

MINTZ LEVIN

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May 18, 2016

VIA EDGAR

United States Securities and Exchange Commission
Division of Corporation Finance
100 F Street, N.E.
Washington, D.C. 20549

Attention: Suzanne Hayes, Assistant Director

**Re: Bellerophon Therapeutics, Inc.
Registration Statement on Form S-3
Filed May 5, 2016
File No. 333-211166**

Ladies and Gentlemen:

We are submitting this letter on behalf of Bellerophon Therapeutics, Inc. (the “**Company**”) in response to a comment from the staff (the “**Staff**”) of the Securities and Exchange Commission (the “**Commission**”) received by letter dated May 13, 2016 (the “**Comment Letter**”) from Suzanne Hayes, Assistant Director, to Jonathan M. Peacock, the Company’s Chief Executive Officer, relating to the above-referenced registration statement on Form S-3 of the Company filed with the Commission on May 5, 2016 (the “**Registration Statement**”).

For convenient reference, we have set forth below in italics the Staff’s comments set forth in the Comment Letter and have keyed the Company’s response to the numbering of the comment and the heading used in the Comment Letter. The response is based on information provided to Mintz, Levin, Cohn, Ferris, Glovsky and Popeo, P.C. by representatives of the Company.

Prospectus Cover Page

1. It appears you may be relying on General Instruction I.B.6 of Form S-3 to register the primary offering of securities covered by the registration statement. As such, please revise to disclose the aggregate market value of your outstanding voting and non-voting common equity, as well as the amount of all securities offered pursuant to General Instruction I.B.6 of Form S-3 during the previous 12 months up to and including the date of your prospectus. We refer you to Instruction 7 to General Instruction I.B.6.

Response: In response to the Staff’s comment, the disclosure on the prospectus cover page has been modified to include the aggregate market value of the Company’s outstanding voting and non-voting common equity, as well as the amount of all securities offered pursuant to General Instruction I.B.6 of Form S-3 during the previous 12 months up to and including the date of the prospectus.

Mintz, Levin, Cohn, Ferris, Glovsky and Popeo, P.C.

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Exhibit Index

2. We note your indication that you may file Exhibits 4.6 and 4.7 by amendment or as exhibits to a report pursuant to Section 13(a), 13(c) or 15(d) of the Exchange Act. Please be advised that your indentures must be filed with the registration statement, and qualified under the Trust Indenture Act of 1939, at the time the registration statement is declared effective. Accordingly, please file the indentures as exhibits to the registration statement prior to effectiveness. For guidance, please refer to *Compliance and Disclosure Interpretations, Trust Indenture Act of 1939 Questions 201.02 and 201.04.*

Response: In response to the Staff's comment, we have filed the indentures as Exhibits 4.6 and 4.7 to the registration statement.

* * * * *

We hope that the above response will be acceptable to the Staff. Please do not hesitate to contact me at 212-692-6732 or jschultz@mintz.com with any comments or questions regarding the Registration Statement and this letter. We thank you for your time and attention.

Sincerely,
/s/ Jeffrey Schultz
Jeffrey Schultz

cc: Securities and Exchange Commission

Suzanne Hayes, Assistant Director

Irene Paik

Mary Beth Breslin

Bellerophon Therapeutics, Inc.

Jonathan M. Peacock, Chief Executive Officer

Mintz, Levin, Cohn, Ferris, Glovsky and Popeo, P.C.

Kenneth R. Koch, Esq.

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