

Stereotaxis, Inc.
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June 21, 2012

VIA EDGAR

U.S. Securities and Exchange Commission
Division of Corporation Finance
100 F Street, N.E.
Washington, D.C. 20549
Attention: Russell Mancuso and Tom Jones

**Re: Stereotaxis, Inc.
Registration Statement on Form S-1
Filed May 23, 2012
File No. 333-181618**

Dear Mr. Mancuso and Mr. Jones:

I am writing this letter on behalf of Stereotaxis, Inc. (the "Company") in response to the letter, dated June 15, 2012, of the Staff (the "Staff") of the U.S. Securities and Exchange Commission (the "Commission") regarding the above-referenced filing. This letter sets forth the comment of the Staff in the comment letter (italicized and numbered in accordance with the comment letter) and, following the comment, sets forth the Company's response.

Prospectus Summary, page 1

- 1. Please revise your summary to disclose and quantify your net loss for the fiscal year ended December 31, 2011 and your net loss for the fiscal year ended December 31, 2010.*

The Company will revise the summary to disclose and quantify its net loss for the fiscal year ended December 31, 2011 and its net loss for the fiscal year ended December 31, 2010. Our proposed disclosure is set forth in our response to Comment #2 below.

- 2. Please revise your summary to disclose and quantify the amount of cash that you are spending per month and how long your present funds will last at your current monthly rate.*

We acknowledge the Staff's comment; however, we believe the requested disclosure should be modified for two reasons. First, our historical cash spending on a per month basis has not been adjusted to reflect previously announced reductions in operating expenses that the Company plans to implement in the balance of 2012. Second, disclosure of the length of time

that present funds will last, as a precise measure, depends not only on the successful implementation of the operating costs reduction, but on timing and amount of the Company's revenue as well. The Company no longer provides prospective earnings guidance, and we believe that disclosure framed in the requested manner may be improperly construed by the market and investors as "backdoor" earnings guidance. However, we acknowledge the Staff's concern with the Company's ongoing liquidity position (and the risks associated with our position) and propose to address those concerns by including the following paragraph within our Prospectus Summary as a new paragraph under the heading, "The Company":

We incurred net losses of approximately \$19.9 million and \$32.0 million for the years ended December 31, 2010 and December 31, 2011, respectively, and expect such losses to continue through at least the year ending December 31, 2012. During the quarter ended March 31, 2012, we had an aggregate of approximately \$12.7 million in operating expenses, an operating loss of approximately \$4.2 million, and a net loss of approximately \$5.8 million. On May 8, 2012, we announced that we expect to reduce operating expenses by 15-20% from first quarter levels by the 2012 fourth quarter. As of March 31, 2012, on a pro forma basis to give effect to completion of the convertible debentures and common stock offerings described in this prospectus as if they had occurred on such date and receipt of the net proceeds from those offerings, we had cash and cash equivalents of \$27.4 million. We believe our existing cash, cash equivalents and borrowing facilities will be sufficient to fund our operating and investing activities through the next 12 months. However, this estimate is based on the timing of revenue, which can be highly uncertain, as well as the timing of our expenses and other capital needs. Therefore, we cannot assure you that we will not require additional financing before that time.

3. *Investors are entitled to rely on the opinion that you file. Please file an opinion that does not include the reliance limitation mentioned in the first sentence of the last paragraph in this exhibit. See Staff Legal Bulletin No. 10 Section II.B.3.d.*

Bryan Cave LLP has advised that they will remove the first sentence of the last paragraph of their legal opinion, and it will be filed with a pre-effective amendment to the registration statement.

* * * * *

In connection with responding to the Staff's comments, the Company acknowledges 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.

We appreciate the Staff's continued review and look forward to hearing from you with respect to these comment responses. If you require any additional information on these issues, or if we can provide you with any other information which will facilitate your continued review of this filing, please advise us at your earliest convenience. You may reach me at (314) 678-6138 or by fax at (314) 667-3448.

Sincerely,

/s/ Karen W. Duros

Karen W. Duros
Sr. VP and General Counsel

cc: Samuel W. Duggan II (Stereotaxis, Inc.)
James L. Nouss, Jr.
Robert J. Endicott
