

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

April 28, 2011

John C. Heinmiller Executive Vice President and Chief Financial Officer St. Jude Medical, Inc. One St. Jude Medical Drive St. Paul, Minnesota 55117

Re: St. Jude Medical, Inc.

Form 10-K for the fiscal year ended January 1, 2011 Filed March 2, 2011

File No. 1-12441

Dear Mr. Heinmiller:

We have reviewed your filing and have the following 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 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.

From 10-K for the fiscal year ended January 1, 2011

Exhibit 13

Management's Discussion and Analysis of Financial Condition, page 1

1. Please refer to page 9 of Exhibit 13. Please tell us, and revise future filings to clarify, the reasons underlying the changes in each of the line items you discuss, including the impact attributable to price, volume and new products. As one example only, instead of merely stating that "[t]he increase in AF net sales was driven by operational net sales growth," expand to explain the reasons for the sales growth.

Liquidity, page 14

2. We note from your disclosures on page 51 that you have not recorded U.S. deferred income taxes on \$1.9 billion on non-U.S subsidiaries' undistributed earnings. We further note from

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your liquidity discussion a portion of your cash balances will not be available for use in the U.S., unless they are repatriated into the U.S. Please revise future filings to quantify the amount of cash and cash equivalents that are currently held by your foreign subsidiaries or tell us why no revision in future filings is necessary. Refer to Item 303(a)(1) of Regulation S-K and Section IV of SEC Release 33-8350.

3. Please refer to note 2 on page 20 of your definitive proxy statement. Please tell us, and revise future filings to clarify, to which credit facility the pledge relates and the material terms of the pledge. Also tell us, with a view toward disclosure in future filings, why the pledge is necessary given your disclosure in the penultimate paragraph on page 14 of Exhibit 13. Please also note your disclosure obligations pursuant to Item 404 of Regulation S-K.

Item 11. Executive Compensation, page 25

4. We note from your disclosure on page 31 of your definitive proxy statement that payouts under your annual incentive awards program were based, in part, on adjusted earnings per share. We also note that following establishment of that target in December 2009, you repurchased more than 15 million outstanding shares. Please tell us, and revise future applicable filings to clarify, whether and, if so, how the share repurchases factored into the determination that 125% of that target was achieved.

Note 2 – Acquisitions and Minority Investment, page 34

Fiscal Year 2010, page 34

5. We note that you determined that the trademark assets acquired in conjunction with the AGA Medical, Inc. acquisition have indefinite useful lives. Please explain to us the factors you considered in concluding that these assets have indefinite useful lives in accordance with the FASB Accounting Standards Codification 350-30-35. Additionally please explain to us the methodology you used to determine fair value of the trademark assets.

Note 5 – Commitments and Contingencies, page 40

Litigation, page 40

6. We note your disclosures regarding various pending litigation. We further note your disclosure of certain amounts accrued related to the Silzone® Litigation. For any loss contingencies for which you have not recorded accruals or for which exposure to loss exists in excess of the amount accrued, please revise future filings to include the disclosures required by paragraph 450-20-50-4 of the FASB Accounting Standards Codification.

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Note 6 – Shareholder Equity, page 44

Share Repurchases, page 44

7. We note that during the fiscal year ended you repurchase 15.4 million shares of common stock for \$635.3 million. Please reconcile this to your disclosure in your statement of cash flows which indicates that the value of the common stock repurchased was \$590.8 million. Revise your future filings as necessary.

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.

You may contact Eric Atallah, Staff Accountant at (202) 551-3663 or me at (202) 551-3643 if you have questions regarding comments on the financial statements and related matters. Please contact Geoff Kruczek, Staff Attorney at (202) 551-3608 or Timothy Buchmiller, Reviewing Attorney at (202) 551-3635 with any other questions. In this regard, do not hesitate to contact Martin James, Senior Assistant Chief Accountant at (202)551-3671 with any questions.

Sincerely,

Kevin L. Vaughn Accounting Branch Chief