

November 15, 2010

Via EDGAR and FedEx

Ms. Tabatha Akins
Mr. Jim B. Rosenberg
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 Fiscal Year Ended December 31, 2009
Filed February 8, 2010
Form 10-Q for the Quarterly Period Ended June 30, 2010
Filed July 29, 2010
Definitive Schedule 14A
Filed April 21, 2010
File No. 000-22705

Ladies and Gentlemen:

This letter is being transmitted by Neurocrine Biosciences, Inc. (the "**Company**") to confirm its receipt of the comments from the staff (the "**Staff**") of the Securities and Exchange Commission, by supplemental letter dated November 1, 2010 (the "**Supplemental Letter**"), with respect to the Company's (i) Annual Report on Form 10-K for the fiscal year ended December 31, 2009, (ii) Quarterly Report on Form 10-Q for the quarterly period ended June 30, 2010 and (iii) Definitive Proxy Statement on Schedule 14A filed on April 21, 2010. The Company is currently in the process of preparing a response to the comments received from the Staff in the Supplemental Letter, including working with its collaborative partners to agree upon additional disclosures to address the Staff's comments. The Company will endeavor to respond to the Staff's comments as quickly as possible and in any event within the next 10 business days.

Please contact me at (858) 617-7600 with any questions regarding the timing of the Company's response to the Staff's comments.

Sincerely,

/s/ Margaret Valeur-Jensen

Margaret Valeur-Jensen, J.D., Ph.D.
Executive Vice President, General
Counsel and Corporate Secretary

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