UNITED STATES SECURITIES AND EXCHANGE COMMISSION

WASHINGTON, DC 20549

FORM S-1 REGISTRATION STATEMENT

UNDER THE SECURITIES ACT OF 1933

STEREOTAXIS, INC.

Delaware (State or other jurisdiction of incorporation or organization)

3845 (Primary Standard Industrial Classification Code number) 4320 Forest Park Avenue, Suite 100

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

St. Louis, Missouri 63108 (314) 678-6100 (Address, including zip code, and telephone number, including area code, of registrant's principal executive offices)

> Karen Witte Duros Sr. Vice President & General Counsel Stereotaxis, Inc. 4320 Forest Park Avenue, Suite 100 St. Louis, Missouri 63108 (314) 678-6100

(Name, address, including zip code, and telephone number, including area code, of agent for service)

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(314) 259-2020 (fax)

Approximate date of commencement of proposed sale to public: From time to time after this registration statement becomes effective.

If any of the securities being registered on this form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933, check the following box. 🗵 If this Form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, please check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. \Box

If this Form is a post-effective amendment filed pursuant to Rule 462(c) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. \Box

If this Form is a post-effective amendment filed pursuant to Rule 462(d) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. \square

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" "accelerated filer" and "smaller reporting company" in Rule 12b-2 of the Exchange Act.

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Large accelerated filer		Acce	lerated filer	
Non-accelerated filer	\square (Do not check if a smaller reporting company)	Small	ler reporting company	X

CALCULATION OF REGISTRATION FEE

		Proposed	Proposed	
	Amount	Maximum	Maximum	
Title of Each Class Of	to be	Offering Price	Aggregate	Amount Of
Securities To Be Registered	Registered (1)	Per Unit (2)	Offering Price	Registration Fee
Common Stock, par value \$0.001 per share, underlying Series A Convertible Preferred Stock	48,000,001 (3)	\$0.78	\$37,440,000.78	\$4,339.30
Common Stock, par value \$0.001 per share, underlying SPA Warrants	36,923,078 (4)	\$0.78	\$28,800,000.84	\$3,337.92
Common Stock, par value \$0.001 per share, underlying 2013 Warrants	100,578 (5)	\$0.78	\$78,450.84	\$9.09
Common Stock, par value \$0.001 per share, underlying Exchange Warrants	1,041,357 (6)	\$0.78	\$812,258.46	\$94.14
Total	86,065,014		\$67,130,710.92	\$7,780.45

- This registration statement shall also cover any additional shares of common stock which become issuable by reason of any stock dividend, stock split, recapitalization or other similar transactions effected without the receipt of consideration which results in an increase in the number of outstanding shares of our common stock.
- Estimated solely for the purpose of calculating the registration fee pursuant to Rule 457(c) under the Securities Act. The calculation of the fee is based upon the average of the high and low sales prices of our common stock as reported by the OTCQX® Best Market on October 21, 2016.
- Consists of 130% of the shares of common stock initially issuable upon conversion of 24,000 shares of Series A Convertible Preferred Stock, with each share of Series A Convertible Preferred Stock having a stated value of \$1,000 per share and an initial conversion price into shares of common stock of \$0.65 per share.

 Consists of the shares of common stock issuable upon the exercise of SPA Warrants issued to the selling stockholders at an initial warrant exercise price of \$0.70 per share.

Consists of the shares of common stock issuable upon exercise of 2013 Warrants issued to selling stockholders at warrant exercise prices ranging from \$1.55 per share to \$5.24 per share. Consists of the shares of common stock issuable upon exercise of Exchange Warrants issued to selling stockholders at a warrant exercise price of \$3.361 per share.

The Registrant hereby amends this Registration Statement on such date or dates as may be necessary to delay its effective date until the Registrant shall file a further amendment which specifically states that this Registration Statement shall thereafter become effective in accordance with Section 8(a) of the Securities Act of 1933 or until the Registration Statement shall become effective on such date as the SEC, acting pursuant to said Section 8(a), may determine.

THE INFORMATION IN THIS PROSPECTUS IS NOT COMPLETE AND MAY BE CHANGED. THE SECURITIES MAY NOT BE SOLD UNTIL THE REGISTRATION STATEMENT FILED WITH THE SECURITIES AND EXCHANGE COMMISSION IS EFFECTIVE. THIS PROSPECTUS IS NOT AN OFFER TO SELL THESE SECURITIES AND IT IS NOT SOLICITING AN OFFER TO BUY THESE SECURITIES IN ANY STATE WHERE THE OFFER OR SALE IS NOT PERMITTED.

Subject to Completion, dated October 26, 2016

PROSPECTUS



COMMON STOCK, \$0.001 PAR VALUE 86,065,014 SHARES

This prospectus relates to the resale, from time to time, of 86,065,014 shares of our common stock by the selling stockholders named herein. On September 26, 2016, we entered into a securities purchase agreement with the investors listed on the Schedule of Buyers thereto (together the "Buyers"), pursuant to which we sold in a private placement sale to the Buyers (i) a total of 24,000 shares of our Series A Convertible Preferred Stock, par value \$0.001 with a stated value of \$1,000 per share (the "Series A Convertible Preferred Stock"), initially convertible into 36,923,078 shares of common stock based upon an initial conversion price of \$0.65 per share, subject to certain adjustments, and (ii) related warrants (the "SPA Warrants") to purchase an aggregate of 36,923,078 shares of our common stock at an initial warrant exercise price of \$0.70 per share subject to certain adjustments and for a term of five (5) years.

Pursuant to the terms of the Registration Rights Agreement we entered into with the Buyers, we are required to register (a) 100% of the number of shares of common stock underlying the Series A Convertible Preferred Stock and (b) 100% of the number of shares of common stock issuable upon exercise of the SPA Warrants. Due to the dividend accrual provisions of the Series A Convertible Preferred Stock which will increase the number of shares of common stock issuable upon conversion, we are registering shares of common stock representing 130% of the number of shares initially issuable upon exercise of all issued and outstanding shares of Series A Convertible Preferred Stock.

We have also agreed to register the resale of 100% of the number of shares of common stock currently underlying (i) warrants (the "2013 Warrants") to purchase an aggregate of 100,578 shares of our common stock at warrant exercise prices ranging from \$1.55 per share to \$5.24 per share and for a term of five (5) years, issued pursuant to certain amendments to the Note and Warrant Purchase Agreement dated February 21, 2008, by and among the Company and certain purchasers named therein, and (ii) warrants (the "Exchange Warrants") to purchase 1,041,357 shares of common stock at a warrant exercise price of \$3.361 per share pursuant to an Amendment and Exchange Agreement, dated August 7, 2013, by and among the Company and certain holders named therein.

We are not selling any securities under this prospectus and will not receive any of the proceeds from the sale of shares by any selling stockholder; however, we will receive proceeds upon any exercise of the SPA Warrants, the 2013 Warrants or the Exchange Warrants for cash. Assuming all the SPA Warrants, 2013 Warrants and Exchange Warrants to which the shares relate are exercised for cash, we will receive \$29.6 million in proceeds from the exercise of such warrants prior to those sales, which proceeds would be used for general corporate purposes. The selling stockholders may sell their respective shares of common stock described in this prospectus in a number of different ways and at varying prices. We provide more information about how the selling stockholders may resell their respective shares of our common stock in the section titled "Plan of Distribution" beginning on page 15. We will pay the expenses incurred in registering the shares, including legal and accounting fees.

Our common stock is traded on the OTCQX $^{\otimes}$ Best Market under the symbol "STXS." On October 25, 2016, the last reported sale price for our common stock on the OTCQX $^{\otimes}$ Best Market was \$0.72 per share.

Investing in our securities involves a high degree of risk. Before buying any securities, you should read the discussion of material risks of investing in our common stock under the heading "Risk Factors" beginning on page 5 of this prospectus.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or passed upon the adequacy or accuracy of this prospectus. Any representation to the contrary is a criminal offense.

The date of this prospectus is , 2016.

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PROSPECTUS SUMMARY

This summary highlights selected information about Stereotaxis, Inc. and a general description of the securities that may be offered for resale or other disposition by the selling stockholders. This summary is not complete and does not contain all of the information that may be important to you. For a more complete understanding of us and the securities offered by the selling stockholders, you should carefully read this entire prospectus, including the "Risk Factors" section, any applicable prospectus supplement for these securities and the other documents we refer to and incorporate by reference. In particular, we incorporate important business and financial information into this prospectus by reference.

The Company

Stereotaxis designs, manufactures, and markets the Epoch® Solution, an advanced remote robotic navigation system for use in a hospital's interventional surgical suite or "interventional lab", that we believe revolutionizes the treatment of arrhythmias and coronary artery disease by enabling enhanced safety, efficiency, and efficacy for catheter-based or interventional procedures. The *Epoch* Solution is comprised of the Niobe® ES Magnetic Navigation System ("Niobe ES system"), Odyssey® Information Management Solution ("Odyssey Solution"), and the Vdrive® Robotic Navigation System ("Vdrive system") and related devices.

The *Niobe* ES system is designed to enable physicians to complete more complex interventional procedures by providing image-guided delivery of catheters and guidewires through the blood vessels and chambers of the heart to treatment sites. This is achieved using externally applied magnetic fields that govern the motion of the working tip of the catheter or guidewire, resulting in improved navigation, efficient procedures, and reduced X-ray exposure.

In addition to the *Niobe* ES system and its components, Stereotaxis has also developed the *Odyssey* Solution, which consolidates all lab information, enabling doctors to focus on the patient for optimal procedure efficiency. The platform also features a remote viewing and recording capability called the Odyssey CinemaTM system, an innovative system delivering synchronized content for optimized workflow, advanced care, and improved productivity. This tool includes an archiving capability that allows clinicians to store and replay entire procedures or segments of procedures. This information can be accessed from locations throughout the hospital's local area network and over the global *Odyssey* Network, providing physicians with a tool for clinical collaboration, remote consultation, and training.

Our Vdrive system provides navigation and stability for diagnostic and therapeutic devices designed to improve interventional procedures. The Vdrive system complements the Niobe ES system's control of therapeutic catheters for fully remote procedures and enables single-operator workflow. It is sold as two options, the Vdrive system and the Vdrive system and the Vdrive system, we also manufacture and market various disposable components which can be manipulated by these systems.

We promote the full *Epoch* Solution in a typical hospital implementation, subject to regulatory approvals or clearances. The full *Epoch* Solution implementation requires a hospital to agree to an upfront capital payment and recurring payments. The upfront capital payment typically includes equipment and installation charges. The recurring payments typically include disposable costs for each procedure, equipment service costs beyond the warranty period, and software licenses. In hospitals where the full *Epoch* Solution has not been implemented, equipment upgrade or expansion may be implemented upon purchase of the necessary components. As of June 30, 2016, the Company has an installed base of 129 *Niobe* ES systems.

The core components of Stereotaxis' systems have received regulatory clearance in the United States, European Union, Canada, China, Japan and various other countries. We have received regulatory clearance, licensing and/or CE Mark approvals necessary for us to market the *Vdrive* and *Vdrive Duo* systems with the *V-CAS*, *V-Loop* and *V-Sono* devices in the U.S., Canada and European Union. The *V-CAS* Deflect catheter

advancement system has been CE Marked for sale in the European Union. We have received Food and Drug Administration ("FDA") clearance and the CE Mark necessary for us to market our suite of PegasusTM coronary peripheral guidewires in the United States and Europe.

Since our inception, we have generated significant losses. As of June 30, 2016, we have incurred cumulative net losses of approximately \$470.6 million. In 2016, we plan to continue developing the *Niobe* ES system with the goal of furthering clinical adoption and new system placements. We expect to incur additional losses in 2016 as we continue the development and commercialization of our products, conduct our research and development activities, advance new products into clinical development from our existing research programs and fund additional sales and marketing initiatives. During 2016, we will continue to monitor operating expenses and make additional investments in certain targeted areas.

We were incorporated in Delaware in June 1990. Our principal executive offices are located at 4320 Forest Park Avenue, Suite 100, St. Louis, Missouri 63108, and our telephone number is (314) 678-6100. Our website address is www.stereotaxis.com. Information contained on our website is not incorporated by reference into and does not form any part of this prospectus. As used in this prospectus, references to "Company", "we", "our", "us" and "Stereotaxis" refer to Stereotaxis, Inc. unless the context requires otherwise. Epoch®, Niobe®, Odyssey®, Odyssey CinemaTM, Vdrive®, Vdrive DuoTM, V-CASTM, V-LoopTM, V-SonoTM, V-CAS DeflectTM, QuikCASTM, Cardiodrive®, and PegasusTM are trademarks of Stereotaxis, Inc. All other trademarks that may appear in this prospectus are the property of their respective owners.

Securities Being Offered

This prospectus relates to the offer, resale or other disposition of 86,065,014 shares of our common stock issuable (i) upon the conversion of our Series A Convertible Preferred Stock (as defined below); (ii) upon exercise of certain related warrants; and (iii) upon exercise of other warrants issued in March, June, July and August 2013 as described below, in each case held by the selling stockholders named in this prospectus or their transferees. The shares of Series A Convertible Preferred Stock and the warrants were issued in the transactions described below, and the selling stockholders are identified in the section entitled "Selling Stockholders" on page 10, below. We are registering the offer, resale or other disposition of these securities by the selling stockholders or their transferees. We will not receive any proceeds from the sale of the shares of common stock by the selling stockholders, but will receive proceeds upon any exercise for cash of the warrants held by the selling stockholders. The registration of these shares of common stock does not necessarily mean that any of them will be offered or sold by the selling stockholders. The securities may be sold directly or through brokers, dealers or agents in private or market transactions. In connection with any sales, the selling stockholders and any brokers, dealers or agents participating in such sales may be deemed to be "underwriters" within the meaning of the Securities Act of 1933 (the "Securities Act"). See "Plan of Distribution."

One of the Buyers (as defined below) in the Financing Transaction described below, Fred A. Middleton, has served on our Board of Directors since 1990 and also serves as a General Partner in Sanderling Ventures, affiliates of which own over 5% of our common stock. Another affiliate of Sanderling Ventures, Sanderling Venture Partners VI Co-Investment Fund LP, holds 2013 Warrants and is named as a selling stockholder in this prospectus. Two additional Buyers in the Financing Transaction, Joseph Kiani and Arun S. Menawat, Ph.D., joined our Board of Directors in connection with the closing of the Financing Transaction. David Fischel, who also joined our Board of Directors in connection with the closing of the Financing Transaction, is a Principal of DAFNA Capital Management, LLC. DAFNA Capital Management, LLC is the investment manager and general partner of two of the Buyers in the Financing Transaction and another entity that is a holder of Exchange Warrants, which entities collectively own, as of October 11, 2016, approximately 6% of our common stock and are each named as selling stockholders in this prospectus. Alafi Capital Company LLC, which owns over 5% of our common stock, holds 2013 Warrants and is named as a selling stockholder in this prospectus.

Financing Transaction

On September 26, 2016, we entered into a Securities Purchase Agreement (the "SPA"), pursuant to which we sold in a private placement sale to the investors identified on the Schedule of Buyers thereto (together the "Buyers") (i) a total of 24,000 shares of our Series A Convertible Preferred Stock, par value \$0.001 with a stated value of \$1,000 per share (the "Series A Convertible Preferred Stock"), initially convertible into 36,923,078 shares of common stock based upon an initial conversion price of \$0.65 per share, subject to certain adjustments, and (ii) related warrants (the "SPA Warrants") to initially purchase an aggregate of 36,923,078 shares of our common stock at an initial warrant exercise price of \$0.70 per share subject to certain adjustments and for a term of five (5) years. The Series A Convertible Preferred Stock and the SPA Warrants were sold at an aggregate price of \$24 million. This transaction (the "Financing Transaction") closed on September 29, 2016.

Net proceeds from the sale of the securities under the SPA were approximately \$23.1 million, after offering expenses.

In connection with the Financing Transaction, we entered into a registration rights agreement with the purchasers of the Series A Convertible Preferred Stock and the SPA Warrants (the "Registration Rights Agreement"), under which we agreed to undertake to file one or more registration statements on behalf of the selling stockholders with respect to the offer, resale or other disposition of the common stock issuable upon the conversion of the Series A Convertible Preferred Stock and upon the exercise of the SPA Warrants.

2013 Warrants

We issued warrants (the "2013 Warrants") to purchase an aggregate of 176,339 shares of our common stock at warrant exercise prices ranging from \$1.55 per share to \$5.24 per share, pursuant to the Seventh Amendment dated March 29, 2013, the Eighth Amendment dated June 28, 2013, and the extension of guaranty obligation dated July 31, 2013, to the Note and Warrant Purchase Agreement dated February 21, 2008, by and among the Company and certain purchasers named therein, as amended. Under a letter agreement dated November 12, 2014, among us, Alafi Capital Company LLC and entities affiliated with Sanderling Ventures, we agreed to file a registration statement relating to the resale of the shares underlying the 2013 Warrants. Two of the selling stockholders own 2013 Warrants exercisable for an aggregate of 100,578 shares of our common stock as of September 30, 2016 that are not covered by existing resale registration statements as of September 30, 2016.

Exchange Warrants

On May 10, 2012, we sold approximately \$8.5 million in aggregate principal amount of unsecured, subordinated, convertible debentures (the "Debentures") to several investors, including three of the selling stockholders named herein, under a Securities Purchase Agreement (the "Convertible Debt SPA"). The Debentures became convertible into shares of our common stock at a conversion price of \$3.361 per share (or 2,521,571 shares in the aggregate), on July 10, 2012, the date we received certain required stockholder approvals. The purchasers of the Debentures also received six-year warrants to purchase 2,521,571 shares of our common stock at an exercise price of \$3.361 per share (the "Convertible Debt Warrants"). In addition, we had the ability to issue shares of our common stock in lieu of cash interest payments under certain circumstances, and were required to do so under the subordination agreement described below until the senior debt to which that agreement relates is repaid in full.

The Debentures had an interest rate of 8% per year and were set to mature in May 2014. The Company was required to, and did, make interest payments in shares of common stock prior to the termination of the Debentures in August 2013. The Convertible Debt Warrants became exercisable on the six month and first day anniversary following their issuance.

In August 2013, \$8,090,000 of the Debentures remained outstanding. The holders of the Debentures (i) converted \$7,990,000 aggregate principal amount of such Debentures into 2,377,269 shares of our common stock

at a conversion price of \$3.361 per share and (ii) cash exercised all of the outstanding Convertible Debt Warrants for an aggregate of 2,521,571 shares of our common stock at an exercise price of \$3.361 per share, for an aggregate of \$8.475 million of gross proceeds to us. In addition, pursuant to an Amendment and Exchange Agreement dated August 7, 2013, the holders also exchanged the remaining \$100,000 principal amount of our Debentures for an aggregate of 333,182 shares of our common stock and new warrants to purchase an aggregate of 2,521,571 shares of our common stock, having an exercise price of \$3.361 per share (the "Exchange Warrants"), and certain other terms of the Convertible Debt SPA were amended. This prospectus covers the resale of 1,041,357 shares of our common stock issuable upon exercise of Exchange Warrants held by three selling stockholders named herein.

HRP Transaction

Concurrent with the closing of the Financing Transaction, we paid to Healthcare Royalty Partners II, L.P. ("HRP") the sum of \$13,000,000, in full satisfaction of any and all of our obligations and the obligations of our subsidiaries owed to HRP (the "HRP Transaction"). The concurrent consummation of the HRP Transaction was a condition to the Buyers' respective obligations to consummate the closing of the Financing Transaction.

RISK FACTORS

Investing in our securities involves a high degree of risk. Prior to making a decision about investing in our securities, you should carefully consider the risks described in, or incorporated by reference in, this prospectus, including the risks described below and under the caption "Risk Factors" in our Annual Report on Form 10-K for the year ended December 31, 2015, and in any other reports that we file with the Securities and Exchange Commission (the "SEC"), along with the other information included or incorporated by reference in this prospectus, in evaluating an investment in our common stock. The information included or incorporated by reference in this prospectus may be amended, supplemented or superseded from time to time by other reports we file with the SEC in the future. For a description of these reports and documents, and information about where you can find them, see the sections entitled "Where You Can Find Additional Information" and "Incorporation of Certain Documents by Reference" in this prospectus.

The risks and uncertainties described in this prospectus and the documents incorporated by reference in this prospectus represent all the material risks known to us, but they are not the only ones facing us. Additional risks and uncertainties that we do not presently know about or that we currently believe are not material may also adversely affect our business. If any of the risks and uncertainties described in this prospectus or the documents incorporated by reference herein actually occur, our business, financial condition and results of operations could be adversely affected in a material way. As a result, the trading price of our common stock and/or the value of any other securities we may issue may decline, and you might lose part or all of your investment.

We may not generate cash from operations or be able to raise the necessary capital to continue operations.

We may require additional funds to meet our operational, working capital and capital expenditure needs in the future. We cannot be certain that we will be able to obtain additional funds on favorable terms or at all. If we cannot raise capital on acceptable terms, we will not be able to, among other things:

- service our debt obligations and meet our financial covenants;
- maintain customer and vendor relationships;
- hire, train and retain employees;
- maintain or expand our operations;
- enhance our existing products or develop new ones; or
- respond to competitive pressures.

Our failure to do any of these things could result in lower revenue and adversely affect our financial condition and results of operations, and we may have to curtail or cease operations.

We may not be able to comply with debt covenants and may have to repay outstanding indebtedness.

We have financed our operations through equity transactions as well as bank and other borrowings. Our revolving line of credit with our primary lender matures on March 31, 2018. The credit agreement contains various covenants, including financial covenants. If we violate our covenants, we could be required to repay the indebtedness pursuant to the agreement. We could be unable to make these payments, which could lead to insolvency. Even if we are able to make these payments, it will lead to the lack of availability for additional borrowings under our bank loan agreement due to our borrowing capacity. We may be unable to maintain compliance with these covenants or to replace this source of liquidity if these covenants were to be violated and our loans and other borrowed amounts were forced to be repaid.

Future issuances of our securities could dilute current stockholders' ownership.

We are registering for offer, resale or other disposition 86,065,014 shares of our common stock issuable (i) upon the conversion of our Series A Convertible Preferred Stock; (ii) upon exercise of the SPA Warrants; (iii) upon exercise of the 2013 Warrants; and (iv) upon exercise of the Exchange Warrants, in each case held by

the selling stockholders identified in this prospectus or their transferees. Shares of Series A Convertible Preferred Stock bear dividends at a rate of six percent (6.0%) per annum, which are cumulative and accrue daily from the date of issuance on the \$1,000 stated value. Such dividends will not be paid in cash, except in connection with any liquidation, dissolution or winding up of the Company or any redemption of the Series A Convertible Preferred Stock. Instead, the value of the accrued dividends is added to the liquidation preference of the Series A Convertible Preferred Stock and will increase the number of shares of common stock issuable upon conversion, which will dilute the ownership of our common stockholders.

In addition, a significant number of shares of our common stock are subject to stock options and stock appreciation rights, and we may request the ability to issue additional such securities to our employees. We may also decide to raise additional funds through public or private debt or equity financing to fund our operations. While we cannot predict the effect, if any, that future sales of debt, our common stock, other equity securities or securities convertible into our common stock or other equity securities or the availability of any of the foregoing for future sale, will have on the market price of our common stock, it is likely that sales of substantial amounts of our common stock (including shares issued upon the exercise of stock options, stock appreciation rights or the conversion of any convertible securities outstanding now or in the future) will dilute the ownership interest of our existing stockholders and that the perception that such sales could occur could adversely affect prevailing market prices for our common stock.

Nasdaq delisted our common stock from The Nasdaq Capital Market and our common stock began trading on the $OTCQX^{\circledcirc}$ Best Market in August 2016. Trading of our shares on the over-the-counter markets could negatively impact the liquidity of our common stock and our ability to access the capital markets and, in turn, could impair the value of your investment.

On August 4, 2016, trading in our common stock on The Nasdaq Capital Market ("Nasdaq") was suspended as a result of a determination from Nasdaq to delist our common stock due to our failure to meet certain applicable requirements. On August 4, 2016, shares of our common stock commenced trading on the OTCQX® Best Market under the Company's existing ticker symbol of "STXS." Trading of our shares on the over-the-counter markets could negatively impact the liquidity of our common stock and our ability to access the capital markets, which could impair the value of your investment. The Nasdaq Hearings Panel (the "Panel") made the determination to delist our common stock because we did not demonstrate compliance with the minimum \$35 million market value of listed securities requirement for a period of ten consecutive trading days by August 1, 2016, as required by a decision previously issued by the Panel on May 2, 2016.

The delisting of our common stock from Nasdaq could have negative consequences, including the potential loss of confidence by suppliers, customers and employees, the loss of investor interest and fewer business development opportunities. The trading of our common stock on the over-the-counter market, including the OTCQX® Best Market, may adversely affect the market liquidity of our common stock, limit or prohibit the use of our Controlled Equity Offering program, limit our ability to issue additional securities (including pursuant to registration statements on Form S-3) and adversely affect our ability to obtain financing for the continuation of our operations, which could harm our business or cause us to cease operations.

Furthermore, our common stock may not continue to trade on the OTCQX® Best Market in the future, broker-dealers may cease to provide public quotes of our common stock on this market, or the trading volume of our common stock may be insufficient to provide for an efficient trading market. Any such developments could impair the value of your investment.

We are not eligible to use Form S-3, which could impair our capital raising activities.

As of the date of this prospectus, we cannot use Form S-3 to register resales of our securities. Our public float is below \$75 million and is expected to remain below \$75 million for the foreseeable future. As a result, we will likely continue to be ineligible to use Form S-3 for primary offerings. We previously relied significantly on

shelf registration statements on SEC Form S-3 for most of our financings, and accordingly any such limitations may harm our ability to raise the capital we need. Under these circumstances, until we are again eligible to use Form S-3, we will be required to use a registration statement on Form S-1 to register securities with the SEC or issue such securities in a private placement, which could increase the cost of raising capital.

FORWARD-LOOKING STATEMENTS

The prospectus contains "forward-looking" statements within the meaning of the Private Securities Litigation Reform Act of 1985. These statements relate to, among other things:

- our business strategy;
- our value proposition;
- our ability to fund operations;
- our ability to convert backlog to revenue;
- the ability of physicians to perform certain medical procedures with our products safely, effectively and efficiently;
- the adoption of our products by hospitals and physicians;
- the market opportunity for our products, including expected demand for our products;
- the timing and prospects for regulatory approval of our additional disposable interventional devices;
- the success of our business partnerships and strategic alliances;
- our estimates regarding our capital requirements;
- our plans for hiring additional personnel; and
- · any of our other plans, objectives, expectations and intentions contained or incorporated into this prospectus that are not historical facts.

These statements relate to future events or future financial performance, and involve known and unknown risks, uncertainties, and other factors that may cause our actual results, levels of activity, performance or achievements to be materially different from any future results, levels of activity, performance or achievements expressed or implied by such forward-looking statements. In some cases, you can identify forward-looking statements by terminology such as "may", "will", "should", "could", "expects", "plans", "intends", "anticipates", "believes", "estimates", "predicts", "potential", or "continue", or the negative of such terms or other comparable terminology. Although we believe that the expectations reflected in the forward-looking statements are reasonable, we cannot guarantee future results, levels of activity, performance, or achievements. These statements are only predictions.

Factors that may cause our actual results to differ materially from our forward-looking statements include, among others, changes in general economic and business conditions and the risks and other factors set forth in "Risk Factors" in this prospectus and elsewhere in our Annual Report on Form 10-K for the year ended December 31, 2015.

Our actual results may be materially different from what we expect. We undertake no duty to update these forward-looking statements after the date of this prospectus, even though our situation may change in the future. We qualify all of our forward-looking statements by these cautionary statements.

USE OF PROCEEDS

We will not receive any proceeds from the selling stockholders' sales of our common stock. However, at the time the shares of Series A Convertible Preferred Stock, the SPA Warrants, the 2013 Warrants and the Exchange Warrants were originally issued to the selling stockholders, we did receive payment for the purchase price for those securities. We could receive up to \$29.6 million in proceeds from the cash exercise of all the SPA Warrants, the 2013 Warrants and the Exchange Warrants held by the selling stockholders and covered by this prospectus, based on the current exercise prices, which proceeds would be used for general corporate purposes. However, all of the SPA Warrants, 2013 Warrants and Exchange Warrants may not be exercised for cash. To date, no SPA Warrants, 2013 Warrants or Exchange Warrants exercisable for shares of our common stock to which this prospectus relates have been exercised by the selling stockholders.

We will pay for expenses of this offering, except that the selling stockholders will pay any underwriting discounts or commissions or equivalent expenses applicable to the sale of their shares.

SELLING STOCKHOLDERS

The shares of common stock being offered by the selling stockholders are those issuable to the selling stockholders (i) upon the conversion of our Series A Convertible Preferred Stock; (ii) upon the exercise of the SPA Warrants; (iii) upon the exercise of the 2013 Warrants; and (iv) upon the exercise of the Exchange Warrants. For additional information regarding the issuance of the Series A Convertible Preferred Stock, the SPA Warrants, the 2013 Warrants and the Exchange Warrants, see "Prospectus Summary—Securities Being Offered" above. We are registering the shares of common stock in order to permit the selling stockholders to offer the shares for resale from time to time. Except for the ownership of the Series A Convertible Preferred Stock and the SPA Warrants issued pursuant to the SPA and as disclosed below, the selling stockholders have not had any material relationship with us within the past three years.

The table below lists the selling stockholders and other information regarding their beneficial ownership (as determined under Section 13(d) of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), and the rules and regulations thereunder) of shares of our common stock. These rules generally provide that a person is the beneficial owner of securities if such person has or shares the power to vote or direct the voting thereof, or to dispose or direct the disposition thereof, or has the right to acquire such powers within 60 days. The second column lists the number of shares of common stock beneficially owned by the selling stockholders as of September 30, 2016 (without giving effect to any limitations on conversion or exercise with respect to the applicable securities), including shares representing dividends accruing on the Series A Convertible Preferred Stock within 60 days of September 30, 2016. The third column lists the shares of common stock being offered by this prospectus by the selling stockholders.

In accordance with a registration rights agreement with the holders of the Series A Convertible Preferred Stock and the SPA Warrants, this prospectus covers the offer, resale or other disposition of the sum of (i) 130% of the number of shares of common stock initially issuable upon conversion of the Series A Convertible Preferred Stock and (ii) 100% of the number of shares of common stock currently issuable upon the exercise of the SPA Warrants, in each case, determined as if the outstanding Series A Convertible Preferred Stock and SPA Warrants were converted or exercised (as the case may be) in full (without regard to any limitations on conversion or exercise contained in the Certificate of Designations for the Series A Convertible Preferred Stock or the SPA Warrants) as of September 30, 2016. Because the conversion price of the Series A Convertible Preferred Stock will be adjusted as a result of dividend accrual, and because the conversion price of the Series A Convertible Preferred Stock and the exercise price of the SPA Warrants may be adjusted upon the occurrence of certain other events, the number of shares that will actually be issued may be more or less than the number of shares being offered by this prospectus. In addition, in accordance with the terms of agreements between us and the relevant holders, we have agreed to register the resale of 100,578 shares of common stock issuable upon exercise of the Exchange Warrants (without regard to any limitation on exercise contained in the Exchange Warrants). The fourth column assumes the sale of all of the shares offered by the selling stockholders pursuant to this prospectus. Percentage ownership is based on 21,891,191 shares of common stock outstanding as of September 30, 2016. The selling stockholders may sell all, some or none of their shares in this offering. See "Plan of Distribution." This information is based upon our review of public filings, our stockholder, optionholder and warrantholder registers and information furnished by the selling stockholde

Name and Address of Selling Stockholder	Shares Beneficially Owned Prior to the Offering (1)	Maximum Number of Shares Offered by This Prospectus (2)	Shares Beneficially Owne to the Offering (1)(3)
DAFNA LifeScience LP (4) 10990 Wilshire Blvd, Suite 1400 Los Angeles, CA 90024	13,503,137	14,510,883	<u>Shares</u> 777,712	Percent 3.6%
DAFNA LifeScience Select LP (4) 10990 Wilshire Blvd, Suite 1400 Los Angeles, CA 90024	13,394,957	14,585,265	595,150	2.7%
DAFNA Market Neutral LP (4) 10990 Wilshire Blvd, Suite 1400 Los Angeles, CA 90024	252,901	252,901	0	0%
Alafi Capital Company LLC (5) 9 Commodore Drive, Suite 405 Emeryville, CA 94608	2,078,113	58,778	2,019,335	8.9%
Sanderling Venture Partners VI Co-Investment Fund LP (6) 400 S. El Camino Real, Suite 1200 San Mateo, CA 94402	1,404,832	41,800	1,363,032	6.2%
Fred A. Middleton (7) 400 S. El Camino Real Suite 1200 San Mateo, CA 94402	1,812,023	353,846	1,461,014	6.7%
Piedmont Partners, L.P. 3295 River Exchange Dr., Suite 400 Peachtree Corners, GA 30092	10,203,920	11,676,923	0	0%
GLL Investors, L.P. 3200 North Lake Shore Dr., Suite 201 Chicago, IL 60657	3,092,098	3,538,462	0	0%
GLL Investors II, L.P. 3200 North Lake Shore Dr., Suite 201 Chicago, IL 60657	3,092,098	3,538,462	0	0%
GLL Investors, LTD 3200 North Lake Shore Dr., Suite 201 Chicago, IL 60657	1,546,049	1,769,231	0	0%
Joseph Kiani 2007 Dynasty Trust, dated March 20, 2008 (8) 52 Discovery Irvine, CA 92618	12,368,388	14,153,846	0	0%
Arbiter Partners QP LP 530 Fifth Ave., 20th Floor New York, NY 10017	9,276,292	10,615,386	0	0%

Offered

Name and Address of Selling Stockholder	Shares Beneficially Owned Prior to the Offering (1)	Maximum Number of Shares Offered by This Prospectus (2)	Shares Beneficially Owned to the Offering (1 Shares	
Nana Associates LLC 530 Fifth Ave., 20th Floor New York, NY 10017	3,092,098	3,538,462	0	0%
Arun S. Menawat (9) 2412 Eighth Line Oakville, Ontario, Canada L6H659	309,209	353,846	0	0%
2012 Revocable Trust of Andrew Redleaf Attention: Andrew Redleaf Whitebox Advisors LLC 3033 Excelsior Blvd., Suite 300 Minneapolis, MN 55416	6,184,194	7,076,923	0	0%
Total Number of Shares				

(1) Beneficial ownership is determined in accordance with the rules of the SEC and generally includes voting or investment power with respect to securities. Includes 100% of the shares of common stock issuable upon conversion of the Series A Convertible Preferred Stock and exercise of the SPA Warrants, the 2013 Warrants and/or the Exchange Warrants, as applicable, in each case at the current conversion or exercise price, plus shares representing dividends accruing on the Series A Convertible Preferred Stock within 60 days of September 30, 2016.

86,065,014

- (2) Pursuant to the Certificate of Designations, Preferences and Rights of Series A Convertible Preferred Stock of Stereotaxis, Inc., a selling stockholder may not convert shares of Series A Convertible Preferred Stock if as a result of such conversion such selling stockholder, its affiliates and any other person whose beneficial ownership of shares of common stock would be aggregated with the selling stockholder's for purposes of Section 13(d) of the Exchange Act, would beneficially own more than 4.99% of our common stock (or 9.99% if such selling stockholder has previously provided not less than 61 days' prior notice to the Company of such increase). Under the terms of the SPA Warrants, a selling stockholder may not exercise such SPA Warrant to the extent that as a result of such exercise such selling stockholder, its affiliates and any other person whose beneficial ownership of shares of common stock would be aggregated with the selling stockholder's for purposes of Section 13(d) of the Exchange Act, would beneficially own more than 4.99% of our common stock (or 9.99% if such selling stockholder has previously provided not less than 61 days' prior notice to the Company of such increase). Under the terms of the Exchange Warrants, a selling stockholder may not exercise such Exchange Warrant to the extent that, upon such exercise, the number of shares of common stock beneficially owned by such selling stockholder and its affiliates would exceed 4.99% of the total number of shares of our common stock then outstanding, subject to increase on not less than 61 days' notice as provided in such Exchange Warrants. For purposes of the Selling Stockholder table, we have disregarded these limitations. Represents 130% of the shares of common stock issuable upon conversion of the Series A Convertible Preferred Stock and 100% of the shares of common stock issuable upon exercise of the SPA Warrants, the 2013 Warrants and/or the Exchange Warrants, as applicable, in each case at the current conversion or exercise price.
- (3) Assumes for each stockholder the conversion in full of all shares of Series A Convertible Preferred Stock and exercise in full of all SPA Warrants, 2013 Warrants and/or Exchange Warrants, as applicable, held by such stockholder and the sale of all shares offered hereby.
- (4) Based on the Company's records and a Schedule 13D filed on October 11, 2016, by DAFNA Capital Management, LLC, in its capacity as investment manager and general partner of DAFNA LifeScience, LP, DAFNA Market Neutral LP, and DAFNA LifeScience Select, LP (collectively, the "Funds"), each of which

Funds is a Delaware limited partnership. In such capacity, DAFNA Capital Management, LLC may be deemed to be the beneficial owner of the shares of our common stock owned by the Funds, as it has the power to vote or direct the voting of, or dispose or direct the disposition of, the shares owned by the Funds. Nathan Fischel is the Chief Executive Officer of DAFNA Capital Management, LLC, and Fariba Ghodsian is the Chief Investment Officer of DAFNA Capital Management, LLC. In such capacities, Nathan Fischel and Fariba Ghodsian may be deemed to beneficially own the shares of our common stock owned by the Funds, as they have the power to dispose or direct the disposition of the shares owned by the Funds. Pursuant to Rule 13d-4, Drs. Fischel and Ghodsian disclaim beneficial ownership of the securities owned by the Funds. David Fischel, who also joined our Board of Directors in connection with the closing of the Financing Transaction, is a Principal of DAFNA Capital Management, LLC.

The ownership information of each Fund included in the Selling Stockholder table does not include the ownership information for the other Funds.

- (5) Includes 1,266,628 shares held by and 811,485 shares issuable upon exercise of warrants held by Alafi Capital Company LLC ("Alafi Capital"). Christopher Alafi and Moshe Alafi are the managing partners of Alafi Capital and have full voting and investment power with respect to the shares owned by Alafi Capital. All information regarding ownership of Alafi Capital and its affiliates is based on a Schedule 13D filed by Alafi Capital on March 18, 2009, all Form 4 reports filed by Christopher Alafi to date, and the Company's records.
- (6) Includes: (a) 5,335 shares held by and 703 shares issuable upon exercise of warrants held by Sanderling VI Beteiligungs GmbH & Co. KG; (b) 6,357 shares held by and 837 shares issuable upon exercise of warrants held by Sanderling VI Limited Partnership; (c) 53,275 shares held by Sanderling IV Biomedical Co-Investment Fund, L.P.; (d) 22,451 shares held by Sanderling Venture Partners IV Co-Investment Fund, L.P.; (e) 67,790 shares held by Sanderling Venture Partners V Co-Investment Fund, L.P.; (f) 11,097 shares held by Sanderling V Beteiligungs GmbH & Co. KG; (g) 11,956 shares held by Sanderling V Limited Partnership; (h) 39,716 shares held by Sanderling V Biomedical Co-Investment Fund, L.P.; and (i) 1,107,189 shares held by and 78,126 shares issuable upon exercise of warrants held by Sanderling Venture Partners VI Co-Investment Fund, L.P.

Middleton-McNeil Associates IV, LLC is the general partner of Sanderling IV Biomedical Co-Investment Fund, L.P. and has voting and dispositive authority over the shares owned by Sanderling IV Biomedical Co-Investment Fund, L.P. Middleton-McNeil Associates IV, LLC is managed by its members, Fred A. Middleton and Robert G. McNeil. Such individuals disclaim beneficial ownership of all such shares held by the foregoing funds, except to the extent of their proportionate pecuniary interests therein.

Middleton-McNeil Associates IV, L.P. is the general partner of Sanderling Venture Partners IV Co-Investment Fund, L.P. and has voting and dispositive power over the shares owned by Sanderling Venture Partners IV Co-Investment Fund, L.P. Middleton-McNeil Associates IV, L.P. is managed by its general partners, Fred A. Middleton and Robert G. McNeil. Such individuals disclaim beneficial ownership of all such shares held by the foregoing funds, except to the extent of their proportionate pecuniary interests therein.

Middleton, McNeil & Mills Associates V, LLC is the Investment General Partner of Sanderling V Limited Partnership and Sanderling V Beteiligungs GmbH & Co. KG and the General Partner of Sanderling V Biomedical Co-Investment Fund, L.P. and Sanderling Venture Partners V Co-Investment Fund, L.P. and has voting and dispositive authority over the shares owned by such entities. Middleton, McNeil & Mills Associates V, LLC is managed by its managing directors, Fred A. Middleton and Robert G. McNeil, Timothy C. Mills and Timothy J. Wollaeger. Such individuals disclaim beneficial ownership of all such shares held by the foregoing funds, except to the extent of their proportionate pecuniary interests therein.

Sanderling Ventures Management V is managed by Fred A. Middleton and Robert G. McNeil, Timothy C. Mills and Timothy J. Wollaeger, the individuals who have invested under the d/b/a Sanderling Ventures Management V, which individuals have voting and dispositive power over the shares owned by Sanderling Ventures Management V. Such individuals disclaim beneficial ownership of all such shares held by the

foregoing funds, except to the extent of their proportionate pecuniary interests therein. Sanderling Ventures Management VI is managed by Fred A. Middleton, Robert G. McNeil, Timothy C. Mills and Timothy J. Wollaeger, the individuals who have invested under the d/b/a Sanderling Ventures Management VI, which individuals have voting and dispositive power over the shares owned by Sanderling Ventures Management VI. Such individuals disclaim beneficial ownership of all such shares held by the foregoing funds, except to the extent of their proportionate pecuniary interests therein.

Middleton, McNeil, Mills & Associates, VI, LLC is the Investment General Partner of Sanderling Venture Partners VI Co-Investment Fund, L.P., Sanderling VI Beteiligungs GmbH & Co. KG and Sanderling VI Limited Partnership and has voting and dispositive power over the shares owned by such entity. Sanderling Venture Partners VI Co-Investment Fund, L.P. is managed by its managing directors, Fred A. Middleton, Robert G. McNeil, Timothy C. Mills and Timothy J. Wollaeger. Such individuals disclaim beneficial ownership of all such shares held by the foregoing funds, except to the extent of their proportionate pecuniary interests therein.

All information regarding ownership of Sanderling Ventures and its affiliates is based on a Schedule 13D filed by Sanderling Ventures on March 18, 2009, and all Form 4 reports filed by Mr. Middleton to date.

- (7) Mr. Middleton has served on our Board of Directors since 1990 and also serves as a General Partner in Sanderling Ventures, affiliates of which collectively own over 5% of our common stock. Includes 1,404,832 shares held by the entities affiliated with Sanderling Ventures. Mr. Middleton disclaims beneficial ownership of the shares and warrants held by the entities affiliated with Sanderling Ventures. Also includes options to purchase 18,300 shares of common stock.
- (8) Mr. Kiani joined our Board of Directors in connection with the closing of the Financing Transaction.
- (9) Dr. Menawat joined our Board of Directors in connection with the closing of the Financing Transaction.

PLAN OF DISTRIBUTION

The selling stockholders, which as used herein includes donees, pledgees, transferees or other successors-in-interest selling shares of common stock or interests in shares of common stock received after the date of this prospectus from a selling stockholder as a gift, pledge, partnership distribution or other transfer, may, from time to time, sell, transfer or otherwise dispose of any or all of their shares of common stock or interests in shares of common stock on any stock exchange, market or trading facility on which the shares are traded or in private transactions. These dispositions may be at fixed prices, at prevailing market prices at the time of sale, at prices related to the prevailing market price, at varying prices determined at the time of sale, or at negotiated prices.

The selling stockholders may use any one or more of the following methods when disposing of shares or interests therein:

- transactions on any national securities exchange or U.S. inter-dealer quotation system of a registered national securities association on which the shares may be listed or quoted at the time of sale;
- over-the-counter market transactions;
- transactions otherwise than on these exchanges or systems or in the over-the-counter market;
- ordinary brokerage transactions and transactions in which the broker-dealer solicits purchasers;
- block trades in which the broker-dealer will attempt to sell the shares as agent, but may position and resell a portion of the block as principal to facilitate the transaction;
- purchases by a broker-dealer as principal and resale by the broker-dealer for its account;
- an exchange distribution in accordance with the rules of the applicable exchange;
- privately negotiated transactions;
- subject to the restrictions imposed by the SPA, short-sales effected after the date the registration statement of which this Prospectus is a part is declared effective by the SEC;
- subject to the restrictions imposed by the SPA, through the writing or settlement of options or other hedging transactions, whether through an options exchange or otherwise;
- broker-dealers may agree with the selling stockholders to sell a specified number of such shares at a stipulated price per share;
- · a combination of any such methods of sale; and
- any other method permitted by applicable law.

The selling stockholders may, from time to time, pledge or grant a security interest in some or all of the shares of common stock owned by them and, if they default in the performance of their secured obligations, the pledgees or secured parties may offer and sell the shares of common stock, from time to time, under this prospectus, or under an amendment to this prospectus under Rule 424(b)(3) or other applicable provision of the Securities Act amending the list of selling stockholders to include the pledgee, transferee or other successors in interest as selling stockholders under this prospectus. The selling stockholders also may transfer the shares of common stock in other circumstances, in which case the transferees, pledgees or other successors in interest will be the selling beneficial owners for purposes of this prospectus.

In connection with the sale of securities or interests therein, subject to the restrictions imposed by the SPA, the selling stockholders may enter into hedging transactions with broker-dealers or other financial institutions, which may in turn engage in short sales of the shares in the course of hedging the positions they assume. The selling stockholders may also sell shares short and deliver these shares to close out their short positions, or loan or pledge the shares to broker-dealers that in turn may sell these shares. The selling stockholders may also enter

into option or other transactions with broker-dealers or other financial institutions or the creation of one or more derivative securities which require the delivery to such broker-dealer or other financial institution of shares offered by this prospectus, which shares such broker-dealer or other financial institution may resell pursuant to this prospectus (as supplemented or amended to reflect such transaction).

The aggregate proceeds to the selling stockholders from the sale of the common stock offered by them will be the purchase price of the common stock less discounts or commissions, if any. Each of the selling stockholders reserves the right to accept and, together with their agents from time to time, to reject, in whole or in part, any proposed purchase of common stock to be made directly or through agents. We will not receive any of the proceeds from this offering. Upon any exercise of the warrants by payment of cash, however, we will receive the exercise price of the warrants.

The selling stockholders also may resell all or a portion of the shares in reliance upon Rule 144 under the Securities Act, provided that they meet the criteria and conform to the requirements of that rule.

The selling stockholders and any underwriters, broker-dealers or agents that participate in the sale of the common stock or interests therein may be "underwriters" within the meaning of Section 2(11) of the Securities Act. Any discounts, commissions, concessions or profit they earn on any resale of the shares may be underwriting discounts and commissions under the Securities Act. Selling stockholders who are "underwriters" within the meaning of Section 2(11) of the Securities Act will be subject to the prospectus delivery requirements of the Securities Act.

To the extent required, the shares of our common stock to be sold, the names of the selling stockholders, the respective purchase prices and public offering prices, the names of any agents, dealer or underwriter, any applicable commissions or discounts with respect to a particular offer will be set forth in an accompanying prospectus supplement or, if appropriate, a post-effective amendment to the registration statement that includes this prospectus.

In order to comply with the securities laws of some states, if applicable, the common stock may be sold in these jurisdictions only through registered or licensed brokers or dealers. In addition, in some states the common stock may not be sold unless it has been registered or qualified for sale or an exemption from registration or qualification requirements is available and is complied with.

We have advised the selling stockholders that the anti-manipulation rules of Regulation M under the Exchange Act may apply to sales of shares in the market and to the activities of the selling stockholders and their affiliates. In addition, to the extent applicable we will make copies of this prospectus (as it may be supplemented or amended from time to time) available to the selling stockholders for the purpose of satisfying the prospectus delivery requirements of the Securities Act. The selling stockholders may indemnify any broker-dealer that participates in transactions involving the sale of the shares against certain liabilities, including liabilities arising under the Securities Act.

We have agreed to indemnify the selling stockholders against liabilities, including liabilities under the Securities Act and state securities laws, relating to the registration of the shares offered by this prospectus.

We have agreed with the selling stockholders to keep the registration statement of which this prospectus constitutes a part effective until the earlier of (1) such time as all of the shares covered by this prospectus have been disposed of pursuant to and in accordance with the registration statement or Rule 144 under the Securities Act or (2) the date on which all of the shares may be sold without restriction or condition pursuant to Rule 144 of the Securities Act (assuming, for this purpose, that the applicable warrants are exercised for cash).

DESCRIPTION OF SECURITIES

General

As of the date of this prospectus, we are authorized to issue up to 310 million shares of capital stock, par value \$0.001 per share, divided into two classes designated, respectively, "common stock" and "preferred stock." Of such shares authorized, 300 million shares are designated as common stock, and 10 million shares are designated as preferred stock.

The following is a summary of the material terms of our capital stock and certain provisions of our amended and restated certificate of incorporation and amended and restated bylaws. Since the terms of our certificate of incorporation and bylaws, and Delaware law, are more detailed than the general information provided below, you should only rely on the actual provisions of those documents and Delaware law. If you would like to read those documents, they are on file with the SEC, as described under the heading "Where You Can Find Additional Information" below.

Common Stock

As of September 30, 2016, there were approximately 21.9 million shares of common stock outstanding that were held of record by approximately 387 stockholders, although we believe that there is a significantly larger number of beneficial owners of our common stock. The holders of common stock are entitled to one vote for each share held of record on all matters submitted to a vote of the stockholders. Our stockholders do not have cumulative voting rights in the election of directors. Accordingly, holders of a majority of the shares voting are able to elect all of the directors. Subject to preferences that may be granted to any then outstanding preferred stock, holders of common stock are entitled to receive ratably only those dividends as may be declared by the board of directors out of funds legally available therefor, as well as any distributions to the stockholders. In the event of our liquidation, dissolution or winding up, holders of common stock are entitled to share ratably in all of our assets remaining after we pay our liabilities and distribute the liquidation preference of any then outstanding preferred stock. Holders of common stock have no preemptive or other subscription or conversion rights. There are no redemption or sinking fund provisions applicable to the common stock.

Series A Convertible Preferred Stock

On September 29, 2016, we filed a Certificate of Designations, Preferences and Rights of Series A Convertible Preferred Stock (the "Certificate of Designations") to authorize the Series A Convertible Preferred Stock.

Pursuant to the Certificate of Designations, holders of Series A Convertible Preferred Stock are entitled to vote on an as-converted basis with holders of common stock, subject to specified beneficial ownership issuance limitations. The Series A Convertible Preferred Stock bears dividends at a rate of six percent (6.0%) per annum, which are cumulative and accrue daily from the date of issuance on the \$1,000 stated value. Such dividends will not be paid in cash, except in connection with any liquidation, dissolution or winding up of the Company or any redemption of the Series A Convertible Preferred Stock. Instead, the value of the accrued dividends is added to the liquidation preference of the Series A Convertible Preferred Stock and will increase the number of shares of common stock issuable upon conversion.

Each share of Series A Convertible Preferred Stock is convertible at the option of the holder from and after the original date of issuance, at an initial conversion price of \$0.65 per share, subject to adjustment in the event of stock splits, dividends, mergers, sales of all or substantially all of our assets or similar transactions, subject to specified beneficial ownership issuance limitations. If we fail to timely issue shares of Series A Convertible Preferred Stock or common stock issuable on conversion or remove legends from any such shares, in each case as and when required to do so under the Certificate of Designations, we will be required to pay liquidated damages to the affected holder in an amount equal to 0.25% of the product of (i) the number of shares of common stock to be issued or issuable on conversion of the relevant shares of Series A Convertible Preferred

Stock and (ii) the weighted average price of the common stock on the last date before such failure, and may be required to pay additional or alternative damages in specified circumstances at the option of the holder. Each holder of Series A Convertible Preferred Stock has the right to require us to redeem such holder's Series A Convertible Preferred Stock upon the occurrence of specified events, including mergers, sales of substantially all assets of the Company, and certain defaults under the Certificate of Designations and under the Registration Rights Agreement entered into in connection with the Financing Transaction. We also have the right to redeem the Series A Convertible Preferred Stock in the event of a Change of Control Transaction (as defined in the Certificate of Designations).

The Series A Convertible Preferred Stock ranks senior to our common stock as to distributions and payments upon the liquidation, dissolution and winding up of the Company. No such distributions or payments upon the liquidation, dissolution and winding up of the Company may be made to the holders of common stock unless and until the holders of Series A Convertible Preferred Stock have received the stated value of \$1,000 per share plus any accrued and unpaid dividends. Until all shares of Series A Convertible Preferred Stock have been converted or redeemed, no dividends may be paid on the common stock without the prior express written consent of the holders of a majority of the outstanding Series A Convertible Preferred Stock. In the event that dividends or other distributions of assets are made or paid by us to the holders of the common stock, the holders of Series A Convertible Preferred Stock are entitled to participate in such dividend or distribution on an as-converted basis (without giving effect to any limitations on conversion).

Under the SPA, we have agreed that for a period of 61 months following the closing date of the Financing Transaction, so long as at least 8,000 shares of Series A Convertible Preferred Stock issued on the closing date are outstanding, the Buyers will have a right to participate on a pro rata basis in equity financings or issuances of securities convertible, exercisable or exchangeable into equity securities of the Company or any subsidiaries (including debt securities with an equity component), subject to certain exceptions.

SPA Warrants

The SPA Warrants have an initial exercise price equal to \$0.70 per share, subject to adjustments as provided therein. The SPA Warrants may be exercised by any holder on a cashless basis if, at any time after the date that is 180 days after the closing of the Financing Transaction, this registration statement is not effective and available for resale of all of the shares of common stock issuable upon exercise of such holder's SPA Warrants. The SPA Warrants are exercisable at any time up to and including September 29, 2021, the fifth anniversary of the closing date of the Financing Transaction.

If we fail to timely deliver shares of common stock to a holder upon exercise of its SPA Warrants, or remove legends from any such shares, in each case as and when required to do so, we will be required to pay liquidated damages to the affected holder in an amount equal to 0.25% of the product of (i) the number of shares of common stock to be issued or issuable on exercise of the relevant SPA Warrants and (ii) the weighted average price of the common stock on the last date before such failure, and may be required to pay additional or alternative damages in specified circumstances at the option of the holder.

2013 Warrants

The 2013 Warrants have exercise prices ranging from \$1.55 per share to \$5.24 per share, subject to adjustments as provided therein. The 2013 Warrants may be exercised by any holder on a cashless basis and are exercisable at any time up to and including the fifth anniversary of the date of issuance (ranging from March 29, 2018 to July 31, 2018).

Exchange Warrants

The Exchange Warrants have an exercise price of \$3.361 per share, subject to adjustments as provided therein. The Exchange Warrants may be exercised by any holder on a cashless basis and are exercisable at any

time up to and including November 11, 2018. The Exchange Warrants contain a "blocker provision" under which a holder of an Exchange Warrant may not exercise such Exchange Warrant to the extent that, upon such exercise, the number of shares of common stock beneficially owned by such holder and its affiliates would exceed 4.99% of the total number of our common stock then outstanding, subject to increase on not less than 61 days' notice as provided in such Exchange Warrants.

Anti-Takeover Provisions of Delaware Law and Charter Provisions

Interested Stockholder Transactions. We are subject to Section 203 of the Delaware General Corporation Law, which prohibits a Delaware corporation from engaging in any "business combination" with any "interested stockholder" for a period of three years after the date that such stockholder became an interested stockholder, with the following exceptions:

- before such date, the board of directors of the corporation approved either the business combination or the transaction that resulted in the stockholder becoming an interested stockholder;
- upon consummation of the transaction that resulted in the stockholder becoming an interested stockholder, the interested stockholder owned at
 least 85% of the voting stock of the corporation outstanding at the time the transaction began, excluding for purposes of determining the number
 of shares outstanding those shares owned by persons who are directors and also officers and by employee stock plans in which employee
 participants do not have the right to determine confidentially whether shares held subject to the plan will be tendered in a tender or exchange
 offer; or
- on or after such date, the business combination is approved by the board of directors and authorized at an annual or special meeting of the stockholders, and not by written consent, by the affirmative vote of at least 66-2/3% of the outstanding voting stock that is not owned by the interested stockholder.

Section 203 defines "business combination" to include the following:

- any merger or consolidation involving the corporation and the interested stockholder;
- any sale, transfer, pledge or other disposition involving the interested stockholder of assets with a value of 10% or more of either the total assets or all outstanding stock of the corporation;
- subject to certain exceptions, any transaction that results in the issuance or transfer by the corporation of any stock of the corporation to the interested stockholder;
- any transaction involving the corporation that has the effect of increasing the proportionate share of the stock or any class or series of the corporation beneficially owned by the interested stockholder; or
- the receipt by the interested stockholder of the benefit of any loans, advances, guarantees, pledges or other financial benefits by or through the corporation.

In general, Section 203 defines "interested stockholder" as an entity or person beneficially owning 15% or more of the outstanding voting stock of the corporation or any entity or person affiliated with or controlling or controlled by such entity or person.

In addition, some provisions of our amended and restated certificate of incorporation and amended and restated bylaws may be deemed to have an antitakeover effect and may delay or prevent a tender offer or takeover attempt that a stockholder might consider in its best interest, including those attempts that might result in a premium over the market price for the shares held by stockholders.

Cumulative Voting. Our amended and restated certificate of incorporation expressly denies stockholders the right to cumulative voting in the election of directors.

Classified Board of Directors. Our board of directors is divided into three classes of directors serving staggered three-year terms. As a result, one-third of the board of directors is elected each year, which has the

effect of requiring at least two annual stockholder meetings, instead of one, to replace a majority of the members of the board. These provisions, when coupled with the provision of our amended and restated certificate of incorporation authorizing only the board of directors to fill vacant directorships or increase the size of the board of directors, may deter a stockholder from removing incumbent directors and simultaneously gaining control of the board of directors by filling the vacancies created by such removal with its own nominees. The certificate of incorporation also provides that directors may be removed by stockholders only for cause. Since the board of directors has the power to retain and discharge our officers, these provisions could also make it more difficult for existing stockholders or another party to effect a change in management.

Stockholder Action; Special Meeting of Stockholders. Our amended and restated certificate of incorporation and bylaws do not permit stockholders to act by written consent. They provide that special meetings of our stockholders may be called only by the chairman of our board of directors, our chief executive officer or a majority of our directors. Further, our amended and restated certificate of incorporation provides that the stockholders may amend bylaws adopted by the board of directors or specified provisions of the certificate of incorporation by the affirmative vote of at least 66-2/3% of our capital stock.

Advance Notice Requirements for Stockholder Proposals and Directors Nominations. Our amended and restated bylaws provide that stockholders seeking to bring business before an annual meeting of stockholders, or to nominate candidates for election as directors at an annual meeting of stockholders, must provide timely notice in writing. To be timely, a stockholder's notice must be delivered to or mailed and received at our principal executive offices not more than 120 days or less than 90 days prior to the anniversary date of the immediately preceding annual meeting of stockholders. However, in the event that the annual meeting is called for a date that is not within 30 days before or after such anniversary date, notice by the stockholder in order to be timely must be received not later than the close of business on the 10th day following the date on which notice of the date of the annual meeting was mailed to stockholders or made public, whichever first occurs. Our amended and restated bylaws also specify requirements as to the form and content of a stockholder's notice. These provisions may preclude stockholders from bringing matters before an annual meeting of stockholders or from nominating directors at an annual meeting of stockholders.

Authorized But Unissued Shares. Our authorized but unissued shares of common stock and preferred stock are available for future issuance without stockholder approval. These additional shares may be utilized for a variety of corporate purposes, including future public offerings to raise additional capital, corporate acquisitions and employee benefit plans. The existence of authorized but unissued shares of common stock and preferred stock could render more difficult or discourage an attempt to obtain control of Stereotaxis by means of a proxy contest, tender offer, merger or otherwise.

Amendments; Supermajority Vote Requirements. The Delaware General Corporation Law provides generally that the affirmative vote of a majority of the shares entitled to vote on any matter is required to amend a corporation's certificate of incorporation or bylaws, unless either a corporation's certificate of incorporation or bylaws require a greater percentage. Our amended and restated certificate of incorporation imposes supermajority vote requirements of 66-2/3% of the voting power of our capital stock in connection with the amendment of certain provisions of our amended and restated certificate of incorporation and amended and restated bylaws, including those provisions relating to the classified board of directors, action by written consent and the ability of stockholders to call special meetings.

Market Information

On August 4, 2016, shares of our common stock commenced trading on the OTCQX® Best Market under the symbol "STXS."

Transfer Agent And Registrar

The transfer agent and registrar for our common stock is Broadridge Corporate Issuer Solutions, Inc. Its address is 1717 Arch St., Suite 130, Philadelphia, PA 10103, and its telephone number is (215) 553-5400.

LEGAL MATTERS

The validity of the securities offered hereby has been passed upon for us by Bryan Cave LLP, St. Louis, Missouri.

EXPERTS

Ernst & Young LLP, independent registered public accounting firm, has audited our financial statements and schedule included in our Annual Report on Form 10-K for the year ended December 31, 2015, as set forth in their report thereon (which contains an explanatory paragraph describing conditions that raise substantial doubt about the Company's ability to continue as a going concern as described in Note 1 to the financial statements), which is incorporated by reference in this prospectus and elsewhere in the registration statement. Our financial statements and schedule are incorporated by reference in reliance on Ernst & Young LLP's report, given their authority as experts in accounting and auditing.

WHERE YOU CAN FIND ADDITIONAL INFORMATION

We file annual, quarterly and current reports, proxy statements and other information with the SEC. Our SEC filings are available to the public over the Internet at the SEC's website at http://www.sec.gov. The SEC's website contains reports, proxy and information statements and other information regarding issuers, such as us, that file electronically with the SEC. You may also read and copy any document we file with the SEC at the SEC's Public Reference Room at 100 F Street, N.E., Washington, D.C. 20549. You may also obtain copies of these documents at prescribed rates by writing to the SEC. Please call the SEC at 1-800-SEC-0330 for further information on the operation of its Public Reference Room.

We have filed with the SEC a registration statement under the Securities Act that registers the distribution of these securities. The registration statement, including the attached exhibits and schedules, contains additional relevant information about us and the securities. This prospectus does not contain all of the information set forth in the registration statement. You can get a copy of the registration statement, at prescribed rates, from the SEC at the address listed above. The registration statement and the documents referred to below under "Incorporation of Certain Documents by Reference" are also available on our Internet website, http://www.stereotaxis.com, under "Investors—SEC Filings." We have not incorporated by reference into this prospectus the information on our website, and you should not consider it to be a part of this prospectus.

INCORPORATION OF CERTAIN DOCUMENTS BY REFERENCE

The SEC allows us to "incorporate by reference" information into this prospectus, which means we can disclose important information to you by referring you to other documents that we filed separately with the SEC. You should consider the incorporated information as if we reproduced it in this prospectus.

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, 2015;
- (b) The Registrant's Quarterly Reports filed on Form 10-Q for the quarterly period ended March 31, 2016, filed with the SEC on May 11, 2016, and for the quarterly period ended June 30, 2016, filed with the SEC on August 10, 2016;

- (c) The Registrant's Definitive Proxy Statement on Schedule 14A filed with the SEC on April 14, 2016;
- (d) The Registrant's Current Reports on Form 8-K filed with the SEC on January 22, 2016, February 5, 2016, February 22, 2016 (regarding Item 8.01), April 5, 2016, May 25, 2016, August 3, 2016, September 28, 2016 and September 30, 2016; 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 Exchange Act, as amended, including any amendments or reports filed for the purpose of updating such description.

In addition, all documents subsequently filed by the Registrant with the SEC 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 SEC) 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.

These reports and documents can be accessed free of charge on our website at www.stereotaxis.com. We will provide without charge to each person, including any beneficial owner, to whom this prospectus is delivered, upon written or oral request, a copy of any or all documents that are incorporated by reference into this prospectus, but not delivered with the prospectus, upon written and oral request, other than exhibits to such unless such exhibits are specifically incorporated by reference into the documents that this prospectus incorporates. Please send written requests to:

Stereotaxis, Inc.
4320 Forest Park Avenue, Suite 100
St. Louis, Missouri 63108
(314) 678-6100
Attn: Investor Relations Department

PART II INFORMATION NOT REQUIRED IN PROSPECTUS

Item 13. Other Expenses of Issuances and Distribution.

The following table sets forth the costs and expenses, other than underwriting discounts and commissions, payable by Stereotaxis in connection with the issuance and distribution of the securities being registered. All amounts are estimates except the SEC registration fee.

Securities and Exchange Commission filing fee	\$ 7,780.45
Legal fees and expenses	275,000.00
Accounting fees and expenses	75,000.00
Financial advisory fees and expenses	525,000.00
Printing expenses	5,000.00
Total expenses	\$ 887,780.45

Item 14. 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 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 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 or have agreed to enter into separate indemnification agreements with our directors 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 of 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.

See Item 17 for information regarding our undertaking to submit to adjudication the issue of indemnification for violation of the securities laws.

The Registrant maintains insurance policies that provide coverage to its directors and officers against certain liabilities.

Item 15. Recent Sales of Unregistered Securities

On September 26, 2016, the Registrant entered into a Securities Purchase Agreement (the "SPA") with certain institutional and other accredited investors (the "Buyers"), whereby it agreed to sell, for an aggregate purchase price of \$24 million, (i) an aggregate of 24,000 shares of Series A Convertible Preferred Stock, par value \$0.001 per share (the "Preferred Shares"), which are convertible into shares of the Company's common stock, and (ii) warrants (the "Warrants") to initially purchase an aggregate of 36,923,078 shares of common stock. The transaction closed on September 29, 2016. The offering of Preferred Shares and Warrants was made to "accredited investors" as such term is defined in the Securities Act and in reliance on the exemption from registration afforded by Section 4(2) and Regulation D (Rule 506) under the Securities Act and corresponding provisions of state securities laws.

Item 16. Exhibits and Financial Statement Schedules.

The exhibits listed in the accompanying Exhibit Index are filed or incorporated by reference as part of this Registration Statement.

Item 17. Undertakings.

- (1) The undersigned registrant hereby undertakes 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;
 - (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.

Paragraphs (1)(i), (ii), and (iii) of this section do not apply if the registration statement is on Form S-1, Form S-3, Form SF-3 or Form F-3 and the information required to be included in a post-effective amendment by those

paragraphs is contained in reports filed with or furnished to the SEC by the registrant pursuant to section 13 or section 15(d) of the Exchange Act that are incorporated by reference in the registration statement, or, as to a registration statement on Form S-3, Form SF-3 or Form F-3, is contained in a form of prospectus filed pursuant to Rule 424(b) that is part of the registration statement.

- (2) The undersigned registrant hereby undertakes that, for the purpose of determining any liability under the Securities Act, as amended, 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) The undersigned registrant hereby undertakes to remove from registration by means of a post-effective amendment any of the securities being registered that remain unsold at the termination of the offering.
- (4) The undersigned registrant hereby undertakes that, for the purposes of determining liability to any purchaser:

If the registrant is subject to Rule 430C, each prospectus filed pursuant to Rule 424(b) as part of a registration statement relating to an offering, other than registration statements relying on Rule 430B or other than prospectuses filed in reliance on Rule 430A, shall be deemed to be part of and included in the registration statement as of the date it is first used after effectiveness. Provided, however, that no statement made in a registration statement or prospectus that is part of the registration statement or made in a document incorporated or deemed incorporated by reference into the registration statement or prospectus that is part of the registration statement will, as to a purchaser with a time of contract of sale prior to such first use, supersede or modify any statement that was made in the registration statement or prospectus that was part of the registration statement or made in any such document immediately prior to such date of first use.

(5) Insofar as indemnification for liabilities arising under the Securities Act, as amended, may be permitted to directors, officers and controlling persons of the undersigned registrant according the foregoing provisions, or otherwise, the undersigned registrant has been advised that in the opinion of the SEC such indemnification is against public policy as expressed in the 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, as amended, and will be governed by the final adjudication of such issue.

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.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the Registrant 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 October 26, 2016.

STEREOTAXIS, INC.

By:

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 by the following persons in the capacities indicated and on the dates indicated.

Signature	Title(s)	Date
* William C. Mills III	Chairman and Chief Executive Officer (principal executive officer)	October 26, 2016
* Martin C. Stammer	Chief Financial Officer (principal financial officer and principal accounting officer)	October 26, 2016
* David W. Benfer	Director	October 26, 2016
* Duane DeSisto	Director	October 26, 2016
* David Fischel	Director	October 26, 2016
* Joseph Kiani	Director	October 26, 2016
* Arun S. Menawat	Director	October 26, 2016
* Robert J. Messey	Director	October 26, 2016
* Fred A. Middleton	Director	October 26, 2016
* Eric N. Prystowsky	Director	October 26, 2016
*By /s/ Karen W. Duros Karen W. Duros Attorney-in-fact	-	

Signatures - 1

Exhibit Number

EXHIBIT INDEX

Document Description

3.1a	Restated Articles of Incorporation of the Registrant, incorporated by reference to Exhibit 3.1 of the Registrant's Form 10-Q (File No. 000-50884) for the fiscal quarter ended September 30, 2004.
3.1b	Certificate of Amendment to Amended and Restated Certificate of Incorporation, incorporated by reference to Exhibit 3.1 of the Registrant's Form 8-K (File No. 000-50884) filed on July 10, 2012.
3.2	Certificate of Designations, Preferences and Rights of Series A Convertible Preferred Stock, incorporated by reference to Exhibit 3.1 of the Registrant's Form 8-K (File No. 001-36159) filed on September 30, 2016.
3.3	Restated Bylaws of the Registrant, incorporated by reference to Exhibit 3.2 of the Registrant's Form 10-Q (File No. 000-50884) for the fiscal quarter ended September 30, 2004.
4.1	Form of Specimen Stock Certificate, incorporated by reference to the Registration Statement on Form S-1 (File No. 333-115253) originally filed with the SEC on May 7, 2004, as amended thereafter, at Exhibit 4.1.
4.2	Form of PIPE Warrant issued pursuant to that certain Stock and Warrant Purchase Agreement dated May 7, 2012, between the Company and certain purchasers named therein, incorporated by reference to Exhibit 4.1 of the Registrant's Current Report on Form 8-K (File No. 000-50884) filed on May 8, 2012.
4.3	Form of Warrant issued pursuant to that certain Third Amendment to Note and Warrant Purchase Agreement effective November 10, 2010, between the Registrant and certain investors named therein (which is incorporated by reference to Exhibit 10.21d of the Registrant's Form 10-K (File No. 000-50884) for the fiscal year ended December 31, 2012).
4.4	Form of Warrant Issued Pursuant to that Certain Fourth Amendment to Note and Warrant Purchase Agreement dated March 30, 2012, incorporated by reference to Exhibit 4.1 of the Registrant's Form 10-Q (File No. 000-50884) for the fiscal quarter ended March 31, 2012.
4.5	Form of Warrant issued pursuant to that certain Fifth Amendment to Note and Warrant Purchase Agreement, dated May 1, 2012, between the Company and certain investors named therein (which is incorporated by reference to Exhibit 10.21f of the Registrant's Form 10-K (File No. 000-50884) for the fiscal year ended December 31, 2012).
4.6	Form of Warrant issued pursuant to that certain Sixth Amendment to Note and Warrant Purchase Agreement, dated May 7, 2012, between the Company and certain investors named therein (included in Exhibit 10.77 of the Registrant's Registration Statement on Form S-1 (File No. 000-50884) filed May 23, 2012).
4.7	Amendment to Warrants of Stereotaxis, Inc., dated May 10, 2012, by and between the Company and the Warrant Holders, incorporated by reference to Exhibit 4.7 of the Registrant's Registration Statement on Form S-1 (File No. 000-50884) filed May 23, 2012.
4.8	Form of Warrant issued pursuant to that certain Seventh Amendment to Note and Warrant Purchase Agreement dated March 29, 2013, between the Company and certain investors named therein, incorporated by reference to Exhibit 4.5i of the Registrant's Form 10-K (File No. 001-36159) for the fiscal year ended December 31, 2013.
4.9	Form of Warrant issued pursuant to that certain Eighth Amendment to Note and Warrant Purchase Agreement dated June 28, 2013, between the Company and certain investors named therein, incorporated by reference to Exhibit 4.1 of the Registrant's Form 10-Q (File No. 001-36159) filed for the fiscal quarter ended June 30, 2013.

Exhibit Index – 1

Exhibit Number	Document Description
4.10	Form of Warrant issued to certain investors in connection with extensions of loan guarantees by such investors, incorporated by reference to Exhibit 4.5k of the Registrant's Form 10-K (File No. 001-36159) for the fiscal year ended December 31, 2013.
4.11	Form of Warrant issued pursuant to that certain Exchange Agreement, dated August 7, 2013, incorporated by reference to Exhibit 10.2 of the Registrant's Current Report on Form 8-K (File No. 000-50884) filed August 8, 2013.
4.12	Form of Warrant issued in connection with the Securities Purchase Agreement dated September 26, 2016, between the Registrant and the investors listed on the Schedule of Buyers attached thereto, incorporated by reference to Exhibit 4.1 to the Registrant's Form 8-K (File No. 001-36159) filed on September 28, 2016.
5.1	Opinion of Bryan Cave LLP.
10.1	Amended and Restated Stereotaxis, Inc. 2012 Stock Incentive Plan, as adopted March 27, 2014, incorporated by reference to Exhibit 10.4 of the Registrant's Form 10-Q (File No. 001-36159) for the fiscal quarter ended June 30, 2014.
10.2	Form of Restricted Share Unit Terms of Award under Stereotaxis, Inc. 2012 Stock Incentive Plan, incorporated by reference to Exhibit 10.2 of Registrant's Form 10-Q (File No. 000-50884) for the fiscal quarter ended September 30, 2012.
10.3	Form of Restricted Share Unit Terms of Award Under Stereotaxis, Inc. 2012 Stock Incentive Plan, Director Award, incorporated by reference to Exhibit 10.1c of the Registrant's Form 10-K (File No. 000-50884) for the fiscal year ended December 31, 2012.
10.4	Form of Restricted Share Unit Terms of Award Under Stereotaxis, Inc. 2012 Stock Incentive Plan, March 5, 2013, incorporated by reference to Exhibit 10.1d of the Registrant's Form 10-K (File No. 000-50884) for the fiscal year ended December 31, 2012.
10.5	2002 Stock Incentive Plan, as amended and restated June 10, 2009, incorporated by reference to Exhibit 10.2 of the Registrant's Form 10-Q (File No. 000-50884) for the fiscal quarter ended June 30, 2009.
10.6	Amended and Restated Stereotaxis, Inc. Employee Stock Purchase Plan, as adopted March 27, 2014, incorporated by reference to Exhibit 10.5 of the Registrant's Form 10-Q (File No. 001-36159) for the fiscal quarter ended June 30, 2014.
10.7	Amendment to Stereotaxis, Inc. 2009 Employee Stock Purchase Plan, as adopted February 27, 2015, incorporated by reference to Exhibit 10.3 of the Registrant's Form 10-Q (File No. 001-36159) for the fiscal quarter ended March 31, 2015.
10.8	Amended and Restated Stereotaxis, Inc. Stock Incentive Plan, as adopted February 9, 2016, incorporated by reference to Exhibit 10.2 of the Registrant's Form 10-Q (File No. 001-36159) for the fiscal quarter ended June 30, 2016.
10.9	Executive Employment Agreement dated May 30, 2014, between Stereotaxis, Inc. and William C. Mills III, incorporated by reference to Exhibit 10.1 of the Registrant's Current Report on Form 8-K (File No. 001-36159) filed on June 2, 2014.
10.10	Form of Amended and Restated Executive Employment Agreement, 2013, between certain executive officers and the Company, incorporated by reference to Exhibit 10.6 of the Registrant's Form 10-K (File No. 000-50884) for the fiscal year ended December 31, 2012.
10.11	Summary of Management Bonus Plan adopted as of February 24, 2015, incorporated by reference to Exhibit 10.4 of the Registrant's Form 10-Q (File No, 001-36159) for the fiscal quarter ended March 31, 2015.

Exhibit Index – 2

Exhibit

Number	Document Description
10.12	Description of compensation of named executive officers, incorporated by reference to Exhibit 10.9 of the Registrant's Form 10-K (File No. 001-36159) for the fiscal year ending December 31, 2013.
10.13	Summary of Non-Employee Director Compensation Program, incorporated by reference to Exhibit 10.2 of the Registrant's Form 10-Q (File No. 001-36159) for the fiscal quarter ended March 31, 2014.
10.14	Collaboration Agreement dated June 8, 2001, between the Registrant and Siemens AG, Medical Solutions, incorporated by reference to the Registration Statement on Form S-1 (File No. 333-115253) originally filed with the SEC on May 7, 2004, as amended thereafter, at Exhibit 10.9.
10.15	Extended Collaboration Agreement dated May 27, 2003, between the Registrant and Siemens AG, Medical Solutions, incorporated by reference to the Registration Statement on Form S-1 (File No. 333-115253) originally filed with the SEC on May 7, 2004, as amended thereafter, at Exhibit 10.10.
10.16	Amendment to Collaboration Agreement dated May 5, 2006, between the Company and Siemens Aktiengesellschaft, Medical Solutions, incorporated by reference to Exhibit 10.1 of the Registrant's Form 10-Q (File No. 000-50884) for the fiscal quarter ended June 30, 2006.
10.17	Development and Supply Agreement dated May 7, 2002, between the Registrant and Biosense Webster, Inc., incorporated by reference to the Registration Statement on Form S-1 (File No. 333-115253) originally filed with the SEC on May 7, 2004, as amended thereafter, at Exhibit 10.11.
10.18	Amendment to Development and Supply Agreement dated November 3, 2003, between the Registrant and Biosense Webster, Inc., incorporated by reference to the Registration Statement on Form S-1 (File No. 333-115253) originally filed with the SEC on May 7, 2004, as amended thereafter, at Exhibit 10.12.
10.19	Alliance Expansion Agreement, dated as of May 4, 2007, between Biosense Webster, Inc. and the Registrant, incorporated by reference to Exhibit 10.1 of the Registrant's Form 10-Q (File No. 000-50884) for the fiscal quarter ended June 30, 2007.
10.20	Second Amendment to Development Alliance and Supply Agreement, dated as of July 18, 2008, between the Registrant and Biosense Webster, Inc., incorporated by reference to Exhibit 10.1 of the Registrant's Form 10-Q (File No. 000-50884) for the fiscal quarter ended September 30, 2008.
10.21	Third Amendment to Development Alliance and Supply Agreement with Biosense Webster, Inc. effective as of December 21, 2009, incorporated by reference to Exhibit 10.22 of the Registrant's Form 10-K (File No. 000-50884) for the fiscal year ended December 31, 2009.
10.22	Fourth Amendment to Development Alliance and Supply Agreement with Biosense Webster, Inc., effective May 1, 2010, incorporated by reference to Exhibit 10.1 of the Registrant's Form 10-Q (File No. 000-50884) for the fiscal quarter ended March 31, 2010.
10.23	Fifth Amendment to Development Alliance and Supply Agreement with Biosense Webster, Inc., dated as of July 30, 2010, incorporated by reference to Exhibit 10.1 of the Registrant's Form 8-K/A (File No. 000-50884) filed on August 3, 2010.
10.24	Sixth Amendment and Catheter and Mapping System Extension to Development Alliance and Supply Agreement with Biosense Webster, Inc., dated January 3, 2011, effective as of December 17, 2010 incorporated by reference to Exhibit 10.13h of the Registrant's Form 10-K (File No. 000-50884) filed for the fiscal year ended December 31, 2010.
10.25	Seventh Amendment to the Development Alliance and Supply Agreement with Biosense Webster, Inc., effective December 5, 2011 incorporated by reference to Exhibit 10.13i of the Registrant's Form 10-K (File No. 000-50884) for the fiscal year ended December 31, 2011.

Exhibit Index – 3

Exhibit Number	Document Description
10.26	Form of Indemnification Agreement between the Registrant and its directors and executive officers, incorporated by reference to the Registration Statement on Form S-1 (File No. 333-115253) originally filed with the SEC on May 7, 2004, as amended thereafter, at Exhibit 10.14.
10.27	Letter Agreement, effective October 6, 2003, between the Registrant and Philips Medizin Systeme G.m.b.H., incorporated by reference to the Registration Statement on Form S-1 (File No. 333-115253) originally filed with the SEC on May 7, 2004, as amended thereafter, at Exhibit 10.16.
10.28	Office Lease dated November 15, 2004, between the Registrant and Cortex West Development I, LLC, incorporated by reference to Exhibit 10.39 of the Registrant's Form 10-K (File No. 000-50884) for the fiscal year ended December 31, 2004.
10.29	Amendment to Office Lease dated November 30, 2007, between the Registrant and Cortex West Development I, LLC, incorporated by reference to Exhibit 10.22 of the Registrant's Form 10-K (File No. 000-50884) for the fiscal year ended December 31, 2007.
10.30	Second Amendment to Office Lease dated May 1, 2013, between Registrant and Wexford 4320 Forest Park, LLC, successor to Cortex West Development I, LLC, incorporated by reference to Exhibit 10.17c of the Registrant's Form 10-K (File No. 001-36159) for the fiscal year ending December 31, 2013.
10.31	Third Amendment to Office Lease dated August 14, 2013, between Registrant and Wexford 4320 Forest Park, LLC, successor to Cortex West Development I, LLC, incorporated by reference to Exhibit 10.17d of the Registrant's Form 10-K (File No. 001-36159) for the fiscal year ending December 31, 2013.
10.32	Fourth Amendment to Office Lease, effective October 1, 2015, between Registrant and Wexford 4320 Forest Park, LLC, successor to Cortex West Development I, LLC, incorporated by reference to Exhibit 10.13e of the Registrant's Form 10-K (File No. 001-36159) for the fiscal year ending December 31, 2015.
10.33	Securities Purchase Agreement, dated May 7, 2012, between the Company and each purchaser identified on the signature page thereto, incorporated by reference to Exhibit 10.4 of the Registrant's Current Report on Form 8-K (File No. 000-50884) filed on May 8, 2012.
10.34	Form of Convertible Debt Registration Rights Agreement incorporated by reference to Exhibit 10.5 of the Registrant's Current Report on Form 8-K (File No. 000-50884) filed on May 8, 2012.
10.35	Form of Amendment and Exchange Agreement, dated August 7, 2013, incorporated by reference to Exhibit 10.1 of the Registrant's Current Report on Form 8-K (File No. 000-50884) filed August 8, 2013.
10.36	Second Amended and Restated Loan and Security Agreement, effective November 30, 2011, by and among the Company, Stereotaxis International, Inc. and Silicon Valley Bank, incorporated by reference to Exhibit 10.120e of the Registrant's Form 10-K (File No. 000-50884) for the fiscal year ended December 31, 2012.
10.37	First Loan Modification Agreement (Domestic), between the Company, Stereotaxis International, Inc. and Silicon Valley Bank, dated March 30, 2012, incorporated by reference to Exhibit 10.1 of the Registrant's Form 8-K (File No. 000-50884) filed on April 2, 2012.
10.38	Second Amendment to the Amended and Restated Loan and Security Agreement (Domestic) dated May 1, 2012, between the Company, Stereotaxis International, Inc. and Silicon Valley Bank, incorporated by reference to Exhibit 10.1 of the Registrant's Current Report on Form 8-K (File No. 000-50884) filed on May 2, 2012.

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Exhibit Number	Document Description
10.39	Third Amendment to Amended and Restated Loan and Security Agreement (Domestic), dated May 7, 2012, between the Company, Stereotaxis International, Inc. and Silicon Valley Bank, incorporated by reference to Exhibit 10.75 of the Registrant's Registration Statement on Form S-1 (File No. 000-50884) filed May 23, 2012.
10.40	Fourth Loan Modification Agreement (Domestic), dated December 28, 2012, between the Company, Stereotaxis International, Inc. and Silicon Valley Bank, incorporated by reference to Exhibit 10.19f to the Registrant's Form 10-K (File No. 000-50884) for the fiscal year ended December 31, 2012.
10.41	Fifth Loan Modification Agreement (Domestic), dated March 29, 2013, between Silicon Valley Bank, the Company, and Stereotaxis International, Inc., incorporated by reference to Exhibit 10.1 of the Registrant's Current Report on Form 8-K (File No. 000-50884) filed April 1, 2013.
10.42	Sixth Loan Modification and Waiver Agreement (Domestic), dated June 28, 2013, between Silicon Valley Bank, the Company and Stereotaxis International, Inc., incorporated by reference to Exhibit 10.1 of the Registrant's Current Report on Form 8-K (File No. 000-50884) filed July 1, 2013.
10.43	Seventh Loan Modification and Waiver Agreement (Domestic), dated July 31, 2013, between Silicon Valley Bank, the Company and Stereotaxis International, Inc., incorporated by reference to Exhibit 10.1 of the Registrant's Current Report on Form 8-K (File No. 000-50884) filed August 2, 2013.
10.44	Eighth Loan Modification Agreement (Domestic), dated August 30, 2013, between Silicon Valley Bank, the Company and Stereotaxis International, Inc., incorporated by reference to Exhibit 10.1 of the Registrant's Current Report on Form 8-K (File No. 000-50884) filed September 3, 2013.
10.45	Ninth Loan Modification Agreement (Domestic), dated March 28, 2014, between the Company, Stereotaxis International, Inc. and Silicon Valley Bank, incorporated by reference to Exhibit 10.1 of the Registrant's Current Report on Form 8-K (File No. 001-36159) filed on March 31, 2014.
10.46	Tenth Loan Modification Agreement (Domestic), dated March 27, 2015, between Silicon Valley Bank, the Company, and Stereotaxis International, Inc., incorporated by reference to Exhibit 10.1 of the Registrant's Current Report on Form 8-K (File No. 001-36159) filed on March 30, 2015.
10.47	Eleventh Loan Modification Agreement (Domestic), dated May 10, 2016, between the Company, Stereotaxis International, Inc., and Silicon Valley Bank, incorporated by reference to Exhibit 10.1 of the Registrant's Form 10-Q (file No. 001-36159) for the fiscal quarter ended March 31, 2016.
10.48	Note and Warrant Purchase Agreement, effective February 7, 2008, between the Registrant and the investors named therein, incorporated by reference to Exhibit 10.31 of the Registrant's Form 10-K (File No. 000-50884) for the fiscal year ended December 31, 2007.
10.49	First Amendment to Note and Warrant Purchase Agreement, effective December 29, 2008, between the Registrant and the investors named therein, incorporated by reference to Exhibit 10.32 of the Registrant's Form 10-K (File No. 000-50884) for the fiscal year ended December 31, 2008.
10.50	Second Amendment to Note and Warrant Purchase Agreement, effective October 9, 2009, between the Registrant and the investors named therein, incorporated by reference to Exhibit 10.31c of the Registrant's Form 10-K (File No. 000-50884) for the fiscal year ended December 31, 2009.
10.51	Third Amendment to Note and Warrant Purchase Agreement, effective November 10, 2010, between the Registrant and the investors named therein incorporated by reference to Exhibit 10.21d of the Registrant's Form 10-K (File No. 000-50884) filed for the fiscal year ended December 31, 2010.
10.52	Fourth Amendment to the Note and Warrant Purchase Agreement between the Registrant and the investors named therein, dated March 30,

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2012, incorporated by reference to Exhibit 10.3 of the Registrant's Form 8-K (File No. 000-50884) filed on April 2, 2012.

Exhibit Number	Document Description	
10.53	Fifth Amendment to Note and Warrant Purchase Agreement, dated May 1, 2012, between the Registrant and the investors named therein, incorporated by reference to Exhibit 10.3 of the Registrant's Current Report on Form 8-K (File No. 000-50884) filed on May 2, 2012.	
10.54	Sixth Amendment to Note and Warrant Purchase Agreement, dated May 7, 2012, between the Registrant and the investors named therein, incorporated by reference to Exhibit 10.77 of the Registrant's Registration Statement on Form S-1 (File No. 000-50884) filed May 23, 2012.	
10.55	Seventh Amendment to Note and Warrant Purchase Agreement, dated March 29, 2013, among affiliated entities of Sanderling Venture Partners, Alafi Capital Company and the Company, incorporated by reference to Exhibit 10.3 of the Registrant's Current Report on Form 8-K (File No. 000-50884) filed April 1, 2013.	
10.56	Eighth Amendment to Note and Warrant Purchase Agreement, dated June 28, 2013, among affiliated entities of Sanderling Venture Partners, Alafi Capital Company and the Company, incorporated by reference to Exhibit 10.3 of the Registrant's Current Report on Form 8-K (File No. 000-50884) filed July 1, 2013.	
10.57	Loan Agreement dated as of November 30, 2011, by and among the Company, Stereotaxis International, Inc. and Cowen Healthcare Royalty Partners II LLC, incorporated by reference to Exhibit 10.22a of the Registrant's Form 10-K (File No. 000-50884) for the fiscal year ended December 31, 2012.	
10.58	Intercreditor Agreement dated as of December 5, 2011 by and among the Company, Stereotaxis International, Inc., Cowen Healthcare Royalty Partners II LLC and Silicon Valley Bank, incorporated by reference to Exhibit 10.22b of the Registrant's Form 10-K (File No. 000-50884) for the fiscal year ended December 31, 2012.	
10.59	Stock and Warrant Purchase Agreement, effective May 7, 2012, between the Company, and certain purchasers named therein, incorporated by reference to Exhibit 10.1 of the Registrant's Current Report on Form 8-K (File No. 000-50884) filed on May 8, 2012.	
10.60	Controlled Equity Offering Sales Agreement dated May 16, 2014, by and between Stereotaxis, Inc. and Cantor Fitzgerald & Co., incorporated by reference to Exhibit 1.1 of the Registrant's Current Report on Form 8-K (File No. 001-36159) filed on May 16, 2014.	
10.61	Amendment No. 1, dated March 26, 2015, to Sales Agreement, dated March 16, 2014, between Stereotaxis, Inc. and Cantor Fitzgerald & Co., incorporated by reference to Exhibit 1.1 of the Registrant's Current Report on Form 8-K (File No. 001-36159) filed on March 26, 2015.	
10.62	Consulting Agreement effective June 4, 2014, between Stereotaxis, Inc. and Eric N. Prystowsky, M.D., incorporated by reference to Exhibit 10.3 of the Registrant's Form 10-Q (File No. 001-36159) for the fiscal quarter ended June 30, 2014.	
10.63	Amendment No. 1, dated June 3, 2015, to Consulting Agreement, dated June 4, 2014, between Stereotaxis, Inc. and Eric N. Prystowsky, M.D., incorporated by reference to Exhibit 10.20b of the Registrant's Form 10-K (File No. 001-36159) for the fiscal year ending December 31, 2015.	
10.64	Securities Purchase Agreement dated September 26, 2016, between the Registrant and the investors listed on the Schedule of Buyers attached thereto, incorporated by reference to Exhibit 10.1 to the Registrant's Form 8-K (File No. 001-36159) filed on September 28, 2016.	
10.65	Registration Rights Agreement dated September 26, 2016, between the Registrant and the Buyers identified therein, incorporated by reference to Exhibit 4.1 to the Registrant's Form 8-K (File No. 001-36159) filed on September 28, 2016.	
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Exhibit <u>Number</u>	Document Description	
21.1	List of Subsidiaries of the Registrant, incorporated by reference to Exhibit 21.1 of the Registrant's Form 10-K (File No. 000-50884) for the fiscal year ended December 31, 2009.	
23.1	Consent of Ernst & Young LLP.	
23.2	Consent of Bryan Cave LLP (included in Exhibit 5.1).	
24.1	Power of Attorney.	
Exhibit Index – 7		

BRYAN CAVE LLP One Metropolitan Square, 211 North Broadway, Suite 3600, St. Louis, MD 63102-2750

T: 314 259 2000 F: 314 259 2020 bryancave.com



October 26, 2016

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

Ladies and Gentlemen:

We have acted as special counsel to Stereotaxis, Inc., a Delaware corporation (the "Company"), in connection with the offer and resale of 86,065,014 shares (the "Shares") of common stock of the Company, par value \$0.001 per share, pursuant to the Company's Registration Statement on Form S-1 (the "Registration Statement") filed by the Company with the Securities and Exchange Commission (the "SEC") under the Securities Act of 1933, as amended (the "Securities Act"), on October 26, 2016, on behalf of the selling stockholders named therein. The Shares consist of (i) up to 48,000,001 shares the Company's common stock (the "Preferred Shares") issuable upon conversion of 24,000 shares of our Series A Convertible Preferred Stock issued to the selling stockholders named in the Registration Statement (collectively, the "Selling Stockholders") pursuant to that certain Securities Purchase Agreement (the "Purchase Agreement"), dated as of September 26, 2016, by and among the Company and the Selling Stockholders; (ii) up to 36,923,078 shares of the Company's common stock (the "SPA Warrant Shares") issuable upon exercise of certain related warrants (the "SPA Warrants") issued to the Selling Stockholders pursuant to the Purchase Agreement; (iii) 100,578 shares of the Company's common stock (the "2013 Warrant Shares") issuable upon exercise of certain warrants (the "2013 Warrant Purchase Agreement, dated February 21, 2008, as amended (the "Note and Warrant Purchase Agreement") by and among the Company and certain purchasers named therein; and (iv) 1,041,357 shares of the Company's common stock (the "Exchange Warrant Shares") issuable upon exercise price of \$3.361 per share (the "Exchange Warrant Shares") issuable upon exercise of certain exchange warrants issued to selling stockholders at a warrant exercise price of \$3.361 per share (the "Exchange Warrants").

In connection herewith, we have examined:

- (1) the Amended and Restated Certificate of Incorporation of the Company;
- (2) the Certificate of Designations, Preferences and Rights of Series A Convertible Preferred Stock of the Company;
- (3) the Amended and Restated Bylaws of the Company;

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- (4) the Registration Statement;
- (5) the Purchase Agreement and associated SPA Warrants;
- (6) the Note and Warrant Purchase Agreement and associated 2013 Warrants; and
- (7) the Amendment and Exchange Agreement, dated August 7, 2013, by and among the Company and certain holders named therein.

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. 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 (i) the Preferred Shares and Warrant Shares have been duly authorized, and (ii) when the SPA Warrants, the 2013 Warrants and the Exchange Warrants have been exercised, and the Warrant Shares have been issued, in each case in accordance with the terms in the SPA Warrants, 2013 Warrants and the Exchange Warrants, as applicable, and including receipt by the Company of the consideration required therein, the Warrant Shares will be validly issued, fully paid and nonassessable.

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.

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

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"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 reference to our firm under the caption "Experts" and to the use of our report dated March 11, 2016, in the Registration Statement (Form S-1 No. 333-) and related Prospectus of Stereotaxis, Inc. for the registration of 86,065,014 shares of its common stock.

We also consent to the incorporation by reference therein of our report dated March 11, 2016 with respect to the financial statements (which contains an explanatory paragraph describing conditions that raise substantial doubt about the Company's ability to continue as a going concern as described in Note 1 to the financial statements) and schedule of Stereotaxis, Inc. for the years ended December 31, 2015 and 2014 included in the Annual Report (Form 10-K) for 2015 filed with the Securities and Exchange Commission.

/s/ Ernst & Young LLP

St. Louis, Missouri October 26, 2016

POWER OF ATTORNEY

KNOW ALL PERSONS BY THESE PRESENTS, that each person whose signature appears below hereby constitutes and appoints William C. Mills III, Martin C. Stammer and Karen W. Duros, and each of them (with full power of each to act alone), severally, as his or her true and lawful attorneys-in-fact and agents, with full power of substitution and resubstitution, for him or her and to execute in his or her name, place and stead (individually and in any capacity stated below) a registration statement on Form S-1 (the "Registration Statement") covering the registration shares of common stock, par value \$0.001, of Stereotaxis, Inc. (the "Company") for resale by or on behalf of certain selling stockholders pursuant to registration rights granted under a registration rights agreement, including shares issuable upon conversion of Series A Convertible Preferred Stock of the Company and upon exercise of warrants as set forth and described in and under that certain Securities Purchase Agreement, dated September 26, 2016, between the Company and the investors named therein, and any and all pre-effective and post-effective amendments to the Registration Statement), and any additional registration statement filed pursuant to Rule 462(b) under the Securities Act of 1933, as amended, and all documents and instruments necessary or advisable in connection therewith, and to file the same, with exhibits thereto and other documents in connection therewith, with the Securities and Exchange Commission (or any other governmental regulatory authority), each of said attorneys-in-fact and agents to have power to act with or without the others and to have full power and authority to do and to perform in the name and on behalf of each of the undersigned every act whatsoever necessary or advisable to be done in the premises as fully and to all intents and purposes as any of the undersigned might or could do in person, hereby ratifying and confirming all that said attorneys-in-fact and agents and/or any of them, or their substitute or substitutes, ma

Dated: October 16, 2016

Name:	<u>Title:</u>
/s/ William C. Mills III	Chairman and Chief Executive Officer
William C. Mills III	(principal executive officer)
/s/ Martin C. Stammer	Chief Financial Officer
Martin C. Stammer	(principal financial officer and principal accounting officer)
/s/ David W. Benfer	Director
David W. Benfer	Director
/s/ Duane DeSisto	Director
Duane DeSisto	
/s/ David Fischel	Director
David Fischel	
/s/ Joseph Kiani	Director
Joseph Kiani	Director
/s/ Arun Menawat	Director
Arun S. Menawat	
/s/ Robert J. Messey	Director
Robert J. Messey	
/s/ Fred A. Middleton	Director
Fred A. Middleton	Director
Fred A. Wildileton	
/s/ Eric N. Prystowsky	Director
Eric N. Prystowsky	