



DIVISION OF
CORPORATION FINANCE

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

December 7, 2011

Via E-Mail

Prabhavathi Fernandes, Ph.D.
President and Chief Executive Officer
Cempra Holdings, LLC (to be converted to Cempra, Inc.)
6340 Quadrangle Drive, Suite 100
Chapel Hill, North Carolina 27517-8149

**Re: Cempra Holdings, LLC
Registration Statement on Form S-1
Amendment No. 1 filed November 22, 2011
File No. 333-177261**

Dear Dr. Fernandes:

We have reviewed your amendment filed November 22, 2011 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 by amending your registration statement and providing the requested information. 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 amendment to your registration statement and the information you provide in response to these comments, we may have additional comments.

FORM S-1

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1. We note your response to our prior comment 7 and reissue the comment. Please clearly state that you are liable for the accuracy of the information in your prospectus or delete your statements concerning the lack of any guarantee for the accuracy of third party data, that you have not verified the information contained in the third party sources you have used, and the accuracy of the results and estimates of your research has not been verified by independent sources.

Critical Accounting Policies
Share-Based Compensation, page 47

2. Please refer to prior comment 26. We may have additional comments on your accounting for stock compensation and related disclosure once you have disclosed an estimated

offering price. At that time, please provide quantitative and qualitative disclosures explaining the difference between the estimated offering price and the fair value of each equity issuance.

3. Please refer to prior comment 27. Please describe and quantify the significant assumptions used to determine the fair market values of \$0.22 per share, \$0.45 per share and \$0.53 per share.

Executive Compensation, page 96

4. We note your response to our prior comment 48 and the accompanying revisions to your disclosure in the registration statement. Please be advised that to the extent that you engaged in any benchmarking for a material element of compensation, you must identify the benchmark and its components, including the component companies. Accordingly, as it appears that the 2010 stock option awards granted to Dr. Fernandes and Mr. Hahn were set by reference to equity awards made at peer companies, please disclose the peer companies that were considered.

Consolidated Financial Statements, page F-1
General

5. You appear to have omitted certain footnote disclosures supporting your financial statements for the nine months ended September 30, 2011. For example, the tabular disclosures in Note 9--Stock Option Plan and Note 10--Income Taxes do not include amounts for the interim periods in 2011. Please disclose this information.

2. Summary of Significant Accounting Policies
Valuation Assumptions for Stock Option Plans, page F-12

6. With regard to your response to comment 54, tell us how you determined that the peer companies used for 2009 and 2010 were comparable in terms of revenue and market capitalization during the six years following the option grants. Provide us your projections of Cempra's market capitalization and revenues demonstrating how they are comparable. Tell us if any of the peer companies have either: 1) no approved products and several candidates in clinical trials, or 2) have their first product approved during the relevant period and, if not, why not.

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 Act of 1933 and all applicable Securities 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.

Notwithstanding our comments, in the event you request acceleration of the effective date of the pending registration statement please provide a written statement from the company acknowledging that:

- should the Commission or the staff, acting pursuant to delegated authority, declare the filing effective, it does not foreclose the Commission from taking any action with respect to the filing;
- the action of the Commission or the staff, acting pursuant to delegated authority, in declaring the filing effective, does not relieve the company from its full responsibility for the adequacy and accuracy of the disclosure in the filing; and
- the company may not assert staff comments and the declaration of effectiveness as a defense in any proceeding initiated by the Commission or any person under the federal securities laws of the United States.

Please refer to Rules 460 and 461 regarding requests for acceleration. We will consider a written request for acceleration of the effective date of the registration statement as confirmation of the fact that those requesting acceleration are aware of their respective responsibilities under the Securities Act of 1933 and the Securities Exchange Act of 1934 as they relate to the proposed public offering of the securities specified in the above registration statement. Please allow adequate time for us to review any amendment prior to the requested effective date of the registration statement.

You may contact Franklyn Wyman, Staff Accountant, at (202) 551-3660 or Lisa Vanjoske, Assistant Chief Accountant, at (202) 551-3614 if you have questions regarding comments on the financial statements and related matters. Please contact John Krug, Senior Counsel, at (202) 551-3862, Dan Greenspan, Branch Chief, at (202) 551-3623, or me at (202) 551-3715 with any other questions.

Sincerely,

/s/ Daniel Greenspan for

Jeffrey Riedler
Assistant Director

cc: Alexander M. Donaldson, Esq.
Wyrick Robbins Yates & Ponton LLP
4101 Lake Boone Trail, Suite 300
Raleigh, North Carolina 27607

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