July 10, 2013

Via EDGAR and FedEx

Mr. Jeffrey P. Riedler Mr. Austin Stephenson United States Securities and Exchange Commission Division of Corporation Finance 450 Fifth Street, N.W. Washington, D.C. 20549

Re: Neurocrine Biosciences, Inc. Form 10-K for the Fiscal Year Ended December 31, 2012 Filed February 8, 2013 File No. 000-22705

Ladies and Gentlemen:

This letter is being transmitted by Neurocrine Biosciences, Inc. (the "*Company*") in response to a comment received from the staff (the "*Staff*") of the Securities and Exchange Commission (the "*SEC*"), by supplemental letter dated July 9, 2013 (the "*Supplemental Letter*"), with respect to the Company's Annual Report on Form 10-K for the fiscal year ended December 31, 2012. The Supplemental Letter from the Staff was received in response to the Company's letter dated June 26, 2013 responding to a comment from the Staff by letter dated June 18, 2013. The text of the Staff's comment in the Supplemental Letter has been included in this letter in italics for your convenience.

Risk Factors

"We license some of our core technologies and drug candidates from third parties...," page 24

1. We note your response to our prior comment. In addition to filing the Mount Sinai agreement as an exhibit to your next 10-Q and disclosing its material terms, please confirm in your response to us that you will eliminate language in future periodic reports indicating that you are dependent on the license agreement with Salk and the license agreement with the Research Development Foundation. For example, we note such disclosure in the risk factor on page 24 of your annual report.

Response: The Company confirms that it will eliminate language in its future periodic filings with the SEC indicating that the Company is dependent on its license agreement with The Salk Institute for Biological Studies and its license agreement with the Research Development Foundation.

The Company further acknowledges that:

- the Company is responsible for the adequacy and accuracy of the disclosure in the filing;
- Staff comments or changes to disclosure in response to Staff comments do not foreclose the SEC from taking any action with respect to the filing; and
- the Company may not assert Staff comments as a defense in any proceeding initiated by the SEC or any person under the federal securities laws of the United States.

Please contact me at (858) 617-7817 with any questions or further comments regarding the Company's response to the Staff's comment.

Sincerely,

/s/ Timothy P. Coughlin

Timothy P. Coughlin Chief Financial Officer

cc: Jason L. Kent, Esq. of Cooley LLP