



DIVISION OF
CORPORATION FINANCE

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

December 21, 2016

Lonnel Coats
President and Chief Executive Officer
Lexicon Pharmaceuticals, Inc.
8800 Technology Forest Place
The Woodlands, Texas 77381

**Re: Lexicon Pharmaceuticals, Inc.
Form 10-K for the Year Ended December 31, 2015
Filed March 11, 2016
File No. 000-30111**

Dear Mr. Coats:

We have limited our review of your filing to the financial statements and related disclosures and have the following comments. In some of our comments, we may ask you to provide us with information so we may better understand your disclosure.

Please respond to these comments within ten business days by providing the requested information or advise us as soon as possible when you will respond. If you do not believe our comments apply to your facts and circumstances, please tell us why in your response.

After reviewing your response to these comments, we may have additional comments.

Form 10-K for the Year Ended December 31, 2015

Notes to Consolidated Financial Statements

2. Summary of Significant Accounting Policies

Revenue Recognition, page F-9

1. Please tell us how your criteria for milestone being substantive as disclosed on page F-9 complies with ASC 605-28-25-2.

16. Collaboration and License Agreements

Sanofi, page F-20

2. Regarding amounts that you are eligible to receive from Sanofi of up to an aggregate of \$430 million upon the achievement of specified development and regulatory milestones and up to an aggregate of \$990 million upon the achievement of specified sales

Lonnell Coats
Lexicon Pharmaceuticals, Inc.
December 21, 2016
Page 2

milestones, please:

- Clarify for us which milestones meet the definition of a milestone in ASC 605-28-20.
- Provide us for each milestone meeting the definition in ASC 605-28-20 the information required by ASC 605-28-50-2.b.,c.d. and e.
- Tell us your accounting policy for recognizing non-substantive milestones and milestones that do not meet the definition in ASC 605-28-20.

In closing, we remind you that the company and its management are responsible for the accuracy and adequacy of their disclosures, notwithstanding any review, comments, action or absence of action by the staff.

You may contact Keira Nakada, Senior Staff Accountant, at (202) 551-3659 or Jim Rosenberg, Senior Assistant Chief Accountant, at (202) 551-3679 with any questions.

Division of Corporation Finance
Office of Healthcare and
Insurance