



DIVISION OF
CORPORATION FINANCE

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

December 19, 2014

Via E-mail

Amit Meridor
Chief Executive Officer
Syneron Medical Ltd.
Industrial Zone, Tavor Building P.O. Box 550
Yokneam Illit 20692 Israel

**Re: Syneron Medical Ltd.
Form 20-F
Filed March 19, 2014
File No. 1-34559**

Dear Mr. Meridor:

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.

Form 20-F for the Fiscal Year Ended December 31, 2013

Item 15. Controls and Procedures, page 122

1. Management's Annual Report on Internal Control Over Financial Reporting in paragraph three of section (b) does not identify the version of the Committee of Sponsoring Organizations of the Treadway Commission's Internal Control – Integrated Framework that was used to perform your assessment as required by Item 15(b)(2) of Form 20-F. On page F-3, your independent registered public accounting firm issued its report based on the criteria established in Internal Control-Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (1992 framework). Please tell us the framework you used – i.e., whether you used the 1992 Framework or the Updated Framework issued in 2013, and confirm that you will revise future filings to include a report that identifies the version of the COSO Integrated Framework you used in the assessment.

Item 18. Financial Statements

Report of Independent Registered Public Accounting Firm, page F-2

2. In the fourth paragraph of your auditors' report, the date in the sentence is missing. As required in future filings, please request your auditors to comply with paragraph 88 of AS 5 and include the date of the report.

Note 1. General

b. Business Combinations and Other Acquisitions/Disposals during 2013, 2012 and 2011

1. Syneron Beauty Ltd, page F-15

3. Please provide us with your analysis of the accounting for the contribution of your Syneron Beauty subsidiary and related home-use businesses to Illuminage Beauty in exchange for 100% of the common shares of that entity. Your response should include your complete analysis of the transaction beginning with your consideration of whether or not Illuminage Beauty is a VIE and whether or not you are the primary beneficiary. Your response should also explain your analysis in determining your election to recognize the investment at fair value at each reporting date with changes in the fair value recognized in earnings under other expenses (income), net.

Note 2. Significant Accounting Policies

h. Inventories, page F-23

4. You disclose that you provide an inventory reserve for slow-moving items. Please tell us how you consider other circumstances that may provide evidence that the utility of the goods, in their disposal in the ordinary course of business, will be less than cost due to circumstances such as physical damage or deterioration, changes in price levels, or other causes. Please refer to FASB ASC 330-10-35-1.
5. You disclose that you determine the cost of raw materials based on standard cost. Please explain how you considered the accounting and disclosure required by FASB ASC 330-10-30-12.

r. Fair Value of Financial Instruments, page F-28

6. You disclose here and on pages F-39 and 63 that the fair value of the company's equity interest in Illuminage Beauty was calculated by a third party. Please describe to us and revise future filings to clarify the nature and extent of the third party appraiser's involvement and management's reliance on the work of the independent appraisers. Please refer to Question 141.02 of the Compliance and Disclosure Interpretations on

Securities Act Sections, which can be found at <http://www.sec.gov/divisions/corpfin/guidance/sasinterp.htm>, and which would be applicable to the extent your Form 20-F is incorporated by reference into any registration statement.

Note 16. Equity, page F-52

7. On page F-57, you disclose that you base the risk-free interest rate assumption on observed interest rates appropriate for the term of your employee stock options. Please tell us in more detail the nature of the observed rates you use in your calculations and how you considered FASB ASC 718-10-55-28. In future filings please clarify your disclosure. Refer to FASB ASC 718-10-50-2(f)(2)(iv).

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 David Burton at (202) 551-3626 or Kate Tillan, Assistant Chief Accountant, at (202) 551-3604 if you have questions regarding comments on the financial statements and related matters. You may also contact me at (202) 551-3671.

Sincerely,

/s/ Kate Tillan for

Martin James
Senior Assistant Chief Accountant