



DIVISION OF
CORPORATION FINANCE

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

January 6, 2011

Bernard Hausen, M.D., Ph.D.
Chief Executive Officer
Cardica, Inc.
900 Saginaw Drive
Redwood City, California 94063

Re: Cardica, Inc.
Registration Statement on Form S-3
Filed December 15, 2010
File No. 333-171197

Dear Dr. Hausen:

We have limited our review of your registration statement to those issues we have addressed in our 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. Where 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.

1. Please revise your disclosure in this registration statement as necessary to address applicable comments issued on your pending registration statement, file 333-171195.

Calculation of Registration Fee

2. We note your disclosure in footnote 2 regarding the shares of common stock that may be issued upon the exercise of warrants. Please clarify that the shares of common stock underlying the warrants are included in the \$40,000,000 total of securities being registered for sale.

Prospectus Cover Page

3. Please tell us how you plan to comply with Form S-3 General Instruction I.B.6. We note your disclosure in the fourth paragraph that the aggregate market value of your common stock held by non-affiliates was \$49,307,474 on December 13, 2010. We also note that you intend to sell up to \$40,000,000 of common stock, warrants, and units pursuant to this registration statement and that you intend to sell up to \$10,000,000 of securities

pursuant to General Instruction I.B.6 of Form S-3 pursuant to another registration statement filed on Form S-3 on December 15, 2010, file number 333-171195.

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 Aslynn Hogue at (202) 551-3841 or me at (202) 551-3617 with any questions.

Sincerely,

Russell Mancuso
Branch Chief

cc (by facsimile): Suzanne Sawochka Hooper, Esq. — Cooley LLP