



DIVISION OF
CORPORATION FINANCE

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

Mail Stop 3030

February 1, 2010

Via U.S. Mail and Fax (408) 541-4192

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

Re: Cepheid
Forms 10-K and 10-K/A for the fiscal year ended December 31, 2008
Filed February 26, 2009 and October 1, 2009
File No. 000-30755

Dear Mr. Miller:

We have completed our review of your Form 10-K and related filings and do not, at this time, have any further comments.

Sincerely,

Brian R. Cascio
Accounting Branch Chief