



DIVISION OF
CORPORATION FINANCE

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

Mail Stop 4546

September 27, 2016

Neil K. Warma
Chief Executive Officer
Opexa Therapeutics, Inc.
2635 Technology Forest Blvd.
The Woodlands, Texas 77381

Re: Opexa Therapeutics, Inc.
Form 10-K for Fiscal Year Ended December 31, 2015
Filed March 15, 2016
File No. 001-33004

Dear Mr. Warma:

We have reviewed your filing 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.

Business, page 2

Option and License Agreement with Merck Serono, page 6

1. We note your statement that you “would also be responsible for royalty obligations to certain third parties, such as Baylor College of Medicine from which we originally licensed related technology.” Please clarify the identity of any party other than Baylor College to whom you may have royalty obligations, and please describe the terms of all such royalty obligations, including to Baylor College.
2. We note that your License Agreement with Baylor College of Medicine requires you to make certain payments, including milestone payments and royalties, in the event that Tcelna receives regulatory approval and is commercialized. Please provide a description of the License Agreement with Baylor College of Medicine to disclose:
 - The term of the agreement;
 - the aggregate amount of potential future milestone payments;

- the aggregate amount of potential future royalty payments; and
- the royalty rate within a range that does not exceed ten percent (e.g. teens, twenties, etc.).

Exhibits

Exhibit 10.8

3. We note that your License Agreement with Baylor College of Medicine contains redactions pursuant to a request for confidential treatment, however, the License Agreement's confidential treatment has expired. Please file an un-redacted copy of such agreement.

Exhibit 10.10

4. We note that you have entered into a License Agreement dated January 13, 2006 with the Shanghai Institute for Biological Services, however, no description of such agreement is contained in your Annual Report. Please delete this agreement from your Exhibit Index if this agreement is no longer material or revise the disclosures to describe the License Agreement, including the material terms.

We urge all persons who are responsible for the accuracy and adequacy of the disclosure in the filing to be certain that the filing includes the information the Securities Exchange Act of 1934 and all applicable Exchange Act rules require. Since the company and its management are in possession of all facts relating to a company's disclosure, they are responsible for the accuracy and adequacy of the disclosures they have made.

In responding to our comments, please provide a written statement from the company acknowledging 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 Commission 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 Commission or any person under the federal securities laws of the United States.

Neil K. Warma
Opexa Therapeutics, Inc.
September 27, 2016
Page 3

Please contact Michael Gershon at (202) 551-6598 or Michael Clampitt at (202) 551-3434 with any questions.

Sincerely,

p.p. /s/ Michael Clampitt

Suzanne Hayes
Assistant Director
Office of Healthcare and Insurance