution of the merger agreement and the consummation of the merger), rounded down to the next whole share;

(v) each warrant to purchase shares of Napo common stock outstanding and unexercised immediately prior to the effective time of the merger will be assumed by Jaguar and will become a warrant to purchase shares of Jaguar common stock, with the number of shares subject to each such warrant equal to the product of the number of shares of Napo common stock previously subject to the Napo warrant and 0.183823529 (subject to adjustment for various contingencies, such as any financing transaction by either Jaguar or Napo that is consummated during the period between the execution of the merger agreement and the consummation of the merger), rounded down to the next whole share; and

(vi) each restricted stock unit to acquire shares of Napo common stock outstanding and unexercised immediately prior to the effective time of the merger will be assumed by Jaguar and will become a restricted stock unit to acquire shares of Jaguar common stock, which will be governed by the terms of the Jaguar 2014 Stock Plan.

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Based upon the current number of issued and outstanding shares of Napo common stock, an aggregate of approximately 69,299,346 shares of Jaguar common stock and non-voting common stock will be issued upon the closing of the merger on a fully diluted basis, assuming the exercise or conversion of all outstanding options and warrants other than those options and warrants exercisable or convertible for approximately 300,000 shares of Jaguar common stock with an exercise/conversion price of $5.00 or more. Jaguar will not issue any fractional shares in the merger. Instead, any fractional shares will be rounded down to the next whole number of shares.

For a more complete description of the merger consideration, see "The Merger Agreement and Related Agreements  Merger Consideration" beginning on page 256.

**Treatment of Stock Options and Warrants**

Jaguar will assume outstanding options and warrants to purchase shares of Napo common stock in the merger. Each outstanding option and warrant to acquire Napo common stock will be converted automatically at the effective time of the merger into an option or warrant to acquire Jaguar common stock. Each option will thereafter be governed by the terms of the 2014 Jaguar Stock Incentive Plan. The number of shares of Jaguar common stock for which each option or warrant is exercisable will be equal to the product of the number of shares of Napo common stock previously subject to the Napo option or warrant and 0.183823529 (subject to adjustment for various contingencies, such as any financing transaction by either Jaguar or Napo that is consummated during the period between the execution of the merger agreement and the consummation of the merger), rounded down to the next whole share, and the exercise price of each option or warrant will be equal to the exercise price for each share of Napo common stock previously subject to the option or warrant immediately prior to completion of the merger, divided by 0.183823529 (subject to adjustment for various contingencies, such as any financing transaction by either Jaguar or Napo that is consummated during the period between the execution of the merger agreement and the consummation of the merger), rounded up to the nearest whole cent. In addition, the vesting and forfeiture provisions applicable to the converted options shall remain the same as the Napo options. As of March 31, 2017, there were outstanding options and warrants to purchase up to 9,711,443 shares of Napo common stock, at exercise prices of $0.10 to $0.55328. For a more complete discussion of the treatment of Napo options and other stock-based awards, see "The Merger Agreement and Related Agreements  Treatment of Napo Options and Warrants" beginning on page 259.

**Directors and Executive Management of Jaguar Following the Merger**

The current board of directors and executive management of Jaguar will remain unchanged following the merger.

For a more complete discussion of the directors and management of Jaguar after the merger, see "Management of the Combined Company After the Merger" beginning on page 173.

**Recommendation of the Jaguar Board**

After careful consideration, the Jaguar Board unanimously recommends that holders of Jaguar common stock vote **"FOR"** the issuance of Jaguar common stock and non-voting common stock in connection with the merger, vote **"FOR"** the issuance of shares of Jaguar common stock upon conversion of the Convertible Promissory Notes, due December 30, 2019, vote **"FOR"** the issuance of $3,000,000 of Jaguar common stock at a price equal to $0.925 per share to Invesco pursuant to the Invesco Commitment Letter, **"FOR"** the amendment of the 2014 Plan, vote **"FOR"** the adoption of Jaguar's Third Amended and Restated Certificate of Incorporation to authorize a class of non-voting common stock and change the Jaguar corporate name to "Jaguar Health, Inc.", and vote **"FOR"** the adjournment of the special meeting if necessary or advisable to permit further solicitation of proxies in

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the event there are not sufficient votes at the time of the special meeting to approve all matters brought before the meeting.

For a more complete description of Jaguar's reasons for the merger and the recommendations of the Jaguar Board, see "The Proposed Merger  Recommendation of the Jaguar Board and its Reasons for the Merger" beginning on page 230.

**Recommendation of the Napo Board**

After careful consideration, the Napo Board unanimously recommends that holders of Napo common stock vote **"FOR"** the adoption of the merger agreement and approval of the merger and vote **"FOR"** the adjournment of the special meeting if necessary or advisable to permit further solicitation of proxies in the event there are not sufficient votes at the time of the special meeting to adopt the merger agreement and approve the merger. It should be noted that in connection with the merger, the Napo Board will receive indemnification for acts or omissions occurring prior to the effective time of the merger. The merger agreement also provides that, from and after the effective time of the merger, Napo will provide exculpation, indemnification and advancement expenses for each former director, officer, employee or agent of Napo to cover actions at or prior to the effective time of the merger, including all transactions contemplated by the merger agreement, which is at least as favorable in scope and amount as the exculpation, indemnification and advancement of expenses provided to such former director, officer, employee or agent of Napo prior to the effective time of the merger.

For a more complete description of Napo's reasons for the merger and the recommendation of the Napo Board, see "The Proposed Merger  Recommendation of the Napo Board and its Reasons for the Merger" beginning on page 232.

**Opinion of Jaguar Financial Advisor**

In connection with the merger and certain related transactions described in the merger agreement (sometimes referred to herein collectively as the Transaction), the Jaguar Board received a written opinion from Stifel, Nicolaus & Company, Incorporated (sometimes referred to as Stifel), as to the fairness, from a financial point of view and as of the date of its opinion, to Jaguar of the transaction consideration (as described in the opinion) to be issued by Jaguar in the Transaction (as described in the opinion). The full text of Stifel's written opinion, dated March 28, 2017, is attached to this joint proxy statement/prospectus as *Annex C*. Holders of Jaguar common stock are encouraged to read this opinion carefully in its entirety for a description of the assumptions made, procedures followed, matters considered and limitations on the review undertaken. **Stifel's Opinion was for the information of, and directed to, the Jaguar Board for its information and assistance in connection with its consideration of the financial terms of the Transaction. Stifel's Opinion did not constitute a recommendation to the Jaguar Board as to how the Jaguar Board should vote or otherwise act with respect to the Transaction or any other matter, or to any stockholder of Jaguar or Napo as to how any such stockholder should vote or act with respect to the Transaction or any other matter, or whether or not any stockholder of Jaguar or Napo should enter into a voting, stockholders', affiliates' or similar agreement with respect to the Transaction or exercise any dissenters', appraisal or similar rights that may be available to such stockholder. In addition, Stifel's Opinion did not compare the relative merits of the Transaction with any other alternative transactions or business strategies which may have been available to Jaguar, did not address the underlying business decision of the Jaguar Board or Jaguar to proceed with or effect the Transaction and did not address the form or structure of the merger or any other part of the Transaction or any individual transaction or group of transactions that is or are part of the Transaction.**

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For a more complete description of Stifel's opinion, see "The Proposed Merger  Opinion of Jaguar Financial Advisor" beginning on page 234. See also *Annex C* to this joint proxy statement/prospectus.

**Interests of Certain Jaguar and Napo Directors and Executive Officers in the Merger**

You should be aware that some of Jaguar and Napo's directors and executive officers may have interests in the transaction that may be different from, or in addition to, the interests of stockholders of Jaguar and Napo, respectively.

For a further discussion of interests of certain Napo directors and executive officers in the merger, see "Additional Interests of Certain of Jaguar and Napo's Directors and Executive Officers in the Merger" beginning on page 252.

**Material United States Federal Income Tax Consequences of the Merger**

The merger will not be taxable to stockholders of Jaguar, as they will continue to own their existing shares and the rights and privileges of their existing shares will not be affected by the merger.

The merger will not qualify as a tax-free reorganization within the meaning of Section 368 of the Internal Revenue Code of 1986, as amended (sometimes referred to as the Code). Although it is not free from doubt, a Napo Stockholder should not recognize any taxable gain or loss until such Napo Stockholder's Certificate Delivery Date. The term "Certificate Delivery Date" means, with respect to each Napo Stockholder, the date on which such Napo Stockholder delivers to the Exchange Agent his, her or its Napo stock certificate(s) for cancellation, together with a letter of transmittal duly executed and completed in accordance with its terms and such other documents and/or payments of withholding taxes as may be reasonably required by the Exchange Agent or Jaguar. At that time, such Napo Stockholder will recognize gain or loss from the sale of his, her or its shares of Napo common stock in an amount equal to the difference between (i) the fair market value of a Merger Share on such Napo Stockholder's Certificate Delivery Date multiplied by the number of Merger Shares received by such Napo Stockholder (sometimes referred to as the Purchase Price) and (ii) such Napo Stockholder's tax basis in his, her or its shares of Napo common stock surrendered in the merger. Any such capital gain or capital loss will constitute long-term capital gain or loss if the Napo Stockholder's holding period for his, her or its shares of Napo common stock is more than one year as of the effective date of the merger. In addition, a portion of the Purchase Price received by each Napo Stockholder will constitute imputed interest that will be taxed at ordinary rates pursuant to Section 483 of the Code. The imputed interest rules of Section 483 apply regardless of whether a Napo Stockholder recognizes taxable gain or loss on the merger. However, if a Napo Stockholder recognizes capital gain on the merger, the amount of such capital gain is reduced dollar-for-dollar by the amount of the Napo Stockholder's imputed interest, and if a Napo Stockholder recognizes a capital loss on the merger, the amount of such capital loss will be increased dollar-for-dollar by the amount of the Napo Stockholder's imputed interest.

Tax matters are very complicated and the tax consequences of the merger to you, if you are a Napo stockholder, will depend upon the facts of your situation. In addition, you may be subject to state, local or foreign tax laws that are not addressed in this joint proxy statement/prospectus. You are urged to consult with your own tax advisors for a full understanding of the tax consequences of the merger to you.

For a more complete description of the material United States federal income tax consequences of the merger, see "The Proposed Merger  Material United States Federal Income Tax Consequences of the Merger" beginning on page 246.

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**Accounting Treatment of the Merger**

It is anticipated that the merger will be accounted for as an acquisition by Jaguar of Napo under the acquisition method of accounting according to United States generally accepted accounting principles.

**Regulatory Matters**

Neither Jaguar nor Napo is required to make any filings or to obtain approvals or clearances from any antitrust regulatory authorities in the United States or other countries to complete the merger. In the United States, Jaguar must comply with applicable federal and state securities laws and the rules and regulations of The NASDAQ Stock Market LLC in connection with the issuance of shares of Jaguar's common stock in the merger, including the filing with the SEC of this proxy statement/prospectus/information statement. The merger agreement provides that Napo and Jaguar shall obtain all necessary actions or nonactions, waivers, consents and approvals from governmental entities or other persons necessary in connection with the consummation of the merger and the other transactions contemplated by the merger agreement and take all reasonable steps as may be necessary to obtain an approval or waiver from, or to avoid any action or proceeding by, any governmental entity or other persons necessary in connection with the consummation of the merger and the other transactions contemplated by the merger agreement. For a more complete discussion of the regulatory matters relating to the merger, see "The Proposed Merger  Regulatory Matters Relating to the Merger" beginning on page 249.

**Conditions to Completion of the Merger**

Jaguar and Napo expect to complete the merger after all the conditions to the merger in the merger agreement are satisfied or waived, including after the receipt of stockholder approvals at their respective stockholder meetings. In addition to obtaining such stockholder approvals, each of the other closing conditions set forth in the merger agreement must be satisfied. Jaguar and Napo currently expect to complete the merger during the second quarter of 2017. However, it is possible that factors outside of either company's control could cause the merger to be completed at a later time or not at all. The merger agreement provides that the conditions to the closing of the merger may be waived, in whole or in part, by Jaguar or Napo, to the extent legally allowed. Neither Jaguar nor Napo currently expects to waive any immaterial or material condition to the completion of the merger. If either Jaguar or Napo determines to waive any material condition to the merger and such waiver renders the disclosure in this joint proxy statement/prospectus materially misleading, proxies will be resolicited from the Jaguar and/or Napo stockholders, as applicable.

For a more complete discussion of the conditions to the merger, see "The Merger Agreement and Related Agreements  Conditions to Completion of the Merger" beginning on page 265.

**No Solicitation of Other Offers**

The merger agreement contains certain restrictions on the ability of Napo to solicit or engage in discussions or negotiations with a third party with respect to a proposal to acquire Napo's equity or assets.

For a discussion of the prohibition on solicitation of acquisition proposals from third parties, see "The Merger Agreement and Related Agreements  Non-Solicitation" beginning on page 265.

**Termination**

Jaguar and Napo may mutually agree at any time prior to the completion of the merger (including after stockholder approval) to terminate the merger agreement and abandon the merger. In addition,

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the merger agreement may be terminated by either Jaguar or Napo under certain circumstances or upon the occurrence of certain events.

For a discussion of termination provisions of the merger agreement, see "The Merger Agreement and Related Agreements Termination" beginning on page 266.

**Termination Fees and Expenses**

If the merger fails to close for any reason on, or prior to, July 31, 2017, other than as a result directly or indirectly of (x) lack of stockholder approval by either party or (y) Napo (i) fails to perform in accordance with the terms and conditions of the Binding Agreement of Terms for Jaguar Animal Health, Inc. Acquisition of Napo Pharmaceuticals, Inc., dated February 8, 2017, between Jaguar and Napo (sometimes referred to herein as the Binding Agreement of Terms) or the merger documents or (ii) fails to abide by or breaches the provisions or representations, warranties and covenants of the Binding Agreement of Terms or the merger documents, then on, or before, the close of business on August 7, 2017, Jaguar will issue 2,000,000 shares of its restricted common stock to Napo (sometimes referred to herein as the Break-Up Fee). See "The Merger Agreement and Related Agreements Termination Fee and Expenses" and " Effect of Termination," beginning on pages 266 and 267, respectively.

**Shares Beneficially Owned by Directors and Executive Officers of Jaguar and Napo**

Jaguar's directors and executive officers beneficially owned [ • ] shares of Jaguar common stock on [ • ], 2017, the record date for the special meeting. These shares represent in total [ • ]% of the total voting power of Jaguar's voting securities outstanding and entitled to vote as of the record date. To approve the issuance of shares of Jaguar common stock and non-voting common stock in the transactions contemplated by the merger agreement (Proposal 1), the affirmative vote of, if a quorum is present at the special meeting, the holders of a majority of shares of Jaguar common stock, present in person or represented by proxy at the special meeting, voting as a single class and entitled to vote, is required. Jaguar currently expects that Jaguar's directors and executive officers will vote their shares **"FOR"** all the proposals to be voted on at the special meeting, although none of them has entered into any agreements obligating them to do so.

Napo's directors and executive officers beneficially owned [ • ] shares of Napo common stock on [ • ], 2017, the record date for the special meeting. These shares represent in total [ • ]% of the total voting power of Napo's voting securities outstanding and entitled to vote as of the record date. Napo currently expects that its directors and executive officers will vote their shares **"FOR"** all the proposals to be voted on at the special meeting, although none of them has entered into any agreements obligating them to do so.

**Appraisal Rights**

Under Delaware law, Jaguar stockholders are not entitled to appraisal rights in connection with the issuance of shares of Jaguar common stock and non-voting common stock as contemplated by the merger agreement. Napo stockholders of record have appraisal rights under the Delaware General Corporation Law (sometimes referred to as the DGCL) in connection with the merger. For further discussion of appraisal rights, see "The Proposed Merger Appraisal Rights" beginning on page 249.

**Comparison of the Rights of Jaguar and Napo Stockholders**

The rights of Napo stockholders as Jaguar stockholders after the merger will be governed by Jaguar's Third Amended and Restated Certificate of Incorporation and amended and restated bylaws and the laws of the State of Delaware. Those rights differ from the rights of Napo stockholders under Napo's Fourth Amended and Restated Certificate of Incorporation, as amended, and amended and restated bylaws. See "Comparison of Rights of Jaguar and Napo Stockholders" beginning on page 282.

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## RISK FACTORS

*In addition to the other information included in this joint proxy statement/prospectus, including the matters addressed in the section entitled "Cautionary Statement Regarding Forward-Looking Statements" beginning on page 85, you should carefully consider the following risks before deciding how to vote, which include risks associated with the businesses of Jaguar and Napo. In addition, you should read and consider the risk factors associated with the businesses of Jaguar and Napo because those risks will also affect the combined company. Risks associated with the business of Jaguar and Napo can be found below. You should also read and consider the other information in this joint proxy statement/prospectus.*

### Risks Related to the Merger

***The contingent rights that Napo stockholders are receiving in the merger may be exchanged for fewer shares of Jaguar stock than anticipated or none at all, depending on whether the resale of the Tranche A Shares to third parties provides Nantucket with sufficient proceeds to satisfy the applicable Hurdle Amount.***

Of the 69,299,346 shares of Jaguar common stock and non-voting common stock to be issued by Jaguar in the transactions contemplated by the merger agreement and related Napo debt settlement, (x) up to approximately 19,900,202 shares of Jaguar common stock and (y) if the applicable Hurdle Amount is achieved before all of the Tranche A Shares are sold, additional shares of the Jaguar common stock (equal to 50% of the unsold Tranche A Shares), which will be distributed pro rata among holders of contingent rights and holders of Napo restricted stock units (sometimes referred to herein collectively as the Merger Shares), are issuable upon the vesting of the contingent rights that the Napo stockholders are receiving in the merger (subject to adjustment for various contingencies, such as any financing transaction by either Jaguar or Napo that is consummated during the period between the execution of the merger agreement and the consummation of the merger). A portion of the Merger Shares will initially be held in escrow (sometimes referred to herein as the Tranche B Shares) and will only be released to the Napo stockholders if the resale of the Tranche A Shares provides Nantucket with sufficient cash proceeds to satisfy the applicable Hurdle Amount. If Nantucket does not receive an amount equal to the Hurdle Amount from the sale of the Tranche A Shares before the third anniversary of the date on which the merger is consummated, then all of the Tranche B Shares then held in escrow will be released to Nantucket. As a result, Napo stockholders may receive fewer Merger Shares than anticipated or none at all, depending on whether the resale of the Tranche A Shares to third parties provides Nantucket with sufficient proceeds to satisfy the applicable Hurdle Amount. See "The Merger Agreement and Related Agreements  Merger Consideration  Calculation of Shares of Jaguar Common Stock Issuable to Holders of Contingent Rights."

***Because the market price of Jaguar common stock will fluctuate, Napo stockholders cannot be sure of the market value of the Jaguar common stock that they will receive in the merger.***

When Jaguar completes the merger, (i) each issued and outstanding share of Napo common stock (other than dissenting shares and shares held by Jaguar or Napo) will be converted into a contingent right to receive (x) up to a whole number of shares of Jaguar common stock comprising in the aggregate up to approximately 21.5% of the fully diluted shares of Jaguar common stock immediately following the consummation of the merger, which contingent right will vest only if the resale of the Tranche A Shares to third parties provides Nantucket with sufficient cash proceeds to satisfy the applicable Hurdle Amount and (y) if the applicable Hurdle Amount is achieved before all of the Tranche A Shares are sold, additional shares of the Jaguar common stock (equal to 50% of the unsold Tranche A Shares), which will be distributed pro rata among holders of contingent rights and holders of Napo restricted stock units, (ii) existing creditors of Napo will receive an aggregate of not more than 43,156,649 shares of Jaguar non-voting common stock and not more than 2,005,245 shares of Jaguar voting common stock in full satisfaction of all existing indebtedness then owed by Napo to such creditors, and (iii) an existing Napo stockholder will be issued an aggregate of approximately 3,243,243

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shares of Jaguar common stock in return for $3 million of new funds invested into Jaguar by such investor. The market value of Jaguar common stock will continue to fluctuate until the completion of the merger. For example, during the fourth quarter of 2016 and the first quarter of 2017, the closing sales price of Jaguar common stock ranged from a low of $0.51 to a high of $1.30, as reported on The NASDAQ Capital Market. On April 14, 2017 the closing sales price of Jaguar common stock was $0.87. The merger agreement does not provide for any price-based termination right for either party. Accordingly, the market value of the shares of Jaguar common stock that Jaguar issues and Napo creditors and stockholders will be entitled to receive when the parties complete the merger will depend on the market value of shares of Jaguar common stock at the time that the parties complete the merger and could vary significantly from the market value on the date of this joint proxy statement/prospectus or the date of the Jaguar special meeting and the Napo special meeting.

***The issuance of shares of Jaguar common stock and non-voting common stock to Napo stockholders in the transactions contemplated by the merger agreement will substantially dilute the interest in Jaguar held by Jaguar stockholders prior to the merger.***

If the merger is completed, it is estimated that Jaguar will issue up to an aggregate of approximately 69,299,346 shares of Jaguar common stock and non-voting common stock upon the closing of the merger. Based on the number of shares of Jaguar common stock and Napo common stock issued and outstanding on the Jaguar and Napo record dates, the Napo Stakeholders will own, in the aggregate, approximately 75% of the aggregate number of shares of Jaguar common stock and non-voting common stock issued and outstanding immediately after the merger, on a fully diluted basis assuming the exercise or conversion of all outstanding options and warrants other than those options and warrants exercisable or convertible for approximately 300,000 shares of Jaguar common stock with an exercise/conversion price of $5.00 or more. The issuance of shares of Jaguar common stock and non-voting common stock to the Napo Stakeholders will cause approximately a 75% reduction in the relative percentage interest of current Jaguar stockholders in the earnings, voting rights, liquidation value and book and market value of Jaguar. It is expected that Jaguar stockholders before the merger will hold approximately 25% of the total Jaguar common stock and non-voting common stock issued and outstanding immediately following completion of the merger on a fully diluted basis of Jaguar as of March 31, 2017, assuming the exercise or conversion of all outstanding options and warrants other than those options and warrants exercisable or convertible for approximately 300,000 shares of Jaguar common stock with an exercise/conversion price of $5.00 or more. Thus, Jaguar stockholders before the merger will experience dilution in the amount of approximately 75% as a result of the merger.

***Failure to complete the merger could adversely affect Jaguar's and Napo's stock prices and their future business and financial results.***

Completion of the merger is subject to a number of conditions, including among other things, the receipt of approval of the Jaguar and Napo stockholders. There is no assurance that the parties will receive the necessary approvals or satisfy the other conditions to the completion of the merger. Failure to complete the proposed merger will prevent Jaguar and Napo from realizing the anticipated benefits of the merger. Each company will also remain liable for significant transaction costs, including legal, accounting and financial advisory fees, unless provided otherwise by the merger agreement. In addition, the market price of each company's common stock may reflect various market assumptions as to whether the merger will occur. Consequently, the failure to complete the merger could result in a significant change in the market price of the common stock of Jaguar and Napo.

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***The market price of Jaguar common stock after the merger may be affected by factors different from those affecting the shares of Napo or Jaguar currently.***

Upon completion of the merger and assuming the resale of the Tranche A shares to third parties provides Nantucket with sufficient proceeds to satisfy the applicable Hurdle Amount, holders of Napo common stock will become holders of Jaguar common stock. Jaguar's business differs in important respects from that of Napo, and, accordingly, the results of operations of the combined company and the market price of Jaguar common stock after the completion of the merger may be affected by factors different from those currently affecting the independent results of operations of each of Jaguar and Napo. For a discussion of the businesses of Jaguar and Napo and of certain factors to consider in connection with those businesses, see the risk factors included in this joint proxy statement/prospectus under the section entitled "Risk Factors  Risks Related to Jaguar's Business" beginning on page 29,"Risk Factors  Risks Related to Napo's Business" beginning on page 64, the description of Jaguar's business under the section entitled "Jaguar Business" beginning on page 86, and the description of Napo's business under the section entitled "Napo Business" beginning on page 118.

***The unaudited pro forma combined condensed financial statements included in this document are preliminary and the actual financial condition and results of operations after the merger may differ materially.***

The unaudited pro forma combined condensed financial statements in this joint proxy statement/prospectus are presented for illustrative purposes only and are not necessarily indicative of what Jaguar's actual financial condition or results of operations would have been had the merger been completed on the dates indicated. The unaudited pro forma combined condensed financial statements reflect adjustments to illustrate the effect of the merger had it been completed on the dates indicated, which are based upon preliminary estimates, to record the Napo identifiable assets acquired and liabilities assumed at fair value and the resulting goodwill recognized. The purchase price allocation for the merger reflected in this joint proxy statement/prospectus is preliminary, and final allocation of the purchase price will be based upon the actual purchase price and the fair value of the assets and liabilities of Napo as of the date of the completion of the merger. Accordingly, the final acquisition accounting adjustments may differ materially from the pro forma adjustments reflected in this document. For more information, see "Unaudited Pro Forma Combined Condensed Financial Statements" beginning on page 269.

***Because certain directors and executive officers of Napo, as the case may be, are parties to agreements or are participants in other arrangements that give them interests that may be different from, or in addition to, your interests as a stockholder of Napo, these persons may have conflicts of interest in recommending that Napo stockholders vote to adopt the merger agreement and approve the merger.***

The directors and executive officers of Napo, as the case may be, are parties to certain agreements or are participants in other arrangements that give them interests that may be different from, or in addition to, your interests as a stockholder of Napo. This difference of interests stems from the merger agreement providing that Napo will provide exculpation, indemnification and advancement expenses for each former director, officer, employee or agent of Napo to cover actions at or prior to the consummation of the merger, including all transactions contemplated by the merger agreement, which is at least as favorable in scope and amount as the exculpation, indemnification and advancement of expenses provided to such former director, officer, employee or agent of Napo prior to the consummation of the merger. The interests of the directors and executive officers of Napo in the merger that are different than those of the Napo stockholders are described under "Additional Interests of Certain of Jaguar and Napo's Directors and Executive Officers in the Merger" beginning on page 252.

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***The merger agreement contains provisions that could discourage a potential alternative acquirer that might be willing to pay more to acquire Napo.***

The merger agreement contains a "no shop" provision that restricts Napo's ability to solicit or facilitate proposals regarding a merger or similar transaction with another party. This provision could discourage a potential third party acquirer from considering or proposing an alternative acquisition, even if it were prepared to pay consideration with a higher value than that proposed to be paid in the merger.

***Obtaining required approvals necessary to satisfy the conditions to the completion of the merger may delay or prevent completion of the merger.***

To complete the merger, Jaguar stockholders must approve the issuance of shares of Jaguar common stock and non-voting common stock, amend the 2014 Plan, and adopt Jaguar's Third Amended and Restated Certificate of Incorporation, each as contemplated by the merger agreement, and Napo stockholders must adopt the merger agreement and approve the merger. In addition, the completion of the merger is conditioned upon the receipt of certain governmental authorizations, consents, orders or other approvals.

Jaguar and Napo intend to pursue all required approvals in accordance with the merger agreement. No assurance can be given that the required approvals will be obtained and, even if all such approvals are obtained, no assurance can be given as to the terms, conditions and timing of the approvals or that they will satisfy the terms of the merger agreement. See the sections entitled "The Merger Agreement and Related Agreements  Conditions to the Completion of the Merger" and "The Proposed Merger  Regulatory Matter Relating to the Merger" beginning on pages 265 and 249, respectively, for a discussion of the conditions to the completion of the merger.

***The shares of Jaguar common stock and/or non-voting common stock to be received by Napo stockholders as a result of the merger, assuming the proceeds from the resale of the Tranche A Shares to third parties provides Nantucket with sufficient proceeds to satisfy the applicable Hurdle Amount, will have different rights from shares of Napo common stock.***

Following completion of the merger, Napo stockholders will no longer be stockholders of Napo and will instead be stockholders of Jaguar only if the resale of the Tranche A Shares to third parties provides Nantucket with sufficient proceeds to satisfy the applicable Hurdle Amount. Although Napo and Jaguar are each incorporated under Delaware law, there will be important differences between the current rights of Napo stockholders and the rights of Jaguar stockholders, including the rights of holders of Jaguar common stock and non-voting common stock that may be important to Napo stockholders. See "Comparison of Rights of Jaguar and Napo Stockholders" beginning on page 282 for a discussion of the material differences between the rights associated with Napo common stock and Jaguar common stock and non-voting common stock.

***The fairness opinion received by the Jaguar Board from Stifel does not reflect changes in circumstances subsequent to the date of the fairness opinion.***

Stifel delivered to the Jaguar Board its opinion dated March 28, 2017. The opinion does not speak as of the time the merger will be completed or any date other than the date of such opinion. The opinion does not reflect changes that may occur or may have occurred after the date of the opinion, including changes to the operations and prospects of Napo or Jaguar, changes in general market and economic conditions or regulatory or other factors. Any such changes may materially alter or affect the relative values of Napo and Jaguar.

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***If the NASDAQ Stock Market determines that the merger with Napo and the issuance of the merger consideration results in a change of control of the company, Jaguar may be required to submit a new application under NASDAQ's original listing standards and if such application is not approved, Jaguar's common stock may be delisted from The NASDAQ Capital Market.***

Based upon the current number of issued and outstanding shares of Napo common stock, in connection with the transactions contemplated in the merger agreement and Napo debt settlement, Jaguar will issue up to an aggregate of approximately 69,299,346 shares of common stock. NASDAQ Rule 5110(a) provides that a company must apply for initial listing in connection with a transaction whereby a company combines with a non-NASDAQ entity, resulting in a change of control of such company and potentially allowing the non-NASDAQ entity to effectively obtain NASDAQ listing. In determining whether a change of control has occurred, NASDAQ considers all relevant factors including, changes in management, board of directors, voting power, ownership and financial structure of Jaguar. If The NASDAQ Stock Market determines that a change of control does in fact result from the consummation of the merger and the issuance of the merger consideration and an original listing application has not been approved prior to the consummation of merger, Jaguar will be in violation of NASDAQ Rule 5110(a) and Jaguar common stock could be delisted from The NASDAQ Capital Market.

***Termination of the merger agreement could negatively impact Napo or Jaguar.***

If the merger agreement is terminated, there may be various consequences. For example, Napo's or Jaguar's businesses may have been impacted adversely by the failure to pursue other beneficial opportunities due to the focus of management on the merger, without realizing any of the anticipated benefits of completing the merger. Additionally, if the merger agreement is terminated, the market price of Napo's or Jaguar's common stock could decline to the extent that the current market prices of Jaguar common stock and Napo common stock reflect a market assumption that the merger will be completed.

***The market price of Jaguar common stock after the merger may be affected by factors different from those currently affecting Jaguar shares.***

Upon completion of the merger, holders of Napo common stock will become holders of Jaguar common stock only if the resale of the Tranche A Shares to third parties provides Nantucket with sufficient proceeds to satisfy the applicable Hurdle Amount. Jaguar's business differs in important respects from that of Napo, and, accordingly, the results of operations of the combined company and the market price of Jaguar common stock after the completion of the merger may be affected by factors different from those currently affecting Jaguar's operations.

***The pendency of the merger could have an adverse effect on Jaguar's and Napo's stock prices, business, financial condition, results of operations or business prospects.***

While neither Jaguar nor Napo is aware of any significant adverse effects to date, the pendency of the merger could disrupt Jaguar's and/or Napo's businesses in the following ways, among others:

- customers and other third-party business partners of Jaguar or Napo may seek to terminate and/or renegotiate their relationships with Jaguar or Napo as a result of the merger, whether pursuant to the terms of their existing agreements with Jaguar or Napo or otherwise;

- the attention of Jaguar and/or Napo management may be directed toward the completion of the merger and related matters and may be diverted from the day-to-day business operations of their respective companies, including from other opportunities that might otherwise be beneficial to Jaguar or Napo; and

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current and prospective employees may experience uncertainty regarding their future roles with the combined company, which might adversely affect Jaguar's and/or Napo's ability to retain, recruit and motivate key personnel.

Should they occur, any of these matters could adversely affect the stock prices of, or harm the financial condition, results of operations or business prospects of, Jaguar and/or Napo.

**Risks Related to Jaguar's Business**

***Jaguar has a limited operating history, expects to incur further losses as it grows and may be unable to achieve or sustain profitability. Jaguar's independent registered public accounting firm has expressed substantial doubt about its ability to continue as a going concern.***

Since formation in June 2013, Jaguar's operations have been primarily limited to the research and development of its lead prescription drug product candidate, Canalevia, to treat various forms of diarrhea in dogs, and Jaguar's non-prescription product, Neonorm Calf, to help dairies and calf farms proactively retain fluid in calves  helping the animals avoid debilitating, dangerous levels of dehydration, and the recent commercial launch of Neonorm Foal. As a result, Jaguar has limited meaningful historical operations upon which to evaluate its business and prospects and have not yet demonstrated an ability to broadly commercialize any of its products, obtain any required marketing approval for any of its prescription drug product candidates or successfully overcome the risks and uncertainties frequently encountered by companies in emerging fields such as the animal health industry. Jaguar also has not generated any material revenue to date, and expects to continue to incur significant research and development and other expenses. Jaguar's net loss and comprehensive loss for the year ended December 31, 2016 was $14.7 million. As of December 31, 2016, Jaguar had total stockholders' deficit of $2.5 million. Jaguar expects to continue to incur losses for the foreseeable future, which will increase significantly from historical levels as it expands its product development activities, seeks necessary approvals for its product candidates, conducts species-specific formulation studies for its non-prescription products and begins commercialization activities. Even if Jaguar succeeds in developing and broadly commercializing one or more of its products or product candidates, Jaguar expects to continue to incur losses for the foreseeable future, and Jaguar may never become profitable. If Jaguar fails to achieve or maintain profitability, then it may be unable to continue its operations at planned levels and be forced to reduce or cease operations.

As more fully discussed in Note 1 to Jaguar's Financial Statements, Jaguar believes there is substantial doubt about its ability to continue as a going concern as it does not currently have sufficient cash resources to fund its operations through February 15, 2018, or one year from the filing date of its Form 10-K. Jaguar's financial statements do not include any adjustments that may result from the outcome of this uncertainty. If Jaguar is unable to continue as a viable entity, Jaguar's stockholders may lose their entire investment.

***Jaguar has never generated any material revenue from operations and may not generate any material revenue from its operations in the foreseeable future.***

Jaguar is an animal health company focused on developing and commercializing prescription drug and non-prescription products for companion and production animals, foals, and high value horses. Since inception in June 2013, Jaguar has not generated any material revenue from operations. There is no guarantee that Jaguar's recent commercial launch of Neonorm Calf for preweaned dairy calves in the United States will be successful or that Jaguar will be able to sell any products in the future. Further, in order to commercialize its prescription drug product candidates, Jaguar must receive regulatory approval from the FDA in the United States and other regulatory agencies in various jurisdictions. Jaguar has not yet received any regulatory approvals for its prescription drug product candidates. In addition, certain of its non-prescription products, such as Neonorm Calf, may be subject

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to regulatory approval outside the United States prior to commercialization. Accordingly, until and unless Jaguar receives any necessary regulatory approvals, Jaguar cannot market or sell its products. Moreover, even if Jaguar receives the necessary approvals, Jaguar may not be successful in generating revenue from sales of its products as it does not have any meaningful experience marketing or distributing its products. Accordingly, Jaguar may never generate any material revenue from its operations.

***Jaguar expects to incur significant additional costs as it continues commercialization efforts for Neonorm, and undertakes the clinical trials necessary to obtain regulatory approvals for Canalevia and Equilevia, which will increase Jaguar's losses.***

Jaguar commenced sales of Neonorm for preweaned dairy calves in the United States under the brand name Neonorm Calf at the end of 2014. Jaguar will need to continue to invest in developing its internal and third-party sales and distribution network and outreach efforts to key opinion leaders in the dairy industry, including veterinarians. Jaguar will also need to conduct clinical trials for Equilevia and Canalevia in order to obtain necessary initial regulatory approvals and to subsequently broaden Canalevia to additional indications and additional species. Jaguar will also need to conduct species-specific testing with Neonorm to expand to additional animal populations.

Jaguar is actively identifying additional products for development and commercialization, and will continue to expend substantial resources for the foreseeable future to develop Equilevia, Canalevia and Neonorm and develop products from the library of over 2,300 medicinal plants that Jaguar has licensed. These expenditures will include costs associated with:

identifying additional potential prescription drug product candidates and non-prescription products;

formulation studies;

conducting pilot, pivotal and toxicology studies;

completing other research and development activities;

payments to technology licensors;

maintaining Jaguar's intellectual property;

obtaining necessary regulatory approvals;

establishing commercial supply capabilities; and

sales, marketing and distribution of Jaguar's commercialized products.

Jaguar also may incur unanticipated costs in connection with developing and commercializing its products. Because the outcome of Jaguar's development activities and commercialization efforts is inherently uncertain, the actual amounts necessary to successfully complete the development and commercialization of Jaguar's current or future products and product candidates may be greater than Jaguar anticipates.

Because Jaguar anticipates incurring significant costs for the foreseeable future, if Jaguar is not successful in broadly commercializing any of its current or future products or product candidates or raising additional funding to pursue its research and development efforts, Jaguar may never realize the benefit of its development efforts and its business may be harmed.

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***Jaguar will need to raise substantial additional capital in the future to fund its operations and Jaguar may be unable to raise such funds when needed and on acceptable terms, which would force Jaguar to delay, limit, reduce or terminate one or more of its product development programs or future commercialization efforts.***

Jaguar is forecasting continued losses and negative cash flows as it continues to fund its operating and marketing activities and research and development programs, and Jaguar will not have sufficient cash on hand to fund its operating plan through August 2017 and to complete the development of all the current products in Jaguar's pipeline, or any additional products Jaguar may identify. Jaguar will need to seek additional funds sooner than planned through public or private equity or debt financings or other sources such as strategic collaborations. Other than the loan and security agreement (which provided for an initial loan commitment of $6.0 million) and the common stock purchase agreement, or the CSPA, with Aspire Capital Fund, LLC, or Aspire Capital (which committed Aspire Capital to purchase up to an aggregate of $15.0 million of Jaguar's shares of common stock over the term of the CSPA), Jaguar has no current agreements or arrangements with respect to any such financings or collaborations, and any such financings or collaborations may result in dilution to Jaguar's stockholders, the imposition of debt covenants and repayment obligations or other restrictions that may harm Jaguar's business or the value of Jaguar common stock. Jaguar may also seek from time to time to raise additional capital based upon favorable market conditions or strategic considerations such as potential acquisitions.

Jaguar's future capital requirements depend on many factors, including, but not limited to:

- the scope, progress, results and costs of researching and developing Jaguar's current and future prescription drug product candidates and non-prescription products;
- the timing of, and the costs involved in, obtaining any regulatory approvals for Jaguar's current and any future products;
- the number and characteristics of the products Jaguar pursues;
- the cost of manufacturing Jaguar's current and future products and any products Jaguar successfully commercializes;
- the cost of commercialization activities for Neonorm, Equilevia and Canalevia, if approved, including sales, marketing and distribution costs;
- the expenses needed to attract and retain skilled personnel;
- the costs associated with being a public company;
- Jaguar's ability to establish and maintain strategic collaborations, distribution or other arrangements and the financial terms of such agreements; and
- the costs involved in preparing, filing, prosecuting, maintaining, defending and enforcing possible patent claims, including litigation costs and the outcome of any such litigation.

Additional funds may not be available when Jaguar needs them on terms that are acceptable to Jaguar, or at all. If adequate funds are not available to us on a timely basis, Jaguar may be required to delay, limit, reduce or terminate one or more of its product development programs or future commercialization efforts.

***Jaguar is substantially dependent on the success of Equilevia, Canalevia and Neonorm and cannot be certain that Equilevia or Canalevia will be approved or that Jaguar can successfully commercialize these products.***

Jaguar currently does not have regulatory approval for any of its prescription drug product candidates, including Equilevia and Canalevia. Jaguar's current efforts are primarily focused on the commercial launch of Neonorm Calf and Neonorm Foal in the United States, and development efforts

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related to Equilevia and Canalevia. Jaguar is focused on expanding Canalevia's proposed indications to cover acute diarrhea in dogs and full FDA approval for CID for dogs. Accordingly, Jaguar's near-term prospects, including its ability to generate material product revenue, obtain any new financing if needed to fund its business and operations or enter into potential strategic transactions, will depend heavily on the success of Neonorm and, if approved, Equilevia and Canalevia.

Substantial time and capital resources have been previously devoted by third parties in the development of crofelemer, the active pharmaceutical ingredient, or API, in Canalevia, and the botanical extract used in Neonorm. Both crofelemer and the botanical extract used in Neonorm were originally developed at Shaman Pharmaceuticals, Inc., or Shaman, by certain members of Jaguar's management team, including Lisa A. Conte, Jaguar's Chief Executive Officer and President, and Steven R. King, Ph.D., Jaguar's Executive Vice President, Sustainable Supply, Ethnobotanical Research and Intellectual Property and Secretary. Shaman spent significant development resources before voluntarily filing for bankruptcy in 2001 pursuant to Chapter 11 of the U.S. Bankruptcy Code. The rights to crofelemer and the botanical extract used in Neonorm, as well as other intellectual property rights, were subsequently acquired by Napo from Shaman in 2001 pursuant to a court approved sale of assets. Ms. Conte founded Napo in 2001 and is the current interim chief executive officer of Napo and a member of its board of directors. While at Napo, certain members of Jaguar's management team, including Ms. Conte and Dr. King, continued the development of crofelemer. In 2005, Napo entered into license agreements with Glenmark Pharmaceuticals Ltd., or Glenmark, and Luye Pharma Group Limited for rights to various human indications of crofelemer in certain territories as defined in the respective license agreements with these licensees. Subsequently, after expending significant sums developing crofelemer, including trial design and on-going patient enrollment in the final pivotal Phase 3 trial for crofelemer for non-infectious diarrhea in adults with HIV/AIDS on antiretroviral therapy, in late 2008, Napo entered into a collaboration agreement with Salix Pharmaceuticals, Inc., or Salix, for development and commercialization rights to certain indications worldwide and certain rights in North America, Europe, and Japan, to crofelemer for human use. In January 2014, Jaguar entered into the Napo License Agreement pursuant to which Jaguar acquired an exclusive worldwide license to Napo's intellectual property rights and technology, including crofelemer and the botanical extract used in Neonorm, for all veterinary treatment uses and indications for all species of animals. In February 2014, most of the executive officers of Napo, and substantially all Napo's employees, became Jaguar's employees. If Jaguar is not successful in the development and commercialization of Neonorm and Canalevia, Jaguar's business and its prospects will be harmed.

The successful development and commercialization of Neonorm and, if approved, Equilevia and Canalevia will depend on a number of factors, including the following:

- the successful completion of the pivotal trials and toxicology studies for Equilevia and Canalevia, which may take significantly longer than Jaguar currently anticipates and will depend, in part, upon the satisfactory performance of third-party contractors;
- Jaguar's ability to demonstrate to the satisfaction of the FDA and any other regulatory bodies, the safety and efficacy of Equilevia and Canalevia;
- Jaguar's ability and that of its contract manufacturers to manufacture supplies of Neonorm, Equilevia and Canalevia and to develop, validate and maintain viable commercial manufacturing processes that are compliant with current good manufacturing practices, or cGMP, if required;
- the success of Neonorm field studies and acceptance of their results by dairy producers;
- Jaguar's ability to successfully launch Neonorm, whether alone or in collaboration with others;
- Jaguar's ability to successfully launch Equilevia and Canalevia assuming approval is obtained, whether alone or in collaboration with others;

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- the availability, perceived advantages, relative cost, relative safety and relative efficacy of Jaguar's prescription drug product candidates and non-prescription products compared to alternative and competing treatments;

- the acceptance of Jaguar's prescription drug product candidates and non-prescription products as safe and effective by veterinarians, animal owners and the animal health community;

- Jaguar's ability to achieve and maintain compliance with all regulatory requirements applicable to its business; and

- Jaguar's ability to obtain and enforce its intellectual property rights and obtain marketing exclusivity for its prescription drug product candidates and non-prescription products, and avoid or prevail in any third-party patent interference, patent infringement claims or administrative patent proceedings initiated by third parties or the U.S. Patent and Trademark Office, or USPTO.

Many of these factors are beyond Jaguar's control. Accordingly, Jaguar may not be successful in developing or commercializing Neonorm, Equilevia, Canalevia or any of its other potential products. If Jaguar is unsuccessful or are significantly delayed in developing and commercializing Neonorm, Equilevia, Canalevia or any of its other potential products, its business and prospects will be harmed and you may lose all or a portion of the value of your investment in Jaguar common stock.

***If Jaguar is not successful in identifying, licensing, developing and commercializing additional product candidates and products, Jaguar's ability to expand its business and achieve its strategic objectives could be impaired.***

Although a substantial amount of Jaguar's efforts are focused on the commercial launch of Neonorm and the continued development and potential approvals of Equilevia and Canalevia, a key element of Jaguar's strategy is to identify, develop and commercialize a portfolio of products to serve the animal health market. Most of Jaguar's potential products are based on Jaguar's knowledge of medicinal plants. Jaguar's current focus is primarily on product candidates and products for animals whose active pharmaceutical ingredient or botanical extract has been successfully commercialized or demonstrated to be safe and effective in human trials. In some instances, Jaguar may be unable to further develop these potential products because of perceived regulatory and commercial risks. Even if Jaguar successfully identifies potential products, Jaguar may still fail to yield products for development and commercialization for many reasons, including the following:

- competitors may develop alternatives that render Jaguar's potential products obsolete;

- potential products Jaguar seeks to develop may be covered by third-party patents or other exclusive rights;

- a potential product may on further study be shown to have harmful side effects in animals or other characteristics that indicate it is unlikely to be effective or otherwise does not meet applicable regulatory criteria;

- a potential product may not be capable of being produced in commercial quantities at an acceptable cost, or at all; and

- a potential product may not be accepted as safe and effective by veterinarians, animal owners, key opinion leaders and other decision-makers in the animal health market.

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While Jaguar is developing species-specific formulations, including flavors, methods of administration, new patents and other strategies with respect to Jaguar's current potential products, Jaguar may be unable to prevent competitors from developing substantially similar products and bringing those products to market earlier than Jaguar can. If such competing products achieve regulatory approval and commercialization prior to Jaguar's potential products, Jaguar's competitive position may be impaired. If Jaguar fails to develop and successfully commercialize other potential products, its business and future prospects may be harmed and Jaguar will be more vulnerable to any problems that it encounters in developing and commercializing its current potential products.

***The Elanco Agreement is important to Jaguar's business. If Jaguar or Elanco fail to adequately perform under the Elanco Agreement, or if Jaguar or Elanco terminate the Elanco Agreement, the development and commercialization of Canalevia and any other Licensed Products would be delayed or terminated and Jaguar's business would be adversely affected.***

The Elanco Agreement is important to Jaguar's business, and its ability to develop and commercialize Canalevia and any other License Product is dependent upon this agreement.

The Elanco Agreement may be terminated by Elanco on a voluntary basis upon completion of the dose ranging study or at any time upon 90 days' written notice to Jaguar or for Jaguar's failure to complete certain a quality assessment with respect to a certain facility within 6 months of the effective date of the Elanco Agreement. The Elanco Agreement may also be terminated by either party:

for the other party's material breach, where such breach is not cured within the timeframe specified by the agreement;

upon the bankruptcy, insolvency or dissolution of the other party; or

for certain activities involving the challenge of certain patents licensed by us to Elanco.

Upon Elanco's voluntary termination or termination for Elanco's breach, among other things, all licenses and rights granted to Elanco will terminate and revert to Jaguar, and Elanco has agreed to assign to Jaguar all registrations and trademarks obtained in connection with the products covered by the agreement. Upon expiration of the term of the Elanco Agreement or termination for Jaguar's breach, among other things, Jaguar has agreed to assign to Elanco all registrations and trademarks obtained in connection with the products covered by the agreement.

Termination of the Elanco Agreement could cause significant delays in Jaguar's product development and commercialization efforts that could prevent Jaguar from commercializing its Licensed Products, including Canalevia, without first expanding its internal capabilities, securing additional financing or entering into another agreement with a third party. Any alternative collaboration or license could also be on less favorable terms to Jaguar.

Under the Elanco Agreement, among other things, Jaguar is responsible for the manufacture and supply of all of Elanco's reasonable requirements of the products covered by the agreement. If Jaguar is unable to meet its manufacture and supply obligations, Elanco may claim that Jaguar has materially breached the Elanco Agreement and terminate such agreement, which could adversely affect Jaguar's business and its ability to successfully develop and commercialize any products covered by the agreement, including Canalevia.

Under the Elanco Agreement, Elanco has agreed to provide funding for certain clinical development activities. If the Elanco Agreement were terminated, Jaguar may need to seek additional financing to support the research and development of any terminated products or discontinue any terminated products, which could adversely affect Jaguar's business. In addition, Elanco is solely responsible for commercializing products outside the United States. Jaguar cannot directly control Elanco's commercialization activities or the resources it allocates to Jaguar's product candidates.

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Jaguar's interests and Elanco's interests may differ or conflict from time to time, or Jaguar may disagree with Elanco's level of effort or resource allocation. Elanco may internally prioritize Jaguar's product candidates differently than Jaguar does or it may not allocate sufficient resources to effectively or optimally commercialize them. If these events were to occur, Jaguar's business would be adversely affected.

***Jaguar's animal health products faces significant competition from other pharmaceutical companies and Jaguar's operating results will suffer if Jaguar fails to compete effectively.***

The development and commercialization of animal health products is highly competitive and Jaguar's success depends on its ability to compete effectively with other products in the market. Jaguar expects to compete with the animal health divisions of major pharmaceutical and biotechnology companies such as Merck Animal Health, Merial Inc., Elanco Animal Health, Bayer Animal Health GmbH, Novartis Animal Health Inc. and Boehringer Ingelheim Animal Health, as well as specialty animal health medicines companies such as Zoetis Inc., Phibro Animal Health Corporation and, in Europe, Virbac S.A., Vétoquinol S.A., Ceva Animal Health S.A. and Dechra Pharmaceuticals PLC. Jaguar is also aware of several early-stage companies that are developing products for use in the animal health market, including Aratana Therapeutics, Inc., Kindred Biosciences, Inc., Parnell Pharmaceuticals Holdings Ltd, Nexvet Biopharma and ImmuCell Corporation. Jaguar also competes with academic institutions, governmental agencies and private organizations that are conducting research in the field of animal health products.

Although there are currently no FDA-approved anti-secretory products to treat acute diarrhea in dogs, Jaguar anticipates that Canalevia, if approved, will face competition from various products, including products approved for use in humans that are used extra-label in animals. Extra-label use is the use of an approved drug outside of its cleared or approved indications in the animal context. All of Jaguar's potential products could also face competition from new products in development. These and other potential competing products may benefit from greater brand recognition and brand loyalty than Jaguar's products and product candidates may achieve.

Many of Jaguar's competitors and potential competitors have substantially more financial, technical and human resources than Jaguar does. Many also have more experience in the development, manufacture, regulation and worldwide commercialization of animal health products, including animal prescription drugs and non-prescription products.

For these reasons, Jaguar cannot be certain that it and its products can compete effectively.

***Jaguar may be unable to obtain, or obtain on a timely basis, regulatory approval for its existing or future prescription drug product candidates under applicable regulatory requirements, which would harm its operating results.***

The research, testing, manufacturing, labeling, approval, sale, marketing and distribution of animal health products are subject to extensive regulation. Jaguar is usually not permitted to market its prescription drug product candidates in the United States until it receives approval of an NADA from the FDA. To gain approval to market an animal prescription drug for a particular species, Jaguar must provide the FDA with safety and efficacy data from pivotal trials that adequately demonstrate that Jaguar's prescription drug product candidates are safe and effective in the target species (*e.g.* dogs, cats or horses) for the intended indications. In addition, Jaguar must provide manufacturing data evidencing that it can produce its product candidates in accordance with cGMP. For the FDA, Jaguar must also provide data from toxicology studies, also called target animal safety studies, and in some cases environmental impact data. In addition to Jaguar's internal activities, Jaguar will partially rely on contract research organizations, or CROs, and other third parties to conduct its toxicology studies and for certain other development activities. The results of toxicology studies and other initial development

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activities, and of any previous studies in humans or animals conducted by Jaguar or third parties, may not be predictive of future results of pivotal trials or other future studies, and failure can occur at any time during the conduct of pivotal trials and other development activities by Jaguar or its CROs. Jaguar's pivotal trials may fail to show the desired safety or efficacy of its prescription drug product candidates despite promising initial data or the results in previous human or animal studies conducted by others, and success of a prescription drug product candidate in prior animal studies, or in the treatment of humans, does not ensure success in subsequent studies. Clinical trials in humans and pivotal trials in animals sometimes fail to show a benefit even for drugs that are effective because of statistical limitations in the design of the trials or other statistical anomalies. Therefore, even if Jaguar's studies and other development activities are completed as planned, the results may not be sufficient to obtain a required regulatory approval for a product candidate.

Regulatory authorities can delay, limit or deny approval of any of Jaguar's prescription drug product candidates for many reasons, including:

- if they disagree with Jaguar's interpretation of data from its pivotal studies or other development efforts;
- if Jaguar is unable to demonstrate to their satisfaction that Jaguar's product candidate is safe and effective for the target indication and in the target species;
- if they require additional studies or change their approval policies or regulations;
- if they do not approve of the formulation, labeling or the specifications of Jaguar's current and future product candidates; and
- if they fail to approve the manufacturing processes of Jaguar's third-party contract manufacturers.

Further, even if Jaguar receives a required approval, such approval may be for a more limited indication than Jaguar originally requested, and the regulatory authority may not approve the labeling that Jaguar believes is necessary or desirable for successful commercialization.

Any delay or failure in obtaining any necessary regulatory approval for the intended indications of Jaguar's product candidates would delay or prevent commercialization of such product candidates and would harm Jaguar's business and Jaguar's operating results.

***The results of Jaguar's earlier studies of Neonorm may not be predictive of the results in any future species-specific formulation studies, and Jaguar may not be successful in its efforts to develop or commercialize line extensions of Neonorm.***

Jaguar's product pipeline includes a number of species-specific formulations of Neonorm, Jaguar's lead non-prescription product. The results of Jaguar's dairy calf studies and other initial development activities and of any previous studies in humans or animals conducted by Jaguar or third parties may not be predictive of future results of these formulation studies. Failure can occur at any time during the conduct of these trials and other development activities. Even if Jaguar's species-specific formulation studies and other development activities are completed as planned, the results may not be sufficient to pursue a particular line extension for Neonorm. Further, even if Jaguar obtains promising results from its species-specific formulation studies, Jaguar may not successfully commercialize any line extension. Because line extensions are developed for a particular species market, Jaguar may not be able to leverage its experience from the commercial launch of Neonorm Calf and Neonorm Foal in new animal species markets. If Jaguar is not successful in developing and successfully commercializing these line extension products, Jaguar may not be able to grow its revenue and its business may be harmed.

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***Development of prescription drug products is inherently expensive, time-consuming and uncertain, and any delay or discontinuance of Jaguar's current or future pivotal trials would harm Jaguar's business and prospects.***

Development of prescription drug products for animals remains an inherently lengthy, expensive and uncertain process, and Jaguar's development activities may not be successful. Jaguar does not know whether its current or planned pivotal trials for any of its product candidates will begin or conclude on time, and they may be delayed or discontinued for a variety of reasons, including if Jaguar is unable to:

address any safety concerns that arise during the course of the studies;

complete the studies due to deviations from the study protocols or the occurrence of adverse events;

add new study sites;

address any conflicts with new or existing laws or regulations; or

reach agreement on acceptable terms with study sites, which can be subject to extensive negotiation and may vary significantly among different sites.

Further, Jaguar may not be successful in developing species-specific formulations for Neonorm, and Neonorm may be subject to the same regulatory regime as prescription drug products in jurisdictions outside the United States. Any delays in completing Jaguar's development efforts will increase its costs, delay its development efforts and approval process and jeopardize its ability to commence product sales and generate revenue. Any of these occurrences may harm Jaguar's business, financial condition and prospects. In addition, factors that may cause a delay in the commencement or completion of Jaguar's development efforts may also ultimately lead to the denial of regulatory approval of Jaguar's product candidates which, as described above, would harm Jaguar's business and prospects.

***Jaguar will partially rely on third parties to conduct its development activities. If these third parties do not successfully carry out their contractual duties, Jaguar may be unable to obtain regulatory approvals or commercialize its current or future product candidates on a timely basis, or at all.***

Jaguar will partially rely upon CROs to conduct its toxicology studies and for other development activities. Jaguar intends to rely on CROs to conduct one or more of its planned pivotal trials. These CROs are not Jaguar's employees, and except for contractual duties and obligations, Jaguar has limited ability to control the amount or timing of resources that they devote to Jaguar's programs or manage the risks associated with their activities on Jaguar's behalf. Jaguar is responsible for ensuring that each of its studies is conducted in accordance with the development plans and trial protocols presented to regulatory authorities. Any deviations by Jaguar's CROs may adversely affect its ability to obtain regulatory approvals, subject Jaguar to penalties or harm Jaguar's credibility with regulators. The FDA and foreign regulatory authorities also require Jaguar and its CROs to comply with regulations and standards, commonly referred to as good clinical practices, or GCPs, or good laboratory practices, or GLPs, for conducting, monitoring, recording and reporting the results of Jaguar's studies to ensure that the data and results are scientifically valid and accurate.

Agreements with CROs generally allow the CROs to terminate in certain circumstances with little or no advance notice. These agreements generally will require Jaguar's CROs to reasonably cooperate with Jaguar at Jaguar's expense for an orderly winding down of the CROs' services under the agreements. If the CROs conducting Jaguar's studies do not comply with their contractual duties or obligations, or if they experience work stoppages, do not meet expected deadlines, or if the quality or accuracy of the data they obtain is compromised, Jaguar may need to secure new arrangements with alternative CROs, which could be difficult and costly. In such event, Jaguar's studies also may need to

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be extended, delayed or terminated as a result, or may need to be repeated. If any of the foregoing were to occur, regulatory approval, if required, and commercialization of Jaguar's product candidates may be delayed and Jaguar may be required to expend substantial additional resources.

***Even if Jaguar obtains regulatory approval for Equilevia, Canalevia or its other product candidates, they may never achieve market acceptance. Further, even if Jaguar is successful in commercially launching Neonorm, it may not achieve commercial success.***

If Jaguar obtain necessary regulatory approvals for Equilevia, Canalevia or its other product candidates, such products may still not achieve market acceptance and may not be commercially successful. Market acceptance of Canalevia, Equilevia, Neonorm and any of Jaguar's other products depends on a number of factors, including:

- the safety of Jaguar's products as demonstrated in its target animal studies;
- the indications for which Jaguar products are approved or marketed;
- the potential and perceived advantages over alternative treatments or products, including generic medicines and competing products currently prescribed by veterinarians, and products approved for use in humans that are used extra-label in animals;
- the acceptance by veterinarians, companion animal owners and production animal owners, including in the dairy industry, of Jaguar's products as safe and effective;
- the cost in relation to alternative treatments and willingness on the part of veterinarians and animal owners to pay for Jaguar's products;
- the prevalence and severity of any adverse side effects of Jaguar's products;
- the relative convenience and ease of administration of Jaguar's products; and
- the effectiveness of Jaguar's sales, marketing and distribution efforts.

Any failure by Canalevia, Equilevia, Neonorm or any of Jaguar's other products to achieve market acceptance or commercial success would harm Jaguar's financial condition and results of operations.

***The dairy industry is subject to conditions beyond Jaguar's control and the occurrence of any such conditions may harm Jaguar's business and impact the demand for its products.***

The demand for production animal health products, such as Neonorm Calf, is heavily dependent on factors that affect the dairy market that are beyond Jaguar's control, including the following, any of which may harm Jaguar's business:

- cost containment measures within the dairy industry, in response to international, national and local general economic conditions, which may affect the market adoption of Jaguar's products;
- state and federal government policies, including government-funded programs or subsidies whose discontinuance or modification could erode the demand for Jaguar's products;

a decline in demand for dairy products due to changes in consumer diets away from dairy products, which could adversely affect the demand for production animal health products;

adverse weather conditions and natural disasters, such as floods, droughts, and pestilence, which can lower dairy yields; and

disease or other conditions beyond Jaguar's control.

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***Animal products, like human products, are subject to unanticipated post-approval safety or efficacy concerns, which may harm Jaguar's business and reputation.***

The success of Jaguar's commercialization efforts will depend upon the perceived safety and effectiveness of animal health products, in general, and of Jaguar's products, in particular. Unanticipated safety or efficacy concerns can subsequently arise with respect to approved prescription drug products, or non-prescription products, such as Neonorm, which may result in product recalls or withdrawals or suspension of sales, as well as product liability and other claims. Any safety or efficacy concerns, or recalls, withdrawals or suspensions of sales of Jaguar's products, or human products derived from *Croton lechleri*, if any, could harm Jaguar's reputation and business, regardless of whether such concerns or actions are justified.

***Future federal and state legislation may result in increased exposure to product liability claims, which could result in substantial losses.***

Under current federal and state laws, companion and production animals are generally considered to be the personal property of their owners and, as such, the owners' recovery for product liability claims involving their companion and production animals may be limited to the replacement value of the animal. Companion animal owners and their advocates, however, have filed lawsuits from time to time seeking non-economic damages such as pain and suffering and emotional distress for harm to their companion animals based on theories applicable to personal injuries to humans. If new legislation is passed to allow recovery for such non-economic damages, or if precedents are set allowing for such recovery, Jaguar could be exposed to increased product liability claims that could result in substantial losses to Jaguar if successful. In addition, some horses can be worth millions of dollars or more, and product liability for horses may be very high. While Jaguar currently has product liability insurance, such insurance may not be sufficient to cover any future product liability claims against Jaguar.

***If Jaguar fails to retain current members of its senior management, or to identify, attract, integrate and retain additional key personnel, its business will be harmed.***

Jaguar's success depends on its continued ability to attract, retain and motivate highly qualified management and scientific personnel. Jaguar is highly dependent upon its senior management, particularly Lisa A. Conte, Jaguar's president and Chief Executive Officer. The loss of services of any of Jaguar's key personnel would cause a disruption in Jaguar's ability to develop its current or future product pipeline and commercialize its products and product candidates. Although Jaguar has offer letters with these key members of senior management, such agreements do not prohibit them from resigning at any time. For example, the resignation of Jaguar's former Chief Financial Officer, Charles O. Thompson, in September 2014, and the mutually agreed departure of Jaguar's former Chief Veterinary Officer, Serge Martinod, D.V.M., Ph.D. in February 2015, caused Jaguar to incur additional expenses and expend resources to ensure a smooth transition with their respective successors, which diverted management attention away from executing Jaguar's operational plan during this period. Jaguar currently does not maintain "key man" life insurance on any of its senior management team. The loss of Ms. Conte or other members of Jaguar's current senior management could adversely affect the timing or outcomes of Jaguar's current and planned studies, as well as the prospects for commercializing Jaguar's products.

In addition, competition for qualified personnel in the animal health field is intense, because there are a limited number of individuals who are trained or experienced in the field. Further, Jaguar's headquarters are located in San Francisco, California, and the dairy and agriculture industries are not prevalent in urban areas such as San Francisco. Jaguar will need to hire additional personnel as it expands its product development and commercialization activities. Even if Jaguar is successful in hiring qualified individuals, as Jaguar is a growing organization, Jaguar does not have a track record for

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integrating and retaining individuals. If Jaguar is not successful in identifying, attracting, integrating or retaining qualified personnel on acceptable terms, or at all, its business will be harmed.

***Jaguar is dependent on two suppliers for the raw material used to produce the active pharmaceutical ingredient in Canalevia and the botanical extract in Neonorm. The termination of either of these contracts would result in a disruption to product development and Jaguar's business will be harmed.***

The raw material used to manufacture Canalevia and Neonorm is crude plant latex, or CPL, derived from the *Croton lechleri* tree, which is found in countries in South America, principally Peru. The ability of Jaguar's contract suppliers to harvest CPL is governed by the terms of their respective agreements with local government authorities. Although CPL is available from multiple suppliers, Jaguar only has contracts with two suppliers to obtain CPL and arrange the shipment to Jaguar's contract manufacturer. Accordingly, if Jaguar's contract suppliers do not or are unable to comply with the terms of Jaguar's respective agreements, and Jaguar is not able to negotiate new agreements with alternate suppliers on terms that Jaguar deems commercially reasonable, it may harm Jaguar's business and prospects. The countries from which Jaguar obtains CPL could change their laws and regulations regarding the export of the natural products or impose or increase taxes or duties payable by exporters of such products. Restrictions could be imposed on the harvesting of the natural products or additional requirements could be implemented for the replanting and regeneration of the raw material. Such events could have a significant impact on Jaguar's cost and ability to produce Canalevia, Neonorm and anticipated line extensions.

***Jaguar is dependent upon third-party contract manufacturers, both for the supply of the active pharmaceutical ingredient in Canalevia and the botanical extract in Neonorm, as well as for the supply of finished products for commercialization.***

To date, the CPL, API, botanical extract and some finished products that Jaguar has used in its studies and trials were obtained from Napo. Jaguar has also contracted with third parties for the formulation of API and botanical extract into finished products for Jaguar's studies. Jaguar has entered into memorandums of understanding with Indena S.p.A. for the manufacture of CPL received from Jaguar's suppliers into the API in Canalevia to support Jaguar's regulatory filings, as well as the botanical extract in Neonorm and agreed to negotiate a commercial supply agreement. Indena S.p.A. has never manufactured either such ingredient to commercial scale. As a second supplier situation, Jaguar has entered into a four-year manufacturing and supply agreement with Glenmark for the supply of the API in Canalevia. Glenmark is the current manufacturer of crofelemer, the active API in Canalevia, for the FDA-approved human anti-secretory product, and the manufacturer on file for the NADA to which Jaguar has a right of reference. Jaguar has contracted with a third-party manufacturer for formulation development and manufacturing, whereby the manufacturer will provide enteric-coated tablets to us for use in animals. Jaguar also may contract with additional third parties for the formulation and supply of finished products, which Jaguar will use in its planned studies and commercialization efforts.

Jaguar will be dependent upon its contract manufacturers for the supply of the API in Canalevia. Jaguar currently has sufficient quantities of the botanical extract used in Neonorm to support initial commercialization of Neonorm. However, Jaguar will require additional quantities of the botanical extract if Jaguar's commercial launch of Neonorm is successful. If Jaguar is not successful in reaching agreements with third parties on terms that Jaguar considers commercially reasonable for manufacturing and formulation, or if Jaguar's contract manufacturer and formulator are not able to produce sufficient quantities or quality of API, botanical extract or finished product under their agreements, it could delay Jaguar's plans and harm its business prospects.

The facilities used by Jaguar's third-party contractors are subject to inspections, including by the FDA, and other regulators, as applicable. Jaguar also depends on its third-party contractors to comply

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with cGMP. If Jaguar's third-party contractors do not maintain compliance with these strict regulatory requirements, Jaguar and they will not be able to secure or maintain regulatory approval for their facilities, which would have an adverse effect on Jaguar's operations. In addition, in some cases, Jaguar also is dependent on its third-party contractors to produce supplies in conformity to its specifications and maintain quality control and quality assurance practices and not to employ disqualified personnel. If the FDA or a comparable foreign regulatory authority does not approve the facilities of Jaguar's third-party contractors if so required, or if it withdraws any such approval in the future, Jaguar may need to find alternative manufacturing or formulation facilities, which could result in delays in Jaguar's ability to develop or commercialize its products, if at all. Jaguar and its third-party contractors also may be subject to penalties and sanctions from the FDA and other regulatory authorities for any violations of applicable regulatory requirements. The USDA and the European Medicines Agency, or the EMA, employ different regulatory standards than the FDA, so Jaguar may require multiple manufacturing processes and facilities for the same product candidate or any approved product. Jaguar is also exposed to risk if its third-party contractors do not comply with the negotiated terms of Jaguar's agreements, or if they suffer damage or destruction to their facilities or equipment.

***If Jaguar is unable to establish sales capabilities on its own or through third parties, Jaguar may not be able to market and sell its current or future products and product candidates, if approved, and generate product or other revenue.***

Jaguar currently has limited sales, marketing or distribution capabilities, and prior to its launch of Neonorm for preweaned dairy calves, had no experience in the sale, marketing and distribution of animal health products. There are significant risks involved in building and managing a sales organization, including Jaguar's potential inability to attract, hire, retain and motivate qualified individuals, generate sufficient sales leads, provide adequate training to sales and marketing personnel and effectively oversee a geographically-dispersed sales and marketing team. Any failure or delay in the development of Jaguar's internal sales, marketing and distribution capabilities and entry into adequate arrangements with distributors or other partners would adversely impact the commercialization of Neonorm, Equilevia and Canalevia, if approved. If Jaguar is not successful in commercializing Neonorm, Equilevia, Canalevia or any of its other line extension products, either on its own or through one or more distributors, or in generating upfront licensing or other fees, Jaguar may never generate significant revenue and may continue to incur significant losses, which would harm Jaguar's financial condition and results of operations.

***Changes in distribution channels for animal prescription drugs may make it more difficult or expensive to distribute Jaguar's prescription drug products.***

In the United States, animal owners typically purchase their animal prescription drugs from their local veterinarians who also prescribe such drugs. There is a trend, however, toward increased purchases of animal prescription drugs from Internet-based retailers, "big-box" retail stores and other over-the-counter distribution channels, which follows an emerging shift in recent years away from the traditional veterinarian distribution channel. It is also possible that animal owners may come to rely increasingly on Internet-based animal health information rather than on their veterinarians. Jaguar currently expects to market its animal prescription drugs directly to veterinarians, so any reduced reliance on veterinarians by animal owners could harm Jaguar's business and prospects by making it more difficult or expensive for Jaguar to distribute its prescription drug products. Animal owners also may substitute human health products for animal prescription drugs if the human health products are less expensive or more readily available, which could also harm Jaguar's business.

Legislation has been or may be proposed in various states that would require veterinarians to provide animal owners with written prescriptions and disclosures that the animal owner has the right to fill the prescriptions through other means. If enacted, such legislation could lead to a reduction in the

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number of animal owners who purchase their animal pharmaceuticals directly from veterinarians, which also could harm Jaguar's business.

***Consolidation of Jaguar's customers could negatively affect the pricing of Jaguar's products.***

Veterinarians will be Jaguar's primary customers for its prescription drug products, as well as, to some extent, its non-prescription products, such as Neonorm. In recent years, there has been a trend towards the consolidation of veterinary clinics and animal hospitals. If this trend continues, these large clinics and hospitals could attempt to leverage their buying power to obtain favorable pricing from Jaguar and other animal health product companies. Any downward pressure on the prices of any of Jaguar's products could harm Jaguar's operating results and financial condition.

***Jaguar will need to increase the size of its organization and may not successfully manage such growth.***

As of December 31, 2016, Jaguar had 23 employees. Jaguar's ability to manage its growth effectively will require Jaguar to hire, train, retain, manage and motivate additional employees and to implement and improve Jaguar's operational, financial and management systems. These demands also may require the hiring of additional senior management personnel or the development of additional expertise by Jaguar's senior management personnel. If Jaguar fails to expand and enhance its operational, financial and management systems in conjunction with its potential future growth, it could harm Jaguar's business and operating results.

***Jaguar's research and development relies on evaluations in animals, which is controversial and may become subject to bans or additional regulations.***

The evaluation of Jaguar's products and product candidates in target animals is required to develop, formulate and commercialize Jaguar's products and product candidates. Although Jaguar's animal testing will be subject to GLPs and GCPs, as applicable, animal testing in the human pharmaceutical industry and in other industries continues to be the subject of controversy and adverse publicity. Some organizations and individuals have sought to ban animal testing or encourage the adoption of additional regulations applicable to animal testing. To the extent that such bans or regulations are imposed, Jaguar's research and development activities, and by extension Jaguar's operating results and financial condition, could be harmed. In addition, negative publicity about animal practices by Jaguar or in its industry could harm Jaguar's reputation among potential customers.

***If approved, Jaguar's prescription drug product candidates may be marketed in the United States only in the target animals and for the indications for which they are approved, and if Jaguar wants to expand the approved animals or indications, it will need to obtain additional approvals, which may not be granted.***

If Jaguar's prescription drug product candidates are approved by regulatory authorities, Jaguar may market or advertise them only in the specific species and for treatment of the specific indications for which they were approved, which could limit use of the products by veterinarians and animal owners. Jaguar intends to develop, promote and commercialize approved products for other animals and new treatment indications in the future, but Jaguar cannot be certain whether or at what additional time and expense Jaguar will be able to do so. If Jaguar does not obtain marketing approvals for other species or for new indications, Jaguar's ability to expand its business may be harmed.

Under the Animal Medicinal Drug Use Clarification Act of 1994, veterinarians are permitted to prescribe extra-label uses of certain approved animal drugs and approved human drugs for animals under certain conditions. While veterinarians may in the future prescribe and use human-approved products or Jaguar's products for extra-label uses, Jaguar may not promote its products for extra-label uses. If the FDA determines that any of Jaguar's marketing activities constitute promotion of an extra-label use, Jaguar could be subject to regulatory enforcement, including seizure of any misbranded or

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mislabeled drugs, and civil or criminal penalties, any of which could have an adverse impact on Jaguar's reputation and expose Jaguar to potential liability. Jaguar will continue to spend resources ensuring that its promotional claims for its products and product candidates remain compliant with applicable FDA laws and regulations, including materials Jaguar posts or links to on its website. For example, in 2012, Jaguar's Chief Executive Officer received an "untitled letter" from the FDA while at Napo regarding preapproval promotion statements constituting misbranding of crofelemer, which was then an investigational drug. These statements were included in archived press releases included on Napo's website. Napo was required to expend time and resources to revise its website to remove the links in order to address the concerns raised in the FDA's letter.

***If Jaguar's prescription drug product candidates are approved by regulatory authorities, the misuse or extra-label use of such products may harm Jaguar's reputation or result in financial or other damages.***

If Jaguar's prescription drug product candidates are approved by regulatory authorities, there may be increased risk of product liability if veterinarians, animal owners or others attempt to use such products extra-label, including the use of Jaguar's products in species (including humans) for which they have not been approved. Furthermore, the use of an approved drug for indications other than those indications for which such products have been approved may not be effective, which could harm Jaguar's reputation and lead to an increased risk of litigation. If Jaguar is deemed by a governmental or regulatory agency to have engaged in the promotion of any approved product for extra-label use, such agency could request that Jaguar modify its training or promotional materials and practices and Jaguar could be subject to significant fines and penalties, and the imposition of these sanctions could also affect Jaguar's reputation and position within the industry. Any of these events could harm Jaguar's reputation and its operating results.

***Jaguar may not maintain the benefits associated with MUMS designation, including market exclusivity.***

Although Jaguar has received MUMS designation for Canalevia for the treatment of CID in dogs, Jaguar may not maintain the benefits associated with MUMS designation. MUMS designation is a status similar to "orphan drug" status for human drugs. When Jaguar is granted MUMS designation, Jaguar is eligible for incentives to support the approval or conditional approval of the designated use. This designation does not allow Jaguar to commercialize a product until such time as Jaguar obtains approval or conditional approval of the product.

Because Canalevia has received MUMS designation for the identified particular intended use, Jaguar is eligible to obtain seven years of exclusive marketing rights upon approval (or conditional approval) of Canalevia for that intended use and become eligible for grants to defray the cost of Jaguar's clinical work. Each designation that is granted must be unique, *i.e.*, only one designation can be granted for a particular API in a particular dosage form for a particular intended use. The intended use includes both the target species and the disease or condition to be treated.

At some point, Jaguar could lose MUMS designation. The basis for a lost designation can include but is not limited to, Jaguar's failure to engage with due diligence in moving forward with a non-conditional approval, or a competing product has received conditional approval or approval prior to Jaguar's product candidate for the same indication or species. In addition, MUMS designation may be withdrawn for a variety of reasons such as where the FDA determines that the request for designation was materially defective, or if the manufacturer is unable to assure sufficient quantity of the prescription drug product to meet the needs of animals with the rare disease or condition. If this designation is lost, it could have a negative impact on the product and Jaguar, which includes but is not limited to, market exclusivity related to MUMS designation, or eligibility for grants as a result of MUMS designation.

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***The market for Jaguar's products, and the animal health market as a whole, is uncertain and may be smaller than Jaguar anticipates, which could lead to lower revenue and harm Jaguar's operating results.***

It is very difficult to estimate the commercial potential of any of Jaguar's products because of the emerging nature of Jaguar's industry as a whole. The animal health market continues to evolve and it is difficult to predict the market potential for Jaguar's products. The market will depend on important factors such as safety and efficacy compared to other available treatments, changing standards of care, preferences of veterinarians, the willingness of companion and production animal owners to pay for such products, and the availability of competitive alternatives that may emerge either during the product development process or after commercial introduction. If the market potential for Jaguar's products is less than Jaguar anticipates due to one or more of these factors, it could negatively impact Jaguar's business, financial condition and results of operations. Further, the willingness of companion and production animal owners to pay for Jaguar's products may be less than Jaguar anticipates, and may be negatively affected by overall economic conditions. The current penetration of animal insurance in the United States is low, animal owners are likely to have to pay out-of-pocket, and such owners may not be willing or able to pay for Jaguar's products.

***Jaguar's largest stockholder, Napo, controls a significant percentage of Jaguar common stock, and its interests may conflict with those of Jaguar's other stockholders.***

As of January 31, 2017, Napo owned in the aggregate approximately 19% of Jaguar common stock. This concentration of ownership gives Napo significant influence over the way Jaguar is managed and the direction of Jaguar's business. In addition, because Jaguar and Napo are party to a license agreement, Napo's interests as the licensor of Jaguar's technology may be different from Jaguar's or those of Jaguar's other stockholders. As a result, the interests of Napo with respect to matters potentially or actually involving or affecting Jaguar, such as future acquisitions, licenses, financings and other corporate opportunities and attempts to acquire Jaguar, may conflict with the interests of Jaguar's other stockholders.

Further, Napo has entered into settlement agreements with certain of its existing creditors, which, among other things, require Jaguar, at the closing of the merger, to issue in the aggregate approximately 43,156,649 shares of Jaguar non-voting common stock and 2,005,245 shares of Jaguar common stock in full satisfaction of all existing indebtedness then owed by Napo to such creditors. Shares of Jaguar non-voting common stock are the same in all respects to shares of Jaguar's common stock except that holders of shares of non-voting common stock are not entitled to vote on matters submitted to Jaguar stockholders (other than in connection with a change of control of Jaguar), and shares of non-voting common stock are convertible into shares of common stock on a one-for-one basis (x) upon transfers to non-affiliates of Nantucket, (y) upon the release from escrow of certain non-voting shares held by Nantucket to the legacy stockholders of Napo under specified conditions and (z) at any time on or after April 1, 2018 at the option of the respective holders thereof. Napo has also issued to certain investors debt securities that are exchangeable or convertible for shares of Jaguar common stock. As a result, upon the consummation of the merger and related debt settlements, Napo's former creditors and certain investors of Napo debt securities (following conversion or exchange of such securities in accordance with their respective terms) will have significant influence over the way Jaguar is managed and the direction of Jaguar's business.

In addition, Jaguar's Chief Executive Officer is also the interim chief executive officer of Napo and her duties as interim chief executive officer of Napo may conflict with her duties as Jaguar's Chief Executive Officer, and the resolution of these conflicts may not always be in Jaguar or your best interest.

Napo's principal business currently consists of, among other activities, the management of its intellectual property portfolio, including rights under license agreements with respect to such

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intellectual property. Napo has limited assets, and its primary sources of revenues in recent years have been license fees, warrant exercises, equity and debt investments and, since late 2013, the receipt of royalties pursuant to its license agreements, which have been limited to date. If Napo fails to generate sufficient revenues to cover its operating costs or the contemplated merger is not consummated, Napo could revise its business strategy in ways that could affect its relationship with Jaguar. For example, it could decide to divest its assets, including its stock in Jaguar. Napo's interests in managing its business, including its ownership in Jaguar, may conflict with your interests.

***Jaguar may engage in future acquisitions that increase its capital requirements, dilute its stockholders, cause Jaguar to incur debt or assume contingent liabilities and subject Jaguar to other risks.***

Jaguar may evaluate various strategic transactions, including licensing or acquiring complementary products, technologies or businesses. Any potential acquisitions may entail numerous risks, including increased operating expenses and cash requirements, assimilation of operations and products, retention of key employees, diversion of Jaguar management's attention and uncertainties in Jaguar's ability to maintain key business relationships of the acquired entities. In addition, if Jaguar undertakes acquisitions, Jaguar may issue dilutive securities, assume or incur debt obligations, incur large one-time expenses and acquire intangible assets that could result in significant future amortization expense. Moreover, Jaguar may not be able to locate suitable acquisition opportunities and this inability could impair Jaguar's ability to grow or obtain access to technology or products that may be important to the development of Jaguar's business.

***Certain of the countries in which Jaguar plans to commercialize its products in the future are developing countries, some of which have potentially unstable political and economic climates.***

Jaguar may commercialize its products in jurisdictions that are developing and emerging countries. This may expose Jaguar to the impact of political or economic upheaval, and Jaguar could be subject to unforeseen administrative or fiscal burdens. At present, Jaguar is not insured against the political and economic risks of operating in these countries. Any significant changes to the political or economic climate in any of the developing countries in which Jaguar operates or plans to sell products either now or in the future may have a substantial adverse effect on Jaguar's business, financial condition, trading performance and prospects.

***Fluctuations in the exchange rate of foreign currencies could result in currency transactions losses.***

As Jaguar expands its operations, Jaguar expects to be exposed to risks associated with foreign currency exchange rates. Jaguar anticipates that it will commercialize Neonorm for preweaned dairy calves and its line extensions, as well as possibly Canalevia and its line extensions in jurisdictions outside the United States. As a result, Jaguar will also be further affected by fluctuations in exchange rates in the future to the extent that sales are denominated in currencies other than U.S. dollars. Jaguar does not currently employ any hedging or other strategies to minimize this risk, although Jaguar may seek to do so in the future.

**Risks Related to Jaguar's Intellectual Property**

***Jaguar is dependent upon its license agreement with Napo and if the agreement is terminated for any reason Jaguar's business will be harmed.***

In January 2014, Jaguar entered into a license agreement with Napo, or the Napo License Agreement, which Jaguar amended and restated in August 2014 and further amended in January 2015. Pursuant to the Napo License Agreement, Jaguar acquired an exclusive worldwide license to Napo's intellectual property rights and technology, including rights to its library of over 2,300 medicinal plants, for all veterinary treatment uses and indications for all species of animals except humans. Under the

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terms of the Napo License Agreement, Jaguar is responsible for, and shall ensure, the development and commercialization of products that contain or are derived from the licensed Napo technology worldwide in the field of veterinary treatment uses and indications for all species of animals. In consideration for the license, Jaguar is obligated to pay a one-time non-refundable license fee and royalties. Napo has the right to terminate the Napo License Agreement upon Jaguar's uncured material breach of the agreement or if Jaguar declares bankruptcy. If the Napo License Agreement is terminated for any reason, Jaguar's business will be harmed.

Napo has also entered into secured financing agreements with certain secured lenders, for whom Nantucket Investments Limited is acting as collateral agent. The security includes certain assets, including the intellectual property and technology licensed to Jaguar pursuant to the Napo License Agreement and Napo's shares of Jaguar common stock. Although Napo and Nantucket Investments Limited, on behalf of the secured lenders, have entered into a non-disturbance agreement with respect to the Napo License Agreement, in the event of a bankruptcy of Napo or foreclosure action with respect to Napo's assets, there can be no guarantee that the bankruptcy trustee or any other party to such action will not attempt to interfere with or terminate the Napo License Agreement or otherwise require its terms to be changed, which could harm Jaguar's business. Under the terms of the Napo License Agreement, certain events, such as an acquisition of Napo or a sale by Napo of all of the intellectual property and technology licensed to Jaguar pursuant to the Napo License Agreement, should result in a fully-paid up license to Jaguar of all of such intellectual property and technology. If for any reason, Napo ceases to be the owner of the intellectual property and technology licensed to Jaguar pursuant to the Napo License Agreement in such a manner that did not result in a fully-paid up license provided for therein, the owner of such intellectual property and technology could attempt to interfere with or terminate the Napo License Agreement or otherwise attempt to renegotiate the arrangement, which would harm Jaguar's business.

***If Napo experiences financial difficulties, becomes unable to pay its liabilities when due, or declares bankruptcy, its creditors could attempt to assert claims against Napo relating to the formation of Jaguar and the grant of an exclusive license to Jaguar.***

Napo formed Jaguar in June 2013, and in January 2014, Jaguar entered into the Napo License Agreement. Napo currently has limited commercial operations, one FDA approved product, and other sources of revenue in the near term are limited to the third parties who have licensed or may license Napo's intellectual property and technology, or collaborate with Napo in the future. Napo was involved in litigation with Salix and expended significant resources in the litigation and subsequent settlement. At the time of the formation of Jaguar and the date of the Napo License Agreement, Napo's liabilities exceeded its assets on a balance sheet prepared in conformity with U.S. generally accepted accounting principles. Napo has been able to pay its liabilities when due but if Napo experiences financial difficulties, becomes unable to pay its liabilities when due, or declares bankruptcy, a creditor, trustee in bankruptcy, or other representative of a Napo bankruptcy estate could attempt to assert claims against us relating to Jaguar's formation and Napo's grant of an exclusive license to Jaguar. One theory such a party could use to challenge Jaguar's formation and the license grant is that of fraudulent conveyance. This theory is used by creditors to challenge the transfer of assets made with actual intent to hinder, delay, or defraud creditors, or where a financially distressed entity transfers assets without receiving reasonably equivalent value in exchange, provided such litigation is brought within the applicable statute of limitations. Although Jaguar does not believe that its formation or Napo's grant of the license was a fraudulent conveyance, litigation based on such theory, if successful, could result in a court order setting aside the license for the benefit of the creditor pursuing the litigation or all creditors of Napo should it occur in the context of a Napo bankruptcy. Even if unsuccessful, any such action would divert management's attention, potentially be costly to defend and could harm Jaguar's business.

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***Jaguar currently does not own any issued patents, most of Jaguar's intellectual property is licensed from Napo and Jaguar cannot be certain that its patent strategy will be effective to enhance marketing exclusivity.***

The patent prosecution process is expensive and time-consuming, and Jaguar may not be able to prepare, file and prosecute all necessary or desirable patent applications at a reasonable cost or in a timely manner. It is also possible that Jaguar will fail to identify patentable aspects of inventions made in the course of development and commercialization activities in time to obtain patent protection on them. Moreover, in some circumstances, Jaguar may not have the right to control the preparation, filing and prosecution of patent applications, or to maintain the patents, covering technology that Jaguar licenses from third parties. In particular, Jaguar is dependent upon Napo and its licensees to file, prosecute and maintain the intellectual property Jaguar licenses pursuant to the Napo License Agreement. The patents and patent applications Jaguar licensed from Napo, or the Napo Patents, which cover both human and veterinary uses, were previously licensed by Napo to Salix for certain fields of human use. On March 4, 2016, Napo and Salix settled litigation and all rights to crofelemer and Mytesi were returned to Napo and the collaboration agreement between Salix and Napo, or the Salix Collaboration Agreement, was terminated. Napo has the responsibility to file, prosecute and maintain the Napo Patents. As a result, under the Napo License Agreement, Jaguar only has the right to maintain any issued patents within the Napo Patents that are not maintained in accordance with the responsibilities of Napo. There are three issued Napo Patents in the United States that cover, collectively, enteric protected formulations of proanthocyanidin polymers isolated from *Croton spp.* and methods of treating watery diarrhea using the enteric protected formulations for both human and veterinary uses.

Napo has also licensed its *Croton lechleri* related intellectual property to Glenmark and Luye Pharma Group Limited to develop and commercialize crofelemer for human indications in various geographies. Mytesi is dependent upon intellectual property protection from the Napo Patents. Napo currently markets Mytesi in the United States for human use and the three issued Napo Patents that cover enteric protected formulations of proanthocyanidin polymers isolated from *Croton spp*. and methods of treating watery diarrhea using the enteric protected formulations are listed in the FDA's Orange Book for Mytesi. Jaguar relies on these issued Napo Patents as intellectual property protection for Jaguar's prescription drug product candidates and non-prescription products. Pending patent applications within Napo Patents either may not be relevant to veterinary indications and/or may not issue as patents. If any patent application within the Napo Patents is not filed or prosecuted for any reason, including as a result of a lack of financial resources, and Jaguar is not able to file and prosecute such patent application within the Napo Patents, Jaguar's business may be harmed. In addition, as between Napo and Jaguar, Napo has the first right to enforce the Napo Patents against potential infringers. If Jaguar is not the party who enforces the Napo Patents, Jaguar will receive no proceeds from such enforcement action. In each case, such proceeds are subject to reimbursement of costs and expenses incurred by the other party in connection with such action. If Jaguar's current or future licensors fail to establish, maintain or protect such patents and other intellectual property rights, such rights may be reduced or eliminated.

Jaguar currently does not own any issued patents. Jaguar has filed and has currently pending three applications under the Patent Cooperation Treaty, or PCT, one U.S. non-provisional patent application and eight provisional patent applications in the veterinary field, of which Jaguar controls the filing, prosecution and maintenance; however, patents based on any patent applications Jaguar may submit may never be issued. Jaguar has an exclusive worldwide license from Napo to various issued patents and pending patent applications in the field of animal health. The strength of patents in the field of animal health involves complex legal and scientific questions and can be uncertain. Even if patents do successfully issue, third parties may challenge their validity, enforceability or scope, which may result in such patents being narrowed, invalidated or held unenforceable. Furthermore, even if they are unchallenged, Jaguar's patents, if issued, and the patents Jaguar has licensed may not adequately

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protect Jaguar's intellectual property or prevent others from designing around their claims. If Jaguar cannot obtain issued patents or the patents Jaguar has licensed are not maintained or their scope is significantly narrowed, Jaguar's business and prospects would be harmed.

Recent patent reform legislation could increase the uncertainties and costs surrounding the prosecution of any patent applications and the enforcement or defense of any patents that issue. On September 16, 2011, the Leahy-Smith America Invents Act, or the Leahy-Smith Act, was signed into law. The Leahy-Smith Act includes a number of significant changes to U.S. patent law. These include provisions that affect the way patent applications are prosecuted, redefine prior art, may affect patent litigation, and switch the U.S. patent system from a "first-to-invent" system to a "first-to-file" system. Under a "first-to-file" system, assuming the other requirements for patentability are met, the first inventor to file a patent application generally will be entitled to the patent on an invention regardless of whether another inventor had made the invention earlier. The USPTO has developed new regulations and procedures to govern administration of the Leahy-Smith Act, and many of the substantive changes to patent law associated with the Leahy-Smith Act, and in particular, the first-to-file provisions, became effective on March 16, 2013. Among some of the other changes to the patent laws are changes that limit where a patentee may file a patent infringement suit and that provide opportunities for third parties to challenge any issued patent in the USPTO. The Leahy-Smith Act and its implementation could increase the uncertainties and costs surrounding the prosecution of Jaguar's patent applications and the enforcement or defense of any patents that issue, all of which could harm Jaguar's business and financial condition.

***Obtaining and maintaining Jaguar's patent protection depends on compliance with various procedural, document submission, fee payment and other requirements imposed by governmental patent agencies, and Jaguar's patent protection could be reduced or eliminated for non-compliance with these requirements.***

Periodic maintenance and annuity fees on any issued patent are due to be paid to the USPTO and foreign patent agencies in several stages over the lifetime of the patent. The USPTO and various foreign governmental patent agencies require compliance with a number of procedural, documentary, fee payment and other similar provisions during the patent application process. While an inadvertent lapse can in many cases be cured by payment of a late fee or by other means in accordance with the applicable rules, there are situations in which noncompliance can result in abandonment or lapse of the patent or patent application, resulting in partial or complete loss of patent rights in the relevant jurisdiction. Non-compliance events that could result in abandonment or lapse of a patent or patent application include failure to respond to official actions within prescribed time limits, non-payment of fees and failure to properly legalize and submit formal documents. If Jaguar or its licensors fail to maintain the patents and patent applications covering prescription drug product candidates and non-prescription products, Jaguar's competitors might be able to enter the market, which would harm Jaguar's business.

***Third parties may initiate legal proceedings alleging that Jaguar is infringing their intellectual property rights, which would be costly, time-consuming and, if successfully asserted against Jaguar, delay or prevent the development and commercialization of Jaguar's current or future products and product candidates.***

Jaguar's research, development and commercialization activities may infringe or otherwise violate or be claimed to infringe or otherwise violate patents owned or controlled by other parties. There may be patents already issued of which Jaguar is unaware that might be infringed by one of Jaguar's current or future prescription drug product candidates or non-prescription products. Moreover, it is also possible that patents may exist that Jaguar is aware of, but that Jaguar does not believe are relevant to its current or future prescription drug product candidates or non-prescription products, which could nevertheless be found to block Jaguar's freedom to market these products. Because patent applications can take many years to issue and may be confidential for 18 months or more after filing, there may be

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applications now pending of which Jaguar is unaware and which may later result in issued patents that may be infringed by Jaguar's current or future prescription drug product candidates or non-prescription products. Jaguar cannot be certain that its current or future prescription drug product candidates or non-prescription products will not infringe these or other existing or future third-party patents. In addition, third parties may obtain patents in the future and claim that use of Jaguar's technologies infringes upon these patents.

To the extent Jaguar becomes subject to future third-party claims against Jaguar or its collaborators, Jaguar could incur substantial expenses and, if any such claims are successful, Jaguar could be liable to pay substantial damages, including treble damages and attorney's fees if Jaguar or its collaborators are found to be willfully infringing a third party's patents. If a patent infringement suit were brought against Jaguar or its collaborators, Jaguar or they could be forced to stop or delay research, development, manufacturing or sales of the prescription drug or non-prescription product that is the subject of the suit. Even if Jaguar is successful in defending such claims, infringement and other intellectual property claims can be expensive and time-consuming to litigate and divert management's attention from Jaguar's business and operations. As a result of or in order to avoid potential patent infringement claims, Jaguar or its collaborators may be compelled to seek a license from a third party for which Jaguar would be required to pay license fees or royalties, or both. Moreover, these licenses may not be available on acceptable terms, or at all. Even if Jaguar or its collaborators were able to obtain such a license, the rights may be nonexclusive, which could allow Jaguar's competitors access to the same intellectual property. Any of these events could harm Jaguar's business and prospects.

There has been substantial litigation regarding patents and other intellectual property rights in the field of therapeutics, as well as patent challenge proceedings, including interference, derivation and administrative law proceedings before the USPTO, and oppositions and other comparable proceedings in foreign jurisdictions. Under U.S. patent reform laws, new procedures, including *inter partes* review and post-grant review, were implemented as of September 16, 2012, with post-grant review available for patents issued on applications filed on or after March 16, 2013, and the implementation of such reform laws presents uncertainty regarding the outcome of any challenges to Jaguar's future patents, if any, and to patents Jaguar has in licensed. In addition to possible infringement claims against Jaguar, Jaguar may be subject to third-party pre-issuance submission of prior art to the USPTO, or become involved in opposition, derivation, reexamination, *inter partes* review, post-grant review, or other patent office proceedings or litigation in the United States or elsewhere, challenging Jaguar's patent rights or the patent rights of others. For applications filed before March 16, 2013 or patents issuing from such applications, if third parties have prepared and filed patent applications in the United States that also claim technology to which Jaguar has rights, Jaguar may have to participate in interference proceedings in the USPTO to determine the priority of invention. Because patent applications in the United States and most other countries are confidential for a period of time after filing, Jaguar cannot be certain that Jaguar was the first to either file patent applications on or invent any of the inventions claimed in Jaguar's patent applications. Because of a lower evidentiary standard in USPTO proceedings compared to the evidentiary standard in United States federal court necessary to invalidate a patent claim, a third party could potentially provide evidence in a USPTO proceeding sufficient for the USPTO to hold a claim invalid even though the same evidence would be insufficient to invalidate the claim if first presented in a district court action. Jaguar may also become involved in opposition or similar proceedings in patent offices in other jurisdictions regarding Jaguar's intellectual property rights with respect to Jaguar's prescription drug or non-prescription products and technology. An adverse determination in any such submission, proceeding or litigation could reduce the scope of, or invalidate, Jaguar's future patent rights, if any, allow third parties to commercialize its technology or products and compete directly with Jaguar, without payment to Jaguar, or result in Jaguar's inability to manufacture or commercialize products without infringing third-party patent rights.

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***Jaguar's proprietary position depends upon patents that are formulation or method-of-use patents, which do not prevent a competitor from using the same drug candidate for another use.***

Composition-of-matter patents on the API in prescription drug products are generally considered to be the strongest form of intellectual property protection because such patents provide protection without regard to any particular method of use or manufacture or formulation of the API used. The composition-of-matter patents for crofelemer, the API in Canalevia, have expired, and Jaguar has licensed from Napo patents and applications covering formulations and methods of use for crofelemer and the botanical extract in Neonorm.

Method-of-use patents protect the use of a product for the specified method and formulation patents cover formulations of the API or botanical extract. These types of patents do not prevent a competitor from developing or marketing an identical product for an indication that is outside the scope of the patented method or from developing a different formulation that is outside the scope of the patented formulation. Moreover, with respect to method-of-use patents, even if competitors do not actively promote their product for Jaguar's targeted indications or uses for which Jaguar may obtain patents, veterinarians may recommend that animal owners use these products extra-label, or animal owners may do so themselves. Although extra-label use may infringe or contribute to the infringement of method-of-use patents, the practice is common and such infringement is difficult to prevent or prosecute.

***If Jaguar efforts to protect intellectual property are not adequate, Jaguar may not be able to compete effectively in its markets.***

Jaguar intends to rely upon a combination of regulatory exclusivity periods, patents, trade secret protection, confidentiality agreements, and license agreements to protect the intellectual property related to Jaguar's current prescription drug product candidates and non-prescription products and Jaguar's development programs.

If the breadth or strength of protection provided by any patents, patent applications or future patents Jaguar may own, license, or pursue with respect to any of its current or future product candidates or products is threatened, it could threaten Jaguar's ability to commercialize any of its current or future product candidates or products. Further, if Jaguar encounters delays in its development efforts, the period of time during which Jaguar could market any of its current or future product candidates or products under any patent protection Jaguar obtains would be reduced.

Given the amount of time required for the development, testing and regulatory review of new product candidates or products, patents protecting such candidates might expire before or shortly after such product candidates or products are commercialized. Patent term extensions have been applied for US 7,323,195 and US 7,341,744 to account for regulatory delays in obtaining human marketing approval for crofelemer, however, only one patent may be extended per marketed compound. If such extensions are received, then US 7,323,195 may be extended to June 2021 or US 7,341,744 may be extended to December 2020. However, the applicable authorities, including the USPTO and the FDA, and any equivalent regulatory authority in other countries, may not agree with Jaguar's assessment of whether such extensions are available, and may refuse to grant extensions to patents, or may grant more limited extensions than requested. If this occurs, Jaguar's competitors may take advantage of Jaguar's investment in development and trials by referencing Jaguar's clinical and preclinical data and launch their product earlier than might otherwise be the case.

Even where laws provide protection or Jaguar is able to obtain patents, costly and time-consuming litigation may be necessary to enforce and determine the scope of Jaguar's proprietary rights, and the outcome of such litigation would be uncertain. Moreover, any actions Jaguar may bring to enforce its intellectual property against its competitors could provoke them to bring counterclaims against Jaguar,

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and some of Jaguar's competitors have substantially greater intellectual property portfolios than Jaguar has.

***If Jaguar is unable to prevent disclosure of its trade secrets or other confidential information to third parties, Jaguar's competitive position may be impaired.***

Jaguar also relies on trade secret protection and confidentiality agreements to protect proprietary know-how that is not patentable or for which Jaguar has not filed patent applications, processes for which patents are difficult to enforce and other elements of Jaguar's product development processes that involve proprietary know-how, information or technology that is not covered by patents. Although Jaguar requires all of its employees to assign their inventions to Jaguar, and endeavor to execute confidentiality agreements with all of Jaguar's employees, consultants, advisors and any third parties who have access to Jaguar's proprietary know-how, information or technology, Jaguar cannot be certain that it has executed such agreements with all parties who may have helped to develop Jaguar's intellectual property or had access to Jaguar's proprietary information, or that Jaguar's agreements will not be breached. Jaguar cannot guarantee that its trade secrets and other confidential proprietary information will not be disclosed or that competitors will not otherwise gain access to Jaguar's trade secrets or independently develop substantially equivalent information and techniques. If Jaguar is unable to prevent disclosure of its intellectual property to third parties, Jaguar may not be able to maintain a competitive advantage in its market, which would harm its business.

Any disclosure to or misappropriation by third parties of Jaguar's confidential proprietary information could enable competitors to quickly duplicate or surpass Jaguar's technological achievements, and erode Jaguar's competitive position in its market.

***Jaguar may be involved in lawsuits to protect or enforce any future patents issued to Jaguar, which could be expensive, time-consuming and unsuccessful.***

Competitors may infringe upon any patents that may issue to Jaguar, or any patents that Jaguar may license. To counter infringement or unauthorized use of any patents Jaguar may obtain, Jaguar may be required to file infringement claims or request that Jaguar's licensor file an infringement claim, which can be expensive and time-consuming to litigate. In addition, if Jaguar or one of its future collaborators were to initiate legal proceedings against a third party to enforce a patent covering Jaguar's current product candidates, or one of its future products, the defendant could counterclaim that the patent is invalid or unenforceable. In patent litigation in the United States, defendant counterclaims alleging invalidity or unenforceability are commonplace. Grounds for a validity challenge could be an alleged failure to meet any of several statutory requirements, including lack of novelty, obviousness, non-enablement or lack of statutory subject matter. Grounds for an unenforceability assertion could be an allegation that someone connected with prosecution of the patent withheld relevant material information from the USPTO, or made a materially misleading statement, during prosecution. Third parties may also raise similar validity claims before the USPTO in post-grant proceedings such as *ex parte* reexaminations, *inter partes* review, or post-grant review, or oppositions or similar proceedings outside the United States, in parallel with litigation or even outside the context of litigation. The outcome following legal assertions of invalidity and unenforceability is unpredictable. If a defendant were to prevail on a legal assertion of invalidity or unenforceability, Jaguar would lose at least part, and perhaps all, of any future patent protection on Jaguar's current or future product candidates. Such a loss of patent protection could harm Jaguar's business. Jaguar cannot be certain that there is no invalidating prior art, of which Jaguar and the patent examiner were unaware during prosecution. For the patents and patent applications that Jaguar has licensed, Jaguar may have limited or no right to participate in the defense of any licensed patents against challenge by a third party.

Litigation proceedings may fail and, even if successful, may result in substantial costs and distract Jaguar's management and other employees. Furthermore, because of the substantial amount of

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discovery required in connection with intellectual property litigation, there is a risk that some of Jaguar's confidential information could be compromised by disclosure during this type of litigation. In addition, there could be public announcements of the results of hearings, motions or other interim proceedings or developments. If securities analysts or investors perceive these results to be unsuccessful, it could have an adverse effect on the price of Jaguar common stock. Finally, Jaguar may not be able to prevent, alone or with the support of Jaguar's licensors, misappropriation of Jaguar's trade secrets or confidential information, particularly in countries where the laws may not protect those rights as fully as in the United States.

***Changes in U.S. patent law could diminish the value of patents in general, thereby impairing Jaguar's ability to protect its products.***

As is the case with other animal health product companies, Jaguar's success is heavily dependent on intellectual property, particularly patents. Obtaining and enforcing patents in the animal health industry involves both technological and legal complexity. Therefore, obtaining and enforcing patents is costly, time-consuming and inherently uncertain. In addition, the United States has recently enacted and implemented wide-ranging patent reform legislation. The U.S. Supreme Court has ruled on several patent cases in recent years, either narrowing the scope of patent protection available in certain circumstances or weakening the rights of patent owners in certain situations. In addition to increasing uncertainty with regard to Jaguar's ability to obtain patents in the future, this combination of events has created uncertainty with respect to the value of patents, once obtained. Depending on decisions by the U.S. Congress, the federal courts, and the USPTO, the laws and regulations governing patents could change in unpredictable ways that would weaken Jaguar's ability to obtain new patents or to enforce patents that Jaguar has licensed or that Jaguar might obtain in the future.

***Jaguar may not be able to protect its intellectual property rights throughout the world, which could impair Jaguar's business.***

Filing, prosecuting and defending patents on prescription drug products, product candidates and non-prescription products throughout the world would be prohibitively expensive. Competitors may use Jaguar's technologies in jurisdictions where Jaguar has not obtained patent protection to develop their own products and, further, may export otherwise infringing products to territories where Jaguar may obtain patent protection, but where patent enforcement is not as strong as that in the United States. These products may compete with Jaguar's products in jurisdictions where Jaguar does not have any issued or licensed patents and any future patent claims or other intellectual property rights may not be effective or sufficient to prevent them from so competing.

Many companies have encountered significant problems in protecting and defending intellectual property rights in foreign jurisdictions. The legal systems of certain countries, particularly certain developing countries, do not favor the enforcement of patents and other intellectual property protection, particularly those relating to animal health products, which could make it difficult for Jaguar to stop the infringement of Jaguar's future patents, if any, or patents Jaguar has in licensed, or marketing of competing products in violation of Jaguar's proprietary rights generally. Further, the laws of some foreign countries do not protect proprietary rights to the same extent or in the same manner as the laws of the United States. As a result, Jaguar may encounter significant problems in protecting and defending its intellectual property both in the United States and abroad. Proceedings to enforce Jaguar's future patent rights, if any, in foreign jurisdictions could result in substantial cost and divert Jaguar's efforts and attention from other aspects of its business.

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***Jaguar's business could be harmed if it fails to obtain certain registered trademarks in the United States or in other countries.***

In October 2014, Jaguar's trademark applications for Canalevia and Neonorm were approved for publication. Although Jaguar has filed a trademark application for its company name and its logo in the United States, Jaguar's applications have not been granted and the corresponding marks have not been registered in the United States. Jaguar has not filed for these or other trademarks in any other countries. During trademark registration proceedings, Jaguar may receive rejections of its trademark applications. If so, Jaguar will have an opportunity to respond, but Jaguar may be unable to overcome such rejections. In addition, the USPTO and comparable agencies in many foreign jurisdictions may permit third parties to oppose pending trademark applications and to seek to cancel registered trademarks. If opposition or cancellation proceedings are filed against any of Jaguar's trademark applications or any registered trademarks, Jaguar's trademarks may not survive such proceedings. Moreover, any name Jaguar proposes to use with its prescription drug product candidates in the United States, including Canalevia, must be approved by the FDA, regardless of whether Jaguar has registered or applied to register as a trademark. The FDA typically conducts a review of proposed prescription drug product names, including an evaluation of potential for confusion with other product names. If the FDA objects to any of Jaguar's proposed proprietary product names, Jaguar may be required to expend significant additional resources in an effort to identify a suitable substitute name that would qualify under applicable trademark laws, not infringe the existing rights of third parties and be acceptable to the FDA.

***Jaguar may be subject to claims that its employees, consultants or independent contractors have wrongfully used or disclosed confidential information of third parties.***

Jaguar has received confidential and proprietary information from third parties. In addition, Jaguar employs individuals who were previously employed at other biotechnology, pharmaceutical or animal health companies. Jaguar may be subject to claims that it or its employees, consultants or independent contractors have inadvertently or otherwise improperly used or disclosed confidential information of these third parties or Jaguar's employees' former employers. Litigation may be necessary to defend against any such claims. Even if Jaguar is successful in defending against any such claims, such litigation could result in substantial cost and be a distraction to Jaguar's management and employees.

**Risks Related to Government Regulation of Jaguar's Business**

***Even if Jaguar receives any required regulatory approvals for its current or future prescription drug product candidates and non-prescription products, Jaguar will be subject to ongoing obligations and continued regulatory review, which may result in significant additional expense.***

If the FDA or any other regulatory body approves any of Jaguar's current or future prescription drug product candidates, or if necessary, its non-prescription products, the manufacturing processes, clinical development, labeling, packaging, distribution, adverse event reporting, storage, advertising, promotion and recordkeeping for the product may be subject to extensive and ongoing regulatory requirements. These requirements could include, but are not limited to, submissions of efficacy and safety and other post-marketing information and reports, establishment registration, and product listing, compliance with new rules promulgated under the FSMA, as well as continued compliance with cGMP, GLP and GCP for any studies that Jaguar conducts post-approval. Later discovery of previously unknown problems with a product, including adverse events of unanticipated severity or frequency, or with Jaguar's contract manufacturers or manufacturing processes, or failure to comply with regulatory requirements, are reportable events to the FDA and may result in, among other things:

- restrictions on the marketing or manufacturing of the product, withdrawal of the product from the market, revised labeling, or voluntary or involuntary product recalls;

- additional clinical studies fines, warning letters or holds on target animal studies;

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refusal by the FDA, or other regulators to approve pending applications or supplements to approved applications filed by Jaguar or Jaguar's strategic collaborators related to the unknown problems, or suspension or revocation of the problematic product's license approvals;

product seizure or detention, or refusal to permit the import or export of products; and

injunctions or the imposition of civil or criminal penalties.

The FDA or other regulatory agency's policies may change and additional government regulations may be enacted that could prevent, limit or delay regulatory approval of Jaguar's product candidates or require certain changes to the labeling or additional clinical work concerning safety and efficacy of the product candidates. Jaguar cannot predict the likelihood, nature or extent of government regulation that may arise from future legislation or administrative action, either in the United States or abroad. If Jaguar is slow or unable to adapt to changes in existing requirements or the adoption of new requirements or policies, or if Jaguar is not able to maintain regulatory compliance, Jaguar may lose any marketing approval that it may have obtained and it may not achieve or sustain profitability, which would harm its business. In addition, failure to comply with these regulatory requirements could result in significant penalties.

In addition, from time to time, Jaguar may enter into consulting and other financial arrangements with veterinarians, who prescribe or recommend Jaguar's products, once approved. As a result, Jaguar may be subject to state, federal and foreign healthcare and/or veterinary medicine laws, including but not limited to anti-kickback laws. If Jaguar's financial relationships with veterinarians are found to be in violation of such laws that apply to Jaguar, Jaguar may be subject to penalties.

***The issuance by the FDA of protocol concurrences for Jaguar's pivotal studies does not guarantee ultimate approval of its NADA.***

Jaguar intends to seek protocol concurrences from the FDA for the pivotal trial of Canalevia that Jaguar has initiated for acute diarrhea in dogs and for future pivotal trials in other indications. A pivotal study protocol is submitted to the FDA by a drug sponsor for purposes of obtaining FDA review of the protocol. Prior FDA review of the protocol for a pivotal study makes it more likely that the study will generate information the sponsor needs to demonstrate whether the drug is safe and effective for its intended use. It creates an expectation by the sponsor that the FDA should not later alter its perspectives on these issues unless public or animal health concerns appear that were not recognized at the time of protocol assessment. Even if the FDA issues a protocol concurrence, ultimate approval of an NADA by the FDA is not guaranteed because a final determination that the agreed-upon protocol satisfies a specific objective, such as the demonstration of efficacy, or supports an approval decision, will be based on a complete review of all the data submitted to the FDA. Even if Jaguar were to obtain protocol concurrence such concurrence does not guarantee that the results of the study will support a particular finding or approval of the new drug.

***Any of Jaguar's current or future prescription drug product candidates or non-prescription products may cause or contribute to adverse medical events that Jaguar would be required to report to regulatory authorities and, if Jaguar fails to do so, Jaguar could be subject to sanctions that would harm its business.***

If Jaguar is successful in commercializing any of its current or future prescription drug product candidates or non-prescription products, certain regulatory authorities will require that Jaguar report certain information about adverse medical events if those products may have caused or contributed to those adverse events. The timing of Jaguar's obligation to report would be triggered by the date Jaguar becomes aware of the adverse event as well as the nature of the event. Jaguar may fail to report adverse events it becomes aware of within the prescribed timeframe. Jaguar may also fail to appreciate that it has become aware of a reportable adverse event, especially if such event is not reported to Jaguar as an adverse event or if it is an adverse event that is unexpected or removed in time from the

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use of Jaguar's products. If Jaguar fails to comply with its reporting obligations, the regulatory authorities could take action including, but not limited to, criminal prosecution, seizure of Jaguar's products, facility inspections, removal of Jaguar's products from the market, recalls of certain lots or batches, or cause a delay in approval or clearance of future products.

***Legislative or regulatory reforms with respect to animal health may make it more difficult and costly for Jaguar to obtain regulatory clearance or approval of any of Jaguar's current or future product candidates and to produce, market, and distribute Jaguar's products after clearance or approval is obtained.***

From time to time, legislation is drafted and introduced in the U.S. Congress or other jurisdictions in which Jaguar intends to operate that could significantly change the statutory provisions governing the testing, regulatory clearance or approval, manufacture, and marketing of regulated products. In addition, the FDA's regulations and guidance are often revised or reinterpreted by the FDA and such other regulators in ways that may significantly affect Jaguar's business and its products and product candidates. Similar changes in laws or regulations can occur in other countries. Any new regulations or revisions or reinterpretations of existing regulations in the United States or in other countries may impose additional costs or lengthen review times of any of Jaguar's current or future products and product candidates. Jaguar cannot determine what effect changes in regulations, statutes, legal interpretation or policies, when and if promulgated, enacted or adopted may have on Jaguar's business in the future. Such changes could, among other things, require:

changes to manufacturing methods;

additional clinical trials or testing;

new requirements related to approval to enter the market;

recall, replacement, or discontinuance of certain products; and

additional record keeping or the development of certain regulatory required hazard identification plans.

Each of these would likely entail substantial time and cost and could harm Jaguar's financial results. In addition, delays in receipt of or failure to receive regulatory clearances or approvals for any future products would harm Jaguar's business, financial condition, and results of operations.

***Jaguar believes that its non-prescription products are not subject to regulation by regulatory agencies in the United States, but there is a risk that regulatory bodies may disagree with Jaguar's interpretation, or may redefine the scope of its regulatory reach in the future, which would result in additional expense and could delay or prevent the commercialization of these products.***

The FDA retains jurisdiction over all animal prescription drug products however, in many instances, the Federal Trade Commission will exercise primary or concurrent jurisdiction with FDA on non-prescription products as to post marketing claims made regarding the product. On April 22, 1996, the FDA published a statement in the Federal Register, 61 FR 17706, that it believes that the Dietary Supplement and Health Education Act, or DSHEA, does not apply to animal health supplement products, such as Jaguar's non-prescription products. Accordingly, the FDA's Center for Veterinary Medicine only regulates those animal supplements that fall within the FDA's definition of an animal drug, animal food or animal feed additive. The Federal Food Drug and Cosmetic Act defines food as "articles used for food or drink for man or other animals and articles used as components of any such article." Animal foods are not subject to pre-market approval and are designed to provide a nutritive purpose to the animals that receive them. Feed additives are defined as those articles that are added to an animal's feed or water as illustrated by the guidance documents. Jaguar's non-prescription products are not added to food, are not ingredients in food nor are they added to any animal's drinking water. Therefore, Jaguar's non-prescription products do not fall within the definition of a food or feed

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additive. In light of the pronouncement by the FDA that the DSHEA was not intended to apply to animals, the FDA seeks to regulate such supplements as food or food additives depending on the intended use of the product. The intended use is demonstrated by how the article is included in a food, or added to the animals' intake (*i.e.,* through its drinking water). If the intended use of the product does not fall within the proscribed use making the product a food, it cannot be regulated as a food. There is no intent to make Jaguar's non-prescription products a component of an animal food, either directly or indirectly. A feed additive is a product that is added to a feed for any reason including the top dressing of an already prepared feed. Some additives, such as certain forage, are deemed to be Generally Recognized as Safe, or GRAS, and therefore, not subject to a feed Additive Petition approval prior to use. However, the substances deemed GRAS are generally those that are recognized as providing nutrients as a food does. Jaguar does not believe that its non-prescription products fit within this framework either. Finally, a new animal drug refers to drugs intended for use in the diagnosis, cure, mitigation, treatment, or prevention of disease in animals. Jaguar's non-prescription Neonorm Foal and Neonorm Calf products are not intended to diagnose, cure, mitigate, treat or prevent disease and therefore, do not fit within the definition of an animal drug. Additionally, because a previously marketed human formulation of the botanical extract in Jaguar's non-prescription products was regulated as a human dietary supplement subject to the DSHEA (and not regulated as a drug by the FDA), Jaguar does not believe that the FDA would regulate the animal formulation used in its non-prescription products in a different manner. Jaguar does not believe that its non-prescription products fit the definition of an animal drug, food or food additive and therefore are not regulated by the FDA at this time.

However, despite many such unregulated animal supplements currently on the market, the FDA may choose in the future to exercise jurisdiction over animal supplement products in which case, Jaguar may be subject to unknown regulations thereby inhibiting its ability to launch or to continue marketing its non-prescription products. In the past, the FDA has redefined or attempted to redefine some non-prescription non-feed products as falling within the definition of drug, feed or feed additive and therefore subjected those products to the relevant regulations. Jaguar has not discussed with the FDA its belief that the FDA currently does not exercise jurisdiction over Jaguar's non-prescription products. Should the FDA assert regulatory authority over Jaguar's non-prescription products, Jaguar would take commercially reasonable steps to address the FDA's concerns, potentially including but not limited to, seeking registration for such products, reformulating such products to further distance such products from regulatory control, or ceasing sale of such products. Further, the Animal and Plant Health Inspection Service, an agency of the USDA, may at some point choose to exercise jurisdiction over certain non-prescription products that are not intended for production animals. Jaguar does not believe it is currently subject to such regulation, but could be in the future. If the FDA or other regulatory agencies, such as the USDA, try to regulate Jaguar's non-prescription products, Jaguar could be required to seek regulatory approval for its non-prescription products, which would result in additional expense and could delay or prevent the commercialization of these products.

**Risks Related to Ownership of Jaguar's Common Stock**

***Jaguar's failure to meet the continued listing requirements of The NASDAQ Capital Market could result in a delisting of its common stock.***

Jaguar's common stock is listed on The NASDAQ Capital Market, which imposes, among other requirements, a minimum stockholders equity requirement. On August 22, 2016 Jaguar received a notice from NASDAQ of non-compliance with its continuing listing rules, namely that Jaguar's stockholders' equity at June 30, 2016 of $1,565,316, as reported in Jaguar's Form 10-Q for the quarter then ended, was less than the $2,500,000 minimum. The failure to meet continuing compliance standards subjects Jaguar common stock to delisting. Based on the plan that Jaguar submitted to regain

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compliance, the Securities and Exchange Commission, or the SEC, granted Jaguar an extension until February 21, 2017 to regain compliance.

On February 22, 2017, Jaguar received a letter from NASDAQ stating that NASDAQ determined that Jaguar did not meet the terms of the extension and that Jaguar's securities are subject to delisting from NASDAQ unless Jaguar timely requests a hearing before the NASDAQ Hearings Panel (sometimes referred to herein as the "Panel"). Jaguar has timely requested a hearing before the Panel, at which Jaguar will present its plan to satisfy the $2,500,000 stockholders' equity requirement (or the alternatives of market value of listed securities of $35 million or net income from continuing operations) and request the continued listing of its common stock on NASDAQ pending its return to compliance. Jaguar's timely request for a hearing has stayed any delisting action by NASDAQ and Jaguar's securities will continue to trade on The NASDAQ Capital Market under the symbol "JAGX" at least pending the ultimate outcome of the hearing and the expiration of any extension period that may be granted by the Panel in response to Jaguar's request for continued listing on NASDAQ.

Another requirement for continued listing on The NASDAQ Capital Market is the minimum bid requirement. The closing bid price for Jaguar common stock must remain at or above $1.00 per share to comply with NASDAQ's minimum bid requirement for continued listing. If the closing bid price for Jaguar common stock is less than $1.00 per share for 30 consecutive business days, NASDAQ may send Jaguar a notice stating Jaguar will be provided a period of 180 days to regain compliance with the minimum bid requirement or else NASDAQ may make a determination to delist Jaguar common stock. Jaguar common stock traded for less than $1.00 for 30 consecutive business days, and Jaguar received notice of this from The NASDAQ Capital Market on December 28, 2016. Jaguar had a 180 calendar day grace period, or until June 26, 2017, to regain compliance with the minimum bid price requirement. The minimum bid price requirement will be met if Jaguar common stock has a minimum closing bid price of at least $1.00 per share for a minimum of 10 consecutive business days during the 180 calendar day grace period. On March 7, 2017, Jaguar received notice from NASDAQ that Jaguar had regained compliance with the minimum bid price requirement.

The delisting of Jaguar common stock from NASDAQ may make it more difficult for Jaguar to raise capital on favorable terms in the future. Such a delisting would likely have a negative effect on the price of Jaguar common stock and would impair your ability to sell or purchase Jaguar common stock when you wish to do so. Further, if Jaguar were to be delisted from The NASDAQ Capital Market, Jaguar common stock would cease to be recognized as covered securities and Jaguar would be subject to regulation in each state in which it offers its securities.

While Jaguar presented a plan to regain compliance, there can be no assurance that its plan will be successful. Moreover, there is no assurance that any actions that Jaguar takes to restore its compliance with NASDAQ's listing requirements would stabilize the market price or improve the liquidity of Jaguar common stock, prevent Jaguar common stock from falling below the NASDAQ minimum bid price required for continued listing again or prevent future non-compliance with NASDAQ's listing requirements.

***If Jaguar's shares become subject to the penny stock rules, it would become more difficult to trade Jaguar's shares.***

The SEC has adopted rules that regulate broker-dealer practices in connection with transactions in penny stocks. Penny stocks are generally equity securities with a price of less than $5.00, other than securities registered on certain national securities exchanges or authorized for quotation on certain automated quotation systems, provided that current price and volume information with respect to transactions in such securities is provided by the exchange or system. If Jaguar does not retain a listing on The NASDAQ Capital Market and if the price of Jaguar common stock is less than $5.00, Jaguar common stock will be deemed a penny stock. The penny stock rules require a broker-dealer, before a

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transaction in a penny stock not otherwise exempt from those rules, to deliver a standardized risk disclosure document containing specified information. In addition, the penny stock rules require that before effecting any transaction in a penny stock not otherwise exempt from those rules, a broker-dealer must make a special written determination that the penny stock is a suitable investment for the purchaser and receive (i) the purchaser's written acknowledgment of the receipt of a risk disclosure statement; (ii) a written agreement to transactions involving penny stocks and (iii) a signed and dated copy of a written suitability statement. These disclosure requirements may have the effect of reducing the trading activity in the secondary market for Jaguar common stock, and therefore stockholders may have difficulty selling their shares.

***The price of Jaguar common stock could be subject to volatility related or unrelated to Jaguar's operations, and purchasers of Jaguar common stock could incur substantial losses.***

The trading price of Jaguar common stock could be subject to wide fluctuations in response to various factors, some of which are beyond Jaguar's control. These factors include those discussed previously in this "Risk Factors" section of this report and others, such as:

- delays in the commercialization of Neonorm, Canalevia, Equilevia or Jaguar's other current or future prescription drug product candidates and non-prescription products;
- any delays in, or suspension or failure of, Jaguar's current and future studies;
- announcements of regulatory approval or disapproval of any of Jaguar's current or future product candidates or of regulatory actions affecting Jaguar or its industry;
- manufacturing and supply issues that affect product candidate or product supply for Jaguar's studies or commercialization efforts;
- quarterly variations in Jaguar's results of operations or those of Jaguar's competitors;
- changes in Jaguar's earnings estimates or recommendations by securities analysts;
- the payment of licensing fees or royalties in shares of Jaguar common stock;
- announcements by Jaguar or its competitors of new prescription drug products or product candidates or non-prescription products, significant contracts, commercial relationships, acquisitions or capital commitments;
- announcements relating to future development or license agreements including termination of such agreements;
- adverse developments with respect to Jaguar's intellectual property rights or those of Jaguar's principal collaborators;
- commencement of litigation involving Jaguar or its competitors;
- any major changes in Jaguar's board of directors or management;
- new legislation in the United States relating to the prescription, sale, distribution or pricing of animal health products;

product liability claims, other litigation or public concern about the safety of Jaguar's prescription drug product candidates and non-prescription products or any such future products;

market conditions in the animal industry, in general, or in the animal health sector, in particular, including performance of Jaguar's competitors; and

general economic conditions in the United States and abroad.

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In addition, the stock market, in general, or the market for stocks in Jaguar's industry, in particular, may experience broad market fluctuations, which may adversely affect the market price or liquidity of Jaguar common stock. Any sudden decline in the market price of Jaguar common stock could trigger securities class-action lawsuits against Jaguar. If any of Jaguar's stockholders were to bring such a lawsuit against Jaguar, Jaguar could incur substantial costs defending the lawsuit and the time and attention of Jaguar's management would be diverted from its business and operations. Jaguar also could be subject to damages claims if it were found to be at fault in connection with a decline in its stock price.

***No active market for Jaguar common stock exists or may develop, and you may not be able to resell Jaguar common stock at or above the public offering price.***

Prior to Jaguar's initial public offering in May 2015, there was no public market for shares of Jaguar common stock. The listing of Jaguar common stock on The NASDAQ Capital Market does not assure that a meaningful, consistent and liquid trading market exists. Although Jaguar common stock is listed on The NASDAQ Capital Market, trading volume in Jaguar common stock has been limited and an active trading market for Jaguar shares my never develop or be sustained. If an active market for Jaguar common stock does not develop, you may be unable to sell your shares when you wish to sell them or at a price that you consider attractive or satisfactory. The lack of an active market may also adversely affect Jaguar's ability to raise capital by selling securities in the future, or impair Jaguar's ability to license or acquire other product candidates, businesses or technologies using Jaguar's shares as consideration.

***The sale of Jaguar common stock to Aspire Capital may cause substantial dilution to Jaguar's existing stockholders and the sale of the shares of common stock acquired by Aspire Capital could cause the price of Jaguar common stock to decline.***

On June 8, 2016, Jaguar entered into the CSPA with Aspire Capital, in which Aspire Capital committed to purchase, at Jaguar's election, up to an aggregate of $15.0 million shares of Jaguar common stock over a period of approximately 30 months (i.e., 30 months from July 8, 2016, the effective date of the initial registration statement on Form S-1 that Jaguar filed to register the shares that it issued and may issue to Aspire pursuant to the CSPA).

Through January 31, 2017, Jaguar has issued 2,027,490 shares of Jaguar common stock to Aspire Capital under the CSPA for gross proceeds of approximately $2.7 million. Jaguar may ultimately sell all, some or none of the approximately $12.3 million of common stock remaining under the CSPA to Aspire Capital, and Aspire Capital may sell all, some or none of Jaguar shares that it holds or comes to hold under the CSPA. Sales by Aspire Capital of shares acquired pursuant to the CSPA may result in dilution to the interests of other holders of Jaguar common stock. The sale of a substantial number of shares of Jaguar common stock by Aspire Capital, or anticipation of such sales, could make it more difficult for Jaguar to sell equity or equity-related securities in the future at a time and at a price that Jaguar might otherwise wish to effect sales. However, Jaguar has the right to control the timing and amount of sales of its shares to Aspire Capital, and the CSPA may be terminated by Jaguar at any time at its discretion without any penalty or cost to Jaguar.

***If securities or industry analysts do not publish research or reports about Jaguar, or if they issue adverse or misleading opinions regarding Jaguar or its stock, Jaguar's stock price and trading volume could decline.***

The trading market for Jaguar common stock depends in part on the research and reports that industry or financial analysts publish about Jaguar or its business. Jaguar does not influence or control the reporting of these analysts. If one or more of the analysts who do cover Jaguar downgrade or provide a negative outlook on Jaguar or its industry, or the stock of any of its competitors, the price of its common stock could decline. If one or more of these analysts ceases coverage of Jaguar, Jaguar

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could lose visibility in the market, which in turn could cause the price of Jaguar common stock to decline.

***You may be diluted by exercises of outstanding options and warrants.***

As of December 31, 2016, Jaguar had outstanding options to purchase an aggregate of 2,571,220 shares of Jaguar common stock at a weighted average exercise price of $2.52 per share and warrants to purchase an aggregate of 5,968,876 shares of Jaguar common stock at a weighted-average exercise price of $1.40 per share.

In addition, Jaguar will assume outstanding options and warrants to purchase shares of Napo common stock in the merger. Each outstanding option and warrant to acquire Napo common stock will be converted automatically at the effective time of the merger into an option or warrant to acquire Jaguar common stock. The number of shares of Jaguar common stock for which each option or warrant is exercisable will be equal to the product of the number of shares of Napo common stock previously subject to the Napo option or warrant and 0.183823529 (subject to adjustment for various contingencies, such as any financing transaction by either Jaguar or Napo that is consummated during the period between the execution of the merger agreement and the consummation of the merger), rounded down to the next whole share, and the exercise price of each option or warrant will be equal to the exercise price for each share of Napo common stock previously subject to the option or warrant immediately prior to completion of the merger, divided by 0.183823529 (subject to adjustment for various contingencies, such as any financing transaction by either Jaguar or Napo that is consummated during the period between the execution of the merger agreement and the consummation of the merger), rounded up to the nearest whole cent. In addition, in connection with Napo's debt settlement with an existing creditor, upon consummation of the merger, Jaguar expects to issue warrants exercisable for an aggregate of 1,237,283 shares of Jaguar common stock at an exercise price of $0.08 per share.

The exercise of such options and warrants will result in further dilution of your investment. In addition, you may experience additional dilution if Jaguar issues common stock in the future. As a result of this dilution, you may receive significantly less in net tangible book value than the full purchase price you paid for the shares in the event of liquidation.

***Provisions in Jaguar's charter documents and under Delaware law could discourage a takeover that stockholders may consider favorable and may lead to entrenchment of management.***

Jaguar's second amended and restated certificate of incorporation and amended and restated bylaws contain provisions that could delay or prevent changes in control or changes in Jaguar's management without the consent of Jaguar's board of directors. These provisions to include the following:

- a classified board of directors with three-year staggered terms, which may delay the ability of stockholders to change the membership of a majority of Jaguar's board of directors;
- no cumulative voting in the election of directors, which limits the ability of minority stockholders to elect director candidates;
- the exclusive right of Jaguar's board of directors to elect a director to fill a vacancy created by the expansion of the board of directors or the resignation, death or removal of a director, which prevents stockholders from being able to fill vacancies on Jaguar's board of directors;
- the ability of Jaguar's board of directors to authorize the issuance of shares of preferred stock and to determine the terms of those shares, including preferences and voting rights, without stockholder approval, which could adversely affect the rights of Jaguar's common stockholders or be used to deter a possible acquisition of Jaguar;

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- the ability of Jaguar's board of directors to alter its bylaws without obtaining stockholder approval;

- the required approval of the holders of at least 75% of the shares entitled to vote at an election of directors to adopt, amend or repeal Jaguar's bylaws or repeal the provisions of Jaguar's second amended and restated certificate of incorporation regarding the election and removal of directors;

- a prohibition on stockholder action by written consent, which forces stockholder action to be taken at an annual or special meeting of Jaguar's stockholders;

- the requirement that a special meeting of stockholders may be called only by the chairman of the board of directors, the chief executive officer, the president or the board of directors, which may delay the ability of Jaguar's stockholders to force consideration of a proposal or to take action, including the removal of directors; and

- advance notice procedures that stockholders must comply with in order to nominate candidates to Jaguar's board of directors or to propose matters to be acted upon at a stockholders' meeting, which may discourage or deter a potential acquirer from conducting a solicitation of proxies to elect the acquirer's own slate of directors or otherwise attempting to obtain control of Jaguar.

These provisions could inhibit or prevent possible transactions that some stockholders may consider attractive.

Jaguar is also subject to the anti-takeover provisions contained in Section 203 of the Delaware General Corporation Law. Under Section 203, a corporation generally may not engage in a business combination with any holder of 15% or more of its capital stock unless the holder has held the stock for three years or, among other exceptions, the board of directors has approved the transaction.

***Jaguar's amended and restated bylaws designate the Court of Chancery of the State of Delaware as the sole and exclusive forum for certain actions and proceedings that may be initiated by Jaguar's stockholders, which could limit Jaguar stockholders' ability to obtain a favorable judicial forum for disputes with Jaguar or its directors, officers or other employees.***

Jaguar's amended and restated bylaws provide that, unless Jaguar consents in writing to an alternative forum, the Court of Chancery of the State of Delaware will be the sole and exclusive forum for (i) any derivative action or proceeding brought on Jaguar's behalf, (ii) any action asserting a claim of breach of a fiduciary duty owed by any director, officer or other employee to Jaguar or its stockholders, (iii) any action asserting a claim arising pursuant to any provision of the Delaware General Corporation Law, (iv) any action asserting a claim that is governed by the internal affairs doctrine or (v) any action to interpret, apply, enforce or determine the validity of Jaguar's certificate of incorporation or bylaws. Any person purchasing or otherwise acquiring any interest in any shares of Jaguar's capital stock shall be deemed to have notice of and to have consented to this provision of Jaguar's amended and restated bylaws. This choice-of-forum provision may limit Jaguar stockholders' ability to bring a claim in a judicial forum that it finds favorable for disputes with Jaguar or its directors, officers or other employees, which may discourage such lawsuits. Alternatively, if a court were to find this provision of Jaguar's amended and restated bylaws inapplicable or unenforceable with respect to one or more of the specified types of actions or proceedings, Jaguar may incur additional costs associated with resolving such matters in other jurisdictions, which could harm Jaguar's business and financial condition.

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***Jaguar does not intend to pay dividends on its common stock, and your ability to achieve a return on your investment will depend on appreciation in the market price of Jaguar common stock.***

Jaguar currently intends to invest its future earnings, if any, to fund Jaguar's growth and not to pay any cash dividends on its common stock. Moreover, upon consummation of the merger, so long as Nantucket or any of its affiliates owns any shares of Jaguar non-voting common stock, Jaguar cannot pay dividends on its common stock or non-voting common stock without obtaining the prior written consent of Nantucket. Because Jaguar does not intend to pay dividends and may be required to obtain written consent following the merger if it were to do so, your ability to receive a return on your investment will depend on any future appreciation in the market price of Jaguar common stock. Jaguar cannot be certain that Jaguar common stock will appreciate in price.

***Jaguar principal stockholders own a significant percentage of Jaguar's stock and will be able to exert significant control over matters subject to stockholder approval.***

As of April 12, 2017, Jaguar's executive officers, directors, holders of 5% or more of Jaguar capital stock and their respective affiliates beneficially owned in the aggregate approximately 58.0% of Jaguar outstanding shares of common stock. Immediately following completion of the merger, Jaguar stockholders immediately prior to the merger will own approximately 25% of Jaguar's outstanding common stock and non-voting common stock and the Napo Stakeholders will own approximately 75% of Jaguar's outstanding common stock and non-voting common stock, with Nantucket owning approximately 46.5% of Jaguar's outstanding common stock and non-voting common stock, in each case calculated based on a fully diluted basis of Jaguar as of March 31, 2017, assuming the exercise or conversion of all outstanding options and warrants other than those options and warrants exercisable or convertible for approximately 300,000 shares of Jaguar common stock with an exercise/conversion price of $5.00 or more. As a result of their stock ownership, these stockholders may have the ability to influence Jaguar's management and policies, and will be able to significantly affect the outcome of matters requiring stockholder approval such as elections of directors, amendments of Jaguar's organizational documents or approvals of any merger, sale of assets or other major corporate transaction. This may prevent or discourage unsolicited acquisition proposals or offers for Jaguar common stock that you may feel are in your best interest as one of Jaguar's stockholders.

***The requirements of being a public company, including compliance with the reporting requirements of the Exchange Act and the requirements of the Sarbanes-Oxley Act, may strain Jaguar's resources, increase Jaguar's costs and distract management, and Jaguar may be unable to comply with these requirements in a timely or cost-effective manner.***

Jaguar's initial public offering had a significant, transformative effect on Jaguar. Prior to Jaguar initial public offering, Jaguar's business operated as a privately-held company, and Jaguar was not required to comply with public reporting, corporate governance and financial accounting practices and policies required of a publicly-traded company. As a publicly-traded company, Jaguar incurs significant additional legal, accounting and other expenses compared to historical levels. In addition, new and changing laws, regulations and standards relating to corporate governance and public disclosure, including the Dodd-Frank Wall Street Reform and Consumer Protection Act and the rules and regulations thereunder, as well as under the Sarbanes-Oxley Act, the JOBS Act and the rules and regulations of the SEC and The NASDAQ Capital Market, may result in an increase in Jaguar's costs and the time that Jaguar's board of directors and management must devote to Jaguar's compliance with these rules and regulations. These rules and regulations have substantially increased Jaguar's legal and financial compliance costs and diverted management time and attention from Jaguar's product development and other business activities.

The Sarbanes-Oxley Act requires, among other things, that Jaguar assess the effectiveness of its internal control over financial reporting annually and the effectiveness of Jaguar's disclosure controls

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and procedures quarterly. In particular, Section 404 of the Sarbanes-Oxley Act, or Section 404, requires Jaguar to perform system and process evaluation and testing of Jaguar's internal control over financial reporting to allow management to report on, and Jaguar's independent registered public accounting firm potentially to attest to, the effectiveness of Jaguar's internal control over financial reporting. Jaguar has needed to expend time and resources on documenting its internal control over financial reporting so that Jaguar is in a position to perform such evaluation when required. As an "emerging growth company," Jaguar expects to avail itself of the exemption from the requirement that its independent registered public accounting firm attest to the effectiveness of its internal control over financial reporting under Section 404. However, Jaguar may no longer avail itself of this exemption when it ceases to be an "emerging growth company." When Jaguar's independent registered public accounting firm is required to undertake an assessment of its internal control over financial reporting, the cost of Jaguar's compliance with Section 404 will correspondingly increase. Jaguar's compliance with applicable provisions of Section 404 requires that Jaguar incur substantial accounting expense and expend significant management time on compliance-related issues as Jaguar implements additional corporate governance practices and comply with reporting requirements. Moreover, if Jaguar is not able to comply with the requirements of Section 404 applicable to Jaguar in a timely manner, or if Jaguar or its independent registered public accounting firm identifies deficiencies in Jaguar's internal control over financial reporting that are deemed to be material weaknesses, the market price of Jaguar's stock could decline and Jaguar could be subject to sanctions or investigations by the SEC or other regulatory authorities, which would require additional financial and management resources.

***Jaguar is an "emerging growth company" and it cannot be certain if the reduced disclosure requirements applicable to "emerging growth companies" will make its common stock less attractive to investors.***

Jaguar is an "emerging growth company," as defined in the Jumpstart Our Business Startups Act of 2012, or the JOBS Act, and Jaguar may take advantage of certain exemptions and relief from various reporting requirements that are applicable to other public companies that are not "emerging growth companies." In particular, while Jaguar is an "emerging growth company" (i) it will not be required to comply with the auditor attestation requirements of Section 404(b) of the Sarbanes-Oxley Act, (ii) it will be subject to reduced disclosure obligations regarding executive compensation in its periodic reports and proxy statements and (iii) it will not be required to hold nonbinding advisory votes on executive compensation or stockholder approval of any golden parachute payments not previously approved. In addition, the JOBS Act provides that an emerging growth company can delay its adoption of any new or revised accounting standards, but Jaguar has irrevocably elected not to avail itself of this exemption and, therefore, Jaguar will be subject to the same new or revised accounting standards as other public companies that are not emerging growth companies. In addition, investors may find Jaguar common stock less attractive if Jaguar relies on the exemptions and relief granted by the JOBS Act. If some investors find Jaguar common stock less attractive as a result, there may be a less active trading market for Jaguar common stock and Jaguar's stock price may decline and/or become more volatile.

Jaguar may remain an "emerging growth company" until as late as December 31, 2020 (the fiscal year-end following the fifth anniversary of the closing of Jaguar's initial public offering, which occurred on May 18, 2015), although Jaguar may cease to be an "emerging growth company" earlier under certain circumstances, including (i) if the market value of Jaguar common stock that is held by non-affiliates exceeds $700.0 million as of any June 30, in which case Jaguar would cease to be an "emerging growth company" as of December 31 of such year, (ii) if Jaguar's gross revenue exceeds $1.0 billion in any fiscal year or (iii) if Jaguar issues more than $1.0 billion of non-convertible debt over a three-year period.

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**Risks Related to Napo's Business**

***Napo has a limited operating history and may be unable to achieve or sustain profitability or continue as a going concern.***

Since Napo's formation in 2001, its operations have been primarily limited to the research and development of Napo's lead prescription drug product, Mytesi. Net sales of Mytesi since June 2016 when Napo initiated sales of Mytesi have been $955,220 through December 31, 2016. Napo's net loss and comprehensive loss for the year ended December 31, 2016 was $20,393,028. As more fully described in Note 1 to Napo's financial statements included in this joint proxy statement/prospectus, Napo believes there is substantial doubt about its ability to continue as a going concern as it does not currently have sufficient cash resources to fund its operations through March 24, 2018, one year from the date its audited financial statements were originally issued.

***Napo expects to incur significant additional costs as it continues commercialization efforts for current prescription drug product candidates or other product candidates, and undertake the clinical trials necessary to obtain related regulatory approvals.***

Napo is actively identifying additional products for development and commercialization, and will continue to expend substantial resources for the foreseeable future to develop products from Napo's proprietary library of more than 2,300 medicinal plants. These expenditures will include costs associated with:

identifying additional potential prescription drug product candidates and non-prescription products;

formulation studies;

conducting pilot, pivotal and toxicology studies;

completing other research and development activities;

payments to technology licensors;

maintaining Napo's intellectual property;

obtaining necessary regulatory approvals;

establishing commercial supply capabilities; and

sales, marketing and distribution of Napo's commercialized products.

Napo also may incur unanticipated costs in connection with developing and commercializing Napo's products. Because the outcome of Napo's development activities and commercialization efforts is inherently uncertain, the actual amounts necessary to successfully complete the development and commercialization of Napo's current or future products and product candidates may be greater than Napo anticipates.

Because Napo anticipates incurring significant costs for the foreseeable future, if Napo is not successful in broadly commercializing any of Napo's current or future products or product candidates or raising additional funding to pursue Napo's research and development efforts, Napo may never realize the benefit of its development efforts and Napo's business may be harmed.

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***Napo will need to raise substantial additional capital in the future to fund Napo's operations and Napo may be unable to raise such funds when needed and on acceptable terms, which would force Napo to delay, limit, reduce or terminate one or more of Napo's product development programs or future commercialization efforts.***

Napo currently has limited commercial operations and its primary source of revenue is from the sale of Mytesi. Other current potential revenue sources are limited to the third parties who have licensed or may license Napo's intellectual property and technology, or collaborate with Napo in the future. Napo was involved in litigation with Salix and expended significant resources in the litigation and subsequent settlement. At the time of the formation of Jaguar, Napo's liabilities exceeded its assets on a balance sheet prepared in conformity with U.S. generally accepted accounting principles. Napo is forecasting continued losses and negative cash flows as Napo continues to fund its operating and marketing activities and research and development programs, and to complete the development of all the current products in Napo's pipeline, or any additional products Napo may identify. Napo may need to seek additional funds sooner than planned through public or private equity or debt financings or other sources such as strategic collaborations. Other than Napo's Amended and Restated Note Purchase Agreement (sometimes referred to herein as 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 convertible note purchase agreement with two lenders, Napo has no current agreements or arrangements with respect to any such financings or collaborations, and any such financings or collaborations may result in dilution to Napo's stockholders, the imposition of debt covenants and repayment obligations or other restrictions that may harm Napo's business or the value of Napo's common stock. Napo may also seek from time to time to raise additional capital based upon favorable market conditions or strategic considerations such as potential license arrangements.

Napo's future capital requirements depend on many factors, including, but not limited to:

- the scope, progress, results and costs of researching and developing Napo's current and future prescription drug product candidates;
- the timing of, and the costs involved in, obtaining any regulatory approvals for Napo's current and any future products;
- the number and characteristics of the products Napo pursues;
- the cost of manufacturing Napo's current and future products and any products Napo successfully commercializes;
- the cost of commercialization activities for Napo's prescription drug product candidates and other products, if approved, including sales, marketing and distribution costs;
- the expenses needed to attract and retain skilled personnel;
- Napo's ability to establish and maintain strategic collaborations, distribution or other arrangements and the financial terms of such agreements; and
- the costs involved in preparing, filing, prosecuting, maintaining, defending and enforcing possible patent claims, including litigation costs and the outcome of any such litigation.

Additional funds may not be available when Napo needs them on terms that are acceptable to Napo, or at all. If adequate funds are not available to us on a timely basis, Napo may be required to delay, limit, reduce or terminate one or more of its product development programs or future commercialization efforts.

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***Napo is substantially dependent on the success of Mytesi, and cannot be certain that drug product candidates currently in Napo's product pipeline will be approved or that Napo will be able to successfully commercialize these product candidates.***

Other than Mytesi, Napo currently does not have regulatory approval for any of its prescription drug product candidates. Napo's current efforts are primarily focused on the commercial launch of Mytesi in the United States, and development efforts related to CID, institutional diarrhea, secretory diarrhea, IBS-D, pediatric general watery diarrhea, Napo's orphan drug (Channelopathies) drug product candidate, and cholera/ general watery diarrhea. Accordingly, Napo's near-term prospects, including Napo's ability to generate material product revenue, obtain any new financing if needed to fund Napo's business and operations or enter into potential strategic transactions, will depend heavily on the success of Mytesi.

Substantial time and capital resources have been previously devoted by third parties in the development of crofelemer, the active pharmaceutical ingredient, or API, in Mytesi. Crofelemer was originally developed at Shaman Pharmaceuticals, Inc., or Shaman, by certain members of Napo's management team, including Lisa A. Conte, Napo's founder and interim CEO, and Steven R. King, Ph.D., Napo's Executive Vice President, Sustainable Supply, Ethnobotanical Research and Intellectual Property and Secretary. Shaman spent significant development resources before voluntarily filing for bankruptcy in 2001 pursuant to Chapter 11 of the U.S. Bankruptcy Code. The rights to crofelemer, as well as other intellectual property rights, were subsequently acquired by Napo from Shaman in 2001 pursuant to a court approved sale of assets. Ms. Conte founded Napo in 2001 and is the current interim chief executive officer of Napo and a member of its board of directors. While at Napo, certain members of Napo's management team, including Ms. Conte and Dr. King, continued the development of crofelemer. In 2005, Napo entered into license agreements with Glenmark Pharmaceuticals Ltd., or Glenmark, and Luye Pharma Group Limited for rights to various human indications of crofelemer in certain territories as defined in the respective license agreements with these licensees. To date, Napo has not realized any royalty revenue from these licensees. Subsequently, after expending significant sums developing crofelemer, including trial design and on-going patient enrollment in the final pivotal Phase 3 trial for crofelemer for non-infectious diarrhea in adults with HIV/AIDS on antiretroviral therapy, in late 2008, Napo entered into a collaboration agreement with Salix Pharmaceuticals, Inc., or Salix, for development and commercialization rights to certain indications worldwide and certain rights in North America, Europe, and Japan, to crofelemer for human use. In May 2011, Napo sued Salix with regard to Salix's performance under the collaboration agreement. In February 2014, Salix prevailed in a jury trial, and Napo appealed the verdict. In March 2016, Napo and Salix entered into a Settlement, Termination, Asset Transfer and Transition Agreement, which settled the ongoing litigation between the parties, terminated the Salix Collaboration Agreement and transferred certain assets and inventory, including with respect to the approved drug Mytesi®, to Napo. If Napo is not successful in the development and commercialization of Mytesi, Napo's business and Napo's prospects will be harmed.

The successful development and commercialization of the prescription drug product candidates in Napo's product pipeline, if approved, will depend on a number of factors, including the following:

- the successful completion of pivotal trials and toxicology studies, which may take significantly longer than Napo currently anticipate and will depend, in part, upon the satisfactory performance of third-party contractors;

- Napo's ability to demonstrate to the satisfaction of the FDA and any other regulatory bodies, the safety and efficacy of its prescription drug product candidates;

- Napo's ability and that of Napo's contract manufacturers to manufacture supplies of approved Napo prescription drug product candidates and to develop, validate and maintain viable

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commercial manufacturing processes that are compliant with current good manufacturing practices, or cGMP, if required;

Napo's ability to successfully launch its prescription drug product candidates, assuming approval is obtained, whether alone or in collaboration with others;

the availability, perceived advantages, relative cost, relative safety and relative efficacy of Napo's prescription drug product candidates compared to alternative and competing treatments;

the acceptance of Napo's prescription drug product candidates as safe and effective by physicians, patients and the health community;

Napo's ability to achieve and maintain compliance with all regulatory requirements applicable to Napo's business; and

Napo's ability to obtain and enforce its intellectual property rights and obtain marketing exclusivity for Napo's prescription drug product candidates and avoid or prevail in any third-party patent interference, patent infringement claims or administrative patent proceedings initiated by third parties or the U.S. Patent and Trademark Office, or USPTO.

Many of these factors are beyond Napo's control. Accordingly, Napo may not be successful in developing or commercializing its current prescription drug product candidates or other potential products. If Napo is unsuccessful or is significantly delayed in developing and commercializing its current prescription drug product candidates or other potential products, Napo's business and prospects will be harmed and you may lose all or a portion of the value of your investment in Napo, or, if and when the merger between Napo and Jaguar becomes effective, in Jaguar's common stock.

***If Napo is not successful in identifying, licensing, developing and commercializing additional product candidates and products, Napo's ability to expand its business and achieve its strategic objectives could be impaired.***

Although a substantial amount of Napo's efforts are focused on the commercial launch of Mytesi and the continued development and potential approvals of its current prescription drug product candidates, a key element of Napo's strategy is to identify, develop and commercialize a portfolio of products to serve the gastrointestinal health market. Most of Napo's potential products are based on Napo's knowledge of medicinal plants. Napo's current focus is primarily on product candidates whose active pharmaceutical ingredient or botanical extract has been successfully commercialized or demonstrated to be safe and effective in human trials. In some instances, Napo may be unable to further develop these potential products because of perceived regulatory and commercial risks. Even if Napo successfully identifies potential products, Napo may still fail to yield products for development and commercialization for many reasons, including the following:

competitors may develop alternatives that render Napo's potential products obsolete;

potential products Napo seeks to develop may be covered by third-party patents or other exclusive rights;

a potential product may on further study be shown to have harmful side effects or other characteristics that indicate it is unlikely to be effective or otherwise does not meet applicable regulatory criteria;

a potential product may not be capable of being produced in commercial quantities at an acceptable cost, or at all; and

a potential product may not be accepted as safe and effective by physicians, patients, key opinion leaders and other decision-makers in the gastrointestinal health market.

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While Napo plans to develop specific formulations, methods of administration, new patents and other strategies with respect to its current potential products, Napo may be unable to prevent competitors from developing substantially similar products and bringing those products to market earlier than Napo can. If such competing products achieve regulatory approval and commercialization prior to Napo's potential products, Napo's competitive position may be impaired. If Napo fails to develop and successfully commercialize other potential products, Napo's business and future prospects may be harmed and Napo will be more vulnerable to any problems that it encounters in developing and commercializing it current potential products.

***Napo may be unable to obtain, or obtain on a timely basis, regulatory approval for its existing or future prescription drug product candidates under applicable regulatory requirements, which would harm Napo's operating results.***

The research, testing, manufacturing, labeling, approval, sale, marketing and distribution of health products are subject to extensive regulation. Napo is usually not permitted to market its prescription drug product candidates in the United States until it receives approval of an NDA from the FDA. To gain approval to market a prescription drug, Napo must provide the FDA with safety and efficacy data from pivotal trials that adequately demonstrate that Napo's prescription drug product candidates are safe and effective for the intended indications. In addition, Napo must provide manufacturing data evidencing that Napo produce its product candidates in accordance with cGMP. In addition to Napo's internal activities, Napo will partially rely on contract research organizations, or CROs, and other third parties to conduct studies and for certain other development activities. The results of studies and other initial development activities, and of any previous studies conducted by Napo or third parties, may not be predictive of future results of pivotal trials or other future studies, and failure can occur at any time during the conduct of pivotal trials and other development activities by Napo or Napo's CROs. Napo's pivotal trials may fail to show the desired safety or efficacy of Napo's prescription drug product candidates despite promising initial data or the results in previous studies conducted by others, and success of a prescription drug product candidate in prior studies does not ensure success in subsequent studies. Clinical trials sometimes fail to show a benefit even for drugs that are effective because of statistical limitations in the design of the trials or other statistical anomalies. Therefore, even if Napo's studies and other development activities are completed as planned, the results may not be sufficient to obtain a required regulatory approval for a product candidate.

Regulatory authorities can delay, limit or deny approval of any of Napo's prescription drug product candidates for many reasons, including:

if they disagree with Napo's interpretation of data from its pivotal studies or other development efforts;

if Napo is unable to demonstrate to their satisfaction that its product candidate are safe and effective for the target indication;

if they require additional studies or change their approval policies or regulations;

if they do not approve of the formulation, labeling or the specifications of Napo's current and future product candidates; and

if they fail to approve the manufacturing processes of Napo's third-party contract manufacturers.

Further, even if Napo receives a required approval, such approval may be for a more limited indication than Napo originally requested, and the regulatory authority may not approve the labeling that Napo believes is necessary or desirable for successful commercialization.

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Any delay or failure in obtaining any necessary regulatory approval for the intended indications of Napo's product candidates would delay or prevent commercialization of such product candidates and would harm Napo's business and its operating results.

***The results of Napo's earlier studies of Mytesi may not be predictive of the results in any future clinical trials, and Napo may not be successful in its efforts to develop or commercialize line extensions of Mytesi.***

Napo's product pipeline includes a number of potential indications of Mytesi, Napo's lead product. The results of Napo's studies and other initial development activities and of any previous studies conducted by us or third parties may not be predictive of results of these future clinical trials. Failure can occur at any time during the conduct of these trials and other development activities. Even if Napo's formulation studies and other development activities are completed as planned, the results may not be sufficient to pursue a particular line extension for Mytesi. Further, even if Napo obtains promising results from its clinical trials, Napo may not successfully commercialize any line extension. Because line extensions are developed for a particular market, Napo may not be able to leverage its experience from the commercial launch of Mytesi in new markets. If Napo is not successful in developing and successfully commercializing these line extension products, Napo may not be able to grow its revenue and its business may be harmed.

***Development of prescription drug products is inherently expensive, time-consuming and uncertain, and any delay or discontinuance of Napo's current or future pivotal trials would harm Napo's business and prospects.***

Development of prescription drug products for remains an inherently lengthy, expensive and uncertain process, and Napo's development activities may not be successful. Napo management does not know whether Napo's current or planned pivotal trials for any of its product candidates will begin or conclude on time, and trials may be delayed or discontinued for a variety of reasons, including if Napo is unable to:

address any safety concerns that arise during the course of the studies;

complete the studies due to deviations from the study protocols or the occurrence of adverse events;

add new study sites;

address any conflicts with new or existing laws or regulations; or

reach agreement on acceptable terms with study sites, which can be subject to extensive negotiation and may vary significantly among different sites.

Further, Napo may not be successful in developing new indications for Mytesi. Any delays in completing Napo's development efforts will increase Napo's costs, delay Napo's development efforts and approval process and jeopardize Napo's ability to commence product sales and generate revenue. Any of these occurrences may harm Napo's business, financial condition and prospects. In addition, factors that may cause a delay in the commencement or completion of Napo's development efforts may also ultimately lead to the denial of regulatory approval of Napo's product candidates which, as described above, would harm Napo's business and prospects.

***Napo will partially rely on third parties to conduct development activities. If these third parties do not successfully carry out their contractual duties, Napo may be unable to obtain regulatory approvals or commercialize its current or future product candidates on a timely basis, or at all.***

Napo will partially rely upon CROs to conduct its toxicology studies and for other development activities. These CROs are not Napo employees, and except for contractual duties and obligations, Napo has limited ability to control the amount or timing of resources that they devote to Napo

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programs or manage the risks associated with their activities on Napo's behalf. Napo is responsible for ensuring that each of Napo study is conducted in accordance with the development plans and trial protocols presented to regulatory authorities. Any deviations by Napo's CROs may adversely affect Napo's ability to obtain regulatory approvals, subject Napo to penalties or harm Napo's credibility with regulators. The FDA and foreign regulatory authorities also require Napo and its CROs to comply with regulations and standards, commonly referred to as good clinical practices, or GCPs, or good laboratory practices, or GLPs, for conducting, monitoring, recording and reporting the results of Napo studies to ensure that the data and results are scientifically valid and accurate.

Agreements with CROs generally allow the CROs to terminate in certain circumstances with little or no advance notice. These agreements generally will require Napo's CROs to reasonably cooperate with Napo at Napo's expense for an orderly winding down of the CROs' services under the agreements. If the CROs conducting Napo's studies do not comply with their contractual duties or obligations, or if they experience work stoppages, do not meet expected deadlines, or if the quality or accuracy of the data they obtain is compromised, Napo may need to secure new arrangements with alternative CROs, which could be difficult and costly. In such event, Napo's studies also may need to be extended, delayed or terminated as a result, or may need to be repeated. If any of the foregoing were to occur, regulatory approval, if required, and commercialization of Napo's product candidates may be delayed and Napo may be required to expend substantial additional resources.

***Even if Napo obtains regulatory approval for its current prescription drug product candidates or other product candidates, these product candidates may never achieve market acceptance. Further, even if Napo is successful in commercially launching Mytesi, it may not achieve commercial success.***

If Napo obtain necessary regulatory approvals for its current prescription drug product candidates or other product candidates, such products may still not achieve market acceptance and may not be commercially successful. Market acceptance of Napo's current prescription drug product candidates or other product candidates depends on a number of factors, including:

- the safety of Napo's products as demonstrated in Napo's studies;
- the indications for which Napo's products are approved or marketed;
- the potential and perceived advantages over alternative treatments or products, including generic medicines and competing products currently prescribed by physicians, and products approved for use in humans that are used extra-label;
- the acceptance by physicians and patients of Napo's products as safe and effective;
- the cost in relation to alternative treatments and willingness on the part of physicians and patients to pay for Napo's products;
- the prevalence and severity of any adverse side effects of Napo's products;
- the relative convenience and ease of administration of Napo's products; and
- the effectiveness of Napo's sales, marketing and distribution efforts.

Any failure by Napo's current any of Napo's other products to achieve market acceptance or commercial success would harm Napo's financial condition and results of operations.

***Human products are subject to unanticipated post-approval safety or efficacy concerns, which may harm Napo's business and reputation.***

The success of Napo's commercialization efforts will depend upon the perceived safety and effectiveness of health products, in general, and of Napo's products, in particular. Unanticipated safety or efficacy concerns can subsequently arise with respect to approved prescription drug products, such as

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Mytesi, which may result in product recalls or withdrawals or suspension of sales, as well as product liability and other claims. Any safety or efficacy concerns, or recalls, withdrawals or suspensions of sales of Napo's products derived from *Croton lechleri* could harm Napo's reputation and business, regardless of whether such concerns or actions are justified.

***If Napo fails to retain current members of its senior management, or to identify, attract, integrate and retain additional key personnel, Napo's business will be harmed.***

Napo's success depends on its continued ability to attract, retain and motivate highly qualified management and scientific personnel. Napo is highly dependent upon its senior management, particularly Lisa A. Conte, Napo's founder and interim chief executive officer. The loss of services of any of Napo's key personnel would cause a disruption in Napo's ability to develop its current or future product pipeline and commercialize its products and product candidates. Although Napo has offer letters with these key members of senior management, such agreements do not prohibit them from resigning at any time. Napo currently does not maintain "key man" life insurance on any of its senior management team. The loss of Ms. Conte or other members of Napo's current senior management could adversely affect the timing or outcomes of Napo's current and planned studies, as well as the prospects for commercializing Napo's products.

In addition, competition for qualified personnel in the gastrointestinal health field is intense, because there are a limited number of individuals who are trained or experienced in the field. Napo will need to hire additional personnel as it expands its product development and commercialization activities. Even if Napo is successful in hiring qualified individuals, as a growing organization, Napo does not have a track record for integrating and retaining individuals. If Napo is not successful in identifying, attracting, integrating or retaining qualified personnel on acceptable terms, or at all, Napo's business will be harmed.

***Napo is dependent on two suppliers for the raw material used to produce the active pharmaceutical ingredient in Mytesi. The termination of either of these contracts would result in a disruption to product development and Napo's business will be harmed.***

The raw material used to manufacture Mytesi is crude plant latex, or CPL, derived from the *Croton lechleri* tree, which is found in countries in South America, principally Peru. The ability of Napo's contract suppliers to harvest CPL is governed by the terms of their respective agreements with local government authorities. Although CPL is available from multiple suppliers, Napo only has contracts with two suppliers to obtain CPL and arrange the shipment to Napo's contract manufacturer. Accordingly, if Napo's contract suppliers do not or are unable to comply with the terms of Napo's respective agreements, and Napo is not able to negotiate new agreements with alternate suppliers on terms that Napo deems commercially reasonable, it may harm Napo's business and prospects. The countries from which Napo obtain CPL could change their laws and regulations regarding the export of the natural products or impose or increase taxes or duties payable by exporters of such products. Restrictions could be imposed on the harvesting of the natural products or additional requirements could be implemented for the replanting and regeneration of the raw material. Such events could have a significant impact on Napo's cost and ability to produce Mytesi and anticipated line extensions.

***Napo is dependent upon third-party contract manufacturers, both for the supply of the active pharmaceutical ingredient in Mytesi as well as for the supply of finished products for commercialization.***

Napo is dependent upon its contract manufacturers for the supply of the API in Mytesi. The facilities used by Napo's third-party contractors are subject to inspections, including by the FDA, and other regulators, as applicable. Napo also depends on its third-party contractors to comply with cGMP. If Napo's third-party contractors do not maintain compliance with these strict regulatory requirements, Napo and they will not be able to secure or maintain regulatory approval for their facilities, which

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would have an adverse effect on Napo's operations. In addition, in some cases, Napo is also dependent on its third-party contractors to produce supplies in conformity to Napo's specifications and maintain quality control and quality assurance practices and not to employ disqualified personnel. If the FDA or a comparable foreign regulatory authority does not approve the facilities of Napo's third-party contractors if so required, or if it withdraws any such approval in the future, Napo may need to find alternative manufacturing or formulation facilities, which could result in delays in Napo's ability to develop or commercialize its products. Napo and Napo's third-party contractors also may be subject to penalties and sanctions from the FDA and other regulatory authorities for any violations of applicable regulatory requirements. The USDA and the European Medicines Agency, or the EMA, employ different regulatory standards than the FDA, so Napo may require multiple manufacturing processes and facilities for the same product candidate or any approved product. Napo is also exposed to risk if its third-party contractors do not comply with the negotiated terms of Napo's agreements, or if they suffer damage or destruction to their facilities or equipment.

***Napo will need to increase the size of its organization and may not successfully manage such growth.***

As of December 31, 2016, Napo had 1 employee. Napo's ability to manage its growth effectively will require Napo to hire, train, retain, manage and motivate additional employees and to implement and improve Napo's operational, financial and management systems. These demands also may require the hiring of additional senior management personnel or the development of additional expertise by Napo's senior management personnel. If Napo fails to expand and enhance its operational, financial and management systems in conjunction with Napo's potential future growth, it could harm Napo's business and operating results.

***If Napo's prescription drug product candidates are approved by regulatory authorities, the misuse or extra-label use of such products may harm Napo's reputation or result in financial or other damages.***

If Napo's prescription drug product candidates are approved by regulatory authorities, there may be increased risk of product liability if physicians or patients attempt to use such products extra-label, including the use of Napo's products for indications for which they have not been approved. Furthermore, the use of an approved drug for indications other than those indications for which such products have been approved may not be effective, which could harm Napo's reputation and lead to an increased risk of litigation. If Napo is deemed by a governmental or regulatory agency to have engaged in the promotion of any approved product for extra-label use, such agency could request that Napo modify its training or promotional materials and practices and Napo could be subject to significant fines and penalties, and the imposition of these sanctions could also affect Napo's reputation and position within the industry. Any of these events could harm Napo's reputation and Napo's operating results.

***The market for Napo's products, and the gastrointestinal health market as a whole, is uncertain and may be smaller than Napo anticipates, which could lead to lower revenue and harm Napo's operating results.***

It is very difficult to estimate the commercial potential of any of Napo's products or product candidates because the gastrointestinal health market continues to evolve and it is difficult to predict the market potential for Napo's products. The market will depend on important factors such as safety and efficacy compared to other available treatments, changing standards of care, preferences of physicians, the willingness of patients to pay for such products, and the availability of competitive alternatives that may emerge either during the product development process or after commercial introduction. If the market potential for Napo's products is less than Napo anticipates due to one or more of these factors, it could negatively impact Napo's business, financial condition and results of operations. Further, the willingness of physicians and patients to pay for Napo's products may be less than Napo anticipates, and may be negatively affected by overall economic conditions.

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***Napo may engage in future acquisitions that increase Napo's capital requirements, dilute Napo stockholders, cause Napo to incur debt or assume contingent liabilities and subject Napo to other risks.***

Napo may evaluate various strategic transactions, including licensing or acquiring complementary products, technologies or businesses. Any potential acquisitions may entail numerous risks, including increased operating expenses and cash requirements, assimilation of operations and products, retention of key employees, diversion of Napo's management's attention and uncertainties in Napo's ability to maintain key business relationships of the acquired entities. In addition, if Napo undertakes acquisitions, Napo may issue dilutive securities, assume or incur debt obligations, incur large one-time expenses and acquire intangible assets that could result in significant future amortization expense. Moreover, Napo may not be able to locate suitable acquisition opportunities and this inability could impair Napo's ability to grow or obtain access to technology or products that may be important to the development of Napo's business.

***Certain of the countries in which Napo plans to commercialize its products in the future are developing countries, some of which have potentially unstable political and economic climates.***

Napo may commercialize its products in jurisdictions that are developing and emerging countries. This may expose Napo to the impact of political or economic upheaval, and Napo could be subject to unforeseen administrative or fiscal burdens. At present, Napo is not insured against the political and economic risks of operating in these countries. Any significant changes to the political or economic climate in any of the developing countries in which Napo operates or plans to sell products either now or in the future may have a substantial adverse effect on Napo's business, financial condition, trading performance and prospects.

***Fluctuations in the exchange rate of foreign currencies could result in currency transactions losses.***

As Napo expands its operations, Napo expects to be exposed to risks associated with foreign currency exchange rates. Napo anticipates that it will commercialize Mytesi and its line extensions in jurisdictions outside the United States. As a result, Napo will also be further affected by fluctuations in exchange rates in the future to the extent that sales are denominated in currencies other than U.S. dollars. Napo does not currently employ any hedging or other strategies to minimize this risk, although Napo may seek to do so in the future.

**Risks Related to Napo's Intellectual Property**

***Obtaining and maintaining Napo's patent protection depends on compliance with various procedural, document submission, fee payment and other requirements imposed by governmental patent agencies, and Napo's patent protection could be reduced or eliminated for non-compliance with these requirements.***

Periodic maintenance and annuity fees on any issued patent are due to be paid to the USPTO and foreign patent agencies in several stages over the lifetime of the patent. The USPTO and various foreign governmental patent agencies require compliance with a number of procedural, documentary, fee payment and other similar provisions during the patent application process. While an inadvertent lapse can in many cases be cured by payment of a late fee or by other means in accordance with the applicable rules, there are situations in which noncompliance can result in abandonment or lapse of the patent or patent application, resulting in partial or complete loss of patent rights in the relevant jurisdiction. Non-compliance events that could result in abandonment or lapse of a patent or patent application include failure to respond to official actions within prescribed time limits, non-payment of fees and failure to properly legalize and submit formal documents. If Napo or its licensors fail to maintain the patents and patent applications covering prescription drug products and candidates, Napo's competitors might be able to enter the market, which would harm Napo's business.

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***Third parties may initiate legal proceedings alleging that Napo is infringing their intellectual property rights, which would be costly, time-consuming and, if successfully asserted against Napo, delay or prevent the development and commercialization of Napo's current or future products and product candidates.***

Napo's research, development and commercialization activities may infringe or otherwise violate or be claimed to infringe or otherwise violate patents owned or controlled by other parties. There may be patents already issued of which Napo is unaware that might be infringed by one of Napo's current or future prescription drug products or candidates or non-prescription drug products or candidates. Moreover, it is also possible that patents may exist that Napo is aware of, but that Napo does not believe are relevant to Napo's current or future prescription drug products or candidates, which could nevertheless be found to block Napo's freedom to market these products. Because patent applications can take many years to issue and may be confidential for 18 months or more after filing, there may be applications now pending of which Napo is unaware and which may later result in issued patents that may be infringed by Napo's current or future prescription drug products or candidates or non-prescription products or candidates. Napo cannot be certain that its current or future prescription drug products or candidates or non-prescription products or candidates will not infringe these or other existing or future third-party patents. In addition, third parties may obtain patents in the future and claim that use of Napo's technologies infringes upon these patents.

To the extent Napo becomes subject to future third-party claims against Napo or Napo's collaborators or licensees, Napo could incur substantial expenses and, if any such claims are successful, Napo could be liable to pay substantial damages, including treble damages and attorneys' fees if Napo or Napo's collaborators or licensees are found to be willfully infringing a third party's patents. If a patent infringement suit were brought against Napo or Napo's collaborators, Napo or they could be forced to stop or delay research, development, manufacturing or sales of the prescription drug or non-prescription product that is the subject of the suit. Even if Napo is successful in defending such claims, infringement and other intellectual property claims can be expensive and time-consuming to litigate and divert management's attention from Napo's business and operations. As a result of or in order to avoid potential patent infringement claims, Napo or Napo's collaborators or licensees may be compelled to seek a license from a third party for which Napo would be required to pay license fees or royalties, or both. Moreover, these licenses may not be available on acceptable terms, or at all. Even if Napo or Napo's collaborators or licensees were able to obtain such a license, the rights may be nonexclusive, which could allow Napo's competitors access to the same intellectual property. Any of these events could harm Napo's business and prospects.

There has been substantial litigation regarding patents and other intellectual property rights in the field of therapeutics, as well as patent challenge proceedings, including interference, derivation, *ex parte* reexamination, *inter partes* review and post-grant review proceedings before the USPTO, and oppositions and other comparable proceedings in foreign jurisdictions. In addition to possible infringement claims against Napo may be subject to third-party pre-issuance submission of prior art to the USPTO or foreign patent office, or become involved in opposition, derivation, reexamination, *inter partes* review, post grant review, or other patent office proceedings or litigation in the United States or elsewhere, challenging Napo's patent rights or the patent rights of others. For applications filed before March 16, 2013, or patents issuing from such applications, if third parties have prepared and filed patent applications in the United States that also claim technology to which Napo has rights, Napo may have to participate in interference proceedings in the USPTO to determine the priority of invention or for patent applications filed after March 16, 2013, Napo may have to participate in derivation proceedings in the USPTO to determine if Napo obtained the invention from a third party such that Napo is not entitled to a patent on the invention or a third party had obtained the invention from Napo and Napo is entitled to the patent on the invention. Because patent applications in the United States and most other countries are confidential for a period of time after filing, Napo cannot be certain that Napo was the first to either file patent applications on or invent any of the inventions

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claimed in Napo's patent applications. Because of a lower evidentiary standard in USPTO proceedings compared to the evidentiary standard in United States federal court necessary to invalidate a patent claim, a third party could potentially provide evidence in a USPTO proceeding sufficient for the USPTO to hold a claim invalid even though the same evidence would be insufficient to invalidate the claim if first presented in a district court action. Napo may also become involved in opposition or similar proceedings in patent offices in other jurisdictions regarding Napo's intellectual property rights with respect to Napo's prescription drug or non-prescription products and technology. An adverse determination in any such submission, proceeding or litigation could reduce the scope of, or invalidate, Napo's present or future patent rights, and, could allow third parties to commercialize Napo's technology or products and compete directly with Napo, without payment to Napo, or result in Napo's inability to manufacture or commercialize products without infringing third-party patent rights.

***Napo's proprietary position depends upon patents that are formulation or method-of-use patents, which do not prevent a competitor from using the same drug candidate for another use.***

Composition-of-matter patents on the API in prescription drug products are generally considered to be the strongest form of intellectual property protection because such patents provide protection without regard to any particular method of use or manufacture or formulation of the API used. The composition-of-matter patents for crofelemer, the API in Mytesi, have expired.

Method-of-use patents protect the use of a product for the specified method and formulation patents cover formulations of the API or botanical extract. These types of patents do not prevent a competitor from developing or marketing an identical product for an indication that is outside the scope of the patented method or from developing a different formulation that is outside the scope of the patented formulation. Moreover, with respect to method-of-use patents, even if competitors do not actively promote their product for Napo's targeted indications or uses for which Napo may obtain patents, physicians may recommend that patients use these products extra-label, or patients may do so themselves. Although extra-label use may infringe or contribute to the infringement of method-of-use patents, the practice is common and such infringement is difficult to prevent or prosecute.

***If Napo's efforts to protect intellectual property are not adequate, Napo may not be able to compete effectively in Napo's markets.***

Napo intends to rely upon a combination of regulatory exclusivity periods, patents, trade secret protection, confidentiality agreements, and license agreements to protect the intellectual property related to Napo's current prescription drug product candidates and Napo's development programs.

If the breadth or strength of protection provided by any patents, patent applications or future patents Napo may own, license, or pursue with respect to any of Napo's current or future product candidates or products is threatened, it could threaten Napo's ability to commercialize any of its current or future product candidates or products. Further, if Napo encounters delays in its development efforts, the period of time during which Napo could market any of its current or future product candidates or products under any patent protection Napo obtains would be reduced. In addition, with respect to patent applications that Napo files on its technology, there is a risk that US or foreign patent offices would not allow and issue patents from the patent applications or the patents that do issue are limited in scope and would not provide sufficient protection to keep competition off of the market during the term of patents that issue from the patent applications.

Given the amount of time required for the development, testing and regulatory review of new product candidates or products, patents protecting such candidates might expire before or shortly after such product candidates or products are commercialized. Napo has elected to extend the term of US 7,341,744 under 35 U.S.C. 156, and the United States Patent and Trademark Office has issued a Notice of Final Determination that the patent term extension for US 7,341,744 is 1075 days. Based

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upon the January 11, 2018 expiration date, the patent would be extended to June 2021, to account for regulatory delay in obtaining human marketing approval for crofelemer. The United States Patent and Trademark Office (USPTO) has not yet issued a Patent Term Extension Certificate. The USPTO issued on December 16, 2006, a notice of recalculation of the patent term adjustment for US 7,341,744 for 842 days, for an expiration date of February 5, 2019; however, the USPTO has not issued a certificate of correction to officially correct the patent term adjustment accorded to this patent. In addition, on February 20, 2017, Napo filed a Request for Reconsideration of the patent term adjustment of US 7,341,744, requesting recalculation resulting in 1032 days or, alternatively, 980 days of patent term adjustment. Napo has requested that the USPTO not issue the final Patent Term Extension certificate until final resolution of the number of days of patent term adjustment accorded to US 7,341,744. There is no guarantee that the USPTO will grant the request for reconsideration. In addition, the applicable authorities, including the USPTO and the FDA, and any equivalent regulatory authority in other countries, may not agree with Napo's assessment of whether such extensions are available, and may refuse to grant extensions to patents, or may grant more limited extensions than requested. If this occurs, Napo's competitors may take advantage of Napo's investment in development and trials by referencing Napo's clinical and preclinical data and launch their product earlier than might otherwise be the case.

Even where laws provide protection or Napo is able to obtain patents, costly and time-consuming litigation may be necessary to enforce and determine the scope of Napo's proprietary rights, and the outcome of such litigation would be uncertain. Moreover, any actions Napo may bring to enforce Napo's intellectual property against Napo's competitors could provoke them to bring counterclaims against Napo, and some of Napo competitors have substantially greater intellectual property portfolios than Napo has.

***If Napo is unable to prevent disclosure of its trade secrets or other confidential information to third parties, Napo's competitive position may be impaired.***

Napo also relies on trade secret protection and confidentiality agreements to protect proprietary know-how that is not patentable or for which Napo has not filed patent applications, processes for which patents are difficult to obtain or enforce and other elements of Napo's product development processes that involve proprietary know-how, information or technology that is not covered by patents. Although Napo requires all of its employees to assign their inventions to Napo, and endeavors to execute confidentiality agreements with all Napo employees, consultants, advisors and any third parties who have access to Napo's proprietary know-how, information or technology, Napo cannot be certain that it has executed such agreements with all parties who may have helped to develop Napo's intellectual property or had access to Napo's proprietary information, or that Napo's agreements will not be breached. Napo cannot guarantee that Napo's trade secrets and other confidential proprietary information will not be disclosed or that competitors will not otherwise gain access to Napo's trade secrets or independently develop substantially equivalent information and techniques. If Napo is unable to prevent disclosure of Napo's intellectual property to third parties, Napo may not be able to maintain a competitive advantage in its market, which would harm Napo's business.

Any disclosure to or misappropriation by third parties of Napo's confidential proprietary information could enable competitors to quickly duplicate or surpass Napo's technological achievements, and erode Napo's competitive position in Napo's market.

***Napo may be involved in lawsuits to protect or enforce any current or future patents issued to Napo, which could be expensive, time-consuming and unsuccessful.***

Competitors may infringe upon any patents that have issued or may issue to Napo, or any patents that Napo has licensed or may license. To counter infringement or unauthorized use of any patents Napo may obtain, Napo may be required to file infringement claims or request that Napo's licensor file

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an infringement claim, which can be expensive and time-consuming to litigate. In addition, if Napo or one of its future collaborators were to initiate legal proceedings against a third party to enforce a patent covering Napo's current product candidates, or one of Napo's future products, the defendant could counterclaim that the patent is invalid or unenforceable. In patent litigation in the United States, defendant counterclaims alleging invalidity or unenforceability are commonplace. Grounds for a validity challenge could be an alleged failure to meet any of several statutory requirements, including lack of novelty, obviousness, non-enablement or lack of statutory subject matter. Grounds for an unenforceability assertion could be an allegation that someone connected with prosecution of the patent withheld relevant material information from the USPTO, or made a materially misleading statement, during prosecution. Third parties may also raise similar validity claims before the USPTO in post-grant proceedings such as *ex parte* reexaminations, *inter partes* review, or post-grant review, or oppositions or similar proceedings outside the United States, in parallel with litigation or even outside the context of litigation. The outcome following legal assertions of invalidity and unenforceability is unpredictable. If a defendant were to prevail on a legal assertion of invalidity or unenforceability, Napo would lose at least part, and perhaps all, of any current or future patent protection on Napo's current or future products or product candidates. Such a loss of patent protection could harm Napo's business. Napo cannot be certain that there is no invalidating prior art, of which Napo and the patent examiner were unaware during prosecution. For the patents and patent applications that Napo has licensed, Napo may have limited or no right to participate in the defense of any licensed patents against challenge by a third party.

Litigation proceedings may fail and, even if successful, may result in substantial costs and distract Napo's management and other employees. Furthermore, because of the substantial amount of discovery required in connection with intellectual property litigation, there is a risk that some of Napo's confidential information could be compromised by disclosure during this type of litigation. In addition, there could be public announcements of the results of hearings, motions or other interim proceedings or developments. If securities analysts or investors perceive these results to be unsuccessful, it could have an adverse effect on the price of Napo's common stock. Finally, Napo may not be able to prevent, alone or with the support of Napo's licensors, misappropriation of Napo's trade secrets or confidential information, particularly in countries where the laws may not protect those rights as fully as in the United States.

***Changes in U.S. patent law could diminish the value of patents in general, thereby impairing Napo's ability to protect its products.***

As is the case with other health product companies, Napo's success is heavily dependent on intellectual property, particularly patents. Obtaining and enforcing patents in the health industry involves both technological and legal complexity. Therefore, obtaining and enforcing patents is costly, time-consuming and inherently uncertain. In addition, the United States has recently enacted and implemented wide-ranging patent reform legislation. The U.S. Supreme Court has ruled on several patent cases in recent years, either narrowing the scope of patent protection available in certain circumstances or weakening the rights of patent owners in certain situations. In addition to increasing uncertainty with regard to Napo's ability to obtain patents in the future, this combination of events has created uncertainty with respect to the value of patents, once obtained. Depending on decisions by the U.S. Congress, the federal courts, and the USPTO, the laws and regulations governing patents could change in unpredictable ways that would weaken Napo's ability to obtain new patents or to enforce patents that Napo has licensed or that Napo might obtain in the future.

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***Napo may not be able to protect its intellectual property rights throughout the world, which could impair Napo's business.***

Filing, prosecuting and defending patents on prescription drug products and product candidates and non-prescription products and product candidates throughout the world would be prohibitively expensive. Competitors may use Napo's technologies in jurisdictions where Napo has not obtained patent protection to develop their own products and, further, may export otherwise infringing products to territories where Napo may obtain patent protection, but where patent enforcement is not as strong as that in the United States. These products may compete with Napo's products in jurisdictions where Napo does not have any issued or licensed patents and any future patent claims or other intellectual property rights may not be effective or sufficient to prevent them from so competing.

Many companies have encountered significant problems in protecting and defending intellectual property rights in foreign jurisdictions. The legal systems of certain countries, particularly certain developing countries, do not favor the enforcement of patents and other intellectual property protection, which could make it difficult for Napo to stop the infringement of Napo's current or future patents, if any, or patents Napo has in licensed, or marketing of competing products in violation of Napo's proprietary rights generally. Further, the laws of some foreign countries do not protect proprietary rights to the same extent or in the same manner as the laws of the United States. As a result, Napo may encounter significant problems in protecting and defending Napo's intellectual property both in the United States and abroad. Proceedings to enforce Napo's future patent rights, if any, in foreign jurisdictions could result in substantial cost and divert Napo's efforts and attention from other aspects of Napo's business.

***Napo's business could be harmed if Napo fails to obtain certain registered trademarks in the United States or in other countries.***

During trademark registration proceedings, Napo may receive rejections of its trademark applications. If so, Napo will have an opportunity to respond, but Napo may be unable to overcome such rejections. In addition, the USPTO and comparable agencies in many foreign jurisdictions may permit third parties to oppose pending trademark applications and to seek to cancel registered trademarks. If opposition or cancellation proceedings are filed against any of Napo's trademark applications or any registered trademarks, Napo's trademarks may not survive such proceedings. Moreover, any name Napo proposes to use with Napo's prescription drug product candidates in the United States, must be approved by the FDA, regardless of whether Napo has registered or applied to register as a trademark. The FDA typically conducts a review of proposed prescription drug product names, including an evaluation of potential for confusion with other product names. If the FDA objects to any of Napo's proposed proprietary product names, Napo may be required to expend significant additional resources in an effort to identify a suitable substitute name that would qualify under applicable trademark laws, not infringe the existing rights of third parties and be acceptable to the FDA.

***Napo may be subject to claims that Napo's employees, consultants or independent contractors have wrongfully used or disclosed confidential information of third parties.***

Napo has received confidential and proprietary information from third parties. In addition, Napo employs individuals who were previously employed at other biotechnology, pharmaceutical or health companies. Napo may be subject to claims that Napo or Napo's employees, consultants or independent contractors have inadvertently or otherwise improperly used or disclosed confidential information of these third parties or Napo's employees' former employers. Litigation may be necessary to defend against any such claims. Even if Napo is successful in defending against any such claims, such litigation could result in substantial cost and be a distraction to Napo's management and employees.

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**Risks Related to Government Regulation of Napo's Business**

***Even if Napo receives any required regulatory approvals for Napo's current or future prescription drug product candidates and non-prescription products, Napo will be subject to ongoing obligations and continued regulatory review, which may result in significant additional expense.***

If the FDA or any other regulatory body approves any of Napo's current or future prescription drug product candidates, or if necessary, Napo's non-prescription products, the manufacturing processes, clinical development, labeling, packaging, distribution, adverse event reporting, storage, advertising, promotion and recordkeeping for the product may be subject to extensive and ongoing regulatory requirements. These requirements could include, but are not limited to, submissions of efficacy and safety and other post-marketing information and reports, establishment registration, and product listing, compliance with new rules promulgated under the FSMA, as well as continued compliance with cGMP, GLP and GCP for any studies that Napo conducts post-approval. Later discovery of previously unknown problems with a product, including adverse events of unanticipated severity or frequency, or with Napo's contract manufacturers or manufacturing processes, or failure to comply with regulatory requirements, are reportable events to the FDA and may result in, among other things:

- restrictions on the marketing or manufacturing of the product, withdrawal of the product from the market, revised labeling, or voluntary or involuntary product recalls;
- additional clinical studies fines, warning letters or holds on studies;
- refusal by the FDA, or other regulators to approve pending applications or supplements to approved applications filed by Napo or Napo's strategic collaborators related to the unknown problems, or suspension or revocation of the problematic product's license approvals;
- product seizure or detention, or refusal to permit the import or export of products; and
- injunctions or the imposition of civil or criminal penalties.

The FDA or other regulatory agency's policies may change and additional government regulations may be enacted that could prevent, limit or delay regulatory approval of Napo's product candidates or require certain changes to the labeling or additional clinical work concerning safety and efficacy of the product candidates. Napo cannot predict the likelihood, nature or extent of government regulation that may arise from future legislation or administrative action, either in the United States or abroad. If Napo is slow or unable to adapt to changes in existing requirements or the adoption of new requirements or policies, or if Napo is not able to maintain regulatory compliance, Napo may lose any marketing approval that Napo may have obtained and Napo may not achieve or sustain profitability, which would harm Napo's business. In addition, failure to comply with these regulatory requirements could result in significant penalties.

In addition, from time to time, Napo may enter into consulting and other financial arrangements with physicians, who prescribe or recommend Napo's products, once approved. As a result, Napo may be subject to state, federal and foreign healthcare laws, including but not limited to anti-kickback laws. If Napo's financial relationships with physicians are found to be in violation of such laws that apply to Napo, Napo may be subject to penalties.

***The issuance by the FDA of protocol concurrences for Napo's pivotal studies does not guarantee ultimate approval of Napo's NDA.***

Napo intends to seek protocol concurrences from the FDA for future pivotal trials that Napo initiates. A pivotal study protocol is submitted to the FDA by a drug sponsor for purposes of obtaining FDA review of the protocol. Prior FDA review of the protocol for a pivotal study makes it more likely that the study will generate information the sponsor needs to demonstrate whether the drug is safe and

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effective for its intended use. It creates an expectation by the sponsor that the FDA should not later alter its perspectives on these issues unless public concerns appear that were not recognized at the time of protocol assessment. Even if the FDA issues a protocol concurrence, ultimate approval of an NDA by the FDA is not guaranteed because a final determination that the agreed-upon protocol satisfies a specific objective, such as the demonstration of efficacy, or supports an approval decision, will be based on a complete review of all the data submitted to the FDA. Even if Napo were to obtain protocol concurrence such concurrence does not guarantee that the results of the study will support a particular finding or approval of the new drug.

***Any of Napo's current or future prescription drug product candidates or non-prescription products may cause or contribute to adverse medical events that Napo would be required to report to regulatory authorities and, if Napo fails to do so, Napo could be subject to sanctions that would harm Napo's business.***

If Napo is successful in commercializing any of Napo's current or future prescription drug product candidates or non-prescription products, certain regulatory authorities will require that Napo report certain information about adverse medical events if those products may have caused or contributed to those adverse events. The timing of Napo's obligation to report would be triggered by the date Napo becomes aware of the adverse event as well as the nature of the event. Napo may fail to report adverse events Napo becomes aware of within the prescribed timeframe. Napo may also fail to appreciate that Napo has become aware of a reportable adverse event, especially if it is not reported to Napo as an adverse event or if it is an adverse event that is unexpected or removed in time from the use of Napo's products. If Napo fails to comply with Napo's reporting obligations, the regulatory authorities could take action including, but not limited to, criminal prosecution, seizure of Napo's products, facility inspections, removal of Napo's products from the market, recalls of certain lots or batches, or cause a delay in approval or clearance of future products.

***Legislative or regulatory reforms make it more difficult and costly for Napo to obtain regulatory clearance or approval of any of Napo's current or future product candidates and to produce, market, and distribute Napo's products after clearance or approval is obtained.***

From time to time, legislation is drafted and introduced in the U.S. Congress or other jurisdictions in which Napo intends to operate that could significantly change the statutory provisions governing the testing, regulatory clearance or approval, manufacture, and marketing of regulated products. In addition, the FDA's regulations and guidance are often revised or reinterpreted by the FDA and such other regulators in ways that may significantly affect Napo's business and Napo's products and product candidates. Similar changes in laws or regulations can occur in other countries. Any new regulations or revisions or reinterpretations of existing regulations in the United States or in other countries may impose additional costs or lengthen review times of any of Napo's current or future products and product candidates. Napo cannot determine what effect changes in regulations, statutes, legal interpretation or policies, when and if promulgated, enacted or adopted may have on Napo's business in the future. Such changes could, among other things, require:

changes to manufacturing methods;

additional clinical trials or testing;

new requirements related to approval to enter the market;

recall, replacement, or discontinuance of certain products; and

additional record keeping or the development of certain regulatory required hazard identification plans.

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Each of these would likely entail substantial time and cost and could harm Napo's financial results. In addition, delays in receipt of or failure to receive regulatory clearances or approvals for any future products would harm Napo's business, financial condition, and results of operations.

**Risks Related to the Combined Company if the Merger is Completed**

***The failure to integrate successfully the businesses of Jaguar and Napo in the expected timeframe would adversely affect the combined company's future results following the completion of the merger.***

The success of the merger will depend, in large part, on the ability of the combined company following the completion of the merger to realize the anticipated benefits from combining the businesses of Jaguar and Napo. To realize these anticipated benefits, the combined company must successfully integrate the businesses of Jaguar and Napo. This integration will be complex and time-consuming.

The failure to integrate successfully and to manage successfully the challenges presented by the integration process may result in the combined company's failure to achieve some or all of the anticipated benefits of the merger.

Potential difficulties that may be encountered in the integration process include the following:

- lost sales and customers as a result of customers of either of the two companies deciding not to do business with the combined company;
- complexities associated with managing the larger, more complex, combined business;
- integrating personnel from the two companies;
- potential unknown liabilities and unforeseen expenses, delays or regulatory conditions associated with the merger; and
- performance shortfalls at one or both of the companies as a result of the diversion of management's attention caused by completing the merger and integrating the companies' operations.

***The combined company's future results will suffer if the combined company does not effectively manage its expanded operations following the merger.***

Following the merger, the size of the combined company's business will be significantly larger than the current businesses of Jaguar and Napo. The combined company's future success depends, in part, upon its ability to manage this expanded business, which will pose substantial challenges for the combined company's management, including challenges related to the management and monitoring of new operations and associated increased costs and complexity. Neither Jaguar nor Napo can assure you that the combined company will be successful or that the combined company will realize the expected operating efficiencies, annual net operating synergies, revenue enhancements and other benefits currently anticipated to result from the merger.

***The loss of key personnel could have a material adverse effect on the combined company's business, financial condition or results of operations.***

The success of the merger will depend in part on the combined company's ability to retain key Jaguar and Napo employees who continue employment with the combined company after the merger is completed. It is possible that these employees might decide not to remain with the combined company after the merger is completed. If these key employees terminate their employment, the combined company's business activities might be adversely affected, management's attention might be diverted from integrating Jaguar and Napo to recruiting suitable replacements and the combined company's

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business, financial condition or results of operations could be adversely affected. In addition, the combined company might not be able to locate suitable replacements for any such key employees who leave the combined company or offer employment to potential replacements on reasonable terms.

***The success of the combined company will also depend on relationships with third parties and pre-existing customers of Jaguar and Napo, which relationships may be affected by customer preferences or public attitudes about the merger. Any adverse changes in these relationships could adversely affect the combined company's business, financial condition or results of operations.***

The combined company's success will be dependent on the ability to maintain and renew business relationships, including relationships with pre-existing customers of both Jaguar and Napo, and to establish new business relationships. There can be no assurance that the business of the combined company will be able to maintain pre-existing customer contracts and other business relationships, or enter into or maintain new customer contracts and other business relationships, on acceptable terms, if at all. The failure to maintain important business relationships could have a material adverse effect on the business, financial condition or results of operations of the combined company.

***The combined company will incur significant transaction and merger-related costs in connection with the merger.***

Jaguar and Napo expect to incur significant costs associated with completing the merger and combining the operations of the two companies. Although the exact amount of these costs is not yet known, Jaguar and Napo estimate that these costs will be approximately $[ • ] in the aggregate. In addition, there may be unanticipated costs associated with the integration. Although Jaguar and Napo expect that the elimination of duplicative costs and other efficiencies may offset incremental transaction and merger-related costs over time, these benefits may not be achieved in the near term or at all.

***The combined company will record goodwill that could become impaired and adversely affect the combined company's operating results.***

The merger will be accounted for as an acquisition by Jaguar in accordance with accounting principles generally accepted in the United States. Under the acquisition method of accounting, the assets and liabilities of Napo will be recorded, as of completion, at their respective fair values and added to those of Jaguar. The reported financial condition and results of operations of Jaguar issued after completion of the merger will reflect Napo balances and results after completion of the merger, but will not be restated retroactively to reflect the historical financial position or results of operations of Napo for periods prior to the merger. Following completion of the merger, the earnings of the combined company will reflect acquisition accounting adjustments. See "Unaudited Pro Forma Combined Condensed Financial Statements" beginning on page 269.

Under the acquisition method of accounting, the total purchase price will be allocated to Napo's tangible assets and liabilities and identifiable intangible assets based on their fair values as of the date of completion of the merger. The excess of the purchase price over those fair values will be recorded as goodwill. Jaguar and Napo expect that the merger will result in the creation of goodwill based upon the application of the acquisition method of accounting. To the extent the value of goodwill or intangibles becomes impaired, the combined company may be required to incur material charges relating to such impairment. Such a potential impairment charge could have a material impact on the combined company's operating results.

***Jaguar's ability to utilize net operating loss carryforwards and certain other tax attributes may be limited.***

Federal and state income tax laws impose restrictions on the utilization of net operating loss (sometimes referred to as NOL) and tax credit carryforwards in the event that an "ownership change"

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occurs for tax purposes, as defined by Section 382 of the Code. In general, an ownership change occurs when stockholders owning 5% or more of a "loss corporation" (a corporation entitled to use NOL or other loss carryovers) have increased their ownership of stock in such corporation by more than 50 percentage points during any three-year period. The annual base limitation under Section 382 of the Code is calculated by multiplying the loss corporation's value at the time of the ownership change by the greater of the long-term tax-exempt rate determined by the IRS in the month of the ownership change or the two preceding months.

As of December 31, 2016, Jaguar and Napo had $24.5 million and $85.4 million, respectively, of NOLs for federal income tax purposes that may be currently limited in their annual use. As a result of the merger, it is possible that either or both Jaguar and Napo will be deemed to have undergone an "ownership change" for purposes of Section 382 of the Code. Accordingly, the combined company's ability to utilize Jaguar's and Napo's net operating loss carryforwards may be substantially limited. These limitations could in turn result in increased future tax payments for the combined company, which could have a material adverse effect on the business, financial condition or results of operations of the combined company.

***The merger may not be accretive, and may be dilutive, to Jaguar's earnings per share, which may negatively affect the market price of Jaguar common stock.***

Although the merger is expected to be accretive to earnings per share, the merger may not be accretive, and may be dilutive, to Jaguar's earnings per share. The expectation that the merger will be accretive is based on preliminary estimates that may materially change. In addition, future events and conditions could decrease or delay any accretion, result in dilution or cause greater dilution than may be expected, including:

- adverse changes in market conditions;
- production levels;
- operating results;
- competitive conditions;
- laws and regulations affecting the animal health industry;
- capital expenditure obligations; and
- general economic conditions.

Any dilution of, or decrease or delay of any accretion to, Jaguar's earnings per share could cause the price of Jaguar's common stock to decline.

***Business issues currently faced by one company may be imputed to the operations of the other company or the combined company.***

To the extent that either Jaguar or Napo currently has or is perceived by customers to have operational challenges, those challenges may raise concerns by existing customers of the other company following the merger which may limit or impede Jaguar's future ability to maintain relationships with those customers.

***Resales of shares of Jaguar common stock following the merger and additional obligations to issue shares of Jaguar common stock may cause the market price of Jaguar common stock to decrease.***

As of March 31, 2017, Jaguar had 14,424,128 shares of common stock issued and outstanding and approximately 2,520,498 shares of common stock subject to outstanding options, warrants and other rights to purchase or acquire its shares. Jaguar currently estimates that it will issue up to an aggregate

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of approximately 69,299,346 shares of Jaguar common stock and non-voting common stock upon the closing of the merger and the related Napo debt settlement, on a fully diluted basis assuming the exercise or conversion of all outstanding options and warrants other than those options and warrants exercisable or convertible for approximately 300,000 shares of Jaguar common stock with an exercise/conversion price of $5.00 or more. Of these shares, (x) up to approximately 19,900,202 shares of Jaguar common stock and (y) if the applicable Hurdle Amount is achieved before all of the Tranche A Shares are sold, additional shares of the Jaguar common stock (equal to 50% of the unsold Tranche A shares), which will be distributed pro rata among holders of contingent rights and holders of Napo restricted stock units (sometimes referred to herein collectively as the Merger Shares), will be issuable upon the vesting of the contingent rights, which shares are registered for resale pursuant to this joint proxy statement/prospectus.

The issuance of and subsequent resale of these new shares of Jaguar common stock could have the effect of depressing the market price for shares of Jaguar common stock. In addition, the issuance of Jaguar common stock upon exercise of outstanding Jaguar options and warrants could also have the effect of depressing the market price for shares of Jaguar common stock.

***The combined company will assume Napo's obligations under the Napo/Salix Settlement Agreement, including the payment of fees to Salix in connection with the licensing of certain Napo assets and the sale or transfer of Napo assets in any subsequent transaction***.

Pursuant to the settlement, termination, asset transfer and transition agreement, or the Napo/Salix Settlement Agreement, between Napo and Salix Pharmaceuticals, Inc., or Salix, Jaguar will become subject to Napo's obligations under the Napo/Salix Settlement Agreement upon consummation of the merger, including the obligation to make payments to Salix consisting of a percentage of any consideration (i) received by the combined company or any of its affiliates from licensing certain assets specified in the Napo/Salix Settlement Agreement and/or (ii) received by the combined company in connection with the merger, consolidation, sale or similar transaction involving the combined company that is attributable to Napo and its affiliates. These payments will reduce any future revenues realized by the combined company from licensing or selling Napo's assets.

In addition, the combined company will not be able to incur any secured indebtedness from any creditor without entering into an intercreditor agreement with such creditor and Salix for purposes of protecting the relative priority of Salix's rights to payment and collection of amounts payable to Salix as described above. This restriction may hinder the combined company's ability to obtain, or increase the costs of obtaining, secured financing in the future.