



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

DIVISION OF
CORPORATION FINANCE

Mail Stop 3030

June 13, 2016

John L. Bishop
Chief Executive Officer
Cepheid
904 Caribbean Drive
Sunnyvale, California 94089

**Re: Cepheid
Form 10-K for the fiscal year ended December 31, 2015
Response Dated May 26, 2016
File No. 000-30755**

Dear Mr. Bishop:

We have reviewed your May 26, 2016 response to our comment letter 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. Unless we note otherwise, our references to prior comments are to comments in our May 13, 2016 letter.

Products, page 5

1. We have reviewed your response to prior comment 2. It is unclear from your response why you consider all of your products to be similar when at their core each of your tests utilizes a unique nucleotide sequence in order to identify a specific pathogen. As we referred to in our prior comment, if it is true that your tests for MRSA and Clostridium difficile accounted for a majority of your revenues in prior periods, then it is unclear why you believe such information is not material to investors. See Item 101(c)(1)(i) of Regulation S-K. Also, if you are substantially dependent upon a few of your tests for a significant portion of your revenue, it is also unclear how you concluded that risk factor disclosure regarding that dependence, and risk factor disclosure regarding trends in the markets for those particular tests, is not appropriate. Please provide us with a more detailed analysis of your conclusions or revise your future filings as appropriate.

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2. Please expand your response to prior comment 5 to confirm that your future filings will disclose, to the extent applicable, the matters addressed after the first sentence of that comment.

Please contact Tim Buchmiller at (202) 551-3635 or Geoff Kruczek, Senior Attorney, at (202) 551-3641 with any questions.

Sincerely,

/s/ Geoff Kruczek for

Amanda Ravitz
Assistant Director
Office of Electronics and Machinery

cc: Michael A. Brown, Esq.
Fenwick & West LLP