

Mail Stop 6010

March 30, 2007

By U.S. Mail and Facsimile to (781) 993-2330

Mr. Paul S. Weiner
Chief Financial Officer
Palomar Medical Technologies, Inc.
82 Cambridge Street
Burlington, Massachusetts 01803

**RE: Palomar Medical Technologies, Inc.
Form 10-K for the year ended December 31, 2006
File No. 1-11177**

Dear Mr. Weiner:

We have reviewed your filings and have the following comments. We have limited our review of your filing to those issues we have addressed in our comments. Where indicated, we think you should revise your future documents 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 year ended December 31, 2006

Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations, page 22

Results of Operations, page 27

1. In future filings, please revise to separately quantify the amounts of any individual factors cited in explaining your results of operations. Please explain the nature of any unusual or non-recurring items. In this regard, we note that in your discussion of cost of product revenues you describe a non-recurring adjustment to product royalties, but do not explain the nature or amount of this adjustment. Please revise future filings accordingly.

Note 4 – Income Taxes, page 48

2. We note that in the fourth quarter of 2006 you reversed your entire valuation allowance. Please revise future filings to discuss the factors you considered in determining the amount and timing of your valuation allowance reversal. See paragraphs 20 through 25 of SFAS No. 109. Also, please address the following in your response:
 - We note your disclosure that at December 31, 2006 you had federal net operating loss carry forwards of \$78 million available. Please tell us how your net operating loss carry forwards are reflected in your deferred tax asset balances, as the gross tax benefit related to net operating losses in your footnote is only \$2.3 million.
 - Please reconcile the amounts presented in the 2005 column of your deferred tax asset balance to those amounts presented in Note 4 of your 2005 Form 10-K.

Note 10 - Quarterly Results of Operations, page 56

3. Please revise your quarterly financial information in future filings to describe or cross reference any factors that materially affect the comparability of the information. In this regard, we note your settlement with Cutera, Inc. in the second quarter of 2006. Please also apply this comment to your selected financial data on page 22. Please refer to Instruction 2 to Item 301 and Item 302(a)(3) of Regulation S-K.

Item 9A. Controls and Procedures, page 60

4. We note your disclosure that your “disclosure controls and procedures were effective to provide reasonable assurance that [you] record, process, summarize and report the information [you] must disclose in reports that [you] file or submit under the Securities Exchange Act of 1934, as amended, within the time periods specified in the SEC’s rules and forms.” The language that is currently included after the word "effective" in your disclosure appears to be superfluous, since the meaning of "disclosure controls and procedures" is established by Rule 13a-15(e) of the Exchange Act. Please remove the language in your future filings or revise the disclosure so that the language that appears after the word "effective" is substantially similar in all material respects to the language that appears in the entire two-sentence definition of "disclosure controls and procedures" set forth in Rule 13a-15(e).

Exhibit 31.1 and 31.2

5. We note that the identification of the certifying individual at the beginning of the certification required by Exchange Act Rule 13a-14(a) also includes the title of the certifying individual. In future filings, the identification of the certifying individual at the beginning of the certification should be revised so as not to include the individual’s title.

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 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;

Mr. Paul S. Weiner
Palomar Medical Technologies, Inc.
March 30, 2007
Page 4

- 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.

You may contact Eric Atallah, Staff Accountant at (202) 551-3663 or me at (202) 551-3604 regarding comments on the financial statements and related matters. In this regard, do not hesitate to contact, Kevin L. Vaughn, Branch Chief at (202) 551-3643 with any other questions.

Sincerely,

Kate Tillan
Assistant Chief Accountant