

[STEREOTAXIS LETTERHEAD]

September 15, 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: Mary Beth Breslin and Daniel Morris

**Re: Stereotaxis, Inc.  
Registration Statement on Form S-3  
Filed August 6, 2009  
File No. 333-161078**

Dear Ms. Breslin and Mr. Morris:

Pursuant to Rule 461 under the Securities Act of 1933, as amended, the undersigned registrant, Stereotaxis, Inc. (the "Company") hereby requests that the above-referenced Registration Statement on Form S-3 be permitted to become effective on September 15, 2009 at 4:30 p.m. Eastern Time.

In addition, the Company hereby acknowledges that:

- should the Securities and Exchange Commission (the "Commission") or the staff, acting pursuant to delegated authority, declare the filing effective, it does not foreclose the Commission from taking any action with respect to the filing;
- the action of the Commission or the staff, acting pursuant to delegated authority, in declaring the filing effective, does not relieve the Company from its full responsibility for the adequacy and accuracy of the disclosure in the filing; and
- the Company may not assert this action as a defense in any proceeding initiated by the Commission or any person under the federal securities laws of the United States.

Please call Robert J. Endicott of Bryan Cave LLP at (314) 259-2447, if you have any questions or comments. Thank you for your continued assistance.

Very truly yours,

Stereotaxis, Inc.

By: /s/ James M. Stolze  
James M. Stolze  
Vice President and Chief Financial Officer