

June 16, 2003

Cepheid
904 Caribbean Drive
Sunnyvale, CA 94089

Ladies and Gentlemen:

At your request, we have examined the Registration Statement on Form S-8 (the “**Registration Statement**”) to be filed by Cepheid, a California corporation (the “**Company**”), with the Securities and Exchange Commission on or about June 16, 2003 in connection with the registration under the Securities Act of 1933, as amended, of an aggregate of 1,128,897 shares of the Company’s common stock, no par value per share (the “**Stock**”), subject to issuance by the Company upon: (a) the exercise of stock options granted or to be granted under the Company’s 1997 Stock Option Plan, as amended (the “**1997 Plan**”) and (b) purchase rights granted or to be granted under the Company’s 2000 Employee Stock Purchase Plan, as amended (the “**Purchase Plan**”). The plans referred to in clauses (a) and (b) above are collectively referred to in this letter as the “**Plans**.”

In rendering this opinion, we have examined such matters of fact as we have deemed necessary in order to render the opinion set forth herein, which included examination of the following:

- (1) the Company’s Fifth Amended and Restated Articles of Incorporation in the form filed with the Commission on April 7, 2000, certified by one or more of the Company’s officers as being complete and in full force and effect as of the date of this opinion;
- (2) the Company’s Amended and Restated Bylaws, as amended to date, in the form filed with the Commission on July 31, 2002, certified by one or more of the Company’s officers as being complete and in full force and effect as of the date of this opinion;
- (3) the Registration Statement, together with the exhibits filed as a part thereof or incorporated therein by reference;
- (4) the 1997 Plan and related forms of stock option agreement and stock option exercise agreement, and the Purchase Plan and related forms of enrollment form, subscription agreement, notice of withdrawal and notice of suspension;
- (5) the Prospectuses prepared in connection with the Registration Statement;

- (6) a certificate from the Company's transfer agent verifying the number of the Company's issued and outstanding shares of capital stock as of December 31, 2002 and as of June 16, 2003, and a report of outstanding options and warrants and any other rights to purchase shares of the Company's capital stock that was prepared by the Company and dated June 16, 2003 (the "**Stock Records**"); and
- (7) a Management Certificate (the "**Management Certificate**") addressed to us and dated of even date herewith and executed by the Company containing certain factual and other representations.

In our examination of documents for purposes of this opinion, we have assumed, and express no opinion as to, the genuineness of all signatures on original documents, the authenticity and completeness of all documents submitted to us as originals, the conformity to originals and completeness of all documents submitted to us as copies, the legal capacity of all persons or entities executing the same, the lack of any undisclosed termination, modification, waiver or amendment to any document reviewed by us and the due authorization, execution and delivery of all documents where due authorization, execution and delivery are prerequisites to the effectiveness thereof. We have also assumed that the certificates representing the Stock will be, when issued, properly signed by authorized officers of the Company or their agents.

As to matters of fact relevant to this opinion, we have relied solely upon our examination of the documents referred to above and have assumed the current accuracy and completeness of the information obtained from the documents referred to above and the representations and warranties made by representatives of the Company to us, including but not limited to those set forth in the Management Certificate. We have made no independent investigation or other attempt to verify the accuracy of any of such information or to determine the existence or non-existence of any other factual matters; however, we are not aware of any facts that would cause us to believe that the opinion expressed herein is not accurate.

We are admitted to practice law in the State of California, and we render this opinion only with respect to, and express no opinion herein concerning the application or effect of the laws of any jurisdiction other than, the existing laws of the United States of America and of the State of California.

Based upon the foregoing, it is our opinion that the 1,128,897 shares of Stock that may be issued and sold by the Company upon the exercise of: (a) options granted or to be granted under the 1997 Plan and (b) purchase rights granted or to be granted under the Purchase Plan, when issued, sold and delivered in accordance with the applicable Plan and purchase agreements to be entered into thereunder, and in the manner and for the consideration stated in the Registration Statement and the relevant Prospectus, will be validly issued, fully paid and nonassessable.

We consent to the use of this opinion as an exhibit to the Registration Statement and further consent to all references to us, if any, in the Registration Statement, the Prospectus constituting a part thereof and any amendments thereto. This opinion is intended solely for use in connection with issuance and sale of shares subject to the Registration Statement and is not to be relied upon for any other purpose. We assume no obligation to advise you of any fact, circumstance, event or change in the law or the facts that may hereafter be brought to our attention whether or not such occurrence would affect or modify the opinions expressed herein.

Very truly yours,
FENWICK & WEST LLP

By: /s/ Jeffrey R. Vetter
Jeffrey R. Vetter, a Partner