

PROSPECTUS



Common Stock, \$0.001 par value

Up to 2,035,531 Shares

This prospectus relates to the offer and sale, from time to time, of up to 2,035,531 shares of the common stock, par value \$0.001 per share, of Stereotaxis, Inc. (“Stereotaxis”), issuable to the selling stockholders named herein upon the exercise of warrants to purchase our common stock held by those selling stockholders. We do not know if any or all of the warrants will be exercised or if any or all of the shares will be resold. We will not receive any proceeds from the sale of the shares, but, assuming exercise of all warrants to which the shares relate, we will receive up to \$12,674,159 in proceeds from the exercise of the warrants prior to those sales, which proceeds would be used for general corporate purposes. Please see “Selling Stockholders” and “Plan of Distribution” for information about the selling stockholders and the manner of offering of the common stock.

Our common stock is listed on the Nasdaq Global Market under the symbol “STXS.” On March 28, 2013, the last reported sale price for our common stock on the Nasdaq Global Market was \$2.00 per share.

Investing in our common shares involves risks. See “[Risk Factors](#)” beginning on page 6 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 April 8, 2013.

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PROSPECTUS SUMMARY

This summary highlights selected information about Stereotaxis and a general description of the securities that may be offered for resale by the selling stockholders. This summary is not complete and does not contain all of the information that may be important to you. For a more complete understanding of us and the securities offered by the selling stockholders, you should carefully read this entire prospectus, including the “Risk Factors” section, any applicable prospectus supplement for these securities and the other documents we refer to and incorporate by reference. In particular, we incorporate important business and financial information into this prospectus by reference. On July 10, 2012, we effected a one-for-ten reverse stock split of our common stock. Unless otherwise indicated, all information set forth herein gives effect to such reverse stock split.

The Company

We design, manufacture and market robotic systems and instruments for use primarily by electrophysiologists for the treatment of abnormal heart rhythms known as cardiac arrhythmias. We offer our proprietary *Epoch* Solution, an advanced remote robotic navigation system for use in a hospital’s interventional surgical suite, or “interventional lab”. We believe the *Epoch* Solution revolutionizes the treatment of arrhythmias and coronary artery disease by enabling enhanced safety, efficiency and efficacy for catheter-based, or interventional, procedures. The *Epoch* Solution is comprised of the *Niobe* ES Robotic Magnetic Navigation System (“*Niobe* ES system”), *Odyssey* Information Management Solution (“*Odyssey* Solution”), and the *Vdrive* Robotic Navigation System (“*Vdrive* system”). We believe that our technology represents an important advance in the ongoing trend toward fully digitized, integrated and automated interventional labs and provides substantial, clinically important improvements over manual interventional methods, which often result in long and unpredictable procedure times with suboptimal therapeutic outcomes. We believe that our technology represents an important advance supporting efficient and effective information management and physician collaboration. The core elements of our technology, especially the *Niobe* ES system, are protected by an extensive patent portfolio, as well as substantial know-how and trade secrets.

Our *Niobe* ES system is the latest generation of the *Niobe* Robotic Magnetic Navigation System (“*Niobe* system”), which allows physicians to more effectively navigate proprietary catheters, guidewires and other delivery devices, both our own and those we are co-developing through strategic alliances, 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 devices. We believe that our *Niobe* ES 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.

The *Niobe* system is designed primarily for use by interventional electrophysiologists in the treatment of arrhythmias and approximately 1% of usage is by interventional cardiologists in the treatment of coronary artery disease. To date the significant majority of the Stereotaxis installations worldwide are intended for use in electrophysiology. The *Niobe* system is designed to be installed in both new and replacement interventional labs worldwide. Current and potential purchasers of our *Niobe* system include leading research and academic hospitals as well as community and regional medical centers around the world.

The *Niobe* system has been used in more than 55,000 procedures and is supported by more than 200 peer-reviewed publications in leading medical journals such as *PACE*, *Europace*, the *Journal of the American College of Cardiology* and the *Journal of Interventional Cardiac Electrophysiology*. *Niobe* system revenue represented 26%, 19%, and 40% of revenue for the years ended December 31, 2012, 2011, and 2010, respectively.

Stereotaxis has also developed the *Odyssey* Solution which provides an innovative enterprise solution for integrating, recording and networking interventional lab information within hospitals. The *Odyssey* Solution consists of two lab solutions including *Odyssey* Vision and the *Odyssey* Cinema system. *Odyssey* Vision consolidates all of the lab information from multiple sources, freeing doctors from managing complex interfaces during patient therapy for optimal procedural and clinical efficiency. The *Odyssey* Cinema system is an innovative solution delivering synchronized content targeted to improve care, enhance performance, increase referrals and market services. This tool includes an archiving capability that allows clinicians to store and replay entire procedures or segments of procedures. This information can be accessed from locations throughout the hospital local area network and over the Internet from anywhere with sufficient bandwidth. In order to maximize *Odyssey* Cinema system penetration, in select markets we offer *Odyssey* Interface systems, which connect partner large display solutions to the *Odyssey* Cinema system. The *Odyssey* Solution may be acquired either as part of the *Epoch* Solution or on a stand-alone basis for installation in interventional labs and other locations where clinicians desire improved clinical workflows and related efficiencies. *Odyssey* system revenue represented 14%, 18%, and 18% of revenue for the years ended December 31, 2012, 2011, and 2010, respectively.

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Our *Vdrive* system provides navigation and stability for diagnostic and therapeutic devices designed to improve interventional procedures. The *Vdrive* system complements the *Niobe* ES system control of therapeutic catheters for fully remote procedures and enables single-operator workflow and is sold as two options, the *Vdrive* system and the *Vdrive Duo* system. In addition to the *Vdrive* system and the *Vdrive Duo* system, we also manufacture and market various disposable components (*V-Loop*, *V-Sono*, *V-CAS*, and *V-CAS Deflect*) which can be manipulated by these systems. We have received the CE Mark and regulatory licensing that allows us to market certain configurations of the *Vdrive* system and the *Vdrive Duo* system in Europe and Canada. We are in the process of obtaining the necessary clearance for the *V-Loop* and *V-Sono* devices in the United States.

We promote the full *Epoch* Solution in a typical hospital implementation, subject to regulatory approvals or clearances. The full *Epoch* Solution implementation requires a hospital to agree to an upfront capital payment and recurring payments. The upfront capital payment typically includes equipment and installation charges. The recurring payments typically include disposable costs for each procedure, equipment service costs beyond warranty period, and software licenses. In hospitals where the full *Epoch* Solution has not been implemented, equipment upgrade or expansion can be implemented upon purchasing of the necessary upgrade or expansion.

We incurred net losses of approximately \$32.0 million and \$9.2 million for the years ended December 31, 2011 and December 31, 2012, respectively, and expect such losses to continue through at least the year ending December 31, 2013. As of December 31, 2012, we had completed the operating expense declines through headcount reductions and discretionary spending cuts. We expect to incur additional losses into 2013 as we continue the development and commercialization of our products, conduct our research and development activities and advance new products into clinical development from our existing research programs and fund additional sales and marketing initiatives. The Company's independent registered public accounting firm's report issued in our Annual Report on Form 10-K included an explanatory paragraph describing the existence of conditions that raise substantial doubt about the Company's ability to continue as a going concern, including recent losses and working capital deficiency. The financial statements do not include any adjustments relating to the recoverability and classification of assets carrying amounts or the amount of and classification of liabilities that may result should the Company be unable to continue as a going concern.

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. *Epoch*TM, *Niobe*[®], *Odyssey*[®], *Odyssey Cinema*TM, *Vdrive*TM, *Vdrive Duo*TM, *V-CAS*TM, *V-CAS*TM Deflect, *V-Loop*TM, *V-Sono*TM, *QuikCAS*TM *Cardiodrive*[®], *Cronus*[®], *Assert*[®], *PowerAssert*TM, *Titan*[®] and *Pegasus*TM are trademarks of Stereotaxis, Inc. All other trademarks that may appear in this prospectus are the property of their respective owners.

Selected Financial Data

The following selected consolidated financial data for the years ended December 31, 2012, 2011, 2010, 2009 and 2008 and for the balance sheet data as of December 31, 2012, 2011, 2010, 2009 and 2008 have been derived from, and should be read in conjunction with our financial statements and the accompanying notes and "Management's Discussion and Analysis of Financial Condition and Results of Operations" included in our Annual Reports on Form 10-K. The selected data in this section is not intended to replace the financial statements. Historical results are not indicative of the results to be expected in the future. On July 10, 2012, we effected a one-for-ten reverse stock split of our common stock. All information set forth in the selected consolidated financial data gives effect to such Reverse Stock Split.

	2012	2011	Year Ended December 31, 2010	2009	2008
Consolidated Statements of Operations Data:					
Revenue	\$46,562,434	\$41,987,432	\$54,051,237	\$51,149,555	\$40,365,173
Cost of revenue	14,781,055	12,498,081	15,564,687	17,021,633	14,177,790

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Gross margin	31,781,379	29,489,351	38,486,550	34,127,922	26,187,383
Operating costs and expenses:					
Research and development	8,405,086	12,886,488	12,244,163	14,260,854	17,422,828
Sales and marketing	20,607,999	31,635,415	30,178,818	28,694,540	28,660,663
General and administrative	13,394,556	16,908,656	15,022,689	15,010,490	21,121,164
Total operating expenses	42,407,641	61,430,559	57,445,670	57,965,884	67,204,655
Operating loss	(10,626,262)	(31,941,208)	(18,959,120)	(23,837,962)	(41,017,272)
Interest and other income (expense), net ^{(1) (2)}	1,387,835	(89,967)	(964,367)	(3,656,495)	(2,868,702)
Net loss	\$ (9,238,427)	\$ (32,031,175)	\$ (19,923,487)	\$ (27,494,457)	\$ (43,885,974)
Basic and diluted net loss per common share	\$ (1.33)	\$ (5.84)	\$ (3.94)	\$ (6.34)	\$ (12.00)
Shares used in computing basic and diluted net loss per common share	6,944,928	5,482,627	5,052,200	4,334,432	3,658,509
Consolidated Balance Sheet Data:					
Cash, cash equivalents and short-term investments	\$ 7,777,718	\$ 13,954,919	\$ 35,248,819	\$ 30,546,550	\$ 30,355,657
Working capital	(5,715,760)	(6,596,218)	12,395,426	12,878,277	10,097,082
Total assets	32,165,944	39,931,832	65,761,792	56,120,516	59,440,365
Long-term debt, less current maturities	16,824,736	17,290,531	8,000,000	10,346,655	12,036,723
Accumulated deficit	(384,645,873)	(375,407,446)	(343,376,271)	(323,452,784)	(295,958,327)
Total stockholders' equity	(18,790,226)	(18,828,895)	10,475,246	7,641,343	4,770,681

(1) Other income recorded in 2010 includes \$1.5 million in grants under the Qualifying Therapeutic Discovery Project Program.

(2) Other income recorded in 2012, 2011, 2010, and 2009 includes \$8.2 million, \$3.4 million, \$0.6 million, and \$0.9 million in warrant and other mark-to-market adjustments, respectively.

Securities Being Offered

This prospectus is part of a post-effective amendment to a registration statement related to the resale or other disposition of up to 2,035,531 shares of our common stock issuable upon exercise of warrants held by the selling stockholders named in this prospectus or their transferees. The warrants were issued in the transactions described below, and the selling stockholders are identified in the section entitled “Selling Stockholders” on page 10, below. We registered the selling stockholders’ resale of these securities. We did not receive any proceeds from the sale of the shares of common stock by the selling stockholders, but did receive proceeds related to the exercise of warrants for cash held by the selling stockholders. The registration of these common shares does not necessarily mean that any of them will be offered or sold by the selling stockholders. The securities may be sold directly or through brokers, dealers or agents in private or market transactions. In connection with any sales, the selling stockholders and any brokers, dealers or agents participating in such sales may be deemed to be “underwriters” within the meaning of the Securities Act. See “Plan of Distribution.”

The selling stockholders named herein, Alafi Capital Company and the affiliates of Sanderling Venture Partners, are affiliates of Fred A. Middleton and Christopher Alafi, respectively, each of whom is a member of our board of directors.

PIPE Transaction

On May 7, 2012, we entered into a Stock and Warrant Purchase Agreement (the “PIPE SPA”) with several investors, including the selling stockholders named herein, pursuant to which we sold an aggregate of approximately 21.7 million shares of our common stock (the “PIPE Common Stock”) at a price of \$0.3361 per share, together with six-year warrants at a price of \$0.125 per share to purchase an aggregate of approximately 21.7 million shares of our common stock having an exercise price of \$0.3361 per share (the “PIPE Warrants”), in each case prior to giving effect to the Reverse Stock Split. Each purchaser thereunder received a PIPE Warrant to purchase one share of common stock for every share of PIPE Common Stock purchased. That transaction closed on May 10, 2012.

As described above, on July 10, 2012, we effected a one-for-ten Reverse Stock Split of our common stock. As a result, the PIPE Common Stock was combined and converted into an aggregate of approximately 2.17 million shares of our common stock, and the PIPE Warrants became exercisable for an aggregate of approximately 2.17 million shares, with an exercise price of \$3.361 per share.

Net proceeds from the sale of the securities under the PIPE SPA were approximately \$9.1 million, after placement agent fees and other offering expenses.

In connection with the Reverse Stock Split, we also increased our authorized shares. Accordingly, this registration statement covers the additional 1,518,109 shares issuable upon exercise of PIPE Warrants held by Alafi Capital Company and the Sanderling Venture Partners’ affiliates.

Extension of Silicon Valley Bank Loan and Sanderling/Alafi Credit Support

In connection with the above closing and funding of the above transaction and a concurrent convertible debt offering described below, we and one of our wholly-owned subsidiaries (the “Subsidiary”) entered into a Third Loan Modification Agreement (Domestic), amending the Second Amended and Restated Loan and Security Agreement (Domestic), dated November 11, 2011 (the “Amended Loan Agreement”), with Silicon Valley Bank to extend the maturity of the current working capital line of credit from May 15, 2012 to March 31, 2013 and decrease the \$10 million sublimit for borrowings supported by guarantees from the selling stockholders named herein to \$3 million. Under the revised facility we are required to maintain a minimum liquidity ratio and a minimum tangible net worth as defined in the Amended Loan Agreement. We and the Subsidiary also entered into an Export-Import Bank Third Loan Modification Agreement with Silicon Valley Bank (the “Ex-Im Modification Agreement”) to extend the maturity date of the revolving line of credit under that certain Amended and Restated Export-Import Bank Loan and Security Agreement dated November 30, 2011 from May 15, 2012 to March 31, 2013 and reduce the Ex-Im sublimit under the revolving line of credit from \$10 million to \$5 million.

In connection with the Silicon Valley Bank extension and the PIPE and convertible debt transactions, we entered into a sixth amendment to the Note and Warrant Purchase Agreement dated February 21, 2008, as amended (the “Note and Warrant Purchase Agreement”), with the selling stockholders to decrease those parties’ obligation to provide either direct loans to us or loan guarantees to our primary bank lender from an aggregate of \$10 million to an aggregate of \$3 million and to further extend that obligation through the earlier of (1) March 31, 2013, (2) the date that we elect to extinguish the guarantee, or (3) the date we receive \$30 million of third party, non-bank financing. This facility may also be used by us to guarantee our loan commitments with Silicon Valley Bank, our primary bank lender, through the same extended term.

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We granted to the selling stockholders warrants (the “2013 Extension Warrants”) to purchase an aggregate of approximately 230,000 shares of common stock in exchange for their extension. The 2013 Extension Warrants have an exercise price of \$3.361 per share. In connection with that agreement, we also agreed to include the shares underlying the 2013 Extension Warrants, together with approximately 287,000 additional shares issuable upon conversion of warrants issued to the selling stockholder in issuable in connection with amendment two through five of the Note and Warrant Purchase Agreement, or an aggregate of 517,422 shares of common stock issuable upon connection of warrants issued under the Note and Warrant Purchase Agreement that have not been previously registered for resale.

Other recent transactions

Extension of Silicon Valley Bank Loan and Sanderling/Alafi Credit Support

On March 29, 2013, we and one of our wholly-owned subsidiaries (the “Subsidiary”) entered into a Fifth Loan Modification Agreement (Domestic), amending the Second Amended and Restated Loan and Security Agreement (Domestic), dated November 11, 2011 (the “Amended Loan Agreement”), with Silicon Valley Bank to extend the maturity of the current working capital line of credit from March 31, 2013 to June 30, 2013. Under the revised facility we are required to maintain, as of the last day of each fiscal quarter, a tangible net worth of (\$25 million) as calculated in accordance with a formula set forth in the Loan Agreement. Previously, we had been required to maintain a tangible net worth of (\$20 million) as of the last day of each fiscal quarter.

Also in connection with the closing and funding of the above transactions, we and the Subsidiary entered into an Export-Import Bank Fourth Loan Modification Agreement with Silicon Valley Bank (the “Ex-Im Modification Agreement”) to extend the maturity date of the revolving line of credit under that certain Amended and Restated Export-Import Bank Loan and Security Agreement dated November 30, 2011 from March 31, 2013 to June 30, 2013.

Also in connection with the closing and funding of the above transactions and with the Silicon Valley Bank extension described above, we entered into a further amendment to the Note and Warrant Purchase Agreement dated February 21, 2008, as amended (the “Note and Warrant Purchase Agreement”), with Alafi Capital Company and affiliates of Sanderling Venture Partners (collectively, the “Lenders”) to further extend the Lenders’ obligation to provide \$3 million in either direct loans to us or loan guarantees to our primary bank lender through June 30, 2013. The guarantees would terminate earlier if we consummate third party, non-bank financing of \$8 million prior to June 30, 2013. We granted to the Lenders warrants (the “2013 Extension Warrants”) to purchase an aggregate of approximately 113,636 shares of common stock in exchange for their extension. The 2013 Extension Warrants have an exercise price of \$1.98 per share.

Sanderling is an affiliate of Fred A. Middleton who is a member of our board of directors. Chris Alafi is affiliated with Alafi Capital Company; Mr. Alafi served on our board through our last annual meeting in August 2012. This facility may also be used by us to guarantee our loan commitments with Silicon Valley Bank, our primary bank lender, through the same extended term.

RISK FACTORS

Investing in our securities involves a high degree of risk. Prior to making a decision about investing in our securities, you should carefully consider the risks described in, or incorporated by reference in, this prospectus, including the risks described below and under the caption “Risk Factors” in our Annual Report on Form 10-K for the year ended December 31, 2012, and in any other reports that we file with the SEC, along with the other information included or incorporated by reference in this prospectus, in evaluating an investment in our common stock. The information included or incorporated by reference in this prospectus may be amended, supplemented or superseded from time to time by other reports we file with the SEC in the future. For a description of these reports and documents, and information about where you can find them, see the sections entitled “Where You Can Find Additional Information” and “Incorporation of Certain Documents by Reference” in this prospectus.

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

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We have recently received a notice from Nasdaq advising that we do not meet the continued listing standards of the Nasdaq Global Market. If we are unable to maintain a listing on a national securities exchange, it could negatively impact the price and liquidity of our common stock and our ability to access the capital markets, and could cause us to be in default under various loan documents.

Our common stock is currently listed on the Nasdaq Global Market. In order to maintain that listing, we must satisfy minimum financial and other requirements. On January 20, 2012, we received notice from the Nasdaq Listing Qualifications Department that our common stock had not met the \$1.00 per share minimum bid price requirement for 30 consecutive business days and that, if we were unable to demonstrate compliance with this requirement during the applicable grace periods, our common stock would be subject to delisting after that time. Because the closing bid price of our common stock on the Nasdaq Global Market had been below \$1.00 each trading day since December 6, 2011, through July 10, 2012, we implemented the Reverse Stock Split of one-for-ten on July 10 following shareholder approval of that action in order to put our stock in compliance with the minimum bid price requirement. On July 25, 2012, we received notice that we regained compliance with the minimum bid price requirement. In addition, on June 25, 2012, Nasdaq notified us that we did not comply with the rule regarding market value of publicly held shares. On January 9, 2013, we received notification from Nasdaq that we had regained compliance with the minimum market value of publicly held shares requirement.

On March 20, 2013, we received a notification from the Nasdaq Listing Qualifications Department that we are not in compliance with the \$50.0 million in total assets and total revenues requirement for our most recently completed fiscal year or for two of the last three most recently completed fiscal years as required by Nasdaq Listing Rule 5450(b)(3)(A). In addition, the Nasdaq letter stated that we do not comply with an alternative requirement of Listing Rule 5450(b) for continued listing on the Nasdaq Global Market because our stockholders' equity is less than \$10.0 million and the market value of our listed securities is less than \$50.0 million. In the notice, Nasdaq stated that we may provide a plan to regain compliance with the continued listing requirements of the Nasdaq Global Market by May 6, 2013. If Nasdaq accepts the plan, it can grant an extension of up to 180 calendar days from the date of the letter (that is, through September 16, 2013) to evidence compliance. We intend to submit a compliance plan with Nasdaq on or before May 6, 2013.

There is no assurance that Nasdaq will approve our compliance plan and we are not currently eligible to transfer our listing to the Nasdaq Capital Market since we do not satisfy all applicable requirements for continued listing on that market at this time. Even if we are granted additional time to regain compliance with the Nasdaq Global Market listing standards, there can be no assurance that we will be able to evidence compliance by September 16, 2013. If the Nasdaq Staff does not accept our compliance plan, or if they accept our compliance plan and we are not able to achieve compliance by the established deadline, then the Nasdaq Staff would issue a delisting letter. We would at that point be afforded the right to a hearing before an independent Nasdaq Listing Qualifications Panel (the "Panel"). If we requested a hearing, the delisting action would be stayed until the conclusion of the hearing process and the expiration of any extension granted by the Panel. At that hearing, we could seek a further extension on the Nasdaq Global Market or a transfer to the Nasdaq Capital Market, pending our achievement of compliance with the applicable requirements for continued listing. If our common stock is delisted from the Nasdaq Stock Market, we anticipate that our common stock will be immediately eligible for quotation on the OTCQB Market. Any delisting could adversely affect the market liquidity of our common stock, adversely affect our ability to obtain financing for the continuation of our operations and harm our business. Moreover, if we are not listed on an "eligible market," under the terms of our convertible debt, we would be in default under the terms of our debenture, and because of cross-default provisions, we would be in default under our other principal debt obligations. In addition, receipt of a deficiency notice from Nasdaq with respect to our ongoing compliance with the Nasdaq Global Market continued listing standards could also result in other negative implications, including the potential loss of confidence by suppliers, customers and employees, the loss of institutional investor interest and fewer business development opportunities. Any of such developments as a result of the foregoing could impair the value of your investment.

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

We have financed our operations through equity and convertible debt transactions, a financing of our catheter royalty stream under the Healthcare Royalty Partners facility entered into in November 2011, as well as bank and other borrowings. We recently extended our revolving line of credit, which matures on June 30, 2013, and our Debentures mature on May 10, 2014. In addition, our current convertible debt and other borrowing agreements contain various covenants, including financial covenants under our Silicon Valley Bank line. The covenants in these various agreements are similar, but are not identical in all respects. If we violate our covenants, we could be required to repay the indebtedness as to which that default relates. In addition, as a result of various cross-default provisions in these agreements, a violation of the covenants under one or more of such agreements could trigger our obligation to repay all of our existing indebtedness. We could be unable to make these payments, which could lead to insolvency. Even if we are able to make these payments, it will lead to the lack of availability for additional borrowings under our bank loan agreement due to our borrowing capacity. 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 and other borrowed amounts were forced to be repaid.

We are no longer eligible to use Form S-3, which could impair our capital raising activities.

As of the date of this prospectus, we are not eligible to use Form S-3 as a result of our payment default in 2012 under our facility with Silicon Valley Bank. As a result, we cannot use Form S-3 to register resales of our securities for 12 months following our default, which occurred on April 30, 2012. In addition, we are limited in our ability to file new shelf registration statements on SEC Form S-3 and/or to fully use the remaining capacity on our existing registration statements on SEC Form S-3. Moreover, our public float is below \$75 million and may remain below \$75 million for the foreseeable future. As a result, we may not be eligible to use Form S-3 for primary offerings even though we otherwise would regain the ability to use the form for resale registration statements 12 months following our payment default. We have relied significantly on shelf registration statements on SEC Form S-3 for most of our financings in recent years, and accordingly any such limitations may harm our ability to raise the capital we need. Under these circumstances, until we are again eligible to use Form S-3, we will be required to use a registration statement on Form S-1 to register securities with the SEC or issue such securities in a private placement, which could increase the cost of raising capital.

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. Moreover, following approval of the Stockholder Approval Matters, certain of our directors and their affiliated funds have the ability to obtain a substantial portion 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.

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

Up to 4,070,032 shares of our common stock are issuable upon conversion of, or otherwise underlying, the Debentures and up to 3,404,121 shares of our common stock issuable upon exercise of the Convertible Debt Warrants held by the selling stockholders identified in this prospectus, which represents 135% of the common stock underlying such Debentures and Convertible Debt Warrants. In addition, in 2012 we filed registration statements relating to the resale of up to 650,618 and 1,518,109 shares of stock, respectively, issuable on exercise of the certain warrants issued in connection with a PIPE transaction entered into in May 2012, as well as an additional 517,422 shares issuable in connection with amendments two through six of the Note and Warrant Purchase Agreement issued to Alafi Capital Company and the Sanderling Venture Partners' affiliates. The exercise price of most of these securities (including all of the Debentures, the Convertible Debt Warrants and all of the PIPE Warrants) is \$3.361. In July 2012, we increased the authorized number of shares of our common stock from 100,000,000 to 300,000,000. In addition, we recently issued warrants to purchase an additional 113,636 shares of our common stock to Alafi Capital Company and the Sanderling Venture Partners' affiliates in connection with the further extension of their guarantees of our revolving credit facility in March 2013. A significant number of shares of our common stock are subject to stock options and stock appreciation rights, and we may request the ability to issue additional such securities to our employees. We may also decide to raise additional funds through public or private debt or equity financing to fund our operations. While we cannot predict the effect, if any, that future sales of debt, our common stock, other equity securities or securities convertible into our common stock or other equity securities or the availability of any of the foregoing for future sale, will have on the market price of our common stock, it is likely that sales of substantial amounts of our common stock (including shares issued upon the exercise of stock options, stock appreciation rights or the conversion of any convertible securities outstanding now or in the future), or the perception that such sales could occur, will adversely affect prevailing market prices for our common stock.

FORWARD-LOOKING STATEMENTS

The prospectus contains "forward-looking" statements within the meaning of the Private Securities Litigation Reform Act of 1995. These statements relate to, among other things:

- our business strategy;

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

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

Factors that may cause our actual results to differ materially from our forward-looking statements include, among others, changes in general economic and business conditions and the risks and other factors set forth in “Item 1A—Risk Factors” and elsewhere in our Annual Report on Form 10-K for the year ended December 31, 2012.

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

USE OF PROCEEDS

We did not receive any proceeds from the selling stockholders’ sales of our common stock. We could receive up to a maximum of \$12,674,159 million in proceeds from the cash exercise of all the warrants held by the selling stockholders and covered by this prospectus, which proceeds would be used for working capital and general corporate purposes. However, we do not expect that all of the warrants will be exercised for cash. As of the date hereof, none of the warrants have been exercised.

SELLING STOCKHOLDERS

PIPE Transaction. As described above, on May 7, 2012, we entered into the PIPE SPA with Alafi Capital Company LLC, certain affiliates of Sanderling Venture Partners identified below, as well as certain affiliates of the Franklin Templeton funds whereby we sold an aggregate of approximately 21.7 million shares of PIPE Common Stock at a price of \$0.3361 per share, together with PIPE Warrants to purchase an aggregate of approximately 21.7 million shares of common stock at a price of \$0.125 per share having an exercise price of \$0.3361 per share, in each case prior to giving effect to the Reverse Stock Split. Each purchaser thereunder received a PIPE Warrant to purchase one share of common stock for every share of PIPE Common Stock purchased.

On July 10, 2012, we effected a one-for-ten Reverse Stock Split of our common stock. As a result, the PIPE Common Stock was combined and converted into an aggregate of approximately 2.17 million shares of our common stock, and the PIPE Warrants became exercisable for approximately 2.17 million shares, with an exercise price of \$3.361 per share. All of the information has been adjusted to reflect the Reverse Stock Split, except where indicated.

This prospectus relates to the sale or other disposition of 1,518,109 shares of common stock underlying the PIPE Warrants issued to Alafi Capital Company LLC and certain affiliates of Sanderling Venture Partners described below, or their respective transferees. The issuance of the shares upon exercise of PIPE Warrants held by these entities is not covered by this prospectus; only the resale of the shares underlying warrants are covered. The PIPE Common Stock, as well as the shares issuable upon exercise of the PIPE Warrants issued to affiliates of the Franklin Templeton funds, are not covered by this prospectus, as resales of those securities have been previously registered. The average weighted exercise price of the PIPE warrants is \$3.361 per share.

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In addition, under the terms of the PIPE Warrants, a selling stockholder may not exercise the PIPE Warrants to the extent such selling stockholder or any of its affiliates would beneficially own more than 19.999% of our common stock. The numbers of shares set forth in the table below, however, do not reflect this limitation.

Silicon Valley Bank Credit Support. In connection with our facility with Silicon Valley Bank, we entered into a Note and Warrant Purchase Agreement dated February 21, 2008, as amended (the "Note and Warrant Purchase Agreement"), with the selling stockholders named below, under which those parties had and continue to have obligations to provide either direct loans to us or loan guarantees to our primary bank lender. This facility may also be used by us to guarantee our loan commitments with Silicon Valley Bank, our primary bank lender, through the same extended term. In exchange for those obligations, we have issued various warrants to purchase our common stock to the selling stockholders. This prospectus relates to an aggregate of 517,422 shares of common stock issuable upon connection of warrants issued under amendments two through six of the Note and Warrant Purchase Agreement that have not been previously registered for resale.

We have filed with the SEC, under the Securities Act, a registration statement on Form S-1, of which this prospectus forms a part, with respect to the resale of the shares issuable upon exercise of the warrants from time to time on the Nasdaq Global Market, in privately-negotiated transactions, or otherwise. We have agreed with the selling stockholders to keep the registration statement of which this prospectus constitutes a part effective until the earlier of (1) such time as all of the shares covered by this prospectus have been disposed of pursuant to and in accordance with the registration statement or (2) the date on which all of the shares may be sold without restriction pursuant to Rule 144 of the Securities Act.

The following table sets forth the name of each selling stockholder, the number of shares of our common stock known by us to be beneficially owned by each selling stockholder as of the most recent date practicable, the number of shares of our common stock that may be offered for resale for the account of each selling stockholder pursuant to this prospectus and the number of shares of our common stock to be held by each selling stockholder after the sale of all of the shares covered by this prospectus by that selling stockholder. The information is based on information provided by or on behalf of the selling stockholders. The selling stockholders may offer all, some or none of the common stock. Because the selling stockholders may offer all or some portion of the common stock, we cannot estimate the amount of the common stock that will be held by the selling stockholders upon termination of any of these sales. In addition the selling stockholders identified below may have sold, transferred or otherwise disposed of all or a portion of their common stock since the date on which they provided the information regarding their common stock in transactions exempt from the registration requirements of the Securities Act. Percentage ownership is based on 8,063,239 shares of common stock outstanding as of February 28, 2013.

The selling stockholders may sell all, some or none of the common stock being offered. This information is based upon our review of public filings, our stockholder, optionholder and warrant holder registers and information furnished by the selling stockholders.

<u>Selling Stockholder</u>	<u>Shares Beneficially Owned Prior to the Offering (1)(2)</u>	<u>Shares Offered by This Prospectus</u>	<u>Shares Beneficially Owned Subsequent to the Offering (1)(3)</u>	
			<u>Shares</u>	<u>Percent</u>
Alafi Capital Company LLC (4)	2,704,480	1,087,151	1,617,329(5)	17.0
Sanderling Venture Partners VI Co-Investment Fund, L.P. (6)	1,958,537	909,759	1,048,778(7)	11.4
Sanderling Ventures Management VI (6)	127,516	26,506	101,010(8)	1.2
Sanderling VI Limited Partnership (6)	16,378	6,587	9,791(9)	*
Sanderling VI Beteiligungs GmbH (6)	13,746	5,528	8,218(10)	*
Total Number of Shares Offered		<u>2,035,531</u>		

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* Less than 1%

- (1) Beneficial ownership is determined in accordance with the rules of the SEC and generally includes voting or investment power with respect to securities.
- (2) Under the terms of the PIPE Warrants, a selling stockholder may not exercise such PIPE Warrant to the extent that such selling stockholder or any of its affiliates would beneficially own more than 19.999% of our common stock. For purposes of completing the Selling Stockholder table above, we have disregarded this limitation.
- (3) Assumes for each stockholder the exercise in full of the warrant held by such stockholder and the sale of all shares offered hereby.
- (4) Christopher Alafi, one of our directors and Moshe Alafi are the managing partners of Alafi Capital Company and have full voting and investment power with respect to the shares owned by Alafi Capital Company. Alafi Capital Company has waived our obligation to reserve shares for issuance under warrants held by such entity.
- (5) Includes warrants to purchase an aggregate of 350,701 shares of our common stock.
- (6) Mr. Fred A. Middleton, one of our directors, is affiliated with Sanderling Venture Partners VI Co-Investment Fund, L.P., Sanderling VI Limited Partnership and Sanderling VI Beteiligungs GmbH. Middleton, McNeil, Mills & Associates, VI, LLC is the Investment General Partner of Sanderling Venture Partners VI Co-Investment Fund, L.P., Sanderling VI Beteiligungs GmbH & Co. KG and Sanderling VI Limited Partnership and has voting and dispositive power over the shares owned by such entity. Sanderling Venture Partners VI Co-Investment Fund, L.P. is managed by its managing directors, Fred A. Middleton, Robert G. McNeil, Timothy C. Mills and Timothy J. Wollaeger. Such individuals disclaim beneficial ownership of all such shares held by the foregoing funds, except to the extent of their proportionate pecuniary interests therein.
Sanderling Ventures Management VI is managed by Mr. Middleton (one of our directors), Robert G. McNeil, Timothy C. Mills and Timothy J. Wollaeger, the individuals who have invested under the d/b/a Sanderling Ventures Management VI, which individuals have voting and dispositive power over the shares owned by Sanderling Ventures Management VI. Such individuals disclaim beneficial ownership of all such shares held by the foregoing funds, except to the extent of their proportionate pecuniary interests therein.
In addition to the securities held by the selling stockholders named herein, affiliates of Sanderling Venture Partners hold an aggregate of 286,087 shares of our common stock. Mr. Middleton is also a managing director of such affiliated entities and shares voting and dispositive power with such shares. Mr. Middleton disclaims beneficial ownership of all such shares held by such affiliated funds, except to the extent of his proportionate pecuniary interests therein
- (7) Includes warrants to purchase an aggregate of 266,506 shares of our common stock.
- (8) Includes warrants to purchase an aggregate of 72,893 shares of our common stock.
- (9) Includes warrants to purchase an aggregate of 6,145 shares of our common stock.
- (10) Includes warrants to purchase an aggregate of 5,158 shares of our common stock.

PLAN OF DISTRIBUTION

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

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

- on any national securities exchange or quotation service on which the securities may be listed or quoted at the time of sale;
- in the over-the-counter market;
- in transactions otherwise than on these exchanges or systems or in the over-the-counter market;
- through the writing or settlement of options, whether such options are listed on an options exchange or otherwise;
- ordinary brokerage transactions and transactions in which the broker-dealer solicits purchasers;
- block trades in which the broker-dealer will attempt to sell the shares as agent but may position and resell a portion of the block as principal to facilitate the transaction;
- purchases by a broker-dealer as principal and resale by the broker-dealer for its account;
- an exchange distribution in accordance with the rules of the applicable exchange;
- privately negotiated transactions;
- short sales made after the date the Registration Statement is declared effective by the SEC;
- broker-dealers may agree with a selling securityholder to sell a specified number of such shares at a stipulated price per share;
- a combination of any such methods of sale; and
- any other method permitted pursuant to applicable law.

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

In connection with the sale of our common stock or interests therein, the selling stockholders may enter into hedging transactions with broker-dealers or other financial institutions, which may in turn engage in short sales of the common stock in the course of hedging the positions they assume. The selling stockholders may also sell shares of our common stock short and deliver these securities to close out their short positions, or loan or pledge the common stock to broker-dealers that in turn may sell these securities. The selling stockholders may also enter into option or other transactions with broker-dealers or other financial institutions or the creation of one or more derivative securities which require the delivery to such broker-dealer or other financial institution of shares offered by this prospectus, which shares such broker-dealer or other financial institution may resell pursuant to this prospectus (as supplemented or amended to reflect such transaction).

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

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The selling stockholders also may resell all or a portion of the shares in open market transactions in reliance upon Rule 144 under the Securities Act of 1933, provided that they meet the criteria and conform to the requirements of that rule.

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

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

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

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

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

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

DESCRIPTION OF CAPITAL STOCK

As of the date of this prospectus, we are authorized to issue up to 310 million shares of capital stock, par value \$.001 per share, divided into two classes designated, respectively, “common stock” and “preferred stock.” Of such shares authorized, 300 million shares are designated as common stock, and 10 million shares are designated as preferred stock.

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

On July 10, 2012, we filed a Certificate of Amendment to our Amended and Restated Certificate of Incorporation to implement a one-for-ten reverse split of our common stock. As a result of the Reverse stock split, each ten shares of the Company’s issued and outstanding common stock were automatically combined and converted into one issued and outstanding share of common stock. The Reverse stock split affected all issued and outstanding shares of the Company’s common stock, as well as common stock underlying stock options, stock appreciation rights, restricted stock units, warrants and convertible debentures outstanding immediately prior to the effectiveness of the Reverse stock split. In addition, the Amendment increased the number of authorized shares of the Company’s common stock from 100 million to 300 million. The Reverse stock split did not alter the par value of common stock, which remained at \$.001 per share, or modify any voting rights or other terms of our common stock. Unless otherwise indicated, all information set forth herein gives effect to such Reverse stock split.

As of February 28, 2013, there were approximately 8.1 million shares of common stock outstanding that were held of record by approximately 332 stockholders, although we believe that there is a significantly larger number of beneficial owners of our common stock. The holders of common stock are entitled to one vote for each share held of record on all matters submitted to a vote of the

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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.

Anti-Takeover Provisions of Delaware Law and Charter Provisions

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

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

Section 203 defines “business combination” to include the following:

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

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

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

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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 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 Broadridge Corporate Issuer Solutions, Inc. Its address is 1717 Arch St., Suite 130, Philadelphia, PA 10103, and its telephone number is (215) 553-5400.

LEGAL MATTERS

The validity of the securities offered hereby has been passed upon for us by Bryan Cave LLP, St. Louis, Missouri. James L. Nouss, Jr., a partner of our legal counsel Bryan Cave LLP, beneficially owns 1,172 shares of our common stock.

EXPERTS

Ernst & Young LLP, independent registered public accounting firm, has audited our financial statements and schedule included in our Annual Report on Form 10-K for the year ended December 31, 2012, as set forth in their report (which contains an explanatory paragraph describing conditions that raise substantial doubt about the Company's ability to continue as a going concern as described in Note 1 to the consolidated financial statements), which are incorporated by reference in the registration statement. Our financial statements and schedule as of December 31, 2012 are incorporated herein by reference in reliance on Ernst & Young LLP's report, given on the authority of such firm 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.

INCORPORATION OF CERTAIN DOCUMENTS BY REFERENCE

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

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, 2012; and
- our Current Reports on Form 8-K filed January 14, 2013, February 7, 2013, March 5, 2013 (regarding Item 5.02), March 25, 2013 And April 1, 2013.

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 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.