

September 14, 2007

VIA EDGAR

Securities and Exchange Commission
Division of Corporation Finance
Attention: Kaitlin Tillan, Assistant Chief Accountant
100 F Street N.E.
Washington, D.C. 20549

**RE: Stereotaxis, Inc.
Form 10-K for the fiscal year ended December 31, 2006
Form 10-Q for the quarter ended June 30, 2007
File No. 0-50884**

Dear Ms. Tillan:

This letter sets forth the response of Stereotaxis, Inc. (the "Company") to the comments of the staff (the "Staff") of the U.S. Securities and Exchange Commission (the "Commission") contained in your letter dated August 30, 2007 regarding the Staff's review of the Company's Form 10-K for the fiscal year ended December 31, 2006, filed March 13, 2007 and the Company's Form 10-Q for the quarter ended June 30, 2007, filed August 9, 2007. The Company's responses set forth below correspond to the comments as numbered in the Staff's letter.

Form 10-K for the year ended December 31, 2006

Management's Discussion and Analysis of Financial Condition and Results of Operation, page 46

Critical Accounting Policies and Estimates, page 47

1. *Your critical accounting policy disclosure for revenue recognition, investments and inventories does not provide the information related to the underlying estimates and judgments required by FR-72 and SEC Release No. 33-8098. The critical accounting policy discussion should supplement, not duplicate, the description of accounting policies that are disclosed in the notes to the financial statements. While accounting policy notes in the financial statements generally describe the method used to apply an accounting principle, the discussion in MD&A should present a company's analysis of the uncertainties involved in applying a principle at a given time or the variability that is reasonably likely to result from its application over time. Please revise future filings as necessary to specifically address the following:*

- *Provide information regarding how you arrived at the estimate;*
- *How accurate the estimate or assumption has been in the past;*
- *How much the estimate or assumption has changed in the past; and*
- *Whether the estimate or assumption is reasonably likely to change in the future.*

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The Company will revise its future filings to address the estimates and assumptions related to the critical accounting policies that can materially impact the Company's reported financial condition or results of operations.

Financial Statements, page 57

Statement of Operations, page 60

2. *Consistent with Items 5-03.1 and .2 of Regulation S-X, you should generally state revenues and costs of revenues derived from each subcaption separately. As described in Rule 5-03(b), you may combine income from each class which is not more than 10 percent of the sum of the items with another class that is derived from more than one of the subcaptions in Rule 5-03.1. However, if you combine items, you should also combine related costs and expenses as described under Rule 5-03.2 in the same manner. Please revise in future filings.*

The Company will revise its future filings to include separate costs and expenses consistent with the revenue items that are presented separately in accordance with Item 5-03.1 and .2 of Regulation S-X.

Note 2. Summary of Significant Accounting Policies, page 65

3. *With reference to the first paragraph of this section, we note that the sentence refers to “the above criteria.” This appears to be an error in the placement of this paragraph since there is no discussion of revenue recognition criteria preceding this paragraph. Please correct and complete your disclosure in future filings.*

The Company will revise its future filings to correct the placement of references to the relevant revenue recognition criteria.

4. *In the third paragraph you disclose that you record costs for installation, training and product maintenance at the time of sale. In the second paragraph you disclose that revenues from services are deferred and amortized over the service period. Please tell us why you record costs for these services at the time of sale while you defer the related revenues. Cite the accounting literature upon which you relied.*

A standard, generally one-year, warranty is included in our system sales. The Company accrues the estimated costs of equipment maintenance during the warranty period at time of sale in accordance with SFAS No. 5. The Company may also sell a service plan that generally begins subsequent to expiration of the product warranty period. The service plan revenue is deferred and amortized to income over the relevant plan period on a straight line basis. Costs associated with equipment service during the service plan period are charged to expense as incurred. The Company believes the sentence you refer to may incorrectly imply that service costs related to service plans are being charged to the income statement at the

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time of equipment sale. Prior to the quarter ended June 30, 2007 all costs related to installation were expensed at the time of system revenue recognition as there were no installation revenues deferred. Beginning in the quarter ended June 30, 2007 installation costs are recognized in the same period that installation revenues are recognized. The separation of system revenue and installation revenues is more fully discussed in our response to SEC comment 15 below. Training costs, which are incidental, are estimated and accrued at the time of system revenue recognition. The Company will revise this sentence in future filings to more appropriately describe the period in which maintenance under system warranties, equipment service under service plans and installation and training costs are charged to expense.

5. *Total current and long-term deferred revenue as of December 31, 2006 is \$6,883,727. Please show us the significant components of this deferred revenue balance and tell us how you are recognizing the related revenue (for example, straight-line over the maintenance period of 12 months).*

Deferred revenue at December 31, 2006 consists of the following:

Deposits received on equipment orders	\$2,952,700
Deferred license fees	1,969,307
Deferred service contract fees	1,835,028
Other	126,692
Total Current and Long Term	<u>\$6,883,727</u>

Deposits on equipment orders are recognized in revenue at the time of revenue recognition on the underlying system, when the criteria for revenue recognition of the system have been achieved. Deferred license fees are amortized to income on a straight-line basis over the relevant annual license period. Service contract fees are amortized to income on a straight-line basis over the related service contract period, generally one year.

Product Warranty Provisions, page 68

6. *Please tell us and disclose in future filings the information required by paragraph 14 of FIN45.*

The Company will disclose in future filings the information required by paragraph 14 of FIN45. That information for the year 2006 is as follows:

Warranty Accrual at 12/31/05	\$143,940
Warranty expense	413,052
Payments made – charged to accrual	<u>(368,794)</u>
Warranty Accrual at 12/31/06	<u>\$188,198</u>

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Note 11. Stockholders' Equity, page 73

7. *On page 74 you disclose that you generally issue new shares upon the exercise of your stock appreciation rights. You also combine options and rights in your disclosures on page 75 and appear to reflect exercise prices for the rights. Please tell us and disclose in future filings the significant terms of your stock appreciation rights, consistent with paragraph A240(a) of SFAS 123R.*

The Company will disclose in future filings the significant terms of its stock appreciation rights. The significant terms are as follows. Stock appreciation rights consist of the right to acquire a number of shares of the Company's common stock upon exercise of the rights. The number of shares is calculated as the difference between the exercise price of the right and the aggregate market value of the underlying shares on the exercise date, divided by the per share market value of the underlying shares on the exercise date. The exercise price is always equal to the closing price of the

stock at the date granted and the vesting period is typically identical to the vesting period for stock options. The substance of the Company's stock appreciation rights and stock options is essentially the same except that the stock appreciation right, in effect, is a forced cashless exercise of an equivalent number of stock option shares, allowing the Company to issue net shares and eliminating the requirement for the participant to pay the cash exercise price. Shares are always issued upon exercise of stock appreciation rights. The shares may either be newly issued shares (new shares) or treasury shares.

8. *Further, please also discuss why you did not provide separate disclosures for your options and stock appreciation rights under paragraph A240(f) of SFAS 123R.*

Both the stock options and stock appreciation rights are compensatory plans under SFAS 123R and neither is a liability instrument. The Company believes that apart from the form of exercise, the vesting provisions of all stock appreciation rights and options are generally the same, the benefits to the employee and the costs to the Company are virtually the same. As a result, the Company concluded that the differences were not sufficient to warrant separate disclosure.

9. *Please tell us and disclose in future filings the weighted-average grant-date fair value of equity options or other equity instruments granted during the year, consistent with paragraph A240(c)(1) of SFAS 123R.*

The Company will disclose in future filings the information required by A240(c)(1) of SFAS 123R. The weighted average grant-date fair value of equity options and stock appreciation rights granted during 2006 was \$5.15. The weighted average grant-date fair value of restricted shares granted during 2006 was \$11.46. This latter amount was disclosed in the footnote; however, as noted below, the heading of the table will be modified in future filings to more clearly identify the information contained therein.

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10. *Please tell us and disclose in future filings the weighted-average grant-date fair value of your nonvested stock for each of the categories specified in paragraph A240(b)(2) of SFAS 123R.*

The Company will revise the heading of the second column in the summary of restricted share activity table to read "Weighted Average Grant Date Fair Value". Accordingly, the information required by A240(b)(2) is included in this table and the revision of the heading will more clearly identify the required information included therein.

11. *Please tell us and disclose in future filings the total fair value of shares vested during the year, consistent with paragraph A240(c)(2) of SFAS 123R.*

The Company will disclose in future filings the information required by A 240(c)(2) of SFAS 123R. The total fair value of the shares vested during 2006 was \$235,000.

12. *With respect to your 2004 Employee Stock Purchase Plan, please tell us how you evaluated paragraphs 12 -13 of SFAS 123R in determining that the plan is not compensatory.*

The Company has concluded that the Employee Stock Purchase Plan is compensatory under SFAS 123R and has accounted for it as such in its financial statements. The \$200,000 of compensation expense in 2006 related to the Employee Stock Purchase Plan was not deemed material for disclosure for the year ended December 31, 2006.

Note 17. Segment Information, page 80

13. *We note from the table of revenues by geographic region that approximately 37% of your revenues for 2006 are attributed to "International" customers. Please revise in future filings, as applicable, to separately disclose revenues attributed to each country from which you derive material revenues, consistent with paragraph 38(a) of SFAS 131.*

The Company will include in future filings the disclosures required by paragraph 38(a) of SFAS 131, relating to separate disclosure of revenues attributed to each country from which the Company derives material revenue, to the extent the disclosure is applicable.

Controls and Procedures, page 82

14. *We note your disclosure that your "Chief Executive and Chief Financial Officer have concluded that, as of the end of such period, the Company's disclosure controls and procedures were effective in recording, processing, summarizing and reporting, on a timely basis, information required to be disclosed by the Company in the report that it files or submits under the Exchange Act." 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).*

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In response to the Staff's comment, in future filings the Company will remove the language after the word "effective" in its current disclosure. The Company's planned disclosure in future filings for the first paragraph with respect to controls and procedures is as follows:

"As of December 31, 2006, the Company's management, with the participation of the Company's Chief Executive Officer and Chief Financial Officer, evaluated the effectiveness of the Company's disclosure controls and procedures (as such term is defined in Rules 13a-15(e) and 15d-15(e) promulgated under the Securities Exchange Act of 1934, as amended (the "Exchange Act")). Based on such evaluation, the Company's Chief Executive Officer and Chief Financial Officer have concluded that, as of the end of such period, the Company's disclosure controls and procedures were effective."

Form 10-Q for the Quarterly Period Ended June 30, 2007

Financial Information, page 3

Revenue Recognition, page 6

15. *Tell us why you determined "that installation met the criteria under SAB 104 and EITF Issue 00-21 for recognition as a separate element or unit of accounting" in the second quarter of 2007. Further, the revenue recognition policy appears to be different than the policy disclosed in your December 31, 2006 Form 10-K on page 66. Please compare your revenue recognition policies for all of the periods presented in your December 31, 2006 Form 10-K and June 30, 2007 Form 10-Q and explain any differences and the reasons for those differences.*

Under EITF 00-21, the Company is required to continually evaluate whether it has separate units of accounting specifically related to the system sale and installation service elements. The Company believes it has previously met the first criteria for separation of multi-elements under EITF 00-21 which is that the delivered system has stand-alone value. The system is a standardized system with minimal variability as to features purchased with no customization and the installation of the system does not change its functionality. Each system is assembled and fully tested prior to shipment to the customer. In fact, the Company has sold systems to customers without installation. However, the Company needed to accumulate sufficient evidence to determine whether it met the second criteria for separation of elements under EITF 00-21, which is that it had fair value on the undelivered element, or installation services in this case. During quarter ended June 30, 2007 the Company had accumulated sufficient experience to conclude that installation had been and could be performed by several independent third party vendors such that fair value could be determined. The Company has also considered the requirements of SAB Topic 13.A as they relate to each element of revenue recognition.

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The revenue recognition policy disclosed in the Form 10-K for the year ended December 31, 2006 indicated that when installation was the responsibility of the Company, but not considered a separate element, revenue was recognized upon completion of installation. Notwithstanding the disclosure, for all periods presented in the 2006 Form 10-K, installation had not yet met the criteria to be a separate element. During the quarter ended June 30, 2007, the Company determined that installation met the criteria to be a separate element as discussed in the paragraph above, and revenue for the system was recognized upon delivery of the system to the customer. The Company defers the greater of the payment due upon completion of installation or the fair value of the installation services and recognizes this upon completion of installation.

16. *Further, to help us understand your current revenue recognition policy, please tell us the significant terms of your significant agreements with customers and how you evaluated those terms in determining your revenue recognition policies under SAB Topic 13.A and EITF Issue 00-21.*

The Company sells a magnetic navigation system for use in a hospital's interventional cardiology suite or "cath lab". The terms of the sale include the system itself, and may include an optional service plan that typically commences after the expiration of the standard one-year warranty. Terms of the sale also include an annual user interface license fee. The Company sells its systems to customers either including installation or excluding installation, in which case the customer is responsible for hiring a third party installer. Terms of sale always include transfer of title and risk and rewards of ownership to the customer at the time of delivery. There are no rights of return included in any sale transaction.

As discussed above, for all transactions one year of license fee revenue is deferred based on the fair value of the fee and is recognized on a straight-line basis over the first year of ownership. Subsequent annual payments are also deferred and recognized over the annual license period. Additionally, any revenue related to service plans included in the purchase price is deferred based on the fair value of the service plans and recognized on a straight-line basis over the service period. Prior to the quarter ended June 30, 2007, 100% of the remaining purchase price allocated to system revenue was recognized at time of delivery for systems sold without the obligation for installation and 100% of the system revenue was recognized at the time of installation completion for those systems for which installation was the responsibility of the Company. Please see the Company's response to the previous comment regarding revenue recognition during the quarter ended June 30, 2007.

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The Company acknowledges that:

- the Company is responsible for the adequacy and accuracy of the disclosure in its filings;
- 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.

* * * * *

Please direct any additional questions or comments to my attention at (314) 678-6105. My fax number is (314) 678-6110.

Sincerely,

/s/ James M. Stolze

James M. Stolze
Vice President and Chief Financial Officer

cc: Bevil J. Hogg
Ruth Saphian
Amy Smith
James L. Nouss, Jr.
Robert J. Endicott