

Stereotaxis, Inc.
Form 424B5
October 08, 2009
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**Filed pursuant to Rule 424(b)(5)
Registration Number 333-161077**

The information in this prospectus supplement and the accompanying prospectus is not complete and may be changed. This prospectus supplement and the accompanying prospectus are not an offer to sell these securities and are not soliciting an offer to buy these securities in any jurisdiction where the offer or sale is not permitted.

Subject to Completion

Preliminary Prospectus Supplement dated October 8, 2009

Prospectus Supplement

(To Prospectus Dated September 15, 2009)

Stereotaxis, Inc.

Shares

Common Stock

Stereotaxis, Inc. is offering _____ shares of its common stock, \$0.001 par value per share. Our common stock is listed on the Nasdaq Global Market under the symbol **STXS**. The last reported sale price of our common stock on the Nasdaq Global Market on October 8, 2009 was \$4.25 per share.

Investing in our common stock involves risks and uncertainties. See Risk Factors on page S-2 of this prospectus supplement and beginning on page 2 of the accompanying prospectus. You should read this prospectus supplement, the accompanying prospectus and the documents incorporated by reference into the accompanying prospectus carefully before you make your investment decision.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or determined if this prospectus supplement or the accompanying prospectus is truthful or complete. Any representation to the contrary is a criminal offense.

	Per Share	Total
Public offering price	\$	\$
Underwriting discounts and commissions	\$	\$
Proceeds, before expenses, to Stereotaxis	\$	\$

We have granted the underwriters the right to purchase up to an additional shares of our common stock at the public offering price per share, less the underwriting discount, within 30 days of this prospectus supplement to cover over-allotments.

The underwriters expect to deliver the shares against payment in New York, New York on October __, 2009.

Deutsche Bank Securities

Oppenheimer & Co.

Barrington Research

The date of this prospectus supplement is October , 2009.

Summer Street

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Unless otherwise mentioned or unless the context requires otherwise, all references in this prospectus supplement and the accompanying prospectus to the company, Stereotaxis, we, us, our, or similar references mean Stereotaxis, Inc.

This document is in two parts. The first part is this prospectus supplement, which describes the terms of this offering of our common stock and supplements information contained in the accompanying prospectus and the documents incorporated by reference into the accompanying prospectus. The second part is the accompanying prospectus, which gives more general information about us and the shares of common stock we may offer from time to time under our shelf registration statement. To the extent there is a conflict between the information contained in this prospectus supplement, on the one hand, and the information contained in the accompanying prospectus or any document incorporated by reference therein, on the other hand, the information in this prospectus supplement shall control.

We have not authorized any dealer, salesman or other person to give any information or to make any representation other than those contained or incorporated by reference in this prospectus supplement and the accompanying prospectus. You must not rely upon any information or representation not contained or incorporated by reference in this prospectus supplement or the accompanying prospectus. This prospectus supplement and the accompanying prospectus do not constitute an offer to sell or the solicitation of an offer to buy common stock, nor do this prospectus supplement and the accompanying prospectus constitute an offer to sell or the solicitation of an offer to buy common stock in any jurisdiction to any person to whom it is unlawful to make such offer or solicitation in such jurisdiction.

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You should not assume that the information contained in this prospectus supplement and the accompanying prospectus is accurate on any date subsequent to the date set forth on the front of the document or that any information we have incorporated by reference is correct on any date subsequent to the date of the document incorporated by reference, even though this prospectus supplement and any accompanying prospectus is delivered or common stock is sold on a later date. The forward-looking statements included or incorporated by reference in this document are only made as of the date of this document or as of the date of such statement contained in the respective documents incorporated by reference herein, respectively, and we disclaim any obligation to publicly update any forward-looking statement to reflect subsequent events or circumstances.

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THE OFFERING

Common stock offered by us	shares
Common stock to be outstanding after this offering	shares
Offering price	\$
Use of Proceeds	We intend to use the proceeds of this offering for working capital; sales, marketing and clinical support initiatives; research and development; and general corporate purposes. See Use of Proceeds on page S-3 of this prospectus supplement.
Risk Factors	You should read the Risk Factors section of this prospectus supplement, the accompanying prospectus, and in the documents incorporated by reference in this prospectus supplement and the accompanying prospectus for a discussion of factors to consider before deciding to purchase shares of our common stock.
Nasdaq Global Market Symbol	STXS
The information above and elsewhere in this prospectus supplement regarding outstanding shares of our common stock is based on 42,715,852 shares of common stock outstanding as of September 14, 2009 and excludes the following shares of stock as of September 14, 2009:	
(i) 4,533,918 shares of common stock issuable upon the exercise of outstanding options and stock appreciation rights at a weighted average exercise price of \$6.79 per share (giving effect to the completion of our exchange offer on September 14, 2009, as described under Recent Developments below) and (ii) 8,959,647 shares of common stock issuable upon the exercise of outstanding warrants at a weighted average exercise price of \$4.27 per share. We had 904,012 unearned restricted shares as of September 14, 2009.	
Unless otherwise indicated, all information in this prospectus supplement assumes no exercise of the underwriters over-allotment option to purchase up to shares of common stock.	

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RECENT DEVELOPMENTS

Exchange Offer. On August 17, 2009, we filed a Schedule TO (as amended and supplemented, the "Schedule TO") with the Securities and Exchange Commission relating to our offer to certain employees to exchange some or all of their eligible outstanding incentive stock options, non-qualified stock options and stock appreciation rights (collectively, "Eligible Awards") relating to our common stock in exchange for replacement Options ("Replacement Options") and replacement SARs ("Replacement SARs" and collectively with the Replacement Options, the "Replacement Awards"), as the case may be (the "Exchange Offer"), on the terms and conditions described therein. On September 14, 2009, we reported that the Exchange Offer expired at 11:59 p.m., St. Louis time. Pursuant to the Exchange Offer 407,832 Eligible Awards were tendered for exchange, representing approximately 42% of the total Eligible Awards. On September 14, 2009, we granted an aggregate of 149,976 Replacement Awards in exchange for the Eligible Awards surrendered in the Exchange Offer. The exercise price of the Replacement Awards is \$4.10 per share, which was the closing price of our common stock on September 14, 2009 as reported by the NASDAQ Global Market. Unless otherwise indicated herein, all descriptions of outstanding stock option and stock appreciation rights give effect to the completion of the Exchange Offer.

Credit Facility. On October 6, 2009, the Company received a commitment letter from Silicon Valley Bank regarding an increase and extension of the Company's credit facility. Under the terms set forth in the commitment letter, the Company could borrow up to \$30 million, compared with \$25 million under its current facility. Consistent with the current agreement, the revolving line of credit would include a sublimit of \$10 million for advances guaranteed by two current shareholders. The facility would be extended for another year and would mature on March 31, 2011. The commitment is subject to completion of definitive loan documents and other typical closing conditions. In addition, the Company is in discussions with the shareholder guarantors regarding the final terms of a proposed extension of their \$10 million guaranty facility to March 31, 2011.

RISK FACTORS

An investment in our common stock involves a high degree of risk. You should carefully consider the risks described under "Risk Factors" in our most recent Annual Report on Form 10-K, the risks described under "Risk Factors" set forth on page 2 of the accompanying prospectus, as well as all of the other information contained in this prospectus supplement and the accompanying prospectus and incorporated by reference into this prospectus supplement and the accompanying prospectus, including our financial statements and related notes, before investing in our common stock. If any of the possible events described in those documents actually occur, our business, business prospects, cash flow, results of operations or financial condition could be harmed. In this case, the trading price of our common stock could decline, and you might lose all or part of your investment in our common stock. Additional risks and uncertainties not presently known to us or that we currently deem immaterial may also impair our operations.

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USE OF PROCEEDS

We estimate that the net proceeds from this offering will be approximately \$ (or approximately \$ if the underwriters exercise their over allotment option in full) after deducting the underwriters' discounts and commissions and estimated offering expenses payable by us.

We intend to use the net proceeds from this offering for:

working capital;

continued sales, marketing and clinical support initiatives relating to the commercialization of our products;

continued research and development, including the enhancement of our existing system through ongoing product and software development, the design of new proprietary disposable interventional devices for use with our system and the development of next generation versions of our system; and

for general corporate purposes, which may include the purchase of equipment and the expansion or relocation of facilities.

We have not determined the amounts we plan to spend on any of the areas listed above or the timing of these expenditures. As a result, our management will have broad discretion to allocate the net proceeds from this offering. Pending application of the net proceeds as described above, we intend to temporarily invest the proceeds in short-term interest bearing instruments.

DIVIDEND POLICY

We have never declared or paid any dividends on our capital stock. We anticipate that we will retain any earnings to support operations and to finance the growth and development of our business. Additionally, under our credit facilities, we are prohibited from declaring dividends without the prior consent of our lender. Therefore, we do not expect to pay cash dividends in the foreseeable future. Any future determination relating to our dividend policy will be made at the discretion of our board of directors and will depend on a number of factors, including future earnings, capital requirements, financial conditions, future prospects and other factors that the board of directors may deem relevant.

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The following table sets forth our capitalization as of June 30, 2009:

on an actual basis; and

on an as-adjusted basis, to give effect to the sale of _____ shares of common stock offered by us at a public offering price of \$ _____ per share in this offering, and after deducting the underwriters' discounts and commissions and our estimated offering expenses.

	As of June 30, 2009	
	Actual	As Adjusted
	(unaudited)	
	(in thousands, except shares)	
Cash and cash equivalents	\$ 12,780	\$
Short-term debt, including current maturities of long-term debt	14,901	14,901
Long-term debt, including current maturities	13,496	13,496
Stockholders' equity		
Common stock, \$0.001 par value; 100,000,000 shares authorized; 42,747,838 shares issued, actual, and _____ shares issued, as adjusted	43	
Additional paid-in capital	300,589	
Treasury stock, 40,151 shares	(206)	(206)
Accumulated deficit	(310,928)	(310,928)
Total stockholders' equity (deficit)	(10,503)	
Total capitalization	\$ 2,993	

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As of June 30, 2009, our unaudited net tangible book value was -\$11.7 million, or approximately -\$0.27 per share. Net tangible book value per share is the amount of our total tangible assets reduced by the amount of our total liabilities and divided by the total number of shares of common stock outstanding.

Net tangible book value dilution per share to new investors represents the difference between the weighted average amount per share paid by purchasers of shares of common stock in this offering and the net tangible book value per share of our common stock immediately after completion of this offering. After giving effect to the sale of shares of our common stock in this offering and deducting underwriters discounts and commissions and our estimated offering expenses, our net tangible book value as of June 30, 2009 would have been \$ per share. This amount represents an immediate increase in net tangible book value of \$ per share to existing stockholders and an immediate dilution (on a weighted average basis) in net tangible book value of \$ per share to purchasers of common stock in this offering, as illustrated in the following table:

Public offering price per share of common stock	\$
Net tangible book value per share as of June 30, 2009	\$ (0.27)
Increase per share attributable to new investors after giving effect to this offering	\$
Pro forma net tangible book value per share after giving effect to this offering	\$
Dilution in net tangible book value per share to new investors	\$

This table assumes no exercise of options or stock appreciation rights to purchase 4,533,918 shares of common stock at a weighted average exercise price of \$6.79 per share (giving effect to the completion of our exchange offer on September 14, 2009, as described under "Recent Developments" above) or warrants to purchase 8,959,647 shares of common stock issuable upon the exercise of outstanding warrants at a weighted average exercise price of \$4.27 per share, in each case outstanding as of September 14, 2009. To the extent that options or warrants are exercised, there will be further dilution to new investors.

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Subject to the terms and conditions of the underwriting agreement, the underwriters named below, through their representatives Deutsche Bank Securities Inc. and Oppenheimer & Co. Inc. have severally agreed to purchase from us the following respective number of shares of common stock at a public offering price less the underwriting discounts and commissions set forth on the cover page of this prospectus supplement. Deutsche Bank Securities Inc. and Oppenheimer & Co. Inc. are operating as joint book-running managers in this offering.

Underwriters	Number of Shares
Deutsche Bank Securities Inc.	
Oppenheimer & Co. Inc.	
Barrington Research Associates, Inc.	
Summer Street Research Partners	

Total

The underwriting agreement provides that the obligations of the several underwriters to purchase the shares of common stock offered hereby are subject to certain conditions precedent and that the underwriters will purchase all of the shares of common stock offered by this prospectus supplement, other than those covered by the over-allotment option described below, if any of these shares are purchased.

We have been advised by the representatives of the underwriters that the underwriters propose to offer the shares of common stock to the public at the public offering price set forth on the cover of this prospectus supplement and to dealers at a price that represents a concession not in excess of \$ _____ per share under the public offering price. The underwriters may allow, and these dealers may re-allow, a concession of not more than \$ _____ per share to other dealers. After the public offering, representatives of the underwriters may change the offering price and other selling terms.

We have granted to the underwriters an option, exercisable not later than 30 days after the date of this prospectus supplement, to purchase up to _____ additional shares of common stock at the public offering price less the underwriting discounts and commissions set forth on the cover page of this prospectus supplement. The underwriters may exercise this option only to cover over-allotments made in connection with the sale of the common stock offered by this prospectus supplement. To the extent that the underwriters exercise this option, each of the underwriters will become obligated, subject to conditions, to purchase approximately the same percentage of these additional shares of common stock as the number of shares of common stock to be purchased by it in the above table bears to the total number of shares of common stock offered by this prospectus supplement. We will be obligated, pursuant to the option, to sell these additional shares of common stock to the underwriters to the extent the option is exercised. If any additional shares of common stock are purchased, the underwriters will offer the additional shares on the same terms as those on which the _____ shares are being offered.

The underwriting discounts and commissions per share are equal to the public offering price per share of common stock less the amount paid by the underwriters to us per share of common stock. Pursuant to a requirement by the Financial Industry Regulatory Authority, or FINRA, the maximum discounts, commission, or other consideration to be received by any FINRA member or independent broker/dealer may not be greater than 8.0% of the gross proceeds received by us from the sale of any securities being registered pursuant to Rule 415 under the Securities Act of 1933, as amended (the "Securities Act"). We have agreed to pay the underwriters the following discounts and commissions, assuming either no exercise or full exercise by the underwriters of the underwriters' over-allotment option:

	Per share	Without Exercise of Over-Allotment Option	Total With Full Exercise of Over-Allotment Option
Discounts and commissions paid by us	\$ _____	\$ _____	\$ _____

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We have agreed to reimburse the underwriters for certain costs and expenses incurred by them in connection with this offering, including the fees and disbursements of counsel to the underwriters in an amount not to exceed \$100,000. We estimate that our share of the total expenses of this offering, excluding underwriting discounts and commissions, will be approximately \$300,000.

We have agreed to indemnify the underwriters against some specified types of liabilities, including liabilities under the Securities Act, and to contribute to payments the underwriters may be required to make in respect of any of these liabilities.

Each of our officers and directors have agreed not to offer, sell, contract to sell or otherwise dispose of, or enter into any transaction that is designed to, or could be expected to, result in the disposition of any shares of our common stock or other securities convertible into or exchangeable or exercisable for shares of our common stock or derivatives of our common stock owned by these persons prior to this offering or common stock issuable upon exercise of options or warrants held by these persons for a period of 60 days after the date of this prospectus supplement without the prior written consent of Deutsche Bank Securities Inc. This consent may be given at any time without public notice. We have entered into a similar agreement with the representatives of the underwriters. There are no agreements between the representatives and any of our directors or officers releasing them from these lock-up agreements prior to the expiration of the 60-day period.

In connection with the offering, the underwriters may purchase and sell shares of our common stock in the open market. These transactions may include short sales, purchases to cover positions created by short sales and stabilizing transactions.

Short sales involve the sale by the underwriters of a greater number of shares than they are required to purchase in the offering. Covered short sales are sales made in an amount not greater than the underwriters' option to purchase additional shares of common stock from us in the offering. The underwriters may close out any covered short position by either exercising their option to purchase additional shares or purchasing shares in the open market. In determining the source of shares to close out the covered short position, the underwriters will consider, among other things, the price of shares available for purchase in the open market as compared to the price at which they may purchase shares through the over-allotment option.

Naked short sales are any sales in excess of the over-allotment option. The underwriters must close out any naked short position by purchasing shares in the open market. A naked short position is more likely to be created if underwriters are concerned that there may be downward pressure on the price of the shares in the open market prior to the completion of the offering.

Stabilizing transactions consist of various bids for or purchases of our common stock made by the underwriters in the open market prior to the completion of the offering.

The underwriters may impose a penalty bid. This occurs when a particular underwriter repays to the other underwriters a portion of the underwriting discount received by it because the representatives of the underwriters have repurchased shares sold by or for the account of that underwriter in stabilizing or short covering transactions.

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Purchases to cover a short position and stabilizing transactions may have the effect of preventing or slowing a decline in the market price of our common stock. Additionally, these purchases, along with the imposition of the penalty bid, may stabilize, maintain or otherwise affect the market price of our common stock. As a result, the price of our common stock may be higher than the price that might otherwise exist in the open market. These transactions may be effected on the Nasdaq Global Market, in the over-the-counter market or otherwise.

Some of the underwriters or their affiliates have provided investment banking services to us in the past and may do so in the future. They receive customary fees and commissions for these services.

DESCRIPTION OF SECURITIES

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. Please refer to **Description of Capital Stock** at page 30 of the accompanying prospectus for additional information relating to the common stock offered hereby.

INCORPORATION OF CERTAIN DOCUMENTS BY REFERENCE

The Securities and Exchange Commission (the **SEC**) allows us to incorporate by reference information into this prospectus supplement and the accompanying prospectus, which means we can disclose important information to you by referring you to other documents that the company filed separately with the SEC. You should consider the incorporated information as if we reproduced it in this prospectus supplement, except for any information directly superseded by information subsequently filed with the SEC and incorporated in this prospectus supplement.

We incorporate by reference into this prospectus supplement the following documents (SEC File No. 000-50884), which contain important information about us and our business and financial results:

our Annual Report on Form 10-K for the fiscal year ended December 31, 2008;

our Quarterly Reports on Form 10-Q for the fiscal quarters ended March 31, 2009 and June 30, 2009;

our Current Reports on Form 8-K filed January 8, 2009, February 24, 2009, February 26, 2009 (regarding Item 3.02), February 27, 2009, March 16, 2009, April 10, 2009, August 6, 2009 (regarding Item 5.02), and October 7, 2009;

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our Current Report on Form 8-K filed on August 6, 2009, which updated certain information in our Annual Report on Form 10-K for the fiscal year ended December 31, 2008 (as amended by that certain filing on Form 8-K/A filed September 8, 2009); and

the description of our common stock contained in our Registration Statement on Form 8-A filed August 2, 2004.

We incorporate by reference any additional documents that we may file with the SEC under Section 13(a), 13(c), 14 or 15(d) of the Securities Exchange Act of 1934 (other than the portions of those made pursuant to Item 2.02 or Item 7.01 of Form 8-K or other information furnished to the SEC) between the date we filed the registration statement to which this prospectus supplement relates, and the termination of the offering of the securities. These documents may include periodic reports, such as Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q and Current Reports on Form 8-K, as well as Proxy Statements. Any material that we subsequently file with the SEC will automatically update and replace the information previously filed with the SEC.

Any statement contained in a document incorporated or deemed to be incorporated herein by reference shall be deemed to be modified or superseded to the extent that a statement contained herein or in any other subsequently filed document which also is or is deemed to be incorporated herein by reference modifies or supersedes such statement in such document. Any statement so modified or superseded shall not be deemed, except as so modified or superseded, to constitute a part of the registration statement of which this prospectus supplement is a part.

You may get copies of any of the document incorporated by reference (excluding exhibits, unless the exhibits are specifically incorporated) at no charge to you by writing or calling the investor relations department at Stereotaxis, Inc. 4320 Forest Park Avenue, Suite 100, St. Louis, Missouri 63108, telephone (314) 678-6100.

LEGAL MATTERS

The validity of the common stock offered hereby will be passed upon for us by Bryan Cave LLP, St. Louis, Missouri. James L. Nouss, Jr., a partner of our legal counsel Bryan Cave LLP, owns 11,727 shares of our common stock, and is also our corporate secretary. Goodwin Procter LLP, New York, New York, will pass upon certain legal matters in connection with this offering for the underwriters.

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PROSPECTUS

\$75,000,000

Debt Securities

Common Stock

Preferred Stock

Warrants

Units

We may offer and sell from time to time up to \$75,000,000 of debt securities, common stock, preferred stock, warrants or units consisting of any two or more of such securities.

We will provide specific terms of these securities in supplements to this prospectus for each offering of securities. This prospectus may not be used to sell securities unless accompanied by a prospectus supplement.

Our common stock is listed on the Nasdaq Global Market under the symbol **STXS**. Each prospectus supplement offering any securities other than our common stock will state whether those securities are listed or will be listed on the Nasdaq Global Market or any other securities market or other exchange.

We may offer securities through underwriting syndicates managed or co-managed by one or more underwriters, directly to purchasers or in any manner specified in a prospectus supplement. The prospectus supplement for each offering of securities will describe in detail the plan of distribution for that offering. For general information about the distribution of securities, see **Plan of Distribution** in this prospectus.

Investing in these securities involves significant risks. See **Risk Factors beginning on page 2 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 September 15, 2009.

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ABOUT THIS PROSPECTUS

This prospectus is part of a registration statement that we filed with the Securities and Exchange Commission, which we refer to as the SEC, utilizing a shelf registration process. Under this shelf process, we may, from time to time, sell any combination of the securities described in this prospectus in one or more offerings up to a total amount of \$75,000,000.

This prospectus provides you with a general description of the securities we may offer. Each time we sell securities, we will provide a prospectus supplement that will contain specific information about the terms of that offering. We will file each prospectus supplement with the SEC. The prospectus supplement may also add, update or change information contained in this prospectus. You should read both this prospectus and any prospectus supplement together with additional information described under the heading **Where You Can Find Additional Information** below.

You should only rely on the information contained in this prospectus and any prospectus supplement, including the information incorporated by reference. We have not authorized anyone to provide you with different information. The information contained in this prospectus is complete and accurate only as of the date on the front cover, but the information may have changed since that date. The forward-looking statements included or incorporated by reference in this prospectus are only made as of the date of this prospectus or as of the date of such statement contained in the respective documents incorporated by reference herein, respectively, and we disclaim any obligation to publicly update any forward-looking statement to reflect subsequent events or circumstances even though our situation may change in the future.

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THE COMPANY

Stereotaxis designs, manufactures and markets an advanced cardiology instrument control system for use in a hospital's interventional medical suite, or interventional lab, that we believe revolutionizes the treatment of arrhythmias and coronary artery disease by enabling important new therapeutic solutions and enhancing the efficiency and efficacy of existing catheter-based, or interventional, procedures. Our Niobe® system allows physicians to more effectively navigate proprietary catheters, guidewires and other delivery devices, both our own and those we are co-developing with strategic partners, through the blood vessels and chambers of the heart to treatment sites in order to effect treatment. This is achieved using computer-controlled, externally applied magnetic fields that precisely and directly govern the motion of the internal, or working, tip of the catheter, guidewire or other interventional device. We believe that our Niobe system represents a revolutionary technology in the interventional lab, bringing precise remote digital instrument control and programmability to the interventional lab, and has the potential to become the standard of care for a broad range of complex cardiology procedures. Our Odyssey Total Information Solution allows physicians to utilize a consolidated user interface and single mouse and keyboard control for multiple systems within the interventional lab.

We were incorporated in Delaware in June 1990 as Stereotaxis, Inc. 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.

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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 below and all other information contained or incorporated by reference in this prospectus. The risks and uncertainties described below and in other filings incorporated by reference in this prospectus are not the only ones facing the Company. Additional risks and uncertainties not currently known to us or that we currently consider immaterial may also adversely affect us. If any of the following risks actually occurs, our business, results of operations and financial condition will likely suffer. 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.

The following uncertainties and factors, among others, could affect future performance and cause actual results to differ materially from those expressed or implied by forward looking statements.

Hospital decision-makers may not purchase our Niobe or Odyssey system or may think that such systems are too expensive.

The market for our products and related technology is not well established. To achieve continued sales, hospitals must purchase our products, and in particular, our Niobe Magnetic Navigation System. The Niobe Magnetic Navigation System, which is the core of our Niobe system, is a novel device, and hospitals and physicians are traditionally slow to adopt new products and treatment practices. In addition, hospitals may delay their purchase or installation decision for the Niobe system based on the disposable interventional devices that have received regulatory clearance or approval. Moreover, the Niobe system is an expensive piece of capital equipment, representing a significant portion of the cost of a new or replacement interventional lab. Although priced significantly below a Niobe system, the Odyssey system is still an expensive piece of equipment. If hospitals do not widely adopt our systems, or if they decide that they are too expensive, we may never become profitable. Any failure to sell as many systems as our business plan requires could also have a seriously detrimental impact on our results of operations, financial condition, and cash flow.

General economic conditions could materially adversely impact us.

Our operating performance is dependent upon economic conditions in the United States and in other countries in which we operate. The recent economic downturn in the United States and in other countries in which we sell our products may cause customers to delay purchasing or installation decisions or cancel existing orders. The Niobe and Odyssey systems are typically purchased as part of a larger overall capital project and an economic downturn and financial turmoil affecting the banking system and financial markets might make it more difficult for our customers, including distributors, to obtain adequate financing to support the project or to obtain requisite approvals. Any delay in purchasing decisions or cancellation of purchasing commitments may result in a decrease in our revenues. The credit crisis could further affect our business if key suppliers are unable to obtain financing to manufacture our products or become insolvent and we are unable to manufacture product to meet customer demand. If conditions become more severe or continue longer than we anticipate, we may experience a material negative decrease on the demand for our products which may, in turn, have a material adverse effect on our revenue, profitability, financial condition, ability to raise additional capital and the market price of our stock.

Physicians may not use our products if they do not believe they are safe, efficient and effective.

We believe that physicians will not use our products unless they determine that the Niobe system provides a safe, effective and preferable alternative to interventional methods in general use today. Currently, there is only limited clinical data on the Niobe system with which to assess safety and efficacy. If longer-term patient studies or clinical experience indicate that treatment with our system or products is less effective, less efficient or less safe than our current data suggest, our sales would be harmed, and we could be subject to significant liability. Further, unsatisfactory patient outcomes

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or patient injury could cause negative publicity for our products, particularly in the early phases of product introduction. In addition, physicians may be slow to adopt our products if they perceive liability risks arising from the use of these new products. It is also possible that as our products become more widely used, latent defects could be identified, creating negative publicity and liability problems for us and adversely affecting demand for our products. If physicians do not use our products, we likely will not become profitable or generate sufficient cash to survive as a going concern.

Our collaborations with Siemens, Philips, Biosense Webster or other parties may fail, or we may not be able to enter into additional partnerships or collaborations in the future.

We are collaborating with Siemens, Philips, Biosense Webster and other parties to integrate our instrument control technology with their respective imaging products or disposable interventional devices and to co-develop additional disposable interventional devices for use with our Niobe system. A significant portion of our revenue from system sales will be derived from these integrated products. Siemens provides post-installation maintenance and support services to our customers for our integrated systems.

Our product commercialization plans could be disrupted, leading to lower than expected revenue and a material and adverse impact on our results of operations and cash flow, if:

any of our collaboration partners delays or fails in the integration of its technology with our Niobe system as planned;

any of our collaboration partners fails to develop or commercialize the integrated products in a timely manner;

any of our collaboration partners do not co-market and co-promote our integrated products diligently or do not provide maintenance and support services as we expect; or

we become involved in disputes with one or more of our collaboration partners regarding our collaborations.

Siemens, Philips and Biosense Webster, as well as some of our other collaborators, are large, global organizations with diverse product lines and interests that may diverge from our interests in commercializing our products. Accordingly, our collaborators may not devote adequate resources to our products, or may experience financial difficulties, change their business strategy or undergo a business combination that may affect their willingness or ability to fulfill their obligations to us.

The failure of one or more of our collaborations could have a material adverse effect on our financial condition, results of operations and cash flow. In addition, if we are unable to enter into additional partnerships in the future, or if these partnerships fail, our ability to develop and commercialize products could be impacted negatively and our revenue could be adversely affected.

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We have limited experience selling, marketing, and distributing products, which could impair our ability to increase revenue.

We currently market our products in the U.S., Europe and the rest of the world through a direct sales force of sales specialists, distributors and sales agents, supported by account managers and clinical specialists who provide training, clinical support, and other services to our customers. If we are unable to effectively utilize our existing sales force or increase our existing sales force in the foreseeable future, we may be unable to generate the revenue we have projected in our business plan. Factors that may inhibit our sales and marketing efforts include:

our inability to recruit and retain adequate numbers of qualified sales and marketing personnel;

the inability of sales personnel to obtain access to or persuade adequate numbers of hospitals and physicians to purchase and use our products;

unforeseen costs associated with maintaining and expanding an independent sales and marketing organization; and

unforeseen costs associated with maintaining and expanding an independent sales and marketing organization.

In addition, if we fail to effectively use distributors or contract sales agents for distribution of our products where appropriate, our revenue and profitability would be adversely affected.

Our marketing strategy is dependent on collaboration with physician thought leaders.

Our research and development efforts and our marketing strategy depend heavily on obtaining support and collaboration from highly regarded physicians at leading commercial and research hospitals, particularly in the U.S. and Europe. If we are unable to gain and/or maintain such support and collaboration or if the reputation or standing of these physicians is impaired or otherwise adversely affected, our ability to market our products and, as a result, our financial condition, results of operations and cash flow could be materially and adversely affected.

We may not be able to rapidly train physicians in numbers sufficient to generate adequate demand for our products.

In order for physicians to learn to use the Niobe system, they must attend one or more training sessions in order to familiarize themselves with a sophisticated user interface. Market acceptance could be delayed by lack of physician willingness to attend training sessions or by the time required to complete this training. An inability to train a sufficient number of physicians to generate adequate demand for our products could have a material adverse impact on our financial condition and cash flow.

Customers may choose to purchase competing products and not ours.

Our products must compete with established manual interventional methods. These methods are widely accepted in the medical community, have a long history of use and do not require the purchase of an additional expensive piece of capital equipment. In addition, many of the medical conditions that can be treated using our products can also be treated with existing pharmaceuticals or other medical devices and procedures. Many of these alternative treatments are widely accepted in the medical community and have a long history of use.

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We also face competition from companies that are developing drugs or other medical devices or procedures to treat the conditions for which our products are intended. The medical device and pharmaceutical industries make significant investments in research and development, and innovation is rapid and continuous. We are aware of one public company that has commercialized a catheter delivery system which has been cleared by the FDA for mapping procedures only, and we are aware of one private company at a much earlier stage of development. If these or other new products or technologies emerge that provide the same or superior benefits as our products at equal or lesser cost, it could render our products obsolete or unmarketable. We cannot be certain that physicians will use our products to replace or supplement established treatments or that our products will be competitive with current or future products and technologies.

Many of our other competitors also have longer operating histories, significantly greater financial, technical, marketing and other resources, greater name recognition and a larger base of customers than we do. In addition, as the markets for medical devices develop, additional competitors could enter the market. We cannot assure you that we will be able to compete successfully against existing or new competitors. Our revenue would be reduced or eliminated if our competitors develop and market products that are more effective and less expensive than our products.

If we are unable to fulfill our current purchase orders and other commitments on a timely basis or at all, we may not be able to achieve future sales growth.

Our backlog, which consists of purchase orders and other commitments, is considered by some investors to be a significant indicator of future performance. Consequently, negative changes to this backlog or its failure to grow commensurate with expectations could negatively impact our future operating results or our share price. Our backlog includes those outstanding purchase orders and other commitments that management believes will result in recognition of revenue upon delivery or installation of our systems. We cannot assure you that we will recognize revenue in any particular period or at all because some of our purchase orders and other commitments are subject to contingencies that are outside our control. In addition, these orders and commitments may be revised, modified or cancelled, either by their express terms, as a result of negotiations or by project changes or delays. System installation is by its nature subject to the interventional lab construction or renovation process which comprises multiple stages, all of which are outside of our control. Although the actual installation of our Niobe system requires only a few weeks, and can be accomplished by either our staff or by subcontractors, successful installation of our system can be subjected to delays related to the overall construction or renovation process. If we experience any failures or delays in completing the installation of these systems, our reputation would suffer and we may not be able to sell additional systems. We have experienced situations in which our purchase orders and other commitments did not result in recognizing revenue from placement of a system with a customer. In addition to construction delays, there are risks that an institution will attempt to cancel a purchase order as a result of subsequent project review by the institution or the departure from the institution of physicians or physician groups who have expressed an interest in the Niobe or Odyssey system.

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These, or similar events, have occurred in the past and are likely to occur in the future, causing delays in revenue recognition or even removal of orders and other commitments from our backlog. Such events would have a negative effect on our revenue and results of operations.

We will likely experience long and variable sales and installation cycles, which could result in substantial fluctuations in our quarterly results of operations.

We anticipate that our Niobe system will continue to have a lengthy sales cycle because it consists of a relatively expensive piece of capital equipment, the purchase of which requires the approval of senior management at hospitals, inclusion in the hospitals' interventional lab budget process for capital expenditures, and, in some instances, a certificate of need from the state or other regulatory approval. In addition, historically the majority of our Niobe systems have been delivered less than one year after the receipt of a purchase order from a hospital, with the timing being dependant on the construction cycle for the new or replacement interventional suite in which the equipment will be installed. In some cases, this time frame has been extended further because the interventional suite construction is part of a larger construction project at the customer site (typically the construction of a new building), which may occur with our existing and future purchase orders. We cannot assure you that the time from purchase order to delivery for systems to be delivered in the future will be consistent with our historical experience. Moreover, the global economic slowdown may cause our customers to further delay construction or significant capital purchases, which could further lengthen our sales cycle. This may contribute to substantial fluctuations in our quarterly operating results. As a result, in future quarters our operating results could fall below the expectations of securities analysts or investors, in which event our stock price would likely decrease.

If the magnetic fields generated by our system are not compatible with, or interfere with, other widely used equipment in the interventional labs, sales of our products would be negatively affected.

Our Niobe system generates magnetic fields that directly govern the motion of the internal, or working, tip of disposable interventional devices. If other equipment in the interventional labs or elsewhere in a hospital is incompatible with the magnetic fields generated by our system, or if our system interferes with such equipment, we may be required to install additional shielding, which may be expensive and which may not solve the problem. If magnetic interference becomes a significant issue at targeted institutions, it would increase our installation costs at those institutions and could limit the number of hospitals that would be willing to purchase and install our systems, either of which would adversely affect our financial condition, results of operations and cash flow.

The use of our products could result in product liability claims that could be expensive, divert management's attention, and harm our reputation and business.

Our business exposes us to significant risks of product liability claims. The medical device industry has historically been litigious, and we could face product liability claims if the use of our products were to cause injury or death. The coverage limits of our product liability insurance policies may not be adequate to cover future claims, and we may be unable to maintain product liability insurance in the future at satisfactory rates or adequate amounts. A product liability claim, regardless of its merit or eventual outcome, could divert management's attention, result in significant legal defense costs, significant harm to our reputation and a decline in revenue.

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Our costs could substantially increase if we receive a significant number of warranty claims.

We generally warrant each of our products against defects in materials and workmanship for a period of 12 months following the installation of our system. If product returns or warranty claims increase, we could incur unanticipated additional expenditures for parts and service. In addition, our reputation and goodwill in the interventional lab market could be damaged. Unforeseen warranty exposure in excess of our established reserves for liabilities associated with product warranties could materially and adversely affect our financial condition, results of operations and cash flow.

We may not generate cash from operations necessary to commercialize our existing products and invest in new products.

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 financing on favorable terms or at all. If we need additional capital and cannot raise it on acceptable terms, we may not be able to, among other things:

enhance our existing products or develop new ones;

expand our operations;

hire, train and retain employees; or

respond to competitive pressures or capital requirements.

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.

While we believe our existing cash, cash equivalents and investments, amounts outstanding under the Biosense Webster agreement related to prepaid royalties and research and development expenditures and funds available from our current borrowing sources will be sufficient to fund our operating expenses and capital equipment requirements through the next 12 months, we cannot assure you that we will not otherwise require additional financing before that time. If adequate funds are not available to us, we could be required to delay development or commercialization of new products, to license to third parties the rights to commercialize products or technologies that we would otherwise seek to commercialize ourselves or to reduce the sales, marketing, customer support or other resources devoted to our products, any of which could have a material adverse effect on our business, financial condition and results of operations.

We have incurred substantial losses in the past and may not be profitable in the future.

We have incurred substantial net losses since inception, and we expect to incur substantial net losses into 2009 as we continue the commercialization of our products. We may not be successful in completing the development or commercialization of our technology. Moreover, the extent of our future losses and the timing of profitability are highly uncertain, and we may never achieve profitable operations. If we require more time than we expect to generate significant revenue and achieve profitability, we may not be able to continue our operations. Our failure to achieve profitability

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could negatively impact the market price of our common stock. Even if we do become profitable, we may not be able to sustain or increase profitability on a quarterly or annual basis. Furthermore, even if we achieve significant revenue, we may choose to pursue a strategy of increasing market penetration and presence or expand or accelerate new product development or clinical research activities at the expense of profitability.

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 and bank and other borrowings. Our current bank loan agreement contains financial and other covenants which, if violated, could require the repayment of existing indebtedness and lead to the lack of availability of borrowings under that agreement. There can be no assurance that we will be able to maintain compliance with these covenants or that we could replace this source of liquidity if these covenants were to be violated and our loans were forced to be repaid.

Our reliance on contract manufacturers and on suppliers, and in some cases, a single supplier, could harm our ability to meet demand for our products in a timely manner or within budget.

We depend on contract manufacturers to produce and assemble certain of the components of our systems and other products such as our guidewires and electrophysiology catheter advancement devices. We also depend on various third party suppliers for the magnets we use in our Niobe Magnetic Navigation Systems. In addition, some of the components necessary for the assembly of our products are currently provided to us by a single supplier, including the magnets for our Niobe Magnetic Navigation System, and we generally do not maintain large volumes of inventory. Our reliance on these third parties involves a number of risks, including, among other things, the risk that:

we may not be able to control the quality and cost of our system or respond to unanticipated changes and increases in customer orders;

we may lose access to critical services and components, resulting in an interruption in the manufacture, assembly and shipment of our systems; and

we may not be able to find new or alternative components for our use or reconfigure our system and manufacturing processes in a timely manner if the components necessary for our system become unavailable.

If any of these risks materialize, it could significantly increase our costs and impair product delivery.

Lead times for materials and components ordered by us and our contract manufacturers vary and depend on factors such as the specific supplier, contract terms and demand for a component at a given time. We and our contract manufacturers acquire materials, complete standard subassemblies and assemble fully configured systems based on sales forecasts. If orders do not match forecasts, our contract manufacturers and we may have excess or inadequate inventory of materials and components.

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In addition, if these manufacturers or suppliers stop providing us with the components or services necessary for the operation of our business, we may not be able to identify alternate sources in a timely fashion. Any transition to alternate manufacturers or suppliers would likely result in operational problems and increased expenses and could delay the shipment of, or limit our ability to provide, our products. We cannot assure you that we would be able to enter into agreements with new manufacturers or suppliers on commercially reasonable terms or at all.

Additionally, obtaining components from a new supplier may require a new or supplemental filing with applicable regulatory authorities and clearance or approval of the filing before we could resume product sales. Any disruptions in product flow may harm our ability to generate revenue, lead to customer dissatisfaction, damage our reputation and result in additional costs or cancellation of orders by our customers.

We also rely on our collaboration partner, Biosense Webster, and other parties to manufacture a number of disposable interventional devices for use with our Niobe system. If these parties cannot manufacture sufficient quantities of disposable interventional devices to meet customer demand, or if their manufacturing processes are disrupted, our revenue and profitability would be adversely affected.

Risks associated with international manufacturing and trade could negatively impact the availability and cost of our products because materials used to manufacture our magnets, one of our key system components, are sourced from overseas.

We purchase the permanent magnets for our Niobe Magnetic Navigation System from a manufacturer that uses material produced in Japan, and we anticipate that certain of the production work for these magnets will be performed for this manufacturer in China. In addition, our subcontractor purchases magnets for our disposable interventional devices directly from a manufacturer in Japan. Any event causing a disruption of imports, including the imposition of import restrictions, could adversely affect our business. The flow of components from our vendors could also be adversely affected by financial or political instability in any of the countries in which the goods we purchase are manufactured, if the instability affects the production or export of product components from those countries. Trade restrictions in the form of tariffs or quotas, or both, could also affect the importation of those product components and could increase the cost and reduce the supply of products available to us. In addition, decreases in the value of the U.S. dollar against foreign currencies could increase the cost of products we purchase from overseas vendors.

We have limited experience in manufacturing and assembling our products and may encounter problems at our manufacturing facilities or those of our subcontractors or otherwise experience manufacturing delays that could result in lost revenue.

We do not have extensive experience in manufacturing, assembling or testing our products on a commercial scale as we subcontract the manufacture, assembly and testing of subassemblies of our Niobe Magnetic Navigation System and all of our disposable devices. We may be unable to meet the expected future demand for our Niobe or Odyssey system. In addition, the products we design may not satisfy all of the performance requirements and we may need to improve or modify the design or ask our subcontractors to modify their production process in order to do so. We or our subcontractors may experience quality problems, substantial costs and unexpected delays related to

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efforts to upgrade and expand manufacturing, assembly and testing capabilities. If we incur delays due to quality problems or other unexpected events, we will be unable to produce a sufficient supply of product necessary to meet our future growth expectations.

We may be unable to protect our technology from use by third parties.

Our commercial success will depend in part on obtaining patent and other intellectual property right protection for the technologies contained in our products and on successfully defending these rights against third party challenges. The patent positions of medical device companies, including ours, can be highly uncertain and involve complex and evolving legal and factual questions. We cannot assure you that we will obtain the patent protection we seek, that any protection we do obtain will be found valid and enforceable if challenged or that it will confer any significant commercial advantage. U.S. patents and patent applications may also be subject to interference proceedings and U.S. patents may be subject to re-examination proceedings in the U.S. Patent and Trademark Office, and foreign patents may be subject to opposition or comparable proceedings in the corresponding foreign patent office, which proceedings could result in either loss of the patent or denial of the patent application or loss, or reduction in the scope of one or more of the claims of, the patent or patent application. In addition, such interference, re-examination, and opposition proceedings may be costly. Thus, any patents that we own or license from others may not provide any protection against competitors. Our pending patent applications, those we may file in the future, or those we may license from third parties may not result in patents being issued and certain foreign patent applications for medical related devices and methods may be found unpatentable. If issued, they may not provide us with proprietary protection or competitive advantages against competitors with similar technology.

Some of our technology was developed in conjunction with third parties, and thus there is a risk that a third party may claim rights in our intellectual property. Outside the U.S., we rely on third-party payment services for the payment of foreign patent annuities and other fees. Non-payment or delay in payment of such fees, whether intentional or unintentional, may result in loss of patents or patent rights important to our business. Many countries, including certain countries in Europe, have compulsory licensing laws under which a patent owner may be compelled to grant licenses to third parties (for example, the patent owner has failed to work the invention in that country, or the third party has patented improvements). In addition, many countries limit the enforceability of patents against government agencies or government contractors. In these countries, the patent owner may have limited remedies, which could materially diminish the value of the patent. We also cannot assure you that we will be able to develop additional patentable technologies. If we fail to obtain adequate patent protection for our technology, or if any protection we obtain becomes limited or invalidated, others may be able to make and sell competing products, impairing our competitive position.

Our trade secrets, nondisclosure agreements and other contractual provisions to protect unpatented technology provide only limited and possibly inadequate protection of our rights. As a result, third parties may be able to use our unpatented technology, and our ability to compete in the market would be reduced. In addition, employees, consultants and others who participate in developing our products or in commercial relationships with us may breach their agreements with us regarding our intellectual property, and we may not have adequate remedies for the breach.

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Our competitors may independently develop similar or alternative technologies or products that are equal or superior to our technology and products without infringing any of our patent or other intellectual property rights, or may design around our proprietary technologies. In addition, the laws of some foreign countries do not protect intellectual property rights to the same extent, as do the laws of the U.S., particularly in the field of medical products and procedures.

Third parties may assert that we are infringing their intellectual property rights.

Successfully commercializing our products will depend in part on not infringing patents held by third parties. It is possible that one or more of our products, including those that we have developed in conjunction with third parties, infringes existing patents. We may also be liable for patent infringement by third parties whose products we use or combine with our own and for which we have no right to indemnification. In addition, because patent applications are maintained under conditions of confidentiality and can take many years to issue, there may be applications now pending of which we are unaware and which may later result in issued patents that our products infringe. Determining whether a product infringes a patent involves complex legal and factual issues and may not become clear until finally determined by a court in litigation. Our competitors may assert that our products infringe patents held by them. Moreover, as the number of competitors in our market grows the possibility of a patent infringement claim against us increases. If we were not successful in obtaining a license or redesigning our products, we could be subject to litigation. If we lose in this kind of litigation, a court could require us to pay substantial damages or prohibit us from using technologies essential to our products covered by third-party patents. An inability to use technologies essential to our products would have a material adverse effect on our financial condition, results of operations and cash flow and could undermine our ability to continue operating as a going concern.

Expensive intellectual property litigation is frequent in the medical device industry.

Infringement actions, validity challenges and other intellectual property claims and proceedings, whether with or without merit, can be expensive and time-consuming and would divert management's attention from our business. We have incurred, and expect to continue to incur, substantial costs in obtaining patents and may have to incur substantial costs defending our proprietary rights. Incurring such costs could have a material adverse effect on our financial condition, results of operations and cash flow.

We may not be able to obtain all the licenses from third parties necessary for the development of new products.

As we develop additional disposable interventional devices for use with our system, we may find it advisable or necessary to seek licenses or otherwise make payments in exchange for rights from third parties who hold patents covering technology used in specific interventional procedures. If we cannot obtain the desired licenses or rights, we could be forced to try to design around those patents at additional cost or abandon the product altogether, which could adversely affect revenue and results of operations. If we have to abandon a product, our ability to develop and grow our business in new directions and markets would be adversely affected.

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Our products and related technologies can be applied in different industries, and we may fail to focus on the most profitable areas.

The Niobe system is designed to have the potential for expanded applications beyond electrophysiology and interventional cardiology, including congestive heart failure, structural heart repair, interventional neurosurgery, interventional neuroradiology, peripheral vascular, pulmonology, urology, gynecology and gastrointestinal medicine. We continue to develop the Odyssey system and the related Cinema and Connect features, for interventional labs that have a Niobe system installed as well as those standard interventional labs that do not have a Niobe system installed. However, we have limited financial and managerial resources and therefore may be required to focus on products in selected industries and sites and to forego efforts with regard to other products and industries. Our decisions may not produce viable commercial products and may divert our resources from more profitable market opportunities. Moreover, we may devote resources to developing products in these additional areas but may be unable to justify the value proposition or otherwise develop a commercial market for products we develop in these areas, if any. In that case, the return on investment in these additional areas may be limited, which could negatively affect our results of operations.

We may be subject to damages resulting from claims that our employees or we have wrongfully used or disclosed alleged trade secrets of their former employers.

Many of our employees were previously employed at hospitals, universities or other medical device companies, including our competitors or potential competitors. We could in the future be subject to claims that these employees or we have used or disclosed trade secrets or other proprietary information of their former employers. Litigation may be necessary to defend against these claims. If we fail in defending such claims, in addition to paying monetary damages, we may lose valuable intellectual property rights or personnel. Even if we are successful in defending against these claims, litigation could result in substantial costs and be a distraction to management. Incurring such costs could have a material adverse effect on our financial condition, results of operations and cash flow.

If we or our strategic partners fail to obtain or maintain necessary FDA clearances or approvals for our medical device products, or if such clearances or approvals are delayed, we will be unable to continue to commercially distribute and market our products.

Our products are medical devices that are subject to extensive regulation in the U.S. and in foreign countries where we do business. Unless an exemption applies, each medical device that we wish to market in the U.S. must first receive either a 510(k) clearance or a pre-market approval, or PMA, from the U.S. Food and Drug Administration pursuant to the Federal Food, Drug, and Cosmetic Act. The FDA's 510(k) clearance process usually takes from four to 12 months, but it can take longer. The process of obtaining PMA approval is much more costly, lengthy, and uncertain, generally taking from one to three years or even longer. Although we have 510(k) clearance for our current Stereotaxis system, including a limited number of disposable interventional devices, and are able to market our system commercially in the U.S., our business model relies significantly on revenue from disposable interventional devices, some of which may not achieve FDA clearance or approval. We cannot assure you that any of our devices will not be required to undergo the lengthier and more burdensome PMA process. We cannot commercially market any disposable interventional devices in the U.S. until the necessary clearances or approvals from the FDA have been received. In

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addition, we are working with third parties to co-develop disposable products. In some cases, these companies are responsible for obtaining appropriate regulatory clearance or approval to market these disposable devices. If these clearances or approvals are not received or are substantially delayed or if we are not able to offer a sufficient array of approved disposable interventional devices, we may not be able to successfully market our system to as many institutions as we currently expect, which could have a material adverse impact on our financial condition, results of operations and cash flow.

Furthermore, obtaining 510(k) clearances, PMAs or PMA supplement approvals, from the FDA could result in unexpected and significant costs for us and consume management's time and other resources. The FDA could ask us to supplement our submissions, collect non-clinical data, conduct clinical trials or engage in other time-consuming actions, or it could simply deny our applications. In addition, even if we obtain a 510(k) clearance or PMA or PMA supplement approval, the clearance or approval could be revoked or other restrictions imposed if post-market data demonstrates safety issues or lack of effectiveness. We cannot predict with certainty how, or when, the FDA will act on our marketing applications. If we are unable to obtain the necessary regulatory approvals, our financial condition and cash flow may be adversely affected. Also, a failure to obtain approvals may limit our ability to grow domestically and internationally.

If our strategic partners or we fail to obtain regulatory approvals in other countries for products under development, we will not be able to commercialize these products in those countries.

In order to market our products outside of the U.S., we and our strategic partners must establish and comply with numerous and varying regulatory requirements of other countries regarding safety and efficacy. Approval procedures vary among countries and can involve additional product testing and additional administrative review periods. The time required to obtain approval in other countries might differ from that required to obtain FDA approval. The regulatory approval process in other countries may include all of the risks detailed above regarding FDA approval in the U.S. Regulatory approval in one country does not ensure regulatory approval in another, but a failure or delay in obtaining regulatory approval in one country may negatively impact the regulatory process in others. Failure to obtain regulatory approval in other countries or any delay or setback in obtaining such approval could have the same adverse effects described above regarding FDA approval in the U.S. In addition, we are relying on our strategic partners in some instances to assist us in this regulatory approval process in countries outside the U.S. and Europe, for example, in Japan.

We may fail to comply with continuing regulatory requirements of the FDA and other authorities and become subject to substantial penalties.

Even after product clearance or approval, we must comply with continuing regulation by the FDA and other authorities, including the FDA's Quality System Regulation, or QSR, requirements, labeling and promotional requirements and medical device adverse event and other reporting requirements. Any failure to comply with continuing regulation by the FDA or other authorities could result in enforcement action that may include suspension or withdrawal of regulatory approvals, recalling products, ceasing product manufacture and/or marketing, seizure and detention of products, paying significant fines and penalties, criminal prosecution and similar actions that could limit product sales, delay product shipment and harm our profitability. Congress could amend the Federal Food, Drug, and Cosmetic Act, and the FDA could modify its regulations promulgated under this law in a way to make ongoing regulatory compliance more burdensome and difficult.

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Additionally, any modification to an FDA 510(k)-cleared device that could significantly affect its safety or effectiveness, or that would constitute a major change in its intended use, requires a new 510(k) clearance. Modifications to a PMA approved device or its labeling may require either a new PMA or PMA supplement approval, which could be a costly and lengthy process. In the future, we may modify our products after they have received clearance or approval, and we may determine that new clearance or approval is unnecessary. We cannot assure you that the FDA would agree with any of our decisions not to seek new clearance or approval. If the FDA requires us to seek clearance or approval for any modification, we could be subject to enforcement sanctions and we also may be required to cease marketing or recall the modified product until we obtain FDA clearance or approval which could also limit product sales, delay product shipment and harm our profitability.

In many foreign countries in which we market our products, we are subject to regulations affecting, among other things, product standards, packaging requirements, labeling requirements, import restrictions, tariff regulations, duties and tax requirements. Many of these regulations are similar to those of the FDA. In addition, in many countries the national health or social security organizations require our products to be qualified before procedures performed using our products become eligible for reimbursement. Failure to receive, or delays in the receipt of, relevant foreign qualifications could have a material adverse effect on our business, financial condition and results of operations. Due to the movement toward harmonization of standards in the European Union, we expect a changing regulatory environment in Europe characterized by a shift from a country-by-country regulatory system to a European Union-wide single regulatory system. We cannot predict the timing of this harmonization and its effect on us. Adapting our business to changing regulatory systems could have a material adverse effect on our business, financial condition, and results of operations. If we fail to comply with applicable foreign regulatory requirements, we may be subject to fines, suspension, or withdrawal of regulatory approvals, product recalls, seizure of products, operating restrictions and criminal prosecution.

In addition, we are subject to the U.S. Foreign Corrupt Practices Act, antitrust and anti-competition laws, and similar laws in foreign countries, any violation of which could create a substantial liability for us and also cause a loss of reputation in the market. From time to time, we may face audits or investigations by one or more government agencies, compliance with which could be costly and time-consuming, and could divert our management and key personnel from our business operations. An adverse outcome under any such investigation or audit could subject us to fines or other penalties, which could adversely affect our business and financial results.

Our suppliers, subcontractors, or we may fail to comply with the FDA quality system regulation.

Our manufacturing processes must comply with the FDA's quality system regulation, or QSR, which covers the methods and documentation of the design, testing, production, control, quality assurance, labeling, packaging and shipping of our products. The FDA enforces the QSR through inspections. We cannot assure you that we or our suppliers or subcontractors would pass such an inspection. If we or our suppliers or subcontractors fail to remain in compliance with the FDA or ISO 9001 standards, we or they may be required to cease all or part of our operations for some period of time.

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until we or they can demonstrate that appropriate steps have been taken to comply with such standards or face other enforcement action, such as a public warning letter. We cannot be certain that our facilities or those of our suppliers or subcontractors will comply with the FDA or ISO 9001 standards in future audits by regulatory authorities. Failure to pass such an inspection could force a shut down of manufacturing operations, a recall of our products or the imposition of other enforcement sanctions, which would significantly harm our revenue and profitability. Further, we cannot assure you that our key component suppliers are or will continue to be in compliance with applicable regulatory requirements and will not encounter any manufacturing difficulties. Any failure to comply with the FDA's QSR by us or our suppliers could significantly harm our available inventory and product sales.

Software or other defects may be discovered in our products.

Our products incorporate many components, including sophisticated computer software. Complex software frequently contains errors, especially when first introduced. Because our products are designed to be used to perform complex interventional procedures, we expect that physicians and hospitals will have an increased sensitivity to the potential for software defects. We cannot assure you that our software or other components will not experience errors or performance problems in the future. If we experience software errors or performance problems, we would likely also experience:

loss of revenue;

delay in market acceptance of our products;

damage to our reputation;

additional regulatory filings;

product recalls;

increased service or warranty costs; and/or

product liability claims relating to the software defects.

If we fail to comply with health care regulations, we could face substantial penalties and our business, operations and financial condition could be adversely affected.

While we do not control referrals of health care services or bill directly to Medicare, Medicaid or other third-party payors, many health care laws and regulations apply to our business. We could be subject to health care fraud and patient privacy regulation by the federal government, the states in which we conduct our business, and internationally. The regulations that may affect our ability to operate include:

the federal healthcare program Anti-Kickback Law, which prohibits, among other things, persons from soliciting, receiving or providing remuneration, directly or indirectly, to induce either the referral of an individual, for an item or service or the purchasing or ordering of a good or service, for which payment may be made under federal health care programs such as the Medicare and Medicaid programs;

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federal false claims laws which prohibit, among other things, individuals or entities from knowingly presenting, or causing to be presented, claims for payment from Medicare, Medicaid, or other third-party payors that are false or fraudulent, and which may apply to entities like us which provide coding and billing advice to customers;

the federal Health Insurance Portability and Accountability Act of 1996, or HIPAA, which prohibits executing a scheme to defraud any health care benefit program or making false statements relating to health care matters and which also imposes certain requirements relating to the privacy, security and transmission of individually identifiable health information;

state law equivalents of each of the above federal laws, such as anti-kickback and false claims laws which may apply to items or services reimbursed by any third-party payor, including commercial insurers, and state laws governing the privacy of health information in certain circumstances, many of which differ from each other in significant ways and often are not preempted by HIPAA, thus complicating compliance efforts;

federal self-referral laws, such as STARK, which prohibits a physician from making a referral to a provider of certain health services with which the physician or the physician's family member has a financial interest; and

regulations pertaining to receipt of CE mark for our products marketed outside of the United States and submission to periodic regulatory audits in order to maintain these regulatory approvals.

If our operations are found to be in violation of any of the laws described above or any other governmental regulations that apply to us, we may be subject to penalties, including civil and criminal penalties, damages, fines, loss of reimbursement for our products under federal or state government health programs such as Medicare and Medicaid and the curtailment or restructuring of our operations. Any penalties, damages, fines, curtailment, or restructuring of our operations could adversely affect our ability to operate our business and our financial results. The risk of our being found in violation of these laws is increased by the fact that many of them have not been fully interpreted by the regulatory authorities or the courts, and their provisions are open to a variety of interpretations. Any action against us for violation of these laws, even if we successfully defend against it, could cause us to incur significant legal expense and divert our management's attention from the operation of our business. Moreover, to achieve compliance with applicable federal and state privacy, security, and electronic transaction laws, we may be required to modify our operations with respect to the handling of patient information. Implementing these modifications may prove costly. At this time, we are not able to determine the full consequences to us, including the total cost of compliance, of these various federal and state laws.

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The application of state certificate of need regulations and compliance by our customers with federal and state licensing or other international requirements could substantially limit our ability to sell our products and grow our business.

Some states require health care providers to obtain a certificate of need or similar regulatory approval prior to the acquisition of high-cost capital items such as our Niobe system. In many cases, a limited number of these certificates are available. As a result of this limited availability, hospitals and other health care providers may be unable to obtain a certificate of need for the purchase of our Niobe system. Further, our sales and installation cycle for the Niobe system is typically longer in certificate of need states due to the time it takes our customers to obtain the required approvals. In addition, our customers must meet various federal and state regulatory and/or accreditation requirements in order to receive payments from government-sponsored health care programs such as Medicare and Medicaid, receive full reimbursement from third party payors, and maintain their customers. Our international customers may be required to meet similar or other requirements. Any lapse by our customers in maintaining appropriate licensure, certification or accreditation, or the failure of our customers to satisfy the other necessary requirements under government-sponsored health care programs or other requirements could cause our sales to decline.

Hospitals or physicians may be unable to obtain reimbursement from third-party payors for procedures using the Niobe system, or reimbursement for procedures may be insufficient to recoup the costs of purchasing our products.

We expect that U.S. hospitals will continue to bill various third-party payors, such as Medicare, Medicaid and other government programs and private insurance plans, for procedures performed with our products, including the costs of the disposable interventional devices used in these procedures. If in the future our disposable interventional devices do not fall within U.S. reimbursement categories and our procedures are not reimbursed, or if the reimbursement is insufficient to cover the costs of purchasing our system and related disposable interventional devices, the adoption of our systems and products would be significantly slowed or halted, and we may be unable to generate sufficient sales to support our business. Our success in international markets also depends upon the eligibility of our products for reimbursement through government-sponsored health care payment systems and third-party payors. In both the U.S. and foreign markets, health care cost-containment efforts are prevalent and are expected to continue. These efforts could reduce levels of reimbursement available for procedures involving our products and, therefore, reduce overall demand for our products as well. A failure to generate sufficient sales could have a material adverse impact on our financial condition, results of operations and cash flow.

We may lose our key personnel or fail to attract and retain additional personnel.

We are highly dependent on the principal members of our management, scientific and sales staff. To pursue our plans and accommodate planned growth, we may choose to hire additional personnel. Attracting and retaining qualified personnel will be critical to our success, and competition for qualified personnel is intense. We may not be able to attract and retain personnel on acceptable terms given the competition for qualified personnel among technology and healthcare companies and universities. The loss of personnel or our inability to attract and retain other qualified personnel could harm our business and our ability to compete. In addition, the loss of members of our scientific staff may significantly delay or prevent product development and other business objectives. A loss of key sales personnel could result in a reduction of revenue.

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Our growth will place a significant strain on our resources, and if we fail to manage our growth, our ability to develop, market, and sell our products will be harmed.

Our business plan contemplates a period of substantial growth and business activity. This growth and activity will likely result in new and increased responsibilities for management personnel and place significant strain upon our operating and financial systems and resources. To accommodate our growth and compete effectively, we will be required to improve our information systems, create additional procedures and controls and expand, train, motivate and manage our work force. We cannot be certain that our personnel, systems, procedures, and controls will be adequate to support our future operations. Any failure to effectively manage our growth could impede our ability to successfully develop market and sell our products.

We face currency and other risks associated with international operations.

We intend to continue to devote significant efforts to marketing our systems and products outside of the U.S. This strategy will expose us to numerous risks associated with international operations, which could adversely affect our results of operations and financial condition, including the following:

currency fluctuations that could impact the demand for our products or result in currency exchange losses;

export restrictions, tariff and trade regulations and foreign tax laws;

customs duties, export quotas or other trade restrictions;

economic and political instability; and

shipping delays.

In addition, contracts may be difficult to enforce and receivables difficult to collect through a foreign country's legal system.

Risks Related To Our Common Stock

Our principal stockholders continue to own a large percentage of our voting stock, and they have the ability to substantially influence matters requiring stockholder approval.

Our executive officers, directors and individuals or entities affiliated with them beneficially own or control a substantial percentage of the outstanding shares of our common stock. Accordingly, these executive officers, directors and their affiliates, acting as a group, will have substantial influence over the outcome of corporate actions requiring stockholder approval, including the election of directors, any merger, consolidation or sale of all or substantially all of our assets or any other significant corporate transaction. These stockholders may also delay or prevent a change of control, even if such a change of control would benefit our other stockholders. This significant concentration of stock ownership may adversely affect the trading price of our common stock due to investors' perception that conflicts of interest may exist or arise.

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We have never paid dividends on our capital stock, and we do not anticipate paying any cash dividends in the foreseeable future.

We have paid no cash dividends on any of our classes of capital stock to date and we currently intend to retain our future earnings to fund the development and growth of our business. In addition, the terms of our loan agreement prohibit us from declaring dividends without the prior consent of our lender. As a result, capital appreciation, if any, of our common stock will be an investor's sole source of gain for the foreseeable future.

Our certificate of incorporation and bylaws, Delaware law and one of our alliance agreements contain provisions that could discourage a takeover.

Our certificate of incorporation and bylaws and Delaware law contain provisions that might enable our management to resist a takeover. These provisions may:

discourage, delay or prevent a change in the control of the Company or a change in our management;

adversely affect the voting power of holders of common stock; and

limit the price that investors might be willing to pay in the future for shares of our common stock.

In addition, our alliance with Biosense Webster contains provisions that may similarly discourage a takeover and negatively affect our share price as described above.

Sales of a substantial number of shares of our common stock in the public market, or the perception that they may occur, may depress the market price of our common stock.

Sales of substantial amounts of our common stock in the public market, or the perception that substantial sales may be made, could cause the market price of our common stock to decline. These sales might also make it more difficult for us to sell equity securities at a time and price that we deem appropriate.

Evolving regulation of corporate governance and public disclosure may result in additional expenses and continuing uncertainty.

Changing laws, regulations and standards relating to corporate governance and public disclosure, including the Sarbanes-Oxley Act of 2002, new SEC regulations and NASDAQ Global Market rules have in the past created uncertainty for public companies. We continue to evaluate and monitor developments with respect to new and proposed rules and cannot predict or estimate the amount of the additional compliance costs we may incur or the timing of such costs. These new or changed laws, regulations and standards are subject to varying interpretations, in many cases due to their lack of specificity, and as a result, their application in practice may evolve over time as new guidance is provided by courts and regulatory and governing bodies. This could result in uncertainty regarding compliance matters and higher costs necessitated by ongoing revisions to disclosure and governance practices. Maintaining appropriate standards of corporate governance and public disclosure may result in increased general and administrative expense and a diversion of management time and attention from revenue-generating activities to compliance activities. In addition, if we fail to comply with new or changed laws, regulations and standards, regulatory authorities may initiate legal proceedings against us and our business and reputation may be harmed.

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Our future operating results may be below securities analysts or investors' expectations, which could cause our stock price to decline.

The revenue and income potential of our products and our business model are unproven, and we may be unable to generate significant revenue or grow at the rate expected by securities analysts or investors. In addition, our costs may be higher than we, securities analysts, or investors expect. If we fail to generate sufficient revenue or our costs are higher than we expect, our results of operations will suffer, which in turn could cause our stock price to decline. Our results of operations will depend upon numerous factors, including:

demand for our products;

the performance of third-party contract manufacturers and component suppliers;

our ability to develop sales and marketing capabilities;

the success of our collaborations with Siemens, Philips and Biosense Webster and others;

our ability to develop, introduce and market new or enhanced versions of our products on a timely basis;

our ability to obtain regulatory clearances or approvals for our new products; and

our ability to obtain and protect proprietary rights.

Our operating results in any particular period may not be a reliable indication of our future performance. In some future quarters, our operating results may be below the expectations of securities analysts or investors. If this occurs, the price of our common stock will likely decline.

We expect that the price of our common stock could fluctuate substantially, possibly resulting in class action securities litigation.

Our common stock is traded on the NASDAQ Global Market and trading volume may be limited or sporadic. The market price of our common stock has experienced, and may continue to experience, substantial volatility. During 2008, our common stock traded between \$2.25 and \$12.57 per share, on trading volume ranging from approximately 23,000 to 2.9 million shares per day. The market price of our common stock will be affected by a number of factors, including:

actual or anticipated variations in our results of operations or those of our competitors;

the receipt or denial of regulatory approvals;

announcements of new products, technological innovations or product advancements by us or our competitors;

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developments with respect to patents and other intellectual property rights;

changes in earnings estimates or recommendations by securities analysts or our failure to achieve analyst earnings estimates; and

developments in our industry.

These factors, as well as general economic, political and market conditions, may materially adversely affect the market price of our common stock. As with the stock of many other public companies, the market price of our common stock has been particularly volatile during the recent period of upheaval in the capital markets and world economy. This excessive volatility may continue for an extended period of time following the filing date of this report. Furthermore, the stock prices of many companies in the medical device industry have experienced wide fluctuations that have often been unrelated to the operating performance of these companies. Volatility in the price of our common stock on the NASDAQ Global Market may depress the trading price of our common stock, which could, among other things, allow a potential acquirer of the Company to purchase a significant amount of our common stock at low prices. Additionally, following periods of volatility in the market price of a company's securities, stockholders have often instituted class action securities litigation against those companies. Class action securities litigation, if instituted against us, could result in substantial costs and a diversion of our management resources, which could significantly harm our business.

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

A number of shares of our common stock are subject to stock options, stock appreciation rights and warrants. We may also decide to raise additional funds through public or private debt or equity financing to fund our operations. 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 or notes. 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), or the perception that such sales could occur, may adversely affect prevailing market prices for our common stock.

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FORWARD-LOOKING STATEMENTS

The prospectus contains forward-looking statements. These statements relate to, among other things:

our business strategy;

our value proposition;

the timing and prospects for regulatory approval of our additional disposable interventional devices;

our estimates regarding our capital requirements;

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;

our plans for hiring additional personnel; and

any of our other plans, objectives, expectations and intentions contained in or incorporated by reference with 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*, *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 under *Risk Factors* beginning on page 2 of this prospectus.

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. The forward-looking statements included or incorporated by reference in this prospectus are only made as of the date of this prospectus or as of the date of such statement contained in the respective documents incorporated by reference herein, respectively, and we disclaim any obligation to publicly update any forward-looking statement to reflect subsequent events or circumstances even though our situation may change in the future. We qualify all of our forward-looking statements by these cautionary statements and the *Risk Factors* that appear elsewhere in this prospectus.

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USE OF PROCEEDS

Unless otherwise indicated in a prospectus supplement, we intend to use the net proceeds of any offering of securities sold by us for general corporate purposes, which may include acquisitions, repayment of debt, capital expenditures and working capital. The net proceeds may be invested temporarily in short-term marketable securities or applied to repay short-term debt until they are used for their stated purpose.

We have not yet determined the amount or timing of the expenditures for each of the categories listed above and these expenditures may vary significantly depending on a variety of factors, including the timing of additional regulatory approvals and new product introductions. As a result, we will retain broad discretion in the allocation and use of the net proceeds of this offering.

Table of Contents**RATIO OF EARNINGS AVAILABLE TO COVER FIXED CHARGES**

The ratio of earnings to fixed charges and the ratio of earnings to combined fixed charges and preferred stock dividends for each of the periods indicated is as follows:

	Six months ended June 30, 2009	Fiscal year ended December 31,				
		2008	2007	2006	2005	2004
Ratio of earnings available to cover fixed charges(1)						
Ratio of earnings available to combined fixed charges and preferred dividends(1)						

(1) Due to our losses in years ended December 31, 2004, 2005, 2006, 2007 and 2008 and the six month period ended June 30, 2009 the ratio coverage was less than 1:1. Additional earnings of \$28 million, \$44.4 million, \$47.3 million, \$48.9 million, \$47.6 million and \$17.1 million would have been required in each of those periods, respectively, to achieve a coverage of 1:1.

In calculating the ratio of earnings available to cover fixed charges and the ratio of earnings available to cover combined fixed charges and preferred dividends, earnings consists of net income (loss) before provisions for income taxes plus fixed charges. Fixed charges consist of: interest expense and a portion of rentals estimated to represent interest.

For the periods set forth in the table above, we had preferred stock outstanding only until August 17, 2004. All outstanding shares of preferred stock were converted into shares of common stock in connection with our initial public offering in August 2004. We have no preferred stock outstanding as of the date of this prospectus.

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DESCRIPTION OF DEBT SECURITIES

The following description sets forth some general terms and provisions of the debt securities we may offer, but is not complete. The particular terms of the debt securities offered and the extent, if any, to which the general provisions may not apply to the debt securities so offered will be described in the prospectus supplement relating to the debt securities. For a more detailed description of the terms of the debt securities, please refer to the indenture relating to the issuance of the particular debt securities.

Any senior debt securities will be issued under a senior indenture to be entered into between us and the trustee named in the senior indenture. Any subordinated debt securities will be issued under a subordinated indenture to be entered into between us and the trustee named in the subordinated indenture. As used in this prospectus, the term "indentures" refers to both the senior indenture and the subordinated indenture, together with any applicable supplements thereto. The indenture(s) will be qualified under the Trust Indenture Act of 1939. As used in this prospectus, the term "debt trustee" refers to either the senior trustee or the subordinated trustee, as applicable.

The following summaries of the material provisions of the senior debt securities, the subordinated debt securities and the indentures are subject to, and qualified in their entirety by reference to, the description of such debt securities and indentures set forth in the applicable prospectus supplement and all the provisions of the indenture applicable to a particular series of debt securities, including the definitions of some terms found in such indenture. Except as otherwise indicated, the terms of any senior indenture and subordinated indenture will be identical.

General

If applicable, each prospectus supplement will describe the following terms relating to a series of debt securities:

the title of the debt securities;

whether the debt securities are senior debt securities or subordinated debt securities and the terms of subordination;

any limit on the amount of debt securities that may be issued;

whether any of the debt securities will be issuable, in whole or in part, in temporary or permanent global form or in the form of book-entry securities;

the maturity dates of the debt securities;

the annual interest rates (which may be fixed or variable) or the method for determining the rates and the dates interest will begin to accrue on the debt securities, the dates interest will be payable, and the regular record dates for interest payment dates or the method for determining the dates;

the places where payments with respect to the debt securities shall be payable;

our right, if any, to defer payment of interest on the debt securities and extend the maximum length of any deferral period;

the date, if any, after which, and the prices at which, the series of debt securities may, pursuant to any optional redemption provisions, be redeemed at our option, and other related terms and provisions;

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the dates, if any, on which, and the prices at which we are obligated, pursuant to any sinking fund provisions or otherwise, to redeem, or at the holder's option to purchase, the series of debt securities and other related terms and provisions;

the denominations in which the series of debt securities will be issued, if other than denominations of \$1,000 and any integral multiple thereof;

any mandatory or optional sinking fund or similar provisions with respect to the debt securities;

any index used to determine the amount of payments of the principal of, and premium, if any, and interest on, the debt securities and the manner in which the amounts shall be determined;

the terms pursuant to which the debt securities are subject to defeasance;

the terms and conditions, if any, pursuant to which the debt securities are secured; and

any other terms of the debt securities not inconsistent with the applicable indenture.

The debt securities may be issued as original issue discount securities. An original issue discount security is a debt security, including any zero-coupon debt security, which:

is issued at a price lower than the amount payable upon its stated maturity; and

provides that upon redemption or acceleration of the maturity, an amount less than the amount payable upon the stated maturity, shall become due and payable.

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The United States federal income tax considerations applicable to debt securities sold at an original issue discount will be described in the applicable prospectus supplement.

Under the indentures, we will have the ability, in addition to the ability to issue debt securities with terms different from those of debt securities previously issued, without the consent of the holders, to reopen a previous issue of a series of debt securities and issue additional debt securities of that series, unless the reopening was restricted when the series was created, in an aggregate principal amount determined by us.

Conversion or Exchange Rights

The terms, if any, on which a series of debt securities may be convertible into or exchangeable for common stock or other of our securities will be detailed in the prospectus supplement relating thereto. The terms will include provisions as to whether conversion or exchange is mandatory, at the option of the holder, or at our option, and may include provisions pursuant to which the number of shares of our common stock or other of our securities to be received by the holders of the series of debt securities would be subject to adjustment.

Consolidation, Merger or Sale of Assets

We may not consolidate with or merge into any other person in a transaction in which we are not the surviving corporation, or convey, transfer or lease our properties and assets substantially as an entirety to any person, unless:

the successor entity, if any, is a corporation, limited liability company, partnership, trust or other entity existing under the laws of the United States, or any State or the District of Columbia;

the successor entity assumes our obligations on the debt securities and under the indentures;

immediately prior to and after giving effect to the transaction, no default or event of default shall have occurred and be continuing; and

certain other conditions are met.

Events of Default Under the Indentures

The following will be events of default under the indentures with respect to any series of debt securities issued:

failure to pay interest on the debt securities when due, which failure continues for a specified period set forth in the applicable prospectus supplement and the time for payment has not been deferred;

failure to pay the principal or premium of the debt securities, if any, when due;

failure to deposit any sinking fund payment, when due, which failure continues for 60 days;

failure to observe or perform any other covenant contained in the debt securities or the indentures other than a covenant specifically relating to another series of debt securities, which failure continues for a specified period set forth in the applicable prospectus supplement after we receive notice from the debt trustee or holders of a specified percentage, set forth in the applicable prospectus supplement, of the aggregate principal amount of the outstanding debt securities of that series; or

particular events of our bankruptcy, insolvency or reorganization.

For any additional or different events of default applicable to a particular series of debt securities, see the prospectus supplement relating to the series.

If an event of default with respect to debt securities of any series occurs and is continuing, the debt trustee or the holders of a specified percentage of the aggregate principal amount of the outstanding debt securities of that series, by notice in writing to us (and to the debt trustee if notice is given by the holders), may declare the unpaid principal, premium, if any, and accrued interest, if any, due and payable immediately.

The holders of a specified percentage of the aggregate principal amount of the outstanding debt securities of an affected series may waive any default or event of default with respect to the series and its consequences, except defaults or events of default regarding:

payment of principal, premium, if any, or interest on the debt securities; or

those covenants described under the subsection **Modification of Indenture; Waiver** that cannot be modified or amended without the consent of each holder of any outstanding debt securities affected.

Any waiver shall cure the default or event of default.

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Subject to the terms of the indentures, if an event of default under an indenture shall occur and be continuing, the debt trustee will be under no obligation to exercise any of its rights or powers under the indenture at the request or direction of any of the holders of the applicable series of debt securities unless the holders have offered the debt trustee reasonable indemnity. The holders of a specified percentage of the aggregate principal amount of the outstanding debt securities of any series will have the right to direct the time, method and place of conducting any proceeding for any remedy available to the debt trustee, or exercising any trust or power conferred on the debt trustee, with respect to the debt securities of that series, provided that:

it is not in conflict with any law or the applicable indenture;

the debt trustee may take any other action deemed proper by it that is not inconsistent with the direction;

subject to its duties set forth under the applicable indenture, the debt trustee need not take any action that might involve it in personal liability; and

in the case of the debt trustee under the senior indenture, subject to its duties set forth under such indenture, the debt trustee need not take any action that it determines, upon the advice of counsel, may not lawfully be taken or in good faith determines would be unduly prejudicial to the holders of the debt securities.

A holder of the debt securities of any series will only have the right to institute a proceeding under the indentures or to appoint a receiver or trustee, or to seek other remedies if:

the holder has given written notice to the debt trustee of a continuing event of default with respect to that series;

the holders of a specified percentage of the aggregate principal amount of the outstanding debt securities of that series have made written request to the debt trustee, and the holders have offered reasonable indemnity to the debt trustee to institute proceedings; and

the debt trustee does not institute a proceeding, and does not receive from the holders of a majority in aggregate principal amount of the outstanding debt securities of that series other conflicting directions within a specified period set forth in the applicable prospectus supplement after the notice, request and offer.

These limitations will not apply to a suit instituted by a holder of debt securities if we default in the payment of the principal, premium, if any, or interest on, the debt securities.

We will periodically file statements with the debt trustee regarding our compliance with some of the covenants in the indentures.

Modification of Indenture; Waiver

We and the debt trustee may change an indenture without the consent of any holders with respect to specific matters, including:

to fix any ambiguity, defect, or inconsistency in the indenture, provided that such action does not materially adversely affect the interests of any holder of debt securities of any series;

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to provide for the assumption by a successor person or the acquirer of all or substantially all of our assets or obligations under such indenture;

to evidence and provide for successor trustees;

to add, change or eliminate any provision affecting only debt securities not yet issued; and

to comply with any requirement of the SEC in connection with qualification of an indenture under the Trust Indenture Act of 1939. In addition, under the indentures, the rights of holders of a series of debt securities may be changed by us and the debt trustee with the written consent of the holders of at least a majority in aggregate principal amount of the outstanding debt securities of each series that is affected. However, the following changes may only be made with the consent of each holder of any outstanding debt securities affected:

extend the fixed maturity of the series of debt securities;

change any obligation of ours to pay additional amounts with respect to the debt securities;

reduce the principal amount of, the rate of interest on, or any premium payable upon the redemption of, any debt securities;

reduce the amount of principal of an original issue discount security or any other debt security payable upon acceleration of the maturity thereof;

impair the right to enforce any payment on, or with respect to, any debt security;

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adversely change the right to convert or exchange, including decreasing the conversion rate or increasing the conversion price of, the debt security (if applicable);

in the case of the subordinated indenture, modify the subordination provisions in a manner adverse to the holders of the subordinated debt securities;

if the debt securities are secured, change the terms and conditions pursuant to which the debt securities are secured in a manner adverse to the holders of the secured debt securities;

reduce the percentage in principal amount of outstanding debt securities of any series, the consent of whose holders is required for modification or amendment of the applicable indenture or for waiver of compliance with certain provisions of the applicable indenture or for waiver of certain defaults; or

modify any of the above provisions.

Form, Exchange and Transfer

The debt securities of each series will be issuable only in fully registered form without coupons and, unless otherwise specified in the applicable prospectus supplement, in denominations of \$1,000 and any integral multiple thereof. The indentures will provide that debt securities of a series may be issuable in temporary or permanent global form and may be issued as book-entry securities that will be deposited with, or on behalf of, The Depository Trust Company unless the prospectus supplement provides otherwise.

At the option of the holder, subject to the terms of the indentures and the limitations applicable to global securities described in the applicable prospectus supplement, debt securities of any series will be exchangeable for other debt securities of the same series, in any authorized denomination and of like tenor and aggregate principal amount.

Subject to the terms of the indentures and the limitations applicable to global securities detailed in the applicable prospectus supplement, debt securities may be presented for exchange or for registration of transfer (duly endorsed or with the form of transfer endorsed thereon duly executed if so required by us or the security registrar) at the office of the security registrar or at the office of any transfer agent designated by us for that purpose. Unless otherwise provided in the debt securities to be transferred or exchanged, no service charge will be made for any registration of transfer or exchange, but we may require payment of any taxes or other governmental charges. The security registrar and any transfer agent (in addition to the security registrar) initially designated by us for any debt securities will be named in the applicable prospectus supplement. We may at any time designate additional transfer agents or rescind the designation of any transfer agent or approve a change in the office through which any transfer agent acts, except that we will be required to maintain a transfer agent in each place of payment for the debt securities of each series.

If the debt securities of any series are to be redeemed, we will not be required to:

issue, register the transfer of, or exchange any debt securities of that series during a period beginning at the opening of business 15 days before the day of mailing of a notice of redemption of any debt securities that may be selected for redemption and ending at the close of business on the day of the mailing; or

register the transfer of or exchange any debt securities so selected for redemption, in whole or in part, except the unredeemed portion of any debt securities being redeemed in part.

Information Concerning the Debt Trustee

The debt trustee, other than during the occurrence and continuance of an event of default under an indenture, undertakes to perform only the duties specifically detailed in the indentures and, upon an event of default under an indenture, must use the same degree of care as a prudent

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person would exercise or use in the conduct of his or her own affairs. Subject to this provision, the debt trustee is under no obligation to exercise any of the powers given it by the indentures at the request of any holder of debt securities unless it is offered reasonable security and indemnity against the costs, expenses, and liabilities that it might incur. The debt trustee is not required to spend or risk its own money or otherwise become financially liable while performing its duties unless it reasonably believes that it will be repaid or receive adequate indemnity.

Payment and Paying Agents

Unless otherwise indicated in the applicable prospectus supplement, payment of the interest on any debt securities on any interest payment date will be made to the person in whose name the debt securities (or one or more predecessor securities) are registered at the close of business on the regular record date for the payment of interest.

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Principal of and any premium and interest on the debt securities of a particular series will be payable at the office of the paying agents designated by us, except that unless otherwise indicated in the applicable prospectus supplement, interest payments may be made by check mailed to the holder. Unless otherwise indicated in the prospectus supplement, the corporate trust office of the debt trustee in the City of New York will be designated as our sole paying agent for payments with respect to debt securities of each series. Any other paying agents initially designated by us for the debt securities of a particular series will be named in the applicable prospectus supplement. We will be required to maintain a paying agent in each place of payment for the debt securities of a particular series.

All moneys paid by us to a paying agent or the debt trustee for the payment of the principal of, or any premium or interest on, any debt securities which remains unclaimed at the end of two years after the principal, premium, or interest has become due and payable will be repaid to us, and the holder of the security thereafter may look only to us for payment thereof.

Governing Law

Unless otherwise indicated in the applicable prospectus supplement, the indentures and the debt securities will be governed by and construed in accordance with the laws of the State of New York except for conflicts of laws provisions and to the extent that the Trust Indenture Act of 1939 is applicable.

Subordination of Subordinated Debt Securities

Any subordinated debt securities will be unsecured and will be subordinate and junior in priority of payment to some of our other indebtedness to the extent described in a prospectus supplement. The subordinated indenture will not limit the amount of subordinated debt securities which we may issue, nor will it limit us from issuing any other secured or unsecured debt.

Book Entry Debt Securities

Unless otherwise indicated in the prospectus supplement, The Depository Trust Company, or DTC, will act as securities depository for the debt securities. The debt securities will be issued as fully-registered securities in the name of Cede & Co. or such other name as may be requested by an authorized representative of DTC. One fully-registered security certificate will be issued for each debt security, each in the aggregate principal amount of such security and will be deposited with DTC.

Purchases of debt securities under the DTC system must be made by or through participants (for example, your broker) who will receive credit for the securities on DTC's records. The ownership interest of each actual purchaser of each debt security will be recorded on the records of the participant. Beneficial owners of the debt securities will not receive written confirmation from DTC of their purchase. Beneficial owners are, however, expected to receive written confirmations providing details of the transaction, as well as periodic statements of their holdings, from the participant through which the beneficial owner entered into the transaction. Transfers of ownership interests in the debt securities are to be accomplished by entries made on the books of participants acting on behalf of beneficial owners. Beneficial owners will not receive certificates representing their ownership interests in the debt securities except in the event that use of the book-entry system for the debt securities is discontinued.

To facilitate subsequent transfers, all debt securities deposited by participants with DTC are registered in the name of DTC's partnership nominee, Cede & Co., or such other name as may be requested by an authorized representative of DTC. The deposit of debt securities with DTC and their registration in the name of Cede & Co. or such other DTC nominee do not effect any change in beneficial ownership. DTC has no knowledge of the actual beneficial owners of the debt securities; DTC's records reflect only the identity of the participants to whose accounts the debt securities are credited, which may or may not be the beneficial owners. The participants will remain responsible for keeping account of their holdings on behalf of their customers.

Conveyance of notices and other communications by DTC to participants and by participants to beneficial owners will be governed by arrangements among them, subject to statutory or regulatory requirements as may be in effect from time to time.

Proceeds, distributions or other payments on the debt securities will be made to Cede & Co., or such other nominee as may be requested by an authorized representative of DTC. DTC's practice is to credit participants' accounts upon DTC's receipt of funds in accordance with their respective holdings shown on DTC's records. Payments by participants to beneficial owners will be governed by standing instructions and customary practices, as is the case with securities held for the accounts of customers in bearer form or registered in street name, and will be the responsibility of such participant and not DTC, or Stereotaxis, subject to any statutory or regulatory requirements as may be in effect from time to time.

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DTC may discontinue providing its services as depository with respect to the debt securities at any time by giving reasonable notice to us. Under such circumstances, in the event that a successor depository is not obtained, certificates representing the debt securities are required to be printed and delivered. We may decide to discontinue use of the system of book-entry transfers through DTC, or a successor depository. In that event, certificates representing the debt securities will be printed and delivered.

DTC is a limited-purpose trust company organized under the New York Banking Law, a banking organization within the meaning of the New York Banking Law, a member of the Federal Reserve System, a clearing corporation within the meaning of the New York Uniform Commercial Code, and a clearing agency registered pursuant to the provisions of Section 17A of the Securities Exchange Act of 1934. DTC holds and provides asset servicing for over 3.5 million issues of U.S. and non-U.S. equity issues, corporate and municipal debt issues, and money market instruments (from over 100 countries) that DTC's participants deposit with DTC. DTC also facilitates the post-trade settlement among direct participants of sales and other securities transactions in deposited securities, through electronic computerized book-entry transfers and pledges between direct participants' accounts. This eliminates the need for physical movement of securities certificates. Direct participants include both U.S. and non-U.S. securities brokers and dealers, banks, trust companies, clearing corporations, and certain other organizations. DTC is a wholly-owned subsidiary of The Depository Trust & Clearing Corporation, or DTCC. DTCC is the holding company for DTC, National Securities Clearing Corporation and Fixed Income Clearing Corporation, all of which are registered clearing agencies. DTCC is owned by the users of its regulated subsidiaries. Access to the DTC system is also available to others such as both U.S. and non-U.S. securities brokers and dealers, banks, trust companies, and clearing corporations that clear through or maintain a custodial relationship with a direct participant, either directly or indirectly. The DTC Rules applicable to its participants are on file with the SEC.

The information in this section concerning DTC and DTC's book-entry system has been obtained from sources that we believe to be reliable, but we take no responsibility for the accuracy thereof.

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DESCRIPTION OF CAPITAL STOCK

As of the date of this prospectus, we are authorized to issue up to 110,000,000 shares of capital stock, par value \$.001 per share, divided into two classes designated, respectively, common stock and preferred stock. Of such shares authorized, 100,000,000 shares are designated as common stock, and 10,000,000 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. It also summarizes some relevant provisions of the Delaware General Corporation Law, which we sometimes refer to as Delaware law. 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 our certificate of incorporation or bylaws, they are on file with the SEC, as described under the heading *Where You Can Find Additional Information* below.

Common Stock

As of July 31, 2009, there were 42,747,838 shares of common stock outstanding that were held of record by approximately 269 stockholders. 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.

Preferred Stock

Our board of directors has the authority, without further action by the stockholders, to issue up to 10,000,000 shares of preferred stock in one or more series and to fix the rights, preferences, privileges and restrictions thereof. These rights, preferences and privileges include dividend rights, conversion rights, voting rights, terms of redemption, liquidation preferences, sinking fund terms and the number of shares constituting any series or the designation of such series, any or all of which may be greater than the rights of common stock. The issuance of preferred stock could adversely affect the voting power of holders of common stock and the likelihood that such holders will receive dividend payments and payments upon liquidation. In addition, the issuance of preferred stock could have the effect of delaying, deferring or preventing a change in control of Stereotaxis. We have no present plan to issue any shares of preferred stock.

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

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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;

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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 anti-takeover 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, approximately one-third of the board of directors will be 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 will impose 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

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classified board of directors, action by written consent and the ability of stockholders to call special meetings.

Nasdaq Global Market Listing

Our common stock is listed on the Nasdaq Global Market under the symbol STXS .

Transfer Agent And Registrar

The transfer agent and registrar for our common stock is The BNY Mellon Shareowner Services LLC. Its address is 480 Washington Blvd., 27th Fl., Jersey City, NJ 07310, and its telephone number is (201) 680-4000.

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DESCRIPTION OF WARRANTS

We may issue warrants, including warrants to purchase preferred stock, common stock or other securities or any combination of the foregoing. Warrants may be issued independently or as part of a unit with any other securities and may be attached to or separate from the underlying securities. The warrants will be issued under warrant agreements to be entered into between us and a bank or trust company, as warrant agent, as detailed in the prospectus supplement relating to warrants being offered.

A prospectus supplement relating to any warrants being offered will include specific terms relating to the offering, including a description of any other securities sold together with the warrants. There items will include:

the title of the warrants;

the aggregate number of the warrants;

the price or prices at which the warrants will be issued;

the currencies in which the price or prices of the warrants may be payable;

the designation, amount, and terms of the common stock, preferred stock or other securities or rights, including rights to receive payment in cash or securities based on the value, rate or price of one or more specified commodities, currencies or indices, purchasable upon exercise of the warrants and procedures by which those numbers may be adjusted;

the designation and terms of the other offered securities, if any, with which the warrants are issued and the number of the warrants issued with each security;

if applicable, the date on and after which the warrants and the offered securities purchasable upon exercise of the warrants will be separately transferable;

the price or prices at which the offered securities purchasable upon exercise of the warrants may be purchased;

the date on which the right to exercise the warrants shall commence and the date on which the right shall expire;

the minimum or maximum amount of the warrants that may be exercised at any one time;

any terms relating to the modification of the warrants;

information with respect to book-entry procedures, if any;

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a discussion of any material federal income tax considerations; and

any other material terms of the warrants, including terms, procedures, and limitations relating to the transferability, exchange, exercise or redemption of the warrants.

Warrants issued for securities other than common stock or preferred stock will not be exercisable until at least one year from the date of sale of the warrant.

The applicable prospectus supplement will describe the specific terms of any warrant units.

As of June 30, 2009, there were warrants outstanding to purchase 8,959,647 shares of common stock at a weighted average exercise price of \$4.27.

The descriptions of the warrant agreements in this prospectus and in any prospectus supplement are summaries of the applicable provisions of the applicable agreements. These descriptions do not restate those agreements in their entirety and do not contain all of the information that you may find useful. We urge you to read the applicable agreements because they, and not the summaries, define your rights as holders of the warrants or any warrant units. For more information, please review the form of the relevant agreements, which will be filed with the SEC promptly after the offering of the warrants or warrant units and will be available as described in the heading **Where You Can Find Additional Information** below.

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DESCRIPTION OF UNITS

We may issue units comprised of one or more of the other securities described in this prospectus in any combination. Each unit will be issued so that the holder of the unit is also the holder of each security included in the unit. Thus, the holder of a unit will have the rights and obligations of a holder of each included security. The units may be issued under units agreements to be entered into between us and a bank or trust company, as unit agent, as detailed in the prospectus supplement relating to units being offered. The prospectus supplement will describe:

the designation and terms of the units and of the securities comprising the units, including whether and under what circumstances the securities comprising the units may be held or transferred separately;

a description of the terms of any unit agreement governing the units;

a description of the provisions for the payment, settlement, transfer or exchange of the units;

a discussion of material federal income tax considerations, if applicable; and

whether the units will be issued in fully registered or global form.

The descriptions of the units in this prospectus and in any prospectus supplement are summaries of the material provisions of the applicable agreements. These descriptions do not restate those agreements in their entirety and may not contain all the information that you may find useful. We urge you to read the applicable agreements because they, and not the summaries, define your rights as holders of the units. For more information, please review the form of the relevant agreements, which will be filed with the SEC promptly after the offering of units and will be available as described under the heading **Where You Can Find Additional Information** below.

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PLAN OF DISTRIBUTION

We may sell any of the securities being offered pursuant to this prospectus in any manner specified in a prospectus supplement or in any of the following manners:

directly to purchasers;

to or through underwriters;

through dealers or agents; or

through a combination of methods.

We may distribute the securities from time to time in one or more transactions at a fixed price or prices, which may be changed, at market prices prevailing at the time of sale, at prices related to the prevailing market prices or at negotiated prices. We may also determine the price or other terms of the securities offered under this prospectus by use of an electronic auction.

The prospectus supplement with respect to the securities being offered will set forth the terms of the offering, including the names of the underwriters, dealers or agents, if any, the purchase price of the securities, the net proceeds to us, any underwriting discounts and other items constituting underwriters' compensation, any discounts or concessions allowed or reallowed or paid to dealers and any securities exchanges on which the securities may be listed. Also, if applicable, we will describe in the prospectus supplement how any auction will determine the price or any other terms, how potential investors may participate in the auction and the nature of the underwriters' obligations with respect to the auction.

If underwriters are used in an offering, we will execute an underwriting agreement with the underwriters and will specify the name of each underwriter and the terms of the transaction (including any underwriting discounts and other terms constituting compensation of the underwriters and any dealers) in a prospectus supplement. If an underwriting syndicate is used, the managing underwriter(s) will be specified on the cover of the prospectus supplement. If underwriters are used in the sale, the offered securities will be acquired by the underwriters for their own accounts and may be resold from time to time in one or more transactions, including negotiated transactions, at a fixed public offering price or at varying prices determined at the time of sale. Any public offering price and any discounts or concessions allowed or reallowed or paid to dealers may be changed from time to time. Unless otherwise set forth in the prospectus supplement, the obligations of the underwriters to purchase the offered securities will be subject to conditions precedent, and the underwriters will be obligated to purchase all of the offered securities if any are purchased.

If dealers are used in an offering, we will sell the securities to the dealers as principals. The dealers then may resell the securities to the public at varying prices which they determine at the time of resale. The names of the dealers and the terms of the transaction will be specified in a prospectus supplement.

The securities may be sold directly by us or through agents we designate. If agents are used in an offering, the names of the agents and the terms of the agency will be specified in a prospectus supplement. Unless otherwise indicated in a prospectus supplement, the agents will act on a best-efforts basis for the period of their appointment.

Dealers and agents named in a prospectus supplement may be deemed to be underwriters (within the meaning of the Securities Act of 1933) of the securities described therein. In addition, we may sell the securities directly to institutional investors or others who may be deemed to be underwriters within the meaning of the Securities Act of 1933 with respect to any resales thereof.

Underwriters, dealers and agents may be entitled to indemnification by us against specific civil liabilities, including liabilities under the Securities Act of 1933 or to contribution with respect to payments which the underwriters or agents may be required to make in respect thereof, under underwriting or other agreements. The terms of any indemnification provisions will be set forth in a prospectus supplement. Certain underwriters, dealers or agents and their associates may engage in transactions with, and perform services for us in the ordinary course of business.

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Each series of securities is expected to be a new issue of securities with no established trading market, other than the common stock which is listed on the Nasdaq Global Market. Any common stock sold pursuant to a prospectus supplement will be eligible for listing and trading on the Nasdaq Global Market, subject to official notice of issuance. Any underwriters to whom securities are sold by us for public offering and sale may make a market in the securities, but the underwriters will not be obligated to do so and may discontinue any market making at any time without notice. The securities, other than the common stock, may or may not be listed on a national securities exchange or eligible for quotation and trading on Nasdaq.

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LEGAL MATTERS

The validity of the securities offered hereby has been passed upon for us by Bryan Cave LLP, St. Louis, Missouri. James L. Nouss, Jr., a partner of our legal counsel Bryan Cave LLP, beneficially owns 11,727 shares of our common stock, and is also our corporate secretary.

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 (except as updated to reflect new information regarding our liquidity filed on a Current Report on Form 8-K on August 6, 2009) and our Current Report on Form 8-K filed on August 6, 2009 for the year ended December 31, 2008, and the effectiveness of our internal control over financial reporting as of December 31, 2008, as set forth in their reports, which are incorporated by reference in the registration statement. Our financial statements and schedule and the effectiveness of our internal control over financial reporting as of December 31, 2008 are incorporated herein by reference in reliance on Ernst & Young LLP's reports, given on 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 of 1933 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 All 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.

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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 the company filed separately with the SEC. You should consider the incorporated information as if we reproduced it in this prospectus, except for any information directly superseded by information subsequently filed with the SEC and incorporated in this prospectus.

We incorporate by reference into this prospectus the following documents (SEC File No. 000-50884), which contain important information about us and our business and financial results:

our Annual Report on Form 10-K for the fiscal year ended December 31, 2008;

our Quarterly Report on Form 10-Q for the fiscal quarter ended March 31, 2009;

our Current Reports on Form 8-K filed January 8, 2009, February 24, 2009, February 26, 2009 (regarding Item 3.02), February 27, 2009, March 16, 2009, April 10, 2009 and August 6, 2009 (regarding Item 5.02);

our Current Report on Form 8-K filed on August 6, 2009, which updated certain information in our Annual Report on Form 10-K for the fiscal year ended December 31, 2008; and

the description of our common stock contained in our Registration Statement on Form 8-A filed August 2, 2004.

We incorporate by reference any additional documents that we may file with the SEC under Section 13(a), 13(c), 14 or 15(d) of the Securities Exchange Act of 1934 (other than the portions of those made pursuant to Item 2.02 or Item 7.01 of Form 8-K or other information furnished to the SEC) between the date we filed the registration statement to which this prospectus relates, and the termination of the offering of the securities. These documents may include periodic reports, like Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q and Current Reports on Form 8-K, as well as Proxy Statements. Any material that we subsequently file with the SEC will automatically update and replace the information previously filed with the SEC.

For purposes of the registration statement of which this prospectus is a part, any statement contained in a document incorporated or deemed to be incorporated herein by reference shall be deemed to be modified or superseded to the extent that a statement contained herein or in any other subsequently filed document which also is or is deemed to be incorporated herein by reference modifies or supersedes such statement in such document. Any statement so modified or superseded shall not be deemed, except as so modified or superseded, to constitute a part of the registration statement of which this prospectus is a part.

You may get copies of any of the document incorporated by reference (excluding exhibits, unless the exhibits are specifically incorporated) at no charge to you by writing or calling the investor relations department at Stereotaxis, Inc. 4320 Forest Park Avenue, Suite 100, St. Louis, Missouri 63108, telephone (314) 678-6100.

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Shares

Common Stock

Joint Book-Running Managers

Deutsche Bank Securities

Oppenheimer & Co.

Barrington Research

Summer Street

Prospectus Supplement

October , 2009