



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. 333-171195

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 tell us why you believe it is appropriate to include prospectuses for two offerings in one registration statement. Include your analysis of all authority on which you rely and your analysis of whether the combination of offerings into a single registration statement affects the clarity of your securities transactions to investors.

Selling Stockholder, page 23

2. Please disclose the amount that the selling stockholder paid for the offered securities and the date that you received all such consideration.

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 third 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 sale up to \$10,000,000 of securities pursuant to General Instruction I.B.6 pursuant to this registration statement and that you intend to sale up to \$40,000,000 of

common stock, warrants, and units pursuant to another registration statement filed on Form S-3 on December 15, 2010, file number 333-171197.

The Aspire Capital Transaction, page 24

General, page 24

4. Please revise to clarify whether the obligations of Aspire Capital Fund, LLC under your common stock purchase agreement are transferable. We note your disclosure of “donees, pledgees, transferees or other successors in interest” in the fourth paragraph on page 27.
5. Please revise to describe the “Maturity Date” of your Purchase Agreement, mentioned in Section 10(h) of Exhibit 10.31, and the purpose and effect of the “Termination Fee,” mentioned in Section 11(k)(vi) of Exhibit 10.31.
6. Section 11(k)(vi) of Exhibit 10.31 appears to impose a penalty if you do not sell to the selling stockholder all of the securities subject to the agreement; therefore, the contract appears in substance to reflect an understanding that you will sell all of the shares subject to the agreement. Please tell us why you believe it is appropriate to characterize such a transaction as an *indirect* primary offering of securities underlying an equity line of credit; it appears that this transaction might instead be a primary offering which, by signing the purchase agreement, you began before you filed this registration statement. In this regard:
 - note that, before you file a registration statement related to a primary offering, it is generally inappropriate to begin the offering unless the offering is exempt from registration and you do not intend to file a registration statement;
 - if the transaction is in substance a primary offering, please tell us when you plan to engage a registered broker-dealer in connection with the offering; and
 - if the investor has not yet provided all of the consideration required to retain the commitment shares, please provide us your analysis supporting why you believe it is appropriate to register the commitment shares for resale at this time.
7. If you believe that your transaction is merely an *indirect* primary offering, please provide us your analysis supporting your belief that the selling stockholder is irrevocably bound to purchase the shares that you elect to sell under the agreement. For example, we note:
 - Section 7(d) of the Exhibit 10.31 appears to provide the investor discretion regarding whether the opinion is acceptable;
 - it appears that purchases are not prohibited if the conditions in Section 7 of Exhibit 10.31 are not satisfied, but rather the investor has discretion regarding whether to proceed;

- termination upon occurrence of the events in section 11(k) of exhibit 10.31 is discretionary;
- the definition of default as mentioned on page 26 that excludes breaches that are “reasonably curable” appears to provide discretion regarding whether a default has occurred; and
- the attempt on page 4 of Exhibit 10.31 to define a material adverse change and the inclusion of a “reasonable” clause on page 6.

In this regard, if as a result of staff comments or otherwise, you elect to revise the terms of your transactions, note that it is generally inappropriate to revise or negotiate revisions of the terms of an offering while the related shares are subject to a pending registration statement.

8. Please tell us the purpose of your statement “(as principal)” in the fourth paragraph. Does the transaction involve other parties?

Amount of Potential Proceeds to be Received under the Purchase Agreement, page 26

9. Please revise where appropriate to clarify the likelihood that you will ever receive, or will ever need, based on your disclosed business plans, the full amount of proceeds available under the common stock purchase agreement. If you are not likely to receive the full amount, please include an explanation of why you chose the particular dollar amount of the agreement.

Selling Stockholder, page 27

10. With a view toward appropriate disclosure, please tell us whether you have previously entered into any transactions with Aspire Capital Fund, LLC or its affiliates.

Plan of Distribution, page 28

11. Given that the selling stockholder is an underwriter, please tell us why you believe it is appropriate to claim that an underwriter could sell shares pursuant to Rule 144 as you suggest in the third paragraph.
12. Please tell us “the other means not described in this prospectus” by which Aspire Capital Fund, LLC may transfer its shares, mentioned in the third paragraph. Also, tell us why you believe you need not disclose those “other means” in the prospectus.

Undertakings, page II-1

13. Please provide the undertaking required by Regulation S-K Item 512(a)(6).

Exhibit 10.31

14. Please file the complete agreement with all attachments, including schedules. Also, provide us your analysis of why you believe you need not file the Mutual Nondisclosure Agreement, mentioned in Section 11(e) of Exhibit 10.31.

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