

September 25, 2012

Via EDGAR

United States Securities and Exchange Commission
Division of Corporation Finance
100 F Street, N.E.
Washington, D.C. 20549
Attention: Jeffrey Riedler, Assistant Director

**Re: Intercept Pharmaceuticals, Inc.
Registration Statement on Form S-1
Filed September 4, 2012
File No. 333-183706**

Ladies and Gentlemen:

We are submitting this letter on behalf of Intercept Pharmaceuticals, Inc. (the “**Company**”) in response to oral comments from the staff (the “**Staff**”) of the Securities and Exchange Commission (the “**Commission**”) received by telephone on September 24, 2012 (the “**Oral Comments**”) relating to the Company’s letter dated September 24, 2012 (the “**Response Letter**”). The Response Letter was filed in response to comments received by letter dated September 18, 2012, from Jeffrey P. Riedler, Assistant Director, to Mark Pruzanski, the Company’s President and Chief Executive Officer, relating to the above-referenced registration statement. As discussed with the Staff, we are filing this letter via EDGAR for the Staff’s review as a supplement to the Company’s Response Letter and in advance of filing Amendment No. 1 to the registration statement (“**Amendment No. 1**” and, as amended, the “**Registration Statement**”), which will be filed subsequent to the Staff’s review of this letter.

For convenient reference, we have set forth below in italics a summary of each of the Oral Comments and have keyed the Company’s responses to these comments. All of the responses are based on information provided to Mintz, Levin, Cohn, Ferris, Glovsky and Popeo, P.C. by representatives of the Company. Where appropriate, the Company has indicated that it will revise its disclosure in Amendment No. 1 and has included the proposed text of such revised disclosure as an exhibit to this letter.

1. *Please revise your disclosure to clarify your consideration of a binomial valuation model in evaluating your common stock warrant liability.*

Response: In response to this comment, the Company submits that it will include revised disclosure on page 64 of the prospectus contained in the Registration Statement as set forth in **Exhibit A** to this letter in connection with its filing of Amendment No. 1, with the changes on Exhibit A marked to show the differences from the proposed disclosure included in the Response Letter. In addition, the Company submits that it will also include revised disclosure on page F-12 of the prospectus contained in the Registration Statement as set forth in **Exhibit B** to this letter in connection with its filing of Amendment No. 1.

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

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2. *Please confirm to us that you have considered the materiality of the difference in values obtained using a Black-Scholes model and a binomial/lattice or simulation model and other non-material items, individually and in the aggregate, in reaching your conclusion that your financial statements for each period included in the Registration Statement are not materially misstated.*

Response: The Company confirms that it has evaluated the materiality of the difference in values obtained using a Black-Scholes model and a binomial/lattice or simulation model and other non-material items, individually and in the aggregate, in reaching its conclusion that the financial statements for each period included in the Registration Statement are not materially misstated.

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When appropriate, the Company will provide a written request for acceleration of the effective date of the Registration Statement and will include the requested "Tandy" language therein. The Company and the underwriters are aware of their respective obligations under Rules 460 and 461 regarding requesting acceleration of the effectiveness of the Registration Statement.

We hope that the above responses and the related revisions to the Registration Statement will be acceptable to the Staff. Please do not hesitate to contact me at 617-348-1798 or samuels@mintz.com or Bryan Yoon of this firm at 212-692-6847 or byoon@mintz.com with any comments or questions regarding the Registration Statement and this letter. We thank you for your time and attention.

Sincerely,

/s/ Scott A. Samuels
Scott A. Samuels, Esq.

cc: Securities and Exchange Commission
Jeffrey Riedler, Assistant Director
Rose Zukin
Bryan Pitko
Kei Nakada

Mark Brunhofer

Intercept Pharmaceuticals, Inc.

Mark Pruzanski, M.D., President and Chief Executive Officer
Barbara Duncan, Chief Financial Officer, Treasurer and Secretary

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

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