



DIVISION OF
CORPORATION FINANCE

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

June 9, 2011

Via Facsimile and U.S. Mail

Mr. Stephen J. Fanning
Chief Executive Officer
Solta Medical, Inc.
25881 Industrial Boulevard
Hayward, California 94545

**Re: Solta Medical, Inc.
Form 10-K for the Year Ended December 31, 2010
Filed March 16, 2011
File No. 001-33123**

Dear Mr. Fanning:

We have reviewed your filing and have the following comments. We have limited our review to only your financial statements and related disclosures and do not intend to expand our review to other portions of your documents. 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 within ten business days by providing the requested information or by advising us when you will provide the requested response. If you do not believe our comments apply to your facts and circumstances, please tell us why in your response.

After reviewing the information you provide in response to these comments, we may have additional comments.

Form 10-K for the Year Ended December 31, 2010

Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations, page 51

Reconciliation of GAAP to Non-GAAP Financial Measures, page 63

1. We do not see where you have provided all of the disclosures required by Item 10(e) of Regulation S-K relating to your non-GAAP financial measures. Specifically, we do not see where you have disclosed the reasons why management believes that presentation of

the non-GAAP financial measure provides useful information to investors regarding your financial condition and results of operations. Please note this disclosure required by Item 10(e)(1)(i)(C) of Regulation S-K is required for *each* non-GAAP measure presented. Please revise future filings to include separate disclosure for each non-GAAP measure presented. Provide us with a sample of your proposed revised disclosures.

2. Further to the above, we note that you adjust your non-GAAP financial measures for items such as amortization, acquisition related costs, stock-based compensation, depreciation, and loss on investments. Specifically, in your disclosure on page 64 relating to acquisition related costs, you state that “these expenses vary significantly in size and amount and are disregarded by our management when evaluating and predicting earnings trends because these charges are unique to specific acquisitions.” Please explain to us how you considered the \$2.2 million litigation settlement gain recorded in 2010 in determining the adjustments for the non-GAAP financial measure. As applicable, explain how management considers the \$2.2 litigation settlement gain when evaluating and predicting earnings trends.

Consolidated Statements of Operations, page 73

3. Please provide us with your analysis as to the proper income statement classification of the \$2.2 million litigation settlement gain.

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 Exchange Act of 1934 and all applicable Exchange 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.

In responding to our comments, please provide a written 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.

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You may contact Lynn Dicker, Staff Accountant, at (202) 551-3616 or me at (202) 551-3643 if you have questions regarding these comments. In this regard, do not hesitate to contact Martin James, Senior Assistant Chief Accountant, at 202-551-3671.

Sincerely,

Kevin L. Vaughn
Accounting Branch Chief