



DIVISION OF
CORPORATION FINANCE
Mail Stop 3030

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

November 5, 2009

VIA U.S. MAIL and FACSIMILE

Robert Cheney
Chief Executive Officer
Cardima, Inc.
47266 Benicia Street,
Fremont, CA 94538-7330

RE: Cardima, Inc.
Form 10-K for the fiscal year ended December 31, 2008
Filed March 19, 2009
Form 10-Q for the fiscal quarter ended June 30, 2009
File No. 000-22419

Dear Mr. Cheney:

We have reviewed your filing and have the following comments. Where indicated, we think you should revise your future filings in response to these comments. If you disagree, we will consider your explanation as to why our comment is inapplicable or a revision is unnecessary. Please be as detailed as necessary in your explanation. In some of our comments, we may ask you to provide us with information so we may better understand your disclosure. After reviewing this information, we may raise additional comments.

Please understand that the purpose of our review process is to assist you in your compliance with the applicable disclosure requirements and to enhance the overall disclosure in your filing. We look forward to working with you in these respects. We welcome any questions you may have about our comments or any other aspect of our review. Feel free to call us at the telephone numbers listed at the end of this letter.

Form 10-K for the fiscal year ended December 31, 2008

Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations, page 28

Results of Operations, page 29

Sales, page 29

1. We reference the discussion of sales for 2007 compared to 2008. In future filings, to the extent relevant to an understanding of the fluctuations in sales, please revise to separately discuss changes in revenues from therapeutic products and from diagnostic products, including the impact of changes in volume and prices on revenues.

Note 10. Stock Based Compensation

2. Please revise future filings to also disclose, as of the latest balance sheet date presented, the weighted-average period over which total compensation cost related to nonvested awards not yet recognized is expected to be recognized. Refer to FASB ASC 718-10-50-2(i).

Signatures

3. Please ensure that the requirements of General Instruction D to Form 10-K are complied with in future filings. For example, please tell us who signed as controller or principal accounting officer.

Form 10-Q for the fiscal quarter ended June 30, 2009

Note 7. Inventories, page 9

4. We reference the disclosure that you reclassified the carrying amount of INTELLITEMP products from inventory to capital assets due to a change in sales strategy. Please tell us and expand future filings to explain the change in sales strategy and to describe why the change resulted in the reclassification to capital assets. In that regard, please also describe to us the nature of the products, the depreciation policy for those products and why you believe it is appropriate in GAAP to account for those products as capital assets. In addition, tell us how you have presented the transfer of the products from inventory to capital assets in the statement of cash flows.

Item 4. Controls and Procedures, page 22

5. We reference your reports on internal control over financial reporting as of March 31, 2009 and as of June 30, 2009, which are included in the Forms 10-Q for those quarters then ended. As a smaller reporting company, under Item 4T of Form 10-Q you are only required to furnish the information required by Items 307 and 308T(b) of Regulation S-K. In this regard, management's assessment of the effectiveness of internal control over financial reporting is provided on an annual basis in your Form 10-K, as set forth in Item 308T(a) of Regulation S-K. Please tell us why management's assessment of the effectiveness of internal control over financial reporting was provided for the interim periods. Also, tell us whether assessments under Item 308T(a) of Regulation S-K were actually performed as of March 31, 2009 and as of June 30, 2009.

As appropriate, please respond to these comments within 10 business days or tell us when you will provide us with a response. Please furnish a cover letter with your response that keys your responses to our comments and provides any requested information. Detailed cover letters greatly facilitate our review. Please understand that we may have additional comments after reviewing your responses to our comments.

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 all information required under the Securities Exchange Act of 1934 and that they have provided all information investors require for an informed decision. 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.

In connection with responding to our comments, please provide, in writing, a statement from the company acknowledging that:

- the company is responsible for the adequacy and accuracy of the disclosure in the filing;
- staff comments or changes to disclosure in response to staff comments do not foreclose the Commission from taking any action with respect to the filing; and
- the company may not assert staff comments as a defense in any proceeding initiated by the Commission or any person under the federal securities laws of the United States.

In addition, please be advised that the Division of Enforcement has access to all information you provide to the staff of the Division of Corporation Finance in our review of your filing or in response to our comments on your filing.

Robert Cheney
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You may contact Kristin Lochhead at (202) 551-3664 or me at (202) 551-3605 if you have questions on the financial statements and related matters. Please contact Ruairi Regatn at (202) 551-3269 or Jay Mumford at (202) 551-3637 with any other questions.

Sincerely,

Gary Todd
Accounting Reviewer