



DIVISION OF
CORPORATION FINANCE

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

April 14, 2011

Mr. Paul S. Weiner, Chief Financial Officer
Palomar Medical Technologies, Inc.
15 Network Drive
Burlington, Massachusetts 01803

**Re: Palomar Medical Technologies, Inc.
Form 10-K for the Fiscal Year Ended December 31, 2010
Filed March 9, 2011
File No. 1-11177**

Dear Mr. Weiner:

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 Fiscal Year Ended December 31, 2010

General

1. We note the Commission file number on the cover page of 0-22340 is incorrect. In future filings, please refer to Commission file number 1-11177.

Notes to Consolidated Financial Statements, page 51

2. Please disclose your accounting policies for your patent defense costs, your costs for pursuing patent infringements, and your external legal costs related to intangible assets.

Revenue recognition, page 54

3. Please tell us what criteria are used to assess whether your royalty revenues are determinable and therefore accrued in the period earned and how this differs from royalties you record on a cash basis.

Note 2 – Segment and Geographic Information, page 60

4. We note that you generated 4% of your 2010 product and service revenue from Japan. Please explain to us, with a view towards disclosure, the impact that the earthquake and tsunami that occurred in Japan during March 2011 has had or is expected to have upon your consolidated financial statements and your continuing operations.

Note 6 – Commitments and Contingencies, page 64

Litigation, page 65

5. In future filings, please expand the disclosure of your accounting policy for contingencies to address contingencies deemed reasonably possible, and to address those contingencies where the loss cannot be reasonably estimated, or where only a range of loss can be estimated as required by FASB Accounting Standards Codification Topic 450.
6. We note the litigation disclosures appear identical to those made on page 26 and that the disclosure requirements under FASB Accounting Standards Codification Topic 450 are not identical to requirements of Part I, Item 3 of Form 10-K. We further note your risk factor on page 22 indicates the outcome of litigation could have a materially adverse effect on your results of operations and financial condition, but that reasonably possible losses are not addressed in this footnote. Please explain this inconsistency in your response and revise these disclosures to address the requirements of FASB Accounting Standards Codification Topic 450 in future filings.

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;

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- 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 Gary Newberry, Staff Accountant, at (202) 551-3761 or Lynn Dicker, Reviewing Accountant, at (202) 551-3616 if you have questions regarding these comments. In this regard, do not hesitate to contact me at (202) 551-3643.

Sincerely,

Kevin L. Vaughn
Accounting Branch Chief