



DIVISION OF
CORPORATION FINANCE

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

June 30, 2011

Via Facsimile

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 response letter dated June 17, 2011 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 note your response to prior comment 1 and the proposed disclosures for future filings. The disclosures required by Item 10(e)(1)(i)(C) are required for *each* non-GAAP

measure presented. Your proposed disclosures as to the reasons why management believes that the presentation of the non-GAAP financial measures provide useful information to investors regarding your financial condition and results of operations appear to be general and do not separately explain why each individual non-GAAP measure presented provides useful information to investors. Please revise future filings to provide separate disclosure for *each* non-GAAP measure presented of the reasons why management believes that the presentation of the non-GAAP financial measure provides useful information to investors regarding your financial condition and results of operations. Provide us with a sample of your proposed revised disclosure.

2. We note your response to prior comment 2. In your response, you state that you believe these expenses are a reoccurring part of operations and you believe are useful when evaluating and predicting earnings trends and therefore should not be excluded in the non-GAAP measures presented. However, we note that you have excluded multiple other recurring items in your non-GAAP measures, including amortization and other non-cash acquisition-related charges, severance expenses, acquisition-related costs, stock based compensation expense and depreciation expense. Please explain to us how you have considered the guidance in Item 10(e)(1)(ii)(B) of Regulation S-K.

Consolidated Statements of Operations, page 73

3. We note your response to prior comment 3. Please address the following:
 - Quantify for us the expenses, gains and losses incurred in connection with the protection of intellectual property rights in each of the last three years.
 - Tell us about any current actions you are involved in relating to the protection of your intellectual property rights. Revise future filings to provide disclosure of these contingencies as appropriate.
 - Explain to us the nature of the resources you devote to the protection of your intellectual property rights such that you consider this a part of your ongoing operations.
 - Revise future filings to clearly disclose your accounting policy relating to intellectual property protection costs and gains.

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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,

/s/ Kevin L. Vaughn

Kevin L. Vaughn
Accounting Branch Chief