



DIVISION OF
CORPORATION FINANCE

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

February 12, 2013

Via E-mail

Scott T. Jackson
Chief Executive Officer
Celator Pharmaceuticals, Inc.
303B College Road East
Princeton, NJ 08540

**Re: Celator Pharmaceuticals, Inc.
Amendment No. 2 to Registration Statement on Form 10-12G
Filed January 30, 2013
File No. 000-54852**

Dear Mr. Jackson:

We have reviewed your amended 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 this letter within ten business days by further amending your filing, by providing the requested information, or by advising us when you will provide the requested response. If you do not believe our comments apply to your facts and circumstances or do not believe an amendment is appropriate, please tell us why in your response.

After reviewing any further amendment to your filing and the information you provide in response to these comments, we may have additional comments.

Item 6. Executive Compensation

1. We note your response to prior comment 6. Please restore the executive compensation awards for fiscal year 2011 and include it with that of fiscal year 2012. Instruction 1 to Item 402(n) of Regulation S-K states that you are required to provide executive compensation disclosure for both the last completed fiscal year and any other information required when your filing was made. At the time of your initial filing, you were required to disclose executive compensation information for fiscal year 2011 and therefore this disclosure should not be removed.

Consolidated Financial Statements for the Year Ended December 31, 2011

Notes to the consolidated financial statements

Commitments and contingencies, page F-15

2. Your revised disclosure in response to prior comment seven does not disclose the duration of the Princeton and BCCA agreements. Please revise your disclosure to state the term of each agreement including royalty payment period.

12. Restated amounts, page F-22

3. Your response to prior comment eight did not provide us with your analysis as to why the warrants issued in 2011 and 2012 should be accounted for as a liability. Please provide us with your analysis that addresses how you determined that the warrants are not indexed to your common stock and why the warrants should not be classified in stockholders equity under ASC 815-40.

Consolidated Financial Statements for the Nine Months Ended September 30, 2012

Notes to consolidated financial statements

12. Research collaboration income, page F-43

4. Your revised disclosure in response to prior comment 10 does not disclose what the up-front payment received in June 2012 from LLS represents. Also, based on your response it appears that the upfront payment and success-based return are milestones. Please disclose, and explain to us, why the upfront payment and success-based return are substantive and what the \$2 million up-front payment is for under the 2012 LLS Agreement. In addition, disclose your determination on why the additional \$3 million payments for the achievement of clinical milestones are substantive. Please refer to ASC 605-28-50-2.

14. Restated amounts, page F-43

5. Please refer to your response and revised disclosure to prior comment nine. Please provide us with Management's analysis under ASC 470-20 that supports the conclusion that the modification of the terms of the automatic conversion on qualified financing effectively introduced a conversion feature that was beneficial. Provide us with your calculation of the beneficial conversion feature totaling \$1,221,542.

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.

You may contact Christine Allen at (202) 551-3652 or Donald Abbott at (202) 551-3608 if you have questions regarding comments on the financial statements and related matters. Please contact Scot Foley at (202) 551-3383, Jennifer Riegel at (202) 551-3575 or me at (202) 551-3715 with any other questions.

Sincerely,

/s/ Jennifer Riegel for

Jeffrey P. Riedler
Assistant Director

cc: John W. Kauffman, Esq.
Duane Morris LLP
30 South 17th Street
Philadelphia, PA 19103-4196