



DIVISION OF  
CORPORATION FINANCE

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

June 27, 2012

Andrew D. Miller  
Chief Financial Officer  
Cepheid  
904 Caribbean Drive  
Sunnyvale, California 94089-1189

**Re: Cepheid  
Form 10-K for the Fiscal Year Ended December 31, 2011  
Filed February 15, 2012  
Form 8-K dated April 19, 2012  
Filed April 19, 2012  
File No. 000-30755**

Dear Mr. Miller:

We have reviewed your filings and have the following comments. We have limited our review to only your financial statements and related disclosures and do not intend to expand our review to other portions of your documents. 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 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 amendment to your filing and the information you provide in response to these comments, we may have additional comments.

Form 8-K dated April 19, 2012

Exhibit 99.01

1. Under "Business Outlook," you disclose a range of forecasted non-GAAP net income per share for the full fiscal year. Please tell us why you did not provide a reconciliation of the non-GAAP measure to the most directly comparable GAAP measure, as required by Item 10(e)(1)(i)(B) of Regulation S-K. Also, as you refer to the measure as "non-GAAP," describe to us how the measure has been adjusted from your GAAP expectations for the year. Refer also to Compliance and Disclosure Interpretation 105.6 related to Non-GAAP Financial Measures.

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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 Kristin Lochhead at (202) 551-3664 or me at (202) 551-3676 if you have questions regarding comments on the financial statements and related matters. Please contact Martin James, Senior Assistant Chief Accountant, at (202) 551-3671 with any other questions.

Sincerely,

/s/ Brian Cascio

Brian Cascio  
Accounting Branch Chief