

June 23, 2017

VIA EDGAR

U.S. Securities and Exchange Commission
100 F Street, N.E.
Washington, D.C. 20549

Attention: Suzanne Hayes
Assistant Director

Re: Jaguar Animal Health, Inc.
Amendment No. 2 to Registration Statement on Form S-4
Filed May 26, 2017
File No. 333-217364
Amendment No. 1 to Form 10-K for Fiscal Year Ended December 31, 2016
File No. 001-36714

Dear Ms. Hayes:

On behalf of our client, Jaguar Animal Health, Inc., a Delaware corporation (the “Company”), we hereby provide responses to comments (the “Comments”) of the Staff (the “Staff”) of the Securities and Exchange Commission (the “Commission”) issued in its letter dated June 9, 2017 (the “Letter”) regarding the Company’s above-referenced Registration Statement on Form S-4 (the “Registration Statement”) and Annual Report on Form 10-K (the “Annual Report”). Contemporaneous with this filing, the Company is filing on the EDGAR system an Amendment No. 3 to the Registration Statement on Form S-4 (the “S-4/A”) reflecting the responses of the Company below.

The Company’s responses are numbered to correspond to the Comments as numbered in the Letter. For your convenience, each of the Comments contained in the Letter have been restated in bold below in their entirety, with the Company’s corresponding response set forth immediately under such comment. In the responses below, page number references are to the S-4/A.

General

- 1. We note that you have a pending request for confidential treatment. Please be advised that we will not be in a position to declare your registration statement effective until we resolve any issues concerning the confidential treatment request.**

Response: The Company respectfully acknowledges the Staff’s Comment and understands that the Commission will not be in a position to declare the Registration Statement effective until it has resolved any issues concerning the confidential treatment request.

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Merger Consideration, page 18

- 2. We note your response to prior comment 6. Please include prominent disclosure that at the current market value of the shares the resale of the Tranche A shares to third parties will not provide Nantucket sufficient proceeds to satisfy the applicable Hurdle Amount.**

Response: The Company respectfully acknowledges the Staff’s Comment and, in response thereto, has revised the disclosure on the outside cover page of the joint proxy statement/prospectus within the Registration Statement and elsewhere throughout the Registration Statement to include prominent disclosure that at the current market value of the shares, the resale of the Tranche A Shares to third parties would not provide Nantucket with sufficient proceeds to satisfy the applicable Hurdle Amount.

Napo Business, page 118

- 3. We note your revised disclosure in response to prior comment 16. Safety and efficacy determinations are solely within the FDA’s authority. As your product candidates have not received FDA approval, it is premature to state that they are safe or effective. To the extent that your clinical trials support the statements, you may state that your product candidates have shown to be well tolerated and demonstrated statistically significant improvements. Please revise your statement “Crofelemer was effective in shortening the duration of traveler’s diarrhea by 21%” and all other statements indicating that your products are safe and effective.**

Response: The Company respectfully acknowledges the Staff's Comment and, in response thereto, has revised the disclosure on pages 134 and 138 of the S-4/A to replace statements indicating that Napo's product candidates are safe and effective with a statement that such candidates have shown to be well tolerated and provided statistically significant results.

Management's Discussion and Analysis of Financial Condition and Results of Operations Overview, page 153

4. **You disclose that Jaguar received a \$1.5 million upfront payment under the terms of the Elanco agreement. The \$1.5 million is also disclosed on pages 166 and F-39. However, the disclosure on page 158 and elsewhere in the document states that the initial upfront payment was \$2,548,689. Please explain the difference or revise.**

Response: The Company respectfully acknowledges the Staff's Comment and has revised the disclosure on pages 161 and F-74 of the S-4/A to clarify that it received \$2,548,689 on the execution of the Elanco agreement and explain the components of the upfront payment. The upfront payment consisted of two components: (i) a non-refundable, non-creditable amount of \$1,500,000 and (ii) \$1,048,689 designated as reimbursement for past product development expense incurred by the Company in an acute trial and safety study.

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Unaudited Interim Financial Statements

Notes to the Condensed Financial Statements, page F-44

5. **Please note that your interim financial statements must include all adjustments that, in the opinion of management, are necessary to make the financial statements not misleading and an affirmative statement to this effect must be included in your disclosures. If true, please revise to add this disclosure. Reference is made to Regulation S-X, Rule 8-03, Instruction 2. In addition, please clearly label the notes as unaudited.**

Response: The Company respectfully acknowledges the Staff's comment and, in response thereto, has revised the disclosure on page F-46 of the S-4/A to include an affirmative statement that its interim financial statements reflect all adjustments, which are, in the opinion of management, necessary for a fair presentation of its financial position and results of operations. In addition, the Company has revised the heading to the Notes to the Condensed Financial Statements on pages F-44 to F-75 to make clear that such notes relate to the unaudited financial statements.

Summary of Significant Accounting Policies

Revenue Recognition

Collaboration Revenue, page F-48

6. **We note that under the terms of the Elanco agreement you will receive additional payments upon achievement of certain development, regulatory and sales milestones in the aggregate amount of up to \$61.0 million. Please revise your disclosure to describe each substantive milestone and the related contingent consideration. Refer to ASC 605-28-50-2b.**

Response: The Company respectfully acknowledges the Staff's Comment and has revised the disclosure on page F-74 of the S-4/A to describe each substantive milestone and the related contingent consideration under the Elanco agreement.

Form 10-K/A for Fiscal Year Ended December 31, 2016

Exhibits 31.1 and 31.2

7. **The executive certifications you have filed as exhibits to your Form 10-K/A do not contain the exact certification wording required by Item 601(b)(31) of Regulation S-K. Please confirm that in your future filings you will revise the certifications to include the entire introductory language of paragraph 4 to also address your officers' responsibility for establishing and maintaining internal control over financial reporting.**

Response: The Company respectfully acknowledges the Staff's comment and confirms that in its future filings, it will revise the certifications to include the entire introductory language of paragraph 4 to address its officers' responsibility for establishing and maintaining internal control over financial reporting.

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Sincerely,

/s/ Michael S. Lee

Michael S. Lee
Reed Smith LLP

Cc: Lisa A. Conte, Jaguar Animal Health, Inc., by e-mail
Karen Wright, Jaguar Animal Health, Inc., by e-mail
Dan Harris, BDO USA, LLP, by e-mail
Donald C. Reinke, Reed Smith LLP, by e-mail
