

**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION**
Washington, D.C. 20549

**FORM S-8
REGISTRATION STATEMENT
UNDER
THE SECURITIES ACT OF 1933**

STEREOTAXIS, INC.
(Exact name of registrant as specified in its charter)

Delaware
(State or other jurisdiction of
incorporation or organization)

94-3120386
(I.R.S. Employer
Identification No.)

**4320 Forest Park Avenue, Suite 100
St. Louis, Missouri 63108**
(Address of Principal Executive Offices, including zip code)

Stereotaxis, Inc. 2009 Employee Stock Purchase Plan
(Full title of the plans)

**Karen Witte Duros
Sr. Vice President & General Counsel
Stereotaxis, Inc.
4320 Forest Park Avenue, Suite 100
St. Louis, Missouri 63108**
(Name and address of agent for service)

(314) 678-6100
(Telephone number, including area code, of agent for service)

Copies to:

**James L. Nouss, Jr., Esq.
Robert J. Endicott, Esq.
Todd M. Kaye, Esq.
Bryan Cave LLP
211 North Broadway, Suite 3600
St. Louis, Missouri 63102-2750
(314) 259-2000**

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. See the definitions of "large accelerated filer," "accelerated filer" and "smaller reporting company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer Accelerated filer
Non-accelerated filer (Do not check if a smaller reporting company) Smaller reporting company

CALCULATION OF REGISTRATION FEE

Title of securities to be registered	Amount to be registered (1)	Proposed maximum offering price per share	Proposed maximum aggregate offering price	Amount of registration fee
Common Stock, \$0.001 par value	250,000	\$3.18 (2)	\$795,000 (2)	\$102.40

(1) Pursuant to Rule 416(a) of the Securities Act of 1933, as amended (the "Securities Act"), this Registration Statement shall also cover an indeterminate number of additional shares of the Registrant's common stock, par value \$0.001 per share (the "Common Stock"), that becomes issuable under the Stereotaxis, Inc. 2009 Employee Stock Purchase Plan, as amended, by reason of any stock splits, stock dividends, recapitalization or other similar transactions.

(2) Estimated solely for the purpose of calculating the registration fee pursuant to Rule 457(c) and (h) under the Securities Act and based upon the average

of the high and low prices of the Company's Common Stock as reported by the NASDAQ Capital Market on August 5, 2014.

**EXPLANATORY NOTE
REGISTRATION OF ADDITIONAL SHARES PURSUANT TO GENERAL INSTRUCTION E**

On June 10, 2014, at the Annual Meeting of Shareholders of Stereotaxis, Inc. (the “Registrant” or “Company”), the shareholders of the Company approved the amendment (the “Plan Amendment”) to the 2009 Employee Stock Purchase Plan (the “Plan”), which the Company’s Board of Directors had previously approved, subject to such shareholder approval. The Plan Amendment provides, among other things, that a maximum of 250,000 shares of the Company’s common stock, \$0.001 par value per share (the “Common Stock”), may be issued thereunder. Previously, 250,000 shares were authorized under the Plan, and registered under the Securities Act of 1933, as amended (the “Securities Act”), pursuant to a registration statement on Form S-8 previously filed on August 6, 2009 (Registration No. 333-161079) (the “Previous S-8”), which remains in full force and effect.

The Company is filing this Registration Statement to register under the Securities Act an additional 250,000 shares of the Company’s Common Stock to be issued pursuant to the Plan Amendment. The additional shares to be registered by this Registration Statement are of the same class as those securities covered by the Previous S-8. Pursuant to General Instruction E to Form S-8, the contents of the Previous S-8 are incorporated herein by reference and this Registration Statement is only required to include those items specified by such instruction.

Unless the context otherwise requires, references made herein to “Stereotaxis,” “we,” “us,” “our” and “ours” refer to Stereotaxis, Inc. and its consolidated subsidiaries.

**PART I
INFORMATION REQUIRED IN THE SECTION 10(a) PROSPECTUS**

As permitted by the rules of the Securities Exchange Commission (“SEC”), this Registration Statement omits the information specified in Part I of Form S-8. The documents containing the information specified in Part I of this Registration Statement will be sent or given to eligible employees as specified by Rule 428(b) promulgated under the Securities Act. Such documents are not being filed with the SEC either as part of this Registration Statement or as prospectuses or prospectus supplements pursuant to Rule 424 promulgated under the Securities Act.

**PART II
INFORMATION REQUIRED IN THE REGISTRATION STATEMENT**

Item 3. Incorporation of Documents by Reference.

The following documents listed in (a) through (e) below, which are on file with the SEC, are incorporated herein by reference (except for the portions of the Company’s Current Reports on Form 8-K furnished pursuant to Item 2.02 or Item 7.01 thereof or otherwise not filed with the SEC which are deemed not to be incorporated by reference into this Registration Statement):

- (a) The Registrant’s Annual Report filed on Form 10-K for the fiscal year ended December 31, 2013;

- (b) The Registrant's Amendment No. 1 to the Annual Report filed on Form 10-K/A for the fiscal year ended December 31, 2013;
- (c) The Registrant's Quarterly Report filed on Form 10-Q for the quarterly period ended March 31, 2014, filed with the SEC on May 9, 2014, and the Registrant's Quarterly Report on Form 10-Q for the quarterly period ended June 30, 2014, filed with the SEC on August 7, 2014;
- (d) The Registrant's Current Reports on Form 8-K filed with the Commission on February 14, 2014, February 25, 2014 (regarding Item 8.01), March 31, 2014, April 10, 2014, May 6, 2014, May 16, 2014, June 2, 2014, June 11, 2014 and August 7, 2014; and
- (e) The description of the Registrant's common stock contained in the Registrant's Registration Statement on Form 8-A dated August 2, 2004, registering the Registrant's common stock under Section 12(g) of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), including any amendments or reports filed for the purpose of updating such description.

In addition, all documents subsequently filed by the Registrant with the Commission pursuant to Sections 13(a), 13(c), 14 and 15(d) of the Exchange Act (other than those made pursuant to Item 2.02 or Item 7.01 of Form 8-K or other information "furnished" to the Commission) prior to the filing of a post-effective amendment which indicates that all securities offered have been sold or which deregisters all securities then remaining unsold, shall be deemed to be incorporated by reference in this Registration Statement and to be part hereof from the date of filing of such documents. These documents include periodic reports, such as Proxy Statements, Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q and Current Reports on Form 8-K (other than the portions of those documents not deemed to be filed, which is deemed not to be incorporated by reference in this Registration Statement). Any statement contained in a document incorporated or deemed to be incorporated herein by reference shall be deemed to be modified or superseded for purposes of this Registration Statement to the extent that a statement contained herein or in any other subsequently filed document which also is or is deemed to be incorporated by reference herein modifies or supersedes such statement.

Item 4. Description of Securities.

The securities to be offered are registered under Section 12 of the Exchange Act and, accordingly, no description is provided hereunder.

Item 5. Interests of Named Experts and Counsel.

Not applicable.

Item 6. Indemnification of Directors and Officers.

Our amended and restated certificate of incorporation provides that, to the fullest extent permitted by the Delaware General Corporation Law as the same exists or may hereafter be amended, our directors shall not be liable to the Company or our stockholders for monetary damages for breach of fiduciary duty as a director. In addition, our amended and restated certificate of incorporation provides that we may, to the fullest extent permitted by law, indemnify any person made or threatened to be made a party to an action, suit or proceeding, whether criminal, civil, administrative or investigative, by reason of the fact that such person or his or her testator or intestate is or was a director, officer or employee of the Company, or any predecessor of the Company, or serves or served at any other enterprise as a director, officer or employee at the request of the Company.

Our amended and restated bylaws provide that the Company shall indemnify our directors and officers to the fullest extent not prohibited by the Delaware General Corporation Law or any other law. We are not required to indemnify any director or officer in connection with a proceeding brought by such director or officer unless (i) such indemnification is expressly required by law; (ii) the proceeding was authorized by our board of directors; or (iii) such indemnification is provided by the Company, in its sole discretion, pursuant to the powers vested in the Company under the Delaware General Corporation Law or any other applicable law. In addition, our amended and restated bylaws provide that the Company may indemnify its employees and other agents as set forth in the Delaware General Corporation Law or any other applicable law.

We have also entered into separate indemnification agreements with our directors and officers that require us, among other things, to indemnify each of them against certain liabilities that may arise by reason of their status or service with the Company or on behalf of the Company, other than liabilities arising from willful misconduct of a culpable nature. The Company is not required to indemnify under the agreement for (i) actions initiated by the director without the authorization or consent of the board of directors; (ii) actions initiated to enforce the indemnification agreement unless the director is successful; (iii) actions resulting from violations of Section 16 of the Exchange Act in which a final judgment has been rendered against the director; and (iv) actions to enforce any non-compete or non-disclosure provisions of any agreement.

The indemnification provided for above provides for reimbursement of all losses of the indemnified party, including expenses, judgment, fines and amounts paid in settlement. The right to indemnification set forth above includes the right for us to pay the expenses (including attorneys' fees) incurred in defending any such proceeding in advance of its final disposition in certain circumstances.

The Delaware General Corporation Law provides that indemnification is permissible only when the director, officer, employee, or agent acted in good faith and in a manner reasonably believed to be in or not opposed to the best interests of the corporation, and, with respect to any criminal action or proceeding, had no reasonable cause to believe the conduct was unlawful. The Delaware General Corporation Law also precludes indemnification in respect of any claim, issue, or matter as to which an officer, director, employee, or agent shall have been adjudged to be liable to the corporation unless and only to the extent that the Court of Chancery of the State of Delaware or the court in which such action or suit was brought shall determine that, despite such adjudication of liability, but in view of all the circumstances of the case, such person is fairly and reasonably entitled to indemnity for such expenses which the Court of Chancery or such other court deems proper.

Item 7. Exemption From Registration Claimed.

Not applicable.

Item 8. Exhibits.

The Exhibits to this Registration Statement are listed in the Exhibit Index to this Registration Statement, which Index is incorporated herein by reference.

Item 9. Undertakings.

(a) The undersigned registrant hereby undertakes:

(1) To file, during any period in which offers or sales are being made, a post-effective amendment to this registration statement:

(i) to include any prospectus required by section 10(a)(3) of the Securities Act;

(ii) to reflect in the prospectus any facts or events arising after the effective date of the registration statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in the registration statement. Notwithstanding the foregoing, any increase or decrease in volume of securities offered (if the total dollar value of securities offered would not exceed that which was registered) and any deviation from the low or high end of the estimated maximum offering range may be reflected in the form of prospectus filed with the SEC pursuant to Rule 424(b) if, in the aggregate, the changes in volume and price represent no more than 20 percent change in the maximum aggregate offering price set forth in the "Calculation of Registration Fee" table in the effective registration statement; and

(iii) to include any material information with respect to the plan of distribution not previously disclosed in the registration statement or any material change to such information in the registration statement.

provided, however, that paragraphs (a)(1)(i), (a)(1)(ii) and (a)(1)(iii) do not apply if the information required to be included in a post-effective amendment by those paragraphs is contained in reports filed with or furnished to the Commission by registrant pursuant to Section 13 and Section 15(d) of the Exchange Act that are incorporated by reference in the registration statement, or is contained in a form of prospectus filed pursuant to Rule 424(b) that is part of the registration statement.

(2) That, for the purpose of determining any liability under the Securities Act, each such post-effective amendment shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

(3) To remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of the offering.

(4) That, for the purpose of determining liability under the Securities Act to any purchaser:

(i) Each prospectus filed by the registrant pursuant to Rule 424(b)(3) of the Securities Act shall be deemed to be part of the Registration Statement as of the date the filed prospectus was deemed part of and included in the Registration Statement; and

(ii) Each prospectus required to be filed pursuant to Rule 424(b)(2), (b)(5), or (b)(7) of the Securities Act as part of this registration statement in reliance on Rule 430B relating to an offering made pursuant to Rule 415(a)(1)(i), (vii), or (x) for the purpose of providing the information required by section 10(a) of the Securities Act shall be deemed to be part of and included in this registration statement as of the earlier of the date such form of prospectus is first used after effectiveness or the date of the first contract of sale of securities in the offering described in the prospectus. As provided in Rule 430B, for liability purposes of the issuer and any person that is at that date an underwriter, such date shall be deemed to be a new effective date of the registration statement relating to the securities in the registration statement to which that prospectus relates, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof. Provided, however, that no statement made in this registration statement or prospectus that is part of this registration statement or made in a document incorporated or deemed incorporated by reference into this registration statement or prospectus that is part of this registration statement will, as to a purchaser with a time of contract of sale prior to such effective date, supersede or modify any statement that was made in this registration statement or prospectus that was part of this registration statement or made in any such document immediately prior to such effective date;

(b) The undersigned registrant hereby undertakes that, for purposes of determining any liability under the Securities Act, each filing of the registrant's annual report pursuant to section 13(a) or section 15(d) of the Exchange Act (and, where applicable, each filing of an employee benefit plan's annual report pursuant to section 15(d) of the Exchange Act) that is incorporated by reference in the registration statement shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers and controlling persons of the registrant pursuant to the foregoing provisions, or otherwise, the registrant has been advised that in the opinion of the SEC such indemnification is against public policy as expressed in the Securities Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the registrant of expenses incurred or paid by a director, officer or controlling person of the registrant in the successful defense of any action, suit or proceeding) is asserted by such director officer or controlling person in connection with the securities being registered, the registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Securities Act and will be governed by the final adjudication of such issue.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-8 and has duly caused this registration statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of St. Louis, State of Missouri, on August 7, 2014.

STEREOTAXIS, INC.

By: /s/ William C. Mills III
William C. Mills III
Chairman and Chief Executive Officer

Pursuant to the requirements of the Securities Act of 1933, this Registration Statement has been signed below by the following persons in the capacities and on the dates indicated.

<u>Signature</u>	<u>Title(s)</u>	<u>Date</u>
<u>/s/ William C. Mills III</u> William C. Mills III	Chairman and Chief Executive Officer (principal executive officer)	August 7, 2014
<u>/s/ Martin C. Stammer</u> Martin C. Stammer	Chief Financial Officer (principal financial officer and principal accounting officer)	August 7, 2014
<u>*</u> David W. Benfer	Director	August 7, 2014
<u>*</u> Joseph D. Keegan	Director	August 7, 2014
<u>*</u> Robert J. Messey	Director	August 7, 2014
<u>*</u> Fred A. Middleton	Director	August 7, 2014
<u>*</u> Eric N. Prystowsky	Director	August 7, 2014

Euan S. Thomson

*By: _____ /s/ Karen W. Duros
Karen W. Duros
Attorney-in-fact

EXHIBIT INDEX

<u>Exhibit Number</u>	<u>Exhibit</u>
5.1	Opinion of Bryan Cave LLP
10.1	Stereotaxis, Inc. 2009 Employee Stock Purchase Plan, as amended, incorporated by reference to Appendix B to the Registrant's Proxy Statement filed April 28, 2014 (File No. 001-36159)
23.1	Consent of Ernst & Young LLP, Independent Registered Public Accountants
23.2	Consent of Bryan Cave LLP (contained in Exhibit 5.1)
24.1	Power of Attorney

August 7, 2014

Stereotaxis, Inc.
4320 Forest Park Avenue, Suite 100
St. Louis, Missouri 63108

Ladies and Gentlemen:

We have acted as special counsel to Stereotaxis, Inc., a Delaware corporation (the "Company"), in connection with its registration under the Securities Act of 1933, as amended (the "Securities Act"), by means of a registration statement on Form S-8 (the "Registration Statement"), of an aggregate of 250,000 additional shares of the Company's common stock, par value \$0.001 per share (the "Shares"), which may be issued pursuant to the Stereotaxis, Inc. 2009 Employee Stock Purchase Plan (the "Plan"), as amended by that certain amendment, which was approved by the shareholders on June 10, 2014 (the "Plan Amendment").

In connection herewith, we have examined:

- (a) the Registration Statement;
- (b) the Plan and the Plan Amendment;
- (c) the Amended and Restated Certificate of Incorporation of the Company; and
- (d) the Amended and Restated Bylaws of the Company.

We have also examined originals or copies, certified or otherwise identified to our satisfaction, of such other corporate records, agreements and instruments of the Company, statements and certificates of public officials and officers of the Company, and such other documents, records and instruments, and we have made such legal and factual inquiries, as we have deemed necessary or appropriate as a basis for us to render the opinions hereinafter expressed. In our examination of the foregoing, we have assumed the genuineness of all signatures, the legal competence and capacity of natural persons, the authenticity of documents submitted to us as originals and the conformity with authentic original documents of all documents submitted to us as copies or by facsimile or other means of electronic transmission, or which we obtained from the Securities and Exchange Commission's ("SEC") Electronic Data

Gathering, Analysis and Retrieval system (“Edgar”) or other sites maintained by a court or governmental authority or regulatory body and the authenticity of the originals of such latter documents. If any documents we examined in printed, word processed or similar form have been filed with the SEC on Edgar or such court or governmental authority or regulatory body, we have assumed that the document so filed is identical to the document we examined except for formatting changes. When relevant facts were not independently established, we have relied without independent investigation as to matters of fact upon statements of governmental officials and upon representations made in or pursuant to the certificates and statements of appropriate representatives of the Company.

In connection herewith, we have assumed that, other than with respect to the Company, all of the documents referred to in this opinion letter have been duly authorized by, have been duly executed and delivered by, and constitute the valid, binding and enforceable obligations of, all of the parties to such documents, all of the signatories to such documents have been duly authorized and all such parties are duly organized and validly existing and have the power and authority (corporate or other) to execute, deliver and perform such documents.

Based upon the foregoing and in reliance thereon, and subject to the assumptions, comments, qualifications, limitations and exceptions set forth herein, we are of the opinion that the Shares have been duly authorized for issuance, and when issued, delivered and paid for in accordance with the Plan and the Plan Amendment, the Shares will be validly issued, fully paid and non-assessable.

This opinion is not rendered with respect to any laws other than the General Corporation Law of the State of Delaware. The opinions set forth herein are made as of the date hereof and are subject to, and may be limited by, future changes in the factual matters set forth herein, and we undertake no duty to advise you of the same. The opinions expressed herein are based upon the law in effect (and published or otherwise generally available) on the date hereof, and we assume no obligation to revise or supplement these opinions should such law be changed by legislative action, judicial decision or otherwise. In rendering our opinions, we have not considered, and hereby disclaim any opinion as to, the application or impact of any laws, cases, decisions, rules or regulations of any other jurisdiction, court or administrative agency.

This opinion is being delivered by us in connection with the filing of the Registration Statement with the SEC. We do not render any opinions except as set forth above. We hereby consent to the filing of this opinion as Exhibit 5.1 to the Registration Statement and to the use of our name under the caption “Legal Matters” in the prospectus filed as a part thereof. We also consent to your filing copies of this opinion as an exhibit to the Registration Statement with such agencies of such states as you deem necessary in the course of complying with the laws of such states regarding the offering and sale of the securities addressed herein. In giving such consent, we do not thereby concede that we are within the category of persons whose consent is required under Section 7 of the Securities Act or the rules and regulations of the SEC promulgated thereunder.

Very truly yours,

/s/ Bryan Cave LLP

Consent of Independent Registered Public Accounting Firm

We consent to the incorporation by reference in the Registration Statement (Form S-8 No. 333-) pertaining to the Stereotaxis, Inc. 2009 Employee Stock Purchase Plan, as amended June 10, 2014 by the shareholders, of our report dated March 27, 2014, with respect to the consolidated financial statements and schedule of Stereotaxis, Inc. included in its Annual Report (Form 10-K) for the year ended December 31, 2013, filed with the Securities and Exchange Commission.

/s/ Ernst & Young LLP

St. Louis, Missouri
August 7, 2014

POWER OF ATTORNEY

Know All Persons By These Presents:

That each person whose signature appears below, as a director or officer of Stereotaxis, Inc., a Delaware corporation (the "Company"), does hereby make, constitute and appoint William C. Mills III, Martin C. Stammer and Karen W. Duros, and each or any one of them, his or her true and lawful attorney-in-fact and agent for the undersigned, with full power of substitution and resubstitution, for him or her and in his or her name, place and stead, in any and all capacities, to execute and sign any and all registration statements on Form S-8 covering the registration of securities of the Company to be issued under the Stereotaxis, Inc. 2012 Stock Incentive Plan, as amended, and the 2009 Employee Stock Purchase Plan and any and all amendments (including post-effective amendments) to such registration statements, and to file the same, with all exhibits thereto, and other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorneys-in-fact and agents, and each of them, full power and authority to do and perform each and every act and thing requisite and necessary to be done in connection therewith, as fully to all intents and purposes as he or she might or could do in person, hereby ratifying and confirming all that said attorneys-in-fact and agents, or any of them, or their or his or her substitutes or substitute, may lawfully do or cause to be done by virtue hereof.

In Witness Whereof, this Power of Attorney has been signed by the following persons in the capacities effective as of the 24th day of April, 2014.

Signature	Title(s)
<u>/s/ William C. Mills III</u> William C. Mills III	Chairman and Chief Executive Officer (principal executive officer)
<u>/s/ Martin C. Stammer</u> Martin C. Stammer	Chief Financial Officer (principal financial officer and principal accounting officer)
<u>/s/ David W. Benfer</u> David W. Benfer	Director
<u>/s/ Joseph D. Keegan</u> Joseph D. Keegan	Director
<u>/s/ Robert J. Messey</u> Robert J. Messey	Director

/s/ Fred A. Middleton Director
Fred A. Middleton

/s/ Eric N. Prystowsky Director
Eric N. Prystowsky

/s/ Euan S. Thomson Director
Euan S. Thomson