



September 3, 2009

VIA EDGAR AND FACSIMILE

U.S. Securities and Exchange Commission Division of Corporation Finance 100 F Street, N.E. Washington, D.C. 20549 Attention: Kevin L. Vaughn and Martin James

Re: Stereotaxis, Inc.

10-K for the Fiscal Year Ended December 31, 2008 Filed March 13, 2009 Form 8-K Dated August 6, 2009 File No. 000-50884

Gentlemen:

We are writing this letter on behalf of Stereotaxis, Inc. (the "Company") in response to the letter, dated August 24, 2009, of the Staff (the "Staff") of the U.S. Securities and Exchange Commission (the "SEC") regarding the above-referenced filings.

This letter sets forth each comment of the Staff in the comment letter (italicized and numbered in accordance with the comment letter) and, following each comment, sets forth the Company's response.

Form 8-K dated August 6, 2009

Item 8.01 - Explanatory Note

1. You state here that "this . . . amends Stereotaxis, Inc.'s Annual Report on Form 10-K for the year ended December 31,2008." While an Item 8.01 Form 8-K can be used to provide additional information regarding events that occurred after the Form 10-K was filed, we do not believe it is an appropriate mechanism to amend a Form 10-K. As such, please revise the Form 8-K to remove the language indicating that the Form 8-K represents an amendment to the Form 10-K.

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The Company proposes filing an amendment to the Current Report on Form 8-K dated August 6, 2009 (the "Original 8-K") pursuant to Form 8-K/A (the "Amendment"). The text of Item 8.01 of the Amendment would read as follows:

ITEM 8.01. OTHER EVENTS

Stereotaxis, Inc. (the "Company") is filing this Current Report on Form 8-K/A, which amends its Current Report on Form 8-K filed on August 6, 2009 (the "Original 8-K Filing"), to clarify that the Original 8-K Filing did not amend the Company's Annual Report on Form 10-K for the year ended December 31, 2008 (filed with the Securities and Exchange Commission ("SEC") on March 13, 2009) (the "2008 Form 10-K"). All references in the Original 8-K Filing to "amendment" for the 2008 Form 10-K are hereby deleted. Rather, the Original 8-K and this Current Report on Form 8-K/A instead serve to update the historical financial statements included in the 2008 Form 10-K. In addition, the Company has revised and refiled herewith the financial statements originally included in the Original 8-K Filing to remove the reference to "(Unaudited)" in Note 19 to such financial statements regarding liquidity and cash flows

Except as described above, this Current Report on Form 8-K/A and the Original 8-K Filing do not update or change any other information set forth in the 2008 Form 10-K, and the Company has not updated disclosures included herein to reflect any events that occurred subsequent to March 13, 2009. Accordingly, the other information in the Company's 2008 Form 10-K remains unchanged, and this Current Report on Form 8-K/A and the Original 8-K Filing should be read in conjunction with the Company's 2008 Form 10-K and the Company's filings made with the SEC subsequent to the filing of the Company's 2008 Form 10-K.

Exhibit 99.1

2. We note the audit report included herein is dated "March 12,2009, except Note 19, as to which the date is August 6, 2009." However, Note 19 of the consolidated financial statements included herein is labeled as "unaudited." Please revise the financial statements to correct this inconsistency by removing the "unaudited" label from Note 19.

The Company will correct the inconsistency by removing the "unaudited" label from Note 19. Such change will be reflected in Exhibit 99.1 filed with the Amendment.

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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

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advise us at your earliest convenience. You may reach me at (314) 259-2447 or by fax at (314) 552-8447.

Sincerely,

/s/ Robert J. Endicott

cc: Michael P. Kaminski James M. Stolze James L. Nouss, Jr.