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October 10, 2014

Jeffrey P. Riedler Assistant Director U.S. Securities and Exchange Commission 100 F Street, N.E. Washington, D.C. 20549

Re: Jaguar Animal Health, Inc.

Amendment No. 1 to Registration Statement on Form S-1

Filed September 9, 2014 File No. 333-198383

Dear Mr. Riedler:

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 a letter dated September 23, 2014 (the "Letter") regarding the Company's above-referenced Amendment No. 1 to Registration Statement on Form S-1 (the "Registration Statement"), as filed with the Commission on September 9, 2014. Contemporaneous with this filing, the Company is filing on the EDGAR system an Amendment No. 2 to the Registration Statement on Form S-1 (the "Form S-1/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 Form S-1/A.

Capitalization, page 46

1. We acknowledge your response to previous comment 9. Please revise your disclosure, when you establish your anticipated offering price range, to disclose the amount of the contingent beneficial conversion feature charge to loss applicable to common shareholders that will be recorded upon the completion of your offering related to your Series A redeemable convertible preferred stock.

Response: The Company respectfully acknowledges the Staff's Comment and will revise the disclosure on page 46 of the Form S-1/A as requested when it establishes the anticipated offering price range.

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Business, page 62

2. We note your response to comment 6. Please amend your disclosure to briefly describe the material terms of this non-disturbance agreement when available. Additionally, please file this agreement as an exhibit pursuant to Item 601(b)(10) of Regulation S-K.

Response: The Company respectfully acknowledges the Staff's Comment and has revised the disclosure on page 100 of the Form S-1/A accordingly. The non-disturbance agreement is filed as Exhibit 10.23 to the Form S-1/A.

Next Steps and Commercialization Plans, page 70

3. We note on page 70 that you expect to meet with the FDA in late August or early September 2014. Please update your disclosure regarding this meeting and the status of your rolling NADA process for Canalevia for the treatment of CID in dogs.

Response: The Company respectfully acknowledges the Staff's Comment and has revised the disclosure on page 69 of the Form S-1/A accordingly.

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Should you have any questions concerning any of the foregoing, please contact me by telephone at (415) 659-5936.

Sincerely,

/s/ Marianne C. Sarrazin Marianne C. Sarrazin Reed Smith LLP

Cc: Lisa A. Conte, Jaguar Animal Health, Inc., by e-mail Bryan Gendron, BDO USA, LLP, by e-mail Donald C. Reinke, Reed Smith LLP, by e-mail Divakar Gupta, Cooley LLP, by e-mail John T. McKenna, Cooley LLP, by e-mail