



DIVISION OF
CORPORATION FINANCE

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549

August 27, 2010

Kevin C. Gorman
President and Chief Executive Officer
Neurocrine Biosciences, Inc.
12780 El Camino Real
San Diego, CA 92130

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

Dear Ms. Spaun:

We have reviewed your filings and have the following comments. In our comments, we ask you to provide us with information so we may better understand your disclosure.

Please respond to this letter within ten business days by providing the requested information or by advising us when you will provide the requested response. If you do not believe a comment applies to your facts and circumstances, please tell us why in your response. Please furnish us a letter on EDGAR under the form type label CORRESP that keys your responses to our comments.

After reviewing the information provided, we may raise additional comments and/or request that you amend your filing.

Form 10-K for Fiscal Year Ended December 31, 2009 Annual

Item 1. Business.

Intellectual Property, page 13

1. Please provide us draft disclosure to be included in an amendment to your December 31, 2009 Form 10-K to identify each of your material patents, including the patent number, duration and the product candidate to which the patent relates.

Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations

Results of Operations of Years Ended December 31, 2009, 2008, and 2007, page 37

2. You incurred \$35.8 million, \$55.3 million and \$82.0 million on research and development activities, in 2009, 2008 and 2007, respectively. However, your disclosures about the nature of your research and development expenses appear to be limited. Please refer to the Division of Corporation Finance "Current Issues and Rulemaking Projects Quarterly Update" under section VIII – Industry Specific Issues – Accounting and Disclosure by Companies Engaged in Research and Development Activities. You can find it at the following website address: <http://www.sec.gov/divisions/corpfin/cfcrq032001.htm#secviii>. Please provide us draft disclosure to be included in an amendment to your December 31, 2009 Form 10-K to disclose the following information for each of your major research and development projects:
- The costs incurred during each period presented and to date on the project;
 - The nature, timing and estimated costs of the efforts necessary to complete the project;
 - The anticipated completion dates;
 - The risks and uncertainties associated with completing development on schedule, and the consequences to operations, financial position and liquidity if the project is not completed timely; and finally
 - The period in which material net cash inflows from significant projects are expected to commence.

Regarding a., if you do not maintain any research and development costs by project, disclose that fact and explain why management does not maintain and evaluate research and development costs by project. Provide other quantitative or qualitative disclosure that indicates the amount of the company's resources being used on the project.

Regarding b. and c., disclose the amount or range of estimated costs and timing to complete the phase in process and each future phase. To the extent that information is not estimable, disclose those facts and circumstances indicating the uncertainties that preclude you from making a reasonable estimate.

Notes to Consolidated Financial Statements

Note 1. Organization and Summary of Significant Accounting Policies
Restructuring, page 55

3. We note that you classified \$2.1 million and \$4.9 million of restructuring charges as research and development expense in 2009 and 2007, respectively. Please tell us how these activities meet the definition of research and development per ASC 730-10-20.

Form 10-Q for the Period Ended June 30, 2010

Item 1. Financial Statements

Notes to the Condensed Consolidated Financial Statements

11. Significant Collaborative Research and Development Agreements page 11

4. Please provide us draft disclosure to be included in your next Form 10-Q to include a description of all of your rights and obligations, the collaborative development period and all deliverables under your agreement with Abbott International Luxembourg S.à r.l. This comment also applies to the agreement with Boehringer Ingelheim International GmbH.

Definitive Proxy Statement on Schedule 14A

Compensation Discussion and Analysis

Equity Awards, page 31

5. Please provide us draft disclosure to be included in an amendment to your December 31, 2009 Form 10-K that expands your discussion to include a more detailed analysis of how the Compensation Committee determined the actual amounts of the equity awards for each named executive officer. Although we note disclosure regarding general policies relating to these forms of compensation, please include disclosure that not only sets forth the actual amounts awarded under these forms of compensation but also provides substantive analysis and insight into how the Compensation Committee determined the actual award amounts. For example, please discuss and analyze how the Compensation Committee determined to award the actual number of shares underlying the stock option and restricted stock awards for your named executive officers, and the rationale for the variances in those awards among such officers. In particular, please elaborate on the Compensation Committee's assessment of each executive's individual performance and his contribution to the Company's long-term strategic goals as this pertained to the executive's individual equity awards.

Summary Compensation Table, page 35

6. We note that you have displayed compensation information for only two years for three of your Named Executive Officers and that you state in footnote 1 that these executive officers were named to their current positions as such in January 2008. However, we note that, per your disclosure beginning on page 26, each of these executive officers was in their current positions as of January 2007. In addition, we note your current report on Form 8-K that was filed December 22, 2006 announcing that on December 21, 2006 these men were promoted to their current positions. Please provide us draft disclosure to be included in an amendment to your December 31, 2009 Form 10-K to revise your compensation table to provide the required fiscal year 2007 information for each of these NEOs.

You may contact Tabatha Akins, Staff Accountant (202) 551-3658 or Joel Parker, Accounting Branch Chief at (202) 551-3651 if you have any questions regarding the processing of your response as well as any questions regarding comments on the financial statements and

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related matters. Please contact Scot Foley, Attorney Advisor at (202) 551-3383 or Daniel Greenspan, Special Counsel at (202) 551-3623 with questions on any of the other comments. In this regard, do not hesitate to contact me, at (202) 551-3679.

Sincerely,

Jim B. Rosenberg
Senior Assistant Chief Accountant