

InspireMD, Inc.
Form 424B5
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This preliminary prospectus supplement relates to an effective registration statement under the Securities Act of 1933, but the information in this preliminary prospectus supplement is not complete and may be changed. This preliminary prospectus supplement and the accompanying prospectus are not an offer to sell and are not soliciting an offer to buy these securities in any jurisdiction where the offer or sale is not permitted.

SUBJECT TO COMPLETION, DATED MARCH 15, 2016

**PRELIMINARY PROSPECTUS SUPPLEMENT
(To Prospectus dated November 27, 2013)**

InspireMD, Inc.

**Shares of Common Stock
Warrants to Purchase Shares of Common Stock
Shares of Common Stock Underlying Warrants**

We are offering _____ shares of our common stock and warrants to purchase up to _____ shares of our common stock (and the shares of common stock issuable from time to time upon exercise of these warrants). Each share of common stock we sell in this offering will be accompanied by a warrant to purchase one half of one share of common stock at an exercise price for two warrants of \$ _____ per full share. Each share of common stock and accompanying warrant is being offered at a price of \$ _____. The shares of common stock and warrants will be issued separately but can only be purchased together in this offering.

Our common stock is traded on the NYSE MKT under the symbol "NSPR." We do not intend to apply for any listing of the warrants on any securities exchange and we do not expect that the warrants will be quoted on the NYSE MKT. On March 14, 2016, the last reported sale price of our common stock as reported on the NYSE MKT was \$0.84 per share.

Investing in our common stock involves a high degree of risk. See “Risk Factors” beginning on page S-10 of this prospectus supplement and page 6 of the accompanying prospectus.

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(1)	Total
Public offering price	\$	\$
Underwriting discount (2)	\$	\$
Proceeds, before expenses, to us	\$	\$

(1) Per share price represents the offering price for one share of common stock and a warrant to purchase one half of one share of common stock.

(2) In addition, we have agreed to reimburse the underwriter for certain offering-related expenses and to issue the underwriter or its designees warrants to purchase a number of shares of common stock equal to 5% of the shares of common stock sold in this offering, which warrants and underlying common stock are also being offered pursuant to this prospectus supplement. See “Underwriting” for more information.

Dawson James Securities, Inc., its officers and its registered representatives may participate in this offering on the same terms and conditions as the investors participating in this offering.

Concurrently with the closing of this offering, certain of our directors and executive officers have agreed to purchase in a private placement an aggregate amount of \$ of our common stock and warrants on the same terms as this offering.

The underwriter expects to deliver the shares of common stock and warrants on or about March , 2016.

As of March 14, 2016, the aggregate market value of our outstanding common stock held by non-affiliates was \$6,145,444, based on 7,794,075 shares of our common stock outstanding on March 14, 2016, of which 6,983,459 shares were held by non-affiliates, and a price of \$0.88 per share, the closing price of our common stock on March 9, 2016. During the 12 calendar months prior to and including the date of this prospectus supplement, we have offered securities with an aggregate market value of \$ pursuant to General Instruction I.B.6 of Form S-3.

DAWSON JAMES SECURITIES, INC.

The date of this prospectus supplement is March , 2016.

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No dealer, salesperson or other person is authorized to give any information or to represent anything not contained in this prospectus supplement or the accompanying prospectus. You must not rely on any unauthorized information or representations. This prospectus supplement and the accompanying prospectus are an offer to sell only the securities offered hereby, but only under circumstances and in jurisdictions where it is lawful to do so. The information contained in this prospectus supplement and the accompanying prospectus is current only as of their respective dates.

ABOUT THIS PROSPECTUS SUPPLEMENT

This prospectus supplement and the accompanying prospectus are part of a registration statement that we filed with the U.S. Securities and Exchange Commission utilizing a “shelf” registration process. This document is in two parts. The first part is this prospectus supplement, which describes the specific terms of this offering and also adds to and updates information contained in the accompanying prospectus and the documents incorporated by reference herein. The second part, the accompanying prospectus, provides more general information. Generally, when we refer to this prospectus, we are referring to both parts of this document combined. To the extent there is a conflict between the information contained in this prospectus supplement and the information contained in the accompanying prospectus or any document incorporated by reference therein filed prior to the date of this prospectus supplement, you should rely on the information in this prospectus supplement; provided that if any statement in one of these documents is inconsistent with a statement in another document having a later date—for example, a document incorporated by reference in the accompanying prospectus—the statement in the document having the later date modifies or supersedes the earlier statement.

We further note that the representations, warranties and covenants made by us in any agreement that is filed as an exhibit to any document that is incorporated by reference herein were made solely for the benefit of the parties to such agreement, including, in some cases, for the purpose of allocating risk among the parties to such agreements, and should not be deemed to be a representation, warranty or covenant to you. Moreover, such representations, warranties or covenants were accurate only as of the date when made. Accordingly, such representations, warranties and covenants should not be relied on as accurately representing the current state of our affairs.

You should rely only on the information contained in this prospectus supplement or the accompanying prospectus, or incorporated by reference herein. We have not authorized, and the underwriter has not authorized, anyone to provide you with information that is different. The information contained in this prospectus supplement or the accompanying prospectus, or incorporated by reference herein or therein is accurate only as of the respective dates thereof, regardless of the time of delivery of this prospectus supplement and the accompanying prospectus or of any sale of our common stock. It is important for you to read and consider all information contained in this prospectus supplement and the accompanying prospectus, including the documents incorporated by reference herein and therein, in making your investment decision. You should also read and consider the information in the documents to which we have referred you in the sections entitled “Where you can find more information” and “Incorporation of certain information by reference” in this prospectus supplement and in the accompanying prospectus, respectively.

We are offering to sell, and seeking offers to buy, the securities offered by this prospectus supplement only in jurisdictions where offers and sales are permitted. The distribution of this prospectus supplement and the accompanying prospectus and the offering of the securities offered by this prospectus supplement in certain jurisdictions may be restricted by law. Persons outside the United States who come into possession of this prospectus supplement and the accompanying prospectus must inform themselves about, and observe any restrictions relating to, the offering of the common stock and warrants and the distribution of this prospectus supplement and the

accompanying prospectus outside the United States. This prospectus supplement and the accompanying prospectus do not constitute, and may not be used in connection with, an offer to sell, or a solicitation of an offer to buy, any securities offered by this prospectus supplement and the accompanying prospectus by any person in any jurisdiction in which it is unlawful for such person to make such an offer or solicitation.

All references in this prospectus supplement and the accompanying prospectus to “InspireMD,” the “Company,” “we,” “us,” “our,” or similar references refer to InspireMD, Inc., a Delaware corporation, and its subsidiaries taken as a whole, except where the context otherwise requires or as otherwise indicated.

PROSPECTUS SUPPLEMENT SUMMARY

This summary highlights selected information about us, this offering and information appearing elsewhere in this prospectus supplement, in the accompanying prospectus and in the documents incorporated by reference herein and therein. This summary is not complete and does not contain all the information you should consider before investing in our securities pursuant to this prospectus supplement and the accompanying prospectus. Before making an investment decision, to fully understand this offering and its consequences to you, you should carefully read this entire prospectus supplement and the accompanying prospectus, including “Risk Factors,” the financial statements, and related notes, and the other information incorporated by reference herein and therein.

Overview

We are a medical device company focusing on the development and commercialization of our proprietary MicroNet™ stent platform technology for the treatment of complex vascular and coronary disease. A stent is an expandable “scaffold-like” device, usually constructed of a metallic material, that is inserted into an artery to expand the inside passage and improve blood flow. Our MicroNet, a micron mesh sleeve, is wrapped over a stent to provide embolic protection in stenting procedures.

Our CGuard™ carotid embolic prevention system (“CGuard EPS”) combines our MicroNet mesh and a self-expandable nitinol stent in a single device for use in carotid artery applications. Our CGuard EPS received CE mark approval in the European Union in March 2013, and we launched its release on a limited basis in October 2014. In January 2015, a new version of CGuard, with a rapid exchange delivery system, received CE mark approval in Europe and in September 2015, we announced the full market launch of the CGuard EPS in Europe through a distribution agreement with Penumbra, Inc. In September 2015, we also received regulatory approval to commercialize the CGuard EPS in Argentina and Columbia.

Our MGuard™ coronary product, MGuard Prime Embolic Protection System (“MGuard Prime EPS”), is marketed for use in patients with acute coronary syndromes, notably acute myocardial infarction (heart attack) and saphenous vein graft coronary interventions (bypass surgery). We market and sell MGuard Prime EPS, a bare-metal cobalt-chromium based stent, for the treatment of coronary disease in the European Union. MGuard Prime EPS received CE mark approval in the European Union in October 2010 for improving luminal diameter and providing embolic protection. However, as a result of a shift in industry preferences away from bare-metal stents in favor of drug-eluting (drug-coated) stents, in 2014 we decided to curtail further development of this product in order to focus on the development of a drug-eluting stent product. Due to limited resources, though, our efforts to date have been limited to incorporating our MicroNet in-house onto a drug-eluting stent manufactured by a potential partner.

We are also developing a neurovascular flow diverter, which is an endovascular device that directs blood flow away from cerebral aneurysms in order to ultimately seal the aneurysms. Our flow diverter would utilize an open cell, highly flexible metal scaffold to which MicroNet would be attached. We have commenced initial pre-clinical testing of this product in both simulated bench models and standard in vivo pre-clinical models.

We also intend to develop a pipeline of other products and additional applications by leveraging our MicroNet technology to new applications to improve peripheral vascular and neurovascular procedures, such as the treatment of the superficial femoral artery disease, vascular disease below the knee and neurovascular stenting to open diseased vessels in the brain.

Presently, none of our products may be sold or marketed in the United States.

During the first quarter of 2015, we implemented a cost reduction/focused spending plan. The plan has four components: (i) reducing headcount; (ii) limiting the focus of clinical and development expenses to only carotid and neurovascular products; (iii) limiting sales and marketing expenses to those related to the CGuard™ EPS stent launch; and (iv) reducing all other expenses (including conferences, travel, promotional expenses, executive cash salaries, director cash fees, rent, etc.). In addition, we decided to alter our commercial strategy by using third party distributors to drive future sales, as opposed to direct sales to hospitals and clinics, which had previously been our focus.

Financial Update

While we have not finalized our full financial results for the fiscal year ended December 31, 2015, our total revenue for the twelve months ended December 31, 2015 was \$2.3 million and our net loss was approximately \$15.6 million. In addition, we had approximately \$3.3 million of cash, cash equivalents and short-term investments as of December 31, 2015. These financial results are an estimate only, have not been audited and are subject to change upon completion of the audit of our financial statements as of and for the year ended December 31, 2015. Additional information and disclosures would be required for a more complete understanding of our financial position and results of operations as of December 31, 2015. The preliminary financial data included in this prospectus supplement has been prepared by, and is the responsibility of management. Kesselman and Kesselman, our independent registered public accounting firm, a member firm of PricewaterhouseCoopers International Limited, has not audited, reviewed, compiled or performed any procedures with respect to the preliminary financial data. Accordingly, it does not express an opinion or any other form of assurance with respect thereto. Our actual results for the period ended December 31, 2015 may not be available until after this offering is completed. There can be no assurance that these estimates will be realized, and estimates are subject to risks and uncertainties, many of which are not within our control. For additional information regarding various risks and uncertainties, see “Risk Factors” and “Special Note Regarding Forward-Looking Statements” elsewhere in this prospectus supplement.

Since our formation, we have experienced net losses. We had a net loss of approximately \$12.7 million during the nine months ended September 30, 2015, a net loss of approximately \$25 million during the fiscal year ended December 31, 2014, a net loss of approximately \$9.3 million during the six month transition period ended December 31, 2013, and a net loss of approximately \$29.3 million during the fiscal year ended June 30, 2013. Because we have had recurring losses and negative cash flows from operating activities and have significant future commitments, substantial doubt exists regarding our ability to remain as a going concern at the same level we are currently performing. We anticipate that we will have a going concern paragraph from our independent registered public accounting firm for the year ended December 31, 2015.

Recent Developments

Effective as of October 1, 2015, we amended our certificate of incorporation in order to (i) effectuate a one-for-ten reverse stock split of our outstanding shares of common stock and (ii) reduce the number of authorized shares of our common stock from 125,000,000 to 50,000,000. All share and related option and warrant information presented in this prospectus supplement have been retroactively adjusted to reflect the reduced number of shares outstanding which resulted from this action.

Our Industry

Carotid

Carotid arteries are located on each side of the neck and provide the primary blood supply to the brain. Carotid artery disease, also called carotid artery stenosis, is a type of atherosclerosis (hardening of the arteries) that is one of the major risk factors for ischemic stroke. In carotid artery disease, plaque accumulates in the artery walls, narrowing the artery and disrupting the blood supply to the brain. This disruption in blood supply, together with plaque debris breaking off the artery walls and traveling to the brain, are the primary causes of stroke. According to the World Heart Federation (<http://www.world-heart-federation.org/cardiovascular-health/stroke/>, last visited on Mar. 11, 2016), every year, 15 million people worldwide suffer a stroke, and nearly six million die and another five million are left permanently disabled. According to the same source, stroke is the second leading cause of disability, after dementia.

The potential global market value of carotid stents is approximately \$500 million, approximately \$300 million of which consists of the U.S. market and approximately \$200 million of which consists of the rest of the world (*source: JMP Securities 2014 and Cowen 2014*). Carotid artery stenting is a minimally invasive treatment option for carotid artery disease and an alternative to carotid endarterectomy, where a surgeon accesses the blocked carotid artery through an incision in the neck, and then surgically removes the plaque. Endovascular techniques using stents and EPS protect against plaque and debris traveling downstream, blocking off the vessel and disrupting blood flow. We believe that the use of a stent with an embolic protection system should increase the number of patients being treated since it

would avoid the need for complex surgery.

Coronary

Physicians and patients may select from among a variety of treatments to address coronary artery disease, including pharmaceutical therapy, balloon angioplasty, stenting with bare metal or drug-eluting stents, and coronary artery bypass graft procedures, with the selection often depending upon the stage of the disease.

The global market value of coronary products is estimated at \$5.9 billion, of which \$4.2 billion is for stable angina and \$1.7 billion is for acute myocardial infarctions according to Health Research International (June 2011). According to the 2014 MEDTECH OUTLOOK produced in December 2013 by BMO Capital Markets (“MEDTECH OUTLOOK”), revenues from the global coronary stent market are predicted to slightly decline, although in volume of stents the market is predicted to continue to grow. We believe the growth in volume is due to the appeal for less invasive percutaneous coronary intervention (“PCI”) procedures and advances in technology coupled with the increase in the elderly population, obesity rates and advances in technology.

Neurovascular

The neurovascular market focuses on catheter-delivered products used to treat strokes that already happened or unruptured brain aneurysms that could lead to strokes. In the latter case, coils are wound into blood vessel bulges to block blood flow entering the aneurysms to prevent the aneurysms from rupturing. Endovascular treatment of arterial aneurysm has evolved substantially over the past two decades, transitioning from an investigational therapy into routine clinical practice and ultimately emerging as the treatment of choice for many lesions (*source: Medtech Ventures 2009, Aneurysm Flow Modulating Device Market*). We believe that the market for aneurysm flow modulating devices is still in the embryonic stage with windows of opportunities for early entrance. The global market for the endovascular treatment of cerebral aneurysms, which currently stands at \$980 million, is expected to reach \$1.4 billion by 2020, at a compound average annual growth rate of 5% per year (*source: Medtech Ventures, Endovascular Cerebral Aneurysm Repair Market, October 2013*).

The neurovascular market includes over-the-wire, flow-guided microcatheters, guiding catheters, coil and liquid embolics, neurovascular stents and flow diversion stents. According to iData Research, the market is expected to be driven by the conversion from surgical procedures to endovascular techniques in the treatment of aneurysms and arteriovenous malformations.

Our Products

Below is a summary of our current products and products under development, and their intended applications.

MicroNet

MicroNet is our proprietary circular knitted mesh which wraps around a stent to protect patients from plaque debris flowing downstream upon deployment. MicroNet is made of a single fiber from a biocompatible polymer widely used in medical implantations. The size, or aperture, of the current MicroNet ‘pore’ is only 150-180 microns in order to maximize protection against the potentially dangerous plaque and thrombus.

CGuard™ – Carotid Applications

Our CGuard EPS combines our MicroNet mesh and a self-expandable nitinol stent (a stent that expands without balloon dilation pressure or need of an inflation balloon) in a single device for use in carotid artery applications. MicroNet is placed over and attached to an open cell nitinol metal stent platform which is designed to trap debris and emboli that can dislodge from the diseased carotid artery and potentially travel to the brain and cause a stroke. This danger is one of the greatest limitations of carotid artery stenting with conventional carotid stents and stenting methods. The CGuard EPS technology is a highly flexible stent system that conforms to the carotid anatomy.

Our CGuard EPS with over-the-wire delivery system received CE mark approval in the European Union in March 2013. In October 2014, we initiated a limited market release of CGuard EPS with over-the-wire delivery system for use in carotid artery applications in Germany, Poland and Italy.

In September 2014, we reported the results of the CGuard CARENET (CARotid Embolic protection using microNET) trial at the Transcatheter Cardiovascular Therapeutics (TCT) meeting in Washington D.C. In the CARENET trial, the CGuard EPS system demonstrated better results over historical data using conventional commercially available carotid stents. In the third quarter of 2015 the results of the CGuard CARENET trial were published in the *Journal of the American College of Cardiology*. In November 2015, positive twelve month follow-up data from the CGuard CARENET trial was presented at the 42nd Annual Symposium on Vascular and Endovascular Issues, documenting the benefits of the CGuard MicroNet technology as well as the patency benefits (maintaining the artery open) of the internal and external carotid arteries at twelve months.

We believe that our CGuard EPS design provides advantages over existing therapies in treating carotid artery stenosis, such as conventional carotid stenting and surgical endarterectomy, given the superior embolic protection characteristics provided by the MicroNet. We believe the MicroNet will provide acute embolic protection at the time of the procedure, but more importantly, we believe that CGuard EPS will provide post-procedure protection against embolic dislodgement, which can occur up to 48 hours post-procedure. It is in this post-procedure time frame that embolization is the source of post-procedural strokes in the brain. Schofer, et al. ("Late cerebral embolization after emboli-protected carotid artery stenting assessed by sequential diffusion-weighted magnetic resonance imaging," *Journal of American College of Cardiology Cardiovascular Interventions*, Volume 1, 2008) have shown that the majority of the incidents of embolic showers associated with carotid stenting occur post-procedure.

In the first quarter of 2015, we introduced CGuard RX, the new rapid exchange delivery system for CGuard EPS. The rapid exchange delivery system has a guidewire that passes through the delivery system, running through the guiding catheter. It has one port, and thus, can be operated by one operator, while an over-the-wire-delivery system has two lumens and ports and requires two operators to perform the procedure. Our rapid exchange delivery system received CE mark approval in January 2015. We launched our CGuard EPS in Europe with the rapid exchange delivery system in multiple medical specialties that perform carotid artery stenting. These customers include interventional cardiologists, vascular surgeons, interventional neuroradiologists and interventional radiologists.

In September 2015, we announced full market launch of the CGuard EPS by our distribution partner, Penumbra, Inc., in 17 CE marked countries in Europe. In October 2015, we received regulatory approval to commercialize the CGuard EPS in Argentina and Columbia. We are currently preparing materials required to conduct a clinical trial in the United States. Once complete, we plan to request a pre-submission guidance meeting with the U.S. Food and Drug Administration.

MGuard Products– Coronary Applications

Bare-Metal Stent MGuard Product. Our MGuard Prime EPS coronary product is comprised of MicroNet wrapped around a cobalt-chromium based bare-metal stent. In comparison to a conventional bare-metal stent, we believe our MGuard Prime EPS coronary product with MicroNet mesh provides protection from dangerous embolic showers in patients experiencing ST-segment elevation myocardial infarction, the most severe form of a heart attack, referred to as STEMI. Standard stents were not engineered for heart attack patients. Rather, they were designed for treating stable angina patients whose occlusion is different from that of an occlusion in a heart attack patient. In acute heart attack patients, the plaque or thrombus is unstable and often breaks up as the stent is implanted causing downstream blockages in a significant portion of heart attack patients. Our MGuard Prime EPS is integrated with a precisely engineered micro net mesh that is designed to prevent the unstable arterial plaque and thrombus that caused the heart attack blockage from breaking off.

During the fourth quarter of 2014, due to a shift in industry preferences away from bare-metal stents in favor of drug-eluting (drug-coated) stents, we decided to curtail developing and promoting our bare-metal stent platform and instead focus on the development of a drug-eluting stent product.

Drug-Eluting Stent MicroNet Product Candidate. During 2015, we completed the second phase of development work for our MGuard DESTM, pursuant to which we incorporated our MicroNet with a drug-eluting stent manufactured by a prospective partner. We believe that a drug-eluting stent with MicroNet has the potential to improve certain performance metrics over the MGuard Prime EPS and attract a broader portion of the cardiologists in the worldwide stent market who are more accustomed to using drug-eluting stents. However, due to our limited resources we have tabled further development of MGuard DES at this time.

NVGuard – Neurovascular

We are developing a neurovascular flow diverter, which is an endovascular device that directs blood flow away from cerebral aneurysms to ultimately seal the aneurysms. Flow diversion is a growing market segment within the neurovascular medical device field. Current commercial flow diverters are highly flexible dense metal mesh tubes that

go across most types of cerebral aneurysms and divert the blood flow away from the aneurysm with the desired end result of sealing the aneurysm. The challenges with the current flow diverters are that they (i) are difficult to place given the high metal content in the device, which makes it more difficult to move the device through the delivery system due to resistance from the metal, and to subsequently accurately place it, (ii) need to be accurately placed to avoid crossing and blocking other cerebral vessels, which could cause additional damage by cutting off blood flow to sections of the brain, (iii) require chronic use of anti-thrombotic medications due to the amount of metal in the cerebral vasculature, which could cause thrombotic complications, and (iv) do not allow a physician to reaccess the aneurysm if the aneurysm does not seal, in which event the aneurysm may need to be treated with another therapy such as aneurysm coils, due to the tight metal mesh that will not allow other devices to pass through the flow diverter.

Our flow diverter prototype will include our MicroNet that has been employed in CGuard EPS and MGuard Prime EPS. MicroNet has already demonstrated the ability to effectively seal aneurysms in both human coronary arteries using the MGuard Prime EPS and aneurysms in the carotid arteries using the CGuard EPS in human clinical situations without the need for additional devices or procedures (coils or a second stent) (*source: Journal of Medical Case Reports <http://www.jmedicalcasereports.com/content/4/1/238>*). For our flow diverter, we plan to utilize an open cell, highly flexible metal scaffold to which MicroNet would be attached. We believe our flow diverter could be more accurately delivered due to a lower metal content scaffold than current commercial flow diverters; lower metal content in our flow diverter may reduce the need for long-term anticoagulation; the open cell metal scaffold combined with the MicroNet may allow passage of other devices through the MicroNet mesh without compromising the MicroNet, thus allowing a physician to reaccess the aneurysm, if needed; and our flow diverter should be capable of being delivered through a state-of-the-art microcatheter for accurate placement without constant repositioning. We have tested early flow diverter prototypes in both simulated aneurysm bench models using various MicroNet configurations with varying aperture sizes, as well as in standard in vivo pre-clinical models, in which we observed aneurysm sealing and also wide open side branch vessels across which the device was placed.

In addition to our plan to develop our own flow diverter, we are also evaluating the opportunity to partner with a device company that either has an existing flow diverter or is looking for an entry into the market.

Growth Strategy

Our primary business objective is to utilize our proprietary technology to become the industry standard for treatment of complex vascular and coronary disease and to provide a superior solution to the common acute problems caused by current stenting procedures, such as restenosis, embolic showers and late thrombosis. We are pursuing the following business strategies in order to achieve this objective.

Grow our presence in existing and new markets for CGuard EPS. We have fully launched CGuard EPS in most European and Latin American countries, through a combination of distributor sales organizations as well as a partnership with Penumbra, Inc., a global interventional therapies company focused on the neuro and peripheral vascular specialties, to distribute CGuard EPS in Europe in 17 CE marked countries. We are also pursuing additional registrations and contracts in other countries in Europe, Asia and Latin America.

Continue to leverage MicroNet technology to develop additional applications for interventional cardiologists and vascular surgeons. In addition to the applications described above, we believe that we will eventually be able to utilize our proprietary technology to address imminent market needs for new product innovations to significantly improve patients' care. We continue to broadly develop and protect intellectual property using our mesh technology. Examples of some areas include peripheral vascular disease, neurovascular disease, renal artery disease, and bifurcation disease.

We work closely with leading physicians to evaluate and ensure the efficacy and safety of our products. Some of these prominent physicians serve on our Scientific Advisory Board, which is our advisory committee that advises our board of directors and advises and participates in the operation of our clinical trials. These physicians have and will continue to generate and publish scientific data on the use of our products, and to present their findings at various key clinical conferences.

Establish relationships with collaborative and development partners to fully develop and market our existing and future products. We are seeking strategic partners for collaborative research, development, marketing, distribution, or other agreements, which could assist with our development and commercialization efforts for CGuard EPS and our NVGuard flow diverter, as well as future efforts with MGuard Prime EPS, MGuard DES, and other potential products that are based on our MicroNet technology.

Continue to protect and expand our portfolio of patents. Our MicroNet technology and the use of patents to protect it are critical to our success. We own numerous patents for our MicroNet technology. Twelve separate patent applications have been filed in the United States some of which have corresponding patent applications and/or issued patents in Canada, China, Europe, Israel, India, and South Africa. We believe these patents and patent applications collectively cover all of our existing products, and may be useful for protecting our future technology developments. We intend to aggressively continue patenting new technology, and to actively pursue any infringement covered by any of our patents. We believe that our patents, and patent applications once allowed, are

important for maintaining the competitive differentiation of our products and maximizing our return on research and development investments.

Resume development and successfully commercialize the next generation of drug-eluting stent incorporating MicroNet. While we have limited the focus of product development to carotid and neurovascular products, if we resume development of our coronary products, we plan to evaluate opportunities to further develop a drug-eluting stent that incorporates MicroNet.

Competition

The markets in which we compete are highly competitive, subject to change and impacted by new product introductions and other activities of industry participants.

Carotid

The carotid stent markets in the United States and Europe are dominated by Abbott Laboratories, Boston Scientific Corporation, Covidien Ltd. (currently part of Medtronic, Inc.), and Cordis Corporation. Gore Medical and Terumo Medical Corporation produce mesh-covered carotid stents. All of these larger companies have substantially greater capital resources, larger customer bases, broader product lines, larger sales forces, greater marketing and management resources, larger research and development staffs and larger facilities than ours and have established reputations and relationships with our target customers, as well as worldwide distribution channels that are more effective than ours. However, we believe that the European market is somewhat fragmented, and, in our opinion, smaller competitors may be able to gain market share with greater flexibility.

Coronary

The bare-metal stent and the drug-eluting stent markets in the United States and Europe are dominated by Abbott Laboratories, Boston Scientific Corporation, and Medtronic, Inc. In the future, we believe that physicians will look to next-generation stent technology to compete with existing therapies. These new technologies will likely include bio-absorbable stents, stents that focus on treating bifurcated lesions, and stents with superior polymer and drug coatings, and many industry participants are working to improve stenting procedures in the future as the portfolio of available stent technologies rapidly increases.

According to the MEDTECH OUTLOOK, the worldwide coronary stent market is dominated by three major players (Abbott Laboratories, Boston Scientific Corporation and Medtronic, Inc.), with a combined total market share of approximately 92%. To date, our sales are not significant enough to register in market share. As such, one of the challenges we face to further our product growth is the competition from numerous pharmaceutical and biotechnology companies in the therapeutics area, as well as competition from academic institutions, government agencies and research institutions. Most of our current and potential competitors, including but not limited to those listed above, have, and will continue to have, substantially greater financial, technological, research and development, regulatory and clinical, manufacturing, marketing and sales, distribution and personnel resources than we do. Due to ongoing consolidation in the industry, there are high barriers to entry for small manufacturers in both the European and the United States markets.

Neurovascular

Stryker Corporation dominated the global interventional neurology market in 2014. The other key players in this market include Medtronic plc, Johnson & Johnson, Terumo Corporation, Penumbra, Inc., Abbott Laboratories, Merit Medical Systems, Inc., W. L. Gore & Associates, Inc., Microport Scientific Corporation, and Medikit Co., Ltd., among others. (*source: Markets and Markets 2015*).

Distributors

We currently have distribution agreements for our CE mark-approved MGuard and CGuard EPS products with medical product distributors based in Europe, the Middle East, Asia Pacific, Australia, South Africa and Latin America. We are currently in discussions with additional distribution companies in Europe, Asia, and Latin America.

Penumbra Distribution Agreement

On August 5, 2015, InspireMD, Ltd., our wholly owned subsidiary, entered into a distribution agreement with Penumbra, Inc., pursuant to which Penumbra, Inc. will act as the exclusive distributor of CGuard EPS in Austria, France, Sweden, Denmark, Norway, Finland, Estonia, Lithuania, Portugal, Switzerland and the United Kingdom and Ireland. The territory covered by the distribution agreement also includes non-exclusive rights to distribute CGuard EPS in Latvia, Belgium, the Netherlands, Luxembourg, Germany and Poland.

Under the terms of the distribution agreement, we will use all commercially reasonable efforts to obtain all required permits, licenses and other approvals necessary to import, market or sell the CGuard EPS in the territory covered by the distribution agreement. Within 60 days after receipt of all such required approvals in a given territory, Penumbra, Inc. shall place its initial stocking order for CGuard EPS, for which Penumbra, Inc. will pay one-half of the purchase price upon placing such order and the remainder of the purchase price 30 days after receipt of the CGuard products and our invoice for such CGuard EPS products. If, in our reasonable discretion, Penumbra, Inc. fails to order a sufficient quantity of CGuard EPS to successfully commercialize the CGuard EPS in the applicable territory, then we may reduce the territory covered by the distribution agreement upon providing 60 days' notice to Penumbra, Inc.

The distribution agreement requires Penumbra, Inc. to use commercially reasonable efforts to purchase CGuard EPS in certain minimum target amounts agreed to by the parties for the 2015 and 2016 calendar years. For all subsequent calendar years during the term of the distribution agreement, the parties will agree to the minimum annual purchase targets at least 30 days prior to the commencement of such calendar year, which shall be determined in good faith by mutual agreement, taking into account various relevant factors, such as the sales attained during the preceding calendar year and prevailing market conditions, among others. The parties fixed the initial prices to be paid by Penumbra, Inc. for CGuard EPS through December 31, 2015, which were subject to certain reductions for inventory shelf life and other adjustments negotiated by the parties.

The initial term of the distribution agreement ends on December 31, 2018, unless sooner terminated pursuant to the termination rights set forth therein. Either party may terminate the distribution agreement (i) without cause upon providing 60 days' notice to the other party, (ii) upon the other party's material breach of the distribution agreement, which is not cured 30 days after written notice thereof from the non-breaching party and (iii) immediately without notice upon the bankruptcy, insolvency, dissolution, assignment for the benefit of creditors or similar event with respect to the other party. We may also terminate the distribution agreement if it reasonably believes that Penumbra, Inc., or any party acting on its behalf, has violated the United States Foreign Corrupt Practices Act of 1977. In addition, if at any time during the term of the distribution agreement, Penumbra, Inc. distributes or offers for sale products that, in our reasonable judgment, compete with CGuard EPS, then we may terminate the distribution agreement or change the exclusive rights granted to non-exclusive rights upon providing 30 days' notice to Penumbra, Inc.

Pursuant to the distribution agreement, we are subject to customary covenants and other continuing regulatory, record-keeping and reporting obligations.

The distribution agreement also contains a limited three year warranty for CGuard EPS and other mutual confidentiality and indemnification obligations for us and Penumbra, Inc.

Current and future agreements with distributors stipulate that, while we are responsible for training, providing marketing guidance, marketing materials, and technical guidance, distributors will be responsible for carrying out local registration, sales and marketing activities. In addition, in most cases, all sales costs, including sales representatives, incentive programs, and marketing trials, will be borne by the distributor. Under current agreements, distributors purchase stents from us at a fixed price. Our current agreements with distributors are generally for a term of approximately three years.

Corporate Information

We were organized in the State of Delaware on February 29, 2008. Our principal executive offices are located at 321 Columbus Avenue, Boston, Massachusetts 02116. Our telephone number is (857) 453-6553. Our website address is www.inspire-md.com. Information accessed through our website is not incorporated into this prospectus and is not a part of this prospectus supplement.

THE OFFERING

Issuer	InspireMD, Inc.
Securities offered by us in this offering	<p>shares of our common stock, par value \$0.0001 per share</p> <p>Warrants to purchase up to shares of common stock, with an exercise price for two warrants of \$ per full share.</p> <p>shares of common stock issuable upon exercise of the warrants.</p>
Offering price	\$ per share of common stock and accompanying warrant to purchase one half of one share of our common stock.
Common stock outstanding immediately before this offering	7,794,075 shares
Common stock outstanding immediately after this offering	shares (assuming no exercise of any of the warrants offered hereby)
Use of proceeds	<p>We estimate that our net proceeds from this offering (based on a public offering price of \$ per share) will be approximately \$ after deducting the underwriting discount and estimated offering expenses payable by us (assuming no exercise of any of the warrants offered hereby).</p> <p>We plan to use the net proceeds of this offering to conduct sales activities related to CGuard™ EPS™ and MGuard Prime™ EPS. Any balance of the net proceeds will be used for general corporate purposes. See “Use of Proceeds.”</p>
Dividend policy	We have not declared or paid any cash or other dividends on our common stock, and we do not expect to declare or pay any cash or other dividends in the foreseeable future. See “Dividend Policy.”
Risk factors	You should carefully read and consider the information beginning on page S-10 of this prospectus supplement and page 6 of the accompanying prospectus set forth under the headings “Risk Factors” and all other information set forth in this prospectus supplement, the accompanying prospectus, and the documents incorporated herein and therein by reference before deciding to invest in our common stock and warrants.

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NYSE MKT symbol for common stock NSPR. The warrants will not be listed on the NYSE MKT or any other exchange or trading market. There is no established trading market for the warrants and we do not expect any such trading market to develop.

The number of shares to be outstanding immediately before and immediately after this offering is based on 7,794,075 shares of our common stock outstanding as of March 14, 2016 and excludes as of that date:

195,393 shares of common stock issuable upon the exercise of currently outstanding warrants with an exercise price of \$72.00 per share;

63,750 shares of common stock issuable upon the exercise of currently outstanding warrants with an exercise price of \$60.00 per share;

65,912 shares of common stock issuable upon the exercise of currently outstanding warrants with an exercise price of \$30.00 per share;

16,836 shares of common stock issuable upon the exercise of currently outstanding warrants with an exercise price of \$29.70 per share;

313,100 shares of common stock issuable upon the exercise of currently outstanding warrants to purchase one-half of one share of common stock with an exercise price for two warrants of \$17.50 per full share;

3,436,970 shares of common stock issuable upon the exercise of currently outstanding warrants with an exercise price of \$5.50 per share;

shares of common stock issuable upon the exercise of warrants that we have agreed to issue to the underwriter or its designees in this offering equal to 5% of the shares of common stock sold in this offering, at a price per share equal to 125% of the public offering price in this offering;

336,430 shares of common stock issuable upon the exercise of currently outstanding options with exercise prices ranging from \$0.0001 to \$84.00 and having a weighted average exercise price of \$30.25 per share;

243,580 shares of common stock available for future issuance under our 2011 UMBRELLA Option Plan, 243,580 of which will be granted to Isaac Blech in connection with his appointment to our board of directors; and

673,261 shares of common stock available for future issuance under our 2013 Long-Term Incentive Plan, 536,420 of which will be granted to Isaac Blech in connection with his appointment to our board of directors.

Concurrently with the closing of this offering, certain of our directors and executive officers have agreed to purchase in a private placement an aggregate amount of \$ _____ of our common stock and warrants on the same terms as this offering.

RISK FACTORS

An investment in our common stock involves a high degree of risk. Before deciding whether to invest in our common stock, you should consider carefully the risks described below, together with other information in this prospectus supplement, the accompanying prospectus, the information and documents incorporated by reference, and in any free writing prospectus that we have authorized for use in connection with this offering. If any of these risks actually occurs, our business, financial condition, results of operations or cash flow could be seriously harmed. This could cause the trading price of our common stock to decline, resulting in a loss of all or part of your investment. The risks and uncertainties described below are not the only ones facing us. Additional risks and uncertainties not presently known to us, or that we currently see as immaterial, may also harm our business. Please also read carefully the section below entitled “Special Note Regarding Forward-Looking Statements.”

Risks Related to Our Business

We have a history of net losses and may experience future losses.

We have yet to establish any history of profitable operations. We expect to report a net loss of \$15.6 million for the fiscal year ended December 31, 2015 and had a net loss of approximately \$25 million during the fiscal year ended December 31, 2014. As of December 31, 2015, we had an accumulated deficit of \$123 million. We expect to incur additional operating losses for the foreseeable future. There can be no assurance that we will be able to achieve sufficient revenues throughout the year or be profitable in the future.

Our financial statements contain, and, notwithstanding our completion of this offering, the report of our independent registered public accounting firm is expected to contain, an explanatory paragraph as to our ability to continue as a going concern, which could prevent us from obtaining new financing on reasonable terms or at all.

Because we have had recurring losses and negative cash flows from operating activities, substantial doubt exists regarding our ability to remain as a going concern at the same level at which we are currently performing. Accordingly, the footnotes to our financial statements for the three months ended September 30, 2015 include an explanatory paragraph as to our potential inability to continue as a going concern. The doubts regarding our potential ability to continue as a going concern may adversely affect our ability to obtain new financing on reasonable terms or at all. Further, notwithstanding our completion of this offering, we anticipate that we will have a going concern paragraph from our independent registered public accounting firm for the year ended December 31, 2015 when we file our annual financial statements for the fiscal year ended December 31, 2015.

We will need to raise additional capital to meet our business requirements in the future and such capital raising may be costly or difficult to obtain and could dilute out stockholders' ownership interests.

The net proceeds from this offering are expected to be sufficient to enable us to continue operations for only a short period of time. In order to fully realize all of our business objectives, absent any non-dilutive funding from a strategic partner or some other strategic transactions, we will need to raise additional capital no later than the beginning of the second quarter of 2016, depending on the proceeds from this offering, which additional capital may not be available on reasonable terms or at all. For instance, we will need to raise additional funds to accomplish the following:

- developing CGuard EPS, MGuard DES, NVGuard and any additional products;
- pursuing growth opportunities, including more rapid expansion;
- making capital improvements to improve our infrastructure;
- hiring and retaining qualified management and key employees;
- responding to competitive pressures;
- complying with regulatory requirements such as licensing and registration; and
- maintaining compliance with applicable laws.

Any additional capital raised through the sale of equity or equity backed securities may dilute our stockholders' ownership percentages and could also result in a decrease in the market value of our equity securities.

The terms of any securities issued by us in future capital transactions may be more favorable to new investors, and may include preferences, superior voting rights and the issuance of warrants or other derivative securities, which may have a further dilutive effect on the holders of any of our securities then outstanding.

Furthermore, any additional debt or equity financing that we may need may not be available on terms favorable to us, or at all. If we are unable to obtain such additional financing on a timely basis, we may have to curtail our development activities and growth plans and/or be forced to sell assets, perhaps on unfavorable terms, which would have a material adverse effect on our business, financial condition and results of operations, and ultimately could be forced to discontinue our operations and liquidate, in which event it is unlikely that stockholders would receive any distribution on their shares. Further, we may not be able to continue operating if we do not generate sufficient revenues from operations needed to stay in business.

In addition, we may incur substantial costs in pursuing future capital financing, including investment banking fees, legal fees, accounting fees, securities law compliance fees, printing and distribution expenses and other costs. We may also be required to recognize non-cash expenses in connection with certain securities we issue, such as convertible notes and warrants, which may adversely impact our financial condition.

The voluntary field action of our MGuard Prime EPS we initiated in 2014 could continue to have a significant adverse impact on us.

The manufacturing and marketing of medical devices involves an inherent risk that our products may prove to be defective and cause a health risk even after regulatory clearances have been obtained. Medical devices may also be modified after regulatory clearance is obtained to such an extent that additional regulatory clearance is necessary before the device can be further marketed. In these events, we may voluntarily implement a recall or market withdrawal or may be required to do so by a regulatory authority.

On April 30, 2014 we initiated a voluntary field corrective action of our MGuard Prime EPS to address the issue of stent retention following reports of MGuard Prime EPS stent dislodgements in patients. Although there have been no reports of death or serious injury as a result of such dislodgements, we decided to suspend shipments of the MGuard Prime EPS and implement a field corrective action to enhance the reliability and performance of the affected product units in the field. We received European regulatory approval to resume manufacturing and distribution of our MGuard Prime EPS stent with a modified stent securement process, and we began shipping products to new customers in our direct markets in Western Europe in late September 2014. We completed the full re-launch of MGuard Prime EPS in 2015, with the exception of Russia.

As a result of our voluntary field action, we are subject to numerous risks and uncertainties, including the following:

although we resumed manufacturing and distribution of our MGuard Prime EPS stent with a modified stent securement process, our suspension of shipments has and may continue to adversely impact revenue;

we are more susceptible to claims such as product liability claims, distributor claims and class action lawsuits as a result of the reported product malfunction and voluntary field action, which could significantly increase our costs and may have a material adverse effect on our business, financial condition and results of operations;

our decision to implement the voluntary field action and discontinue shipments, and any additional action related to such decision, may harm our reputation or the market's perception of our products, which could have a negative impact on our future sales and our ability to generate profits.

In the European Economic Area, we must comply with the EU Medical Device Vigilance System. Under this system, manufacturers are required to take Field Safety Corrective Actions ("FSCAs") to reduce a risk of death or serious deterioration in the state of health associated with the use of a medical device that is already placed on the market. A FSCA may include the recall, modification, exchange, destruction or retrofitting of the device. FSCAs must be communicated by the manufacturer or its legal representative to its customers and/or to the end users of the device through Field Safety Notices.

Any adverse event involving our products could result in other future voluntary corrective actions, such as recalls or customer notifications, or agency action, such as inspection or enforcement action. Adverse events, such as the MGuard Prime EPS stent dislodgements, have been reported to us in the past, and we cannot guarantee that they will not occur in the future. Any corrective action, whether voluntary or involuntary, as well as defending ourselves in a lawsuit, would require the dedication of our time and capital, distract management from operating our business and could harm our reputation and financial results.

In addition to the foregoing, since we initiated our voluntary field action we have received a demand from one distributor that we refund approximately \$160,000 in lieu of receiving refitted product and a demand from a second distributor to provide unspecified compensation for pre-paid goods subject to the voluntary field action, related costs and any third claims. We do not believe that these distributors are entitled to any compensation or refunds due to the voluntary field action and we intend to defend ourselves against any such claims, however, regarding the demand from the second distributor, we believe that a loss from any related future proceedings that could range from a minimal amount up to 1,075,000 Euros is reasonably possible. While we are disputing these claims, should an action be filed we could be forced to pay damages which could result in a material adverse effect on our business.

We expect to derive our revenue from sales of our MGuard Prime EPS and CGuard EPS stent products and other products we may develop, such as NVGuard. If we fail to generate revenue from these sources, our results of operations and the value of our business would be materially and adversely affected.

We expect our revenue to be generated from sales of our MGuard Prime EPS and CGuard EPS stent products and other products we may develop. Future sales of CGuard EPS will be subject to the receipt of regulatory approvals and commercial and market uncertainties that may be outside our control. In addition, sales of MGuard Prime EPS have been hampered by weakened demand for bare metal stents, which may never improve, and we may not be successful in developing a drug-eluting stent product. In addition, there may be insufficient demand for other products we are seeking to develop, such as NVGuard. If we fail to generate expected revenues from these products, our results of operations and the value of our business and securities would be materially and adversely affected.

If we are unable to obtain and maintain intellectual property protection covering our products, others may be able to make, use or sell our products, which would adversely affect our revenue.

Our ability to protect our products from unauthorized or infringing use by third parties depends substantially on our ability to obtain and maintain valid and enforceable patents. Similarly, the ability to protect our trademark rights might be important to prevent third party counterfeiters from selling poor quality goods using our designated trademarks/trade names. Due to evolving legal standards relating to the patentability, validity and enforceability of patents covering medical devices and pharmaceutical inventions and the scope of claims made under these patents, our ability to enforce patents is uncertain and involves complex legal and factual questions. Accordingly, rights under any of our pending patent applications and patents may not provide us with commercially meaningful protection for our products or may not afford a commercial advantage against our competitors or their competitive products or processes. In addition, patents may not be issued from any pending or future patent applications owned by or licensed to us, and moreover, patents that may be issued to us now or in the future may not be valid or enforceable. Further, even if valid and enforceable, our patents may not be sufficiently broad to prevent others from marketing products like ours, despite our patent rights.

The validity of our patent claims depends, in part, on whether prior art references exist that describe or render obvious our inventions as of the filing date of our patent applications. We may not have identified all prior art, such as U.S. and foreign patents or published applications or published scientific literature, that could adversely affect the patentability of our pending patent applications. For example, some material references may be in a foreign language and may not be uncovered during examination of our patent applications. Additionally, patent applications in the United States are maintained in confidence for up to 18 months after their filing. In some cases, however, patent applications remain confidential in the U.S. Patent and Trademark Office for the entire time prior to issuance as a U.S. patent. Patent applications filed in countries outside the U.S. are not typically published until at least 18 months from their first filing date. Similarly, publication of discoveries in the scientific or patent literature often lags behind actual discoveries. Therefore, we cannot be certain that we were the first to invent, or the first to file patent applications relating to, our stent technologies. In the event that a third party has also filed a U.S. patent application covering our

stents or a similar invention, we may have to participate in an adversarial proceeding, known as an interference, declared by the U.S. Patent and Trademark Office to determine priority of invention in the United States. It is possible that we may be unsuccessful in the interference, resulting in a loss of some portion or all of our position in the United States.

In addition, statutory differences in patentable subject matter depending on the jurisdiction may limit the protection we obtain on certain of the technologies we develop. The laws of some foreign jurisdictions do not offer the same protection to, or may make it more difficult to effect the enforcement of, proprietary rights as in the United States, risk that may be exacerbated if we move our manufacturing to certain countries in Asia. If we encounter such difficulties or are otherwise precluded from effectively protecting our intellectual property rights in any foreign jurisdictions, our business prospects could be substantially harmed.

We may initiate litigation to enforce our patent rights on any patents issued on pending patent applications, which may prompt adversaries in such litigation to challenge the validity, scope, ownership, or enforceability of our patents. Third parties can sometimes bring challenges against a patent holder to resolve these issues, as well. If a court decides that any such patents are not valid, not enforceable, not wholly owned by us, or are of a limited scope, we may not have the right to stop others from using our inventions. Also, even if our patent rights are determined by a court to be valid and enforceable, they may not be sufficiently broad to prevent others from marketing products similar to ours or designing around our patents, despite our patent rights, nor do they provide us with freedom to operate unimpeded by the patent and other intellectual property rights of others that may cover our products. We may be forced into litigation to uphold the validity of the claims in our patent portfolio, as well as our ownership rights to such intellectual property, and litigation is often an uncertain and costly process.

We also rely on trade secret protection to protect our interests in proprietary know-how and for processes for which patents are difficult to obtain or enforce. We may not be able to protect our trade secrets adequately. In addition, we rely on non-disclosure and confidentiality agreements with employees, consultants and other parties to protect, in part, trade secrets and other proprietary technology. These agreements may be breached and we may not have adequate remedies for any breach. Moreover, others may independently develop equivalent proprietary information, and third parties may otherwise gain access to our trade secrets and proprietary knowledge. Any disclosure of confidential data into the public domain or to third parties could allow competitors to learn our trade secrets and use the information in competition against us.

If our manufacturing facilities are unable to provide an adequate supply of products, our growth could be limited and our business could be harmed.

We currently manufacture our MGuard Prime EPS and CGuard EPS products at our facility in Tel Aviv, Israel. If there were a disruption to our existing manufacturing facility, we would have no other means of manufacturing our MGuard Prime EPS or CGuard EPS stents until we were able to restore the manufacturing capability at our facility or develop alternative manufacturing facilities. If we were unable to produce sufficient quantities of our MGuard Prime EPS or CGuard EPS stents to meet market demand or for use in our current and planned clinical trials, or if our manufacturing process yields substandard stents, our development and commercialization efforts would be delayed.

Additionally, any damage to or destruction of our Tel Aviv facility or its equipment, prolonged power outage or contamination at our facility would significantly impair our ability to produce either MGuard Prime EPS or Cguard EPS stents.

Finally, the production of our stents must occur in a highly controlled, clean environment to minimize particles and other yield and quality-limiting contaminants. In spite of stringent quality controls, weaknesses in process control or minute impurities in materials may cause a substantial percentage of defective products in a lot. If we are unable to maintain stringent quality controls, or if contamination problems arise, our clinical development and commercialization efforts could be delayed, which would harm our business and results of operations.

Pre-clinical and clinical trials will be lengthy and expensive, and any delay or failure of clinical trials could prevent us from commercializing our MicroNet products, which would materially and adversely affect our results of operations and the value of our business.

As part of the regulatory process, we must conduct clinical trials for each product candidate to demonstrate safety and efficacy to the satisfaction of the regulatory authorities, including, if we seek in the future to sell our products in the

United States, the U.S. Food and Drug Administration. Clinical trials are subject to rigorous regulatory requirements and are expensive and time-consuming to design and implement. They require the enrollment of a large number of patients, and suitable patients may be difficult to identify and recruit, which may cause a delay in the development and commercialization of our product candidates. In some trials, a greater number of patients and a longer follow-up period may be required. Patient enrollment in clinical trials and the ability to successfully complete patient follow-up depends on many factors, including the size of the patient population, the nature of the trial protocol, the proximity of patients to clinical sites, the eligibility criteria for the clinical trial and patient compliance. For example, patients may be discouraged from enrolling in our clinical trials if the trial protocol requires them to undergo extensive post-treatment procedures or follow-up to assess the safety and efficacy of our products, or they may be persuaded to participate in contemporaneous clinical trials of competitive products. In addition, patients participating in our clinical trials may die before completion of the trial or suffer adverse medical events unrelated to or related to our products. Delays in patient enrollment or failure of patients to continue to participate in a clinical trial may cause an increase in costs and delays or result in the failure of the clinical trial.

In addition, the length of time required to complete clinical trials for pharmaceutical and medical device products varies substantially according to the degree of regulation and the type, complexity, novelty and intended use of a product, and can continue for several years and cost millions of dollars. The commencement and completion of clinical trials for our existing products and those under development may be delayed by many factors, including governmental or regulatory delays and changes in regulatory requirements, policy and guidelines or our inability or the inability of any potential licensee to manufacture or obtain from third parties materials sufficient for use in preclinical studies and clinical trials. In addition, market demand may change for products being tested due to the length of time needed to complete requisite clinical trials. For example, we decided to discontinue our MASTER II trial notwithstanding the resources we had spent on the trial due to the change in market demand for bare metal stents.

Physicians may not widely adopt our products unless they determine, based on experience, long-term clinical data and published peer reviewed journal articles, that the use of our stents provides a safe and effective alternative to other existing treatments for coronary artery disease and carotid artery disease.

We believe that physicians will not widely adopt our products unless they determine, based on experience, long-term clinical data and published peer reviewed journal articles, that the use of our products provide a safe and effective alternative to other existing treatments for the conditions we are seeking to address.

If we fail to demonstrate safety and efficacy that is at least comparable to existing and future therapies available on the market, our ability to successfully market our products will be significantly limited. Even if the data collected from clinical studies or clinical experience indicate positive results, each physician's actual experience with our products will vary. Clinical trials conducted with our products may involve procedures performed by physicians who are technically proficient and are high-volume stent users of such products. Consequently, both short-term and long-term results reported in these clinical trials may be significantly more favorable than typical results of practicing physicians, which could negatively affect rates of adoptions of our products. We also believe that published peer-reviewed journal articles and recommendations and support by influential physicians regarding our products will be important for market acceptance and adoption, and we cannot assure you that we will receive these recommendations and support, or that supportive articles will be published.

Physicians currently consider drug-eluting stents to be the industry standard for treatment of coronary artery disease. None of our current coronary products is a drug-eluting stent, and this may adversely affect our business.

Our ability to attract customers depends to a large extent on our ability to provide goods that meet the customers' and the market's demands and expectations. If we do not have a product that is expected by the market, we may lose customers. The market demand has shifted away from bare metal stents in favor of drug-eluting stents. Our MGuard Prime EPS is a bare-metal stent product, and we have noticed a reduction in the sales level of MGuard Prime EPS compared to the sales level we had in the past. Such sales may never recover and we do not currently have the resources to develop a drug-eluting stent product. Our failure to provide industry standard devices could adversely affect our business, financial condition and results of operations.

Our products are based on a new technology, and we have only limited experience in regulatory affairs, which may affect our ability or the time required to navigate complex regulatory requirements and obtain necessary regulatory approvals, if such approvals are received at all. Regulatory delays or denials may increase our costs, cause us to lose revenue and materially and adversely affect our results of operations and the value of our business.

Because our products are new and long-term success measures have not been completely validated, regulatory agencies may take a significant amount of time in evaluating product approval applications. Treatments may exhibit a favorable measure using one metric and an unfavorable measure using another metric. Any change in accepted metrics may result in reconfiguration of, and delays in, our clinical trials. Additionally, we have only limited experience in filing and prosecuting the applications necessary to gain regulatory approvals, and our clinical, regulatory and quality assurance personnel are currently composed of only six employees. As a result, we may experience delays in connection with obtaining regulatory approvals for our products.

In addition, the products we and any potential licensees license, develop, manufacture and market are subject to complex regulatory requirements, particularly in the United States, Europe and Asia, which can be costly and

time-consuming. There can be no assurance that such approvals will be granted on a timely basis, if at all. Furthermore, there can be no assurance of continued compliance with all regulatory requirements necessary for the manufacture, marketing and sale of the products we will offer in each market where such products are expected to be sold, or that products we have commercialized will continue to comply with applicable regulatory requirements. If a government regulatory agency were to conclude that we were not in compliance with applicable laws or regulations, the agency could institute proceedings to detain or seize our products, issue a recall, impose operating restrictions, enjoin future violations and assess civil and criminal penalties against us, our officers or employees and could recommend criminal prosecution. Furthermore, regulators may proceed to ban, or request the recall, repair, replacement or refund of the cost of, any device manufactured or sold by us. Furthermore, there can be no assurance that all necessary regulatory approvals will be obtained for the manufacture, marketing and sale in any market of any new product developed or that any potential licensee will develop using our licensed technology.

Even if our products are approved by regulatory authorities, if we or our suppliers fail to comply with ongoing regulatory requirements, or if we experience unanticipated problems with our products, these products could be subject to restrictions or withdrawal from the market.

Any regulatory approvals that we receive for our products will require surveillance to monitor the safety and efficacy of the product and may require us to conduct post-approval clinical studies. In addition, if a regulatory authority approves our products, the manufacturing processes, labeling, packaging, distribution, adverse event reporting, storage, advertising, promotion, import, export and recordkeeping for our products will be subject to extensive and ongoing regulatory requirements.

Moreover, if we obtain regulatory approval for any of our products, we will only be permitted to market our products for the indication approved by the regulatory authority, and such approval may involve limitations on the indicated uses or promotional claims we may make for our products. In addition, later discovery of previously unknown problems with our products, including adverse events of unanticipated severity or frequency, or with our suppliers or manufacturing processes, or failure to comply with regulatory requirements, may result in, among other things:

· restrictions on the marketing or manufacturing of our product candidates, withdrawal of the product from the market, or voluntary or mandatory product recalls;

- fines, warning letters, or untitled letters;

- holds on clinical trials;

- refusal by the regulatory authority to approve pending applications or supplements to approved applications filed by us or suspension or revocation of license approvals;

- product seizure or detention, or refusal to permit the import or export of our product candidates; and

- injunctions, the imposition of civil penalties or criminal prosecution.

The applicable regulatory authorities' policies may change and additional government regulations may be enacted that could prevent, limit or delay regulatory approval of our products. We cannot predict the likelihood, nature or extent of government regulation that may arise from future legislation or administrative action, either in the United States or abroad. If we are slow or unable to adapt to changes in existing requirements or the adoption of new requirements or policies, or if we are not able to maintain regulatory compliance, we may lose any marketing approval that we may have obtained and we may not achieve or sustain profitability.

Further, healthcare laws and regulations may change significantly in the future. Any new healthcare laws or regulations may adversely affect our business. A review of our business by courts or regulatory authorities may result in a determination that could adversely affect our operations. In addition, the healthcare regulatory environment may change in a way that restricts our operations.

We are subject to federal, state and foreign healthcare laws and regulations and implementation of or changes to such healthcare laws and regulations could adversely affect our business and results of operations.

We are subject to federal, state and foreign healthcare laws and regulations and implementation of or changes to such healthcare laws and regulations could adversely affect our business and results of operations.

In both the United States and certain foreign jurisdictions, there have been a number of legislative and regulatory proposals in recent years to change the healthcare system in ways that could impact our ability to sell our products. If we are found to be in violation of any of these laws or any other federal or state regulations, we may be subject to administrative, civil and/or criminal penalties, damages, fines, individual imprisonment, exclusion from federal health care programs and the restructuring of our operations. Any of these could have a material adverse effect on our

business and financial results. Since many of these laws have not been fully interpreted by the courts, there is an increased risk that we may be found in violation of one or more of their provisions. Any action against us for violation of these laws, even if we ultimately are successful in our defense, will cause us to incur significant legal expenses and divert our management's attention away from the operation of our business.

Failure to obtain regulatory approval in foreign jurisdictions will prevent us from marketing our products in such jurisdictions.

We market our products in international markets. In order to market our products in other foreign jurisdictions, we must obtain separate regulatory approvals from those obtained in the United States and Europe. The approval procedure varies among countries and can involve additional testing, and the time required to obtain approval may differ from that required to obtain CE mark or U.S. Food and Drug Administration approval. Foreign regulatory approval processes may include all of the risks associated with obtaining CE mark or U.S. Food and Drug Administration approval in addition to other risks. We may not obtain foreign regulatory approvals on a timely basis, if at all. CE mark approval does not ensure approval by regulatory authorities in other countries. We may not be able to file for regulatory approvals and may not receive necessary approvals to commercialize our products in certain markets.

We operate in an intensely competitive and rapidly changing business environment, and there is a substantial risk our products could become obsolete or uncompetitive.

The medical device market is highly competitive. We compete with many medical device companies in the United States and globally in connection with our current products and products under development. We face competition from numerous pharmaceutical and biotechnology companies in the therapeutics area, as well as competition from academic institutions, government agencies and research institutions. When we commercialize our products, we expect to face intense competition from Boston Scientific Corporation, Guidant Corporation, Medtronic, Inc., Abbott Vascular Devices, Johnson & Johnson, Terumo Corporation, Covidien Ltd., Cordis Corporation and others. Most of our current and potential competitors, including but not limited to those listed above, have, and will continue to have, substantially greater financial, technological, research and development, regulatory and clinical, manufacturing, marketing and sales, distribution and personnel resources than we do. There can be no assurance that we will have sufficient resources to successfully commercialize our products, if and when they are approved for sale. The worldwide market for stent products is characterized by intensive development efforts and rapidly advancing technology. Our future success will depend largely upon our ability to anticipate and keep pace with those developments and advances. Current or future competitors could develop alternative technologies, products or materials that are more effective, easier to use or more economical than what we or any potential licensee develop. If our technologies or products become obsolete or uncompetitive, our related product sales and licensing revenue would decrease. This would have a material adverse effect on our business, financial condition and results of operations.

We may become subject to claims by much larger and better capitalized competitors seeking to invalidate our intellectual property or our rights thereto.

Based on the prolific litigation that has occurred in the stent industry and the fact that we may pose a competitive threat to some large and well-capitalized companies that own or control patents relating to stents and their use, manufacture and delivery, we believe that it is possible that one or more third parties will assert a patent infringement claim against the manufacture, use or sale of our stents based on one or more of these patents. These companies also own patents relating to the use of drugs to treat restenosis, stent architecture, catheters to deliver stents, and stent manufacturing and coating processes and compositions, as well as general delivery mechanism patents like rapid exchange that might be alleged to cover one or more of our products. A number of stent-related patents are owned by very large and well-capitalized companies that are active participants in the stent market. For example, we are aware of one public company that is pursuing patent protection directed to layered materials disposed over a particular stent configuration. In addition, it is possible that a lawsuit asserting patent infringement, misappropriation of intellectual property, or related claims may have already been filed against us of which we are not aware. As the number of competitors in the stent market grows, the possibility of patent infringement by us, and/or a patent infringement or misappropriation claim against us, increases.

These companies have maintained their position in the market by, among other things, establishing intellectual property rights relating to their products and enforcing these rights aggressively against their competitors and new entrants into the market. All of the major companies in the stent and related markets, including Boston Scientific Corporation and Medtronic, Inc., have been repeatedly involved in patent litigation relating to stents since at least 1997. The stent and related markets have experienced rapid technological change and obsolescence in the past, and our competitors have strong incentives to stop or delay the introduction of new products and technologies. We may pose a competitive threat to many of the companies in the stent and related markets. Accordingly, many of these companies will have a strong incentive to take steps, through patent litigation or otherwise, to prevent us from commercializing our products. Such litigation or claims would divert attention and resources away from the development and/or commercialization of our product and product development, and could result in an adverse court judgment that would make it impossible or impractical to sell our products in one or more territories.

If we fail to maintain or establish satisfactory agreements with suppliers or if we experience an interruption of the supply of materials from suppliers, we may not be able to obtain materials that are necessary to develop our products.

We depend on outside suppliers for certain raw materials. These raw materials or components may not always be available at our standards or on acceptable terms, if at all, and we may be unable to locate alternative suppliers or produce necessary materials or components on our own.

Some of the components of our products are currently provided by only one vendor, or a single-source supplier. For MGuard Prime EPS and CGuard EPS, we depend on MeKo Laserstrahl-Materialbearbeitung for the laser cutting of the stent, Natec Medical Ltd. for the supply of catheters, and Biogeneral Inc. for the fiber. We may have difficulty obtaining similar components from other suppliers that are acceptable to the U.S. Food and Drug Administration or foreign regulatory authorities if it becomes necessary.

If we have to switch to a replacement supplier, we will face additional regulatory delays and the interruption of the manufacture and delivery of our stents for an extended period of time, which would delay completion of our clinical trials or commercialization of our products. In addition, we will be required to obtain prior regulatory approval from the U.S. Food and Drug Administration or foreign regulatory authorities to use different suppliers or components that may not be as safe or as effective. As a result, regulatory approval of our products may not be received on a timely basis or at all.

We may be exposed to product liability claims and insurance may not be sufficient to cover these claims.

We may be exposed to product liability claims based on the use of any of our products, or products incorporating our licensed technology, in clinical trials. We may also be exposed to product liability claims based on the sale of any such products following the receipt of regulatory approval. Product liability claims could be asserted directly by consumers, health-care providers or others. We have obtained product liability insurance coverage; however such insurance may not provide full coverage for our future clinical trials, products to be sold, and other aspects of our business. Insurance coverage is becoming increasingly expensive and we may not be able to maintain current coverage, or expand our insurance coverage to include future clinical trials or the sale of products incorporating our licensed technology if marketing approval is obtained for such products, at a reasonable cost or in sufficient amounts to protect against losses due to product liability or at all. A successful product liability claim or series of claims brought against us could result in judgments, fines, damages and liabilities that could have a material adverse effect on our business, financial condition and results of operations. We may incur significant expense investigating and defending these claims, even if they do not result in liability. Moreover, even if no judgments, fines, damages or liabilities are imposed on us, our reputation could suffer, which could have a material adverse effect on our business, financial condition and results of operations.

We may face risks associated with future litigation and claims.

We may, in the future, be involved in one or more lawsuits, claims or other proceedings. These suits could concern issues including contract disputes, employment actions, employee benefits, taxes, environmental, health and safety, personal injury and product liability matters. In November 2015, we received written communication from a service provider to remit payment amounting to \$1,965,000. Given the preliminary stage, our management and legal counsel cannot estimate the outcome of any legal proceedings or settlements related to this communication, however we believe that neither a court loss nor settlement are probable. Due to the uncertainties of litigation, however, we can give no assurance that we will prevail on any claims made against us in any such lawsuit. Also, we can give no assurance that any other lawsuits or claims brought in the future will not have an adverse effect on our financial condition, liquidity or operating results.

The successful management of operations depends on our ability to attract and retain talented personnel.

We depend on the expertise of our senior management and research personnel, which would be difficult to replace. The loss of the services of any of our senior management could compromise our ability to achieve our objectives. Furthermore, recruiting and retaining qualified personnel will be crucial to future success. There can be no assurance that we will be able to attract and retain necessary personnel on acceptable terms given the competition among medical device, biotechnology, pharmaceutical and healthcare companies, universities and non-profit research institutions for experienced management, scientists, researchers, sales and marketing and manufacturing personnel. If we are unable to attract, retain and motivate our key personnel, our operations may be jeopardized and our results of operations may be materially and adversely affected.

We are an international business, and we are exposed to various global and local risks that could have a material adverse effect on our financial condition and results of operations.

We operate globally and develop and manufacture products in multiple countries. Consequently, we face complex legal and regulatory requirements in multiple jurisdictions, which may expose us to certain financial and other risks. International sales and operations are subject to a variety of risks, including:

- foreign currency exchange rate fluctuations;
- greater difficulty in staffing and managing foreign operations;
- greater risk of uncollectible accounts;
- longer collection cycles;
- logistical and communications challenges;
- potential adverse changes in laws and regulatory practices, including export license requirements, trade barriers, tariffs and tax laws;
- changes in labor conditions;
- burdens and costs of compliance with a variety of foreign laws;
- political and economic instability;
- the escalation of hostilities in Israel, which could impair our ability to manufacture our products
- increases in duties and taxation;
- foreign tax laws and potential increased costs associated with overlapping tax structures;
- greater difficulty in protecting intellectual property;
- the risk of third party disputes over ownership of intellectual property and infringement of third party intellectual property by our products; and
- general economic and political conditions in these foreign markets.

Further, in the past, the State of Israel and Israeli companies have been subjected to an economic boycott. Several countries still restrict business and trade activity with the State of Israel and with Israeli companies. These restrictive

laws and policies may have an adverse impact on our operating results, financial condition or the expansion of our business.

International markets are also affected by economic pressure to contain reimbursement levels and healthcare costs. Profitability from international operations may be limited by risks and uncertainties related to regional economic conditions, regulatory and reimbursement approvals, competing products, infrastructure development, intellectual property rights protection and our ability to implement our overall business strategy. We expect these risks will increase as we pursue our strategy to expand operations into new geographic markets. We may not succeed in developing and implementing effective policies and strategies in each location where we conduct business. Any failure to do so may harm our business, results of operations and financial condition.

If we fail to obtain an adequate level of reimbursement for our products by third party payors, there may be no commercially viable markets for our product candidates or the markets may be much smaller than expected.

The availability and levels of reimbursement by governmental and other third party payors affect the market for our product candidates. The efficacy, safety, performance and cost-effectiveness of our product candidates and of any competing products will determine the availability and level of reimbursement. Reimbursement and healthcare payment systems in international markets vary significantly by country, and include both government sponsored healthcare and private insurance. To obtain reimbursement or pricing approval in some countries, we may be required to produce clinical data, which may involve one or more clinical trials, that compares the cost-effectiveness of our products to other available therapies. We may not obtain international reimbursement or pricing approvals in a timely manner, if at all. Our failure to receive international reimbursement or pricing approvals would negatively impact market acceptance of our products in the international markets in which those approvals are sought.

We believe that future reimbursement may be subject to increased restrictions both in the U.S. and in international markets. There is increasing pressure by governments worldwide to contain health care costs by limiting both the coverage and the level of reimbursement for therapeutic products and by refusing, in some cases, to provide any coverage for products that have not been approved by the relevant regulatory agency. Future legislation, regulation or reimbursement policies of third party payors may adversely affect the demand for our products currently under development and limit our ability to sell our product candidates on a profitable basis. In addition, third party payors continually attempt to contain or reduce the costs of healthcare by challenging the prices charged for healthcare products and services. If reimbursement for our products is unavailable or limited in scope or amount or if pricing is set at unsatisfactory levels, market acceptance of our products would be impaired and future revenues, if any, would be adversely affected.

In the United States and in the European Union, our business could be significantly and adversely affected by healthcare reform legislation and other administration and legislative proposals.

The Patient Protection and Affordable Care Act and the Health Care and Education Reconciliation Act were enacted into law in the United States in March 2010. Certain provisions of these acts are not yet fully implemented, it may be a number of years before certain provisions are fully implemented, there remain to be programs and requirements for which the details have not yet been fully established or consequences not fully understood, and it is unclear what the full impacts will be from the legislation. The legislation levies a 2.3% excise tax, that began on January 1, 2013, on all sales of any U.S. medical device listed with the U.S. Food and Drug Administration under Section 510(j) of the Federal Food, Drug, and Cosmetic Act and 21 C.F.R. Part 807, unless the device falls within an exemption from the tax, such as the exemption governing direct retail sale of devices to consumers or for foreign sales of these devices. If we commence sales of our MGuard Prime EPS or CGuard EPS stent in the United States, this new tax may materially and adversely affect our business and results of operations. The legislation also focuses on a number of Medicare provisions aimed at improving quality and decreasing costs. Uncertainties remain regarding what negative unintended consequences these provisions will have on patient access to new technologies. The Medicare provisions include value-based payment programs, increased funding of comparative effectiveness research, reduced hospital payments for avoidable readmissions and hospital acquired conditions, and pilot programs to evaluate alternative payment methodologies that promote care coordination (such as bundled physician and hospital payments). Additionally, the provisions include a reduction in the annual rate of inflation for hospitals which started in 2011 and the establishment of an independent payment advisory board to recommend ways of reducing the rate of growth in Medicare spending. We cannot predict what healthcare programs and regulations will be implemented or changed at the federal or state level in the United States, or the effect of any future legislation or regulation. However, any changes that lower reimbursements for our products or reduce medical procedure volumes could adversely affect our business plan to introduce our products in the United States

On September 26, 2012, the European Commission adopted a package of legislative proposals designed to replace the existing regulatory framework governing medical devices in the European Union. These proposals are currently being reviewed by the European Parliament and the Council and may undergo significant amendments as part of the legislative process. If adopted by the European Parliament and the Council in their present form, these proposed revisions would, among other things, impose stricter requirements on medical device manufacturers and strengthen

the supervising competences of the competent authorities of European Union Member States and the notified bodies. As a result, if and when adopted, the proposed new legislation could prevent or delay the CE marking of our products under development or impact our ability to modify our currently CE marked products on a timely basis. The regulation of advanced therapy medicinal products is also in continued development in the European Union, with the European Medicines Agency publishing new clinical or safety guidelines concerning advanced therapy medicinal products on a regular basis. Any of these regulatory changes and events could limit our ability to form collaborations and our ability to continue to commercialize our products, and if we fail to comply with any such new or modified regulations and requirements it could adversely affect our business, operating results and prospects.

Risks Related to Operating in Israel

We anticipate being subject to fluctuations in currency exchange rates because we expect a substantial portion of our revenues will be generated in Euros and U.S. dollars, while a significant portion of our expenses will be incurred in New Israeli Shekels.

We expect a substantial portion of our revenues will be generated in U.S. dollars and Euros, while a significant portion of our expenses, principally salaries and related personnel expenses, is paid in New Israeli Shekels, or NIS. As a result, we are exposed to the risk that the rate of inflation in Israel will exceed the rate of devaluation of the NIS in relation to the Euro or the U.S. dollar, or that the timing of this devaluation will lag behind inflation in Israel. Because inflation has the effect of increasing the dollar and Euro costs of our operations, it would therefore have an adverse effect on our dollar-measured results of operations. The value of the NIS, against the Euro, the U.S. dollar, and other currencies may fluctuate and is affected by, among other things, changes in Israel's political and economic conditions. Any significant revaluation of the NIS may materially and adversely affect our cash flows, revenues and financial condition. Fluctuations in the NIS exchange rate, or even the appearance of instability in such exchange rate, could adversely affect our ability to operate our business.

If there are significant shifts in the political, economic and military conditions in Israel and its neighbors, it could have a material adverse effect on our business relationships and profitability.

Our sole manufacturing facility and certain of our key personnel are located in Israel. Our business is directly affected by the political, economic and military conditions in Israel and its neighbors. Since the establishment of the State of Israel in 1948, a number of armed conflicts have occurred between Israel and its Arab neighbors. A state of hostility, varying in degree and intensity, has caused security and economic problems in Israel. Although Israel has entered into peace treaties with Egypt and Jordan, and various agreements with the Palestinian Authority, there has been a marked increase in violence, civil unrest and hostility, including armed clashes, between the State of Israel and the Palestinians since September 2000. The establishment in 2006 of a government in the Gaza Strip by representatives of the Hamas militant group has created heightened unrest and uncertainty in the region. In mid-2006, Israel engaged in an armed conflict with Hezbollah, a Shiite Islamist militia group based in Lebanon, and in June 2007, there was an escalation in violence in the Gaza Strip. From December 2008 through January 2009 and again in November and December 2012, Israel engaged in an armed conflict with Hamas, which involved missile strikes against civilian targets in various parts of Israel and negatively affected business conditions in Israel. In July 2014, Israel launched an additional operation against Hamas operatives in the Gaza strip in response to Palestinian groups launching rockets at Israel. Recent political uprisings and social unrest in Syria are affecting its political stability, which has led to the deterioration of the political relationship between Syria and Israel and have raised new concerns regarding security in the region and the potential for armed conflict. Similar civil unrest and political turbulence is currently ongoing in many countries in the region. The continued political instability and hostilities between Israel and its neighbors and any future armed conflict, terrorist activity or political instability in the region could adversely affect our operations in Israel and adversely affect the market price of our shares of common stock. In addition, several countries restrict doing business with Israel and Israeli companies have been and are today subjected to economic boycotts. The interruption or curtailment of trade between Israel and its present trading partners could adversely affect our business, financial condition and results of operations.

In addition, some of our officers or key employees may be called to active duty at any time under emergency circumstances for extended periods of time. See “—Our operations could be disrupted as a result of the obligation of certain of our personnel residing in Israel to perform military service.”

Our operations could be disrupted as a result of the obligation of certain of our personnel residing in Israel to perform military service.

Some of our officers and employees reside in Israel and may be required to perform annual military reserve duty. Currently, all male adult citizens and permanent residents of Israel under the age of 40 (or older, depending on their position with the Israeli Defense Forces reserves), unless exempt, are obligated to perform military reserve duty annually and are subject to being called to active duty at any time under emergency circumstances. Our operations could be disrupted by the absence for a significant period of one or more of our key officers and employees due to military service. Any such disruption could have a material adverse effect on our business, results of operations and

financial condition.

We may not be able to enforce covenants not-to-compete under current Israeli law.

We have non-competition agreements with most of our employees, many of which are governed by Israeli law. These agreements generally prohibit our employees from competing with us or working for our competitors for a specified period following termination of their employment. However, Israeli courts are reluctant to enforce non-compete undertakings of former employees and tend, if at all, to enforce those provisions for relatively brief periods of time in restricted geographical areas and only when the employee has unique value specific to that employer's business and not just regarding the professional development of the employee. Any such inability to enforce non-compete covenants may cause us to lose any competitive advantage resulting from advantages provided to us by such confidential information.

We may become subject to claims for remuneration or royalties for assigned service invention rights by our employees, which could result in litigation and adversely affect our business.

A significant portion of our intellectual property has been developed by our Israeli employees in the course of their employment for us. Under the Israeli Patent Law, 5727-1967 (the "Israeli Patent Law"), inventions conceived by an employee during the term and as part of the scope of his or her employment with a company are regarded as "service inventions," which belong to the employer, absent a specific agreement between the employee and employer giving the employee service invention rights. The Israeli Patent Law also provides that if there is no such agreement between an employer and an employee, the Israeli Compensation and Royalties Committee (the "C&R Committee"), a body constituted under the Israeli Patent Law, shall determine whether the employee is entitled to remuneration for his inventions. The C&R Committee (decisions of which have been upheld by the Israeli Supreme Court) has held that employees may be entitled to remuneration for their service inventions despite having specifically waived any such rights. Further, the C&R Committee has not yet set specific guidelines regarding the method for calculating this remuneration or the criteria or circumstances under which an employee's waiver of his right to remuneration will be disregarded. We generally enter into intellectual property assignment agreements with our employees pursuant to which such employees assign to us all rights to any inventions created in the scope of their employment or engagement with us. Although our employees have agreed to assign to us service invention rights and have specifically waived their right to receive any special remuneration for such assignment beyond their regular salary and benefits, we may face claims demanding remuneration in consideration for assigned inventions. As a consequence of such claims, we could be required to pay additional remuneration or royalties to our current or former employees, or be forced to litigate such claims, which could negatively affect our business.

It may be difficult for investors in the United States to enforce any judgments obtained against us or some of our directors or officers.

The majority of our assets are located outside the U.S. In addition, certain of our officers are nationals and/or residents of countries other than the U.S., and all or a substantial portion of such persons' assets are located outside the U.S. As a result, it may be difficult for investors to enforce within the United States any judgments obtained against us or any of our non-U.S. officers, including judgments predicated upon the civil liability provisions of the securities laws of the U.S. or any state thereof. Additionally, it may be difficult to assert U.S. securities law claims in actions originally instituted outside of the U.S. Israeli courts may refuse to hear a U.S. securities law claim because Israeli courts may not be the most appropriate forums in which to bring such a claim. Even if an Israeli court agrees to hear a claim, it may determine that the Israeli law, and not U.S. law, is applicable to the claim. Further, if U.S. law is found to be applicable, certain content of applicable U.S. law must be proved as a fact, which can be a time-consuming and costly process, and certain matters of procedure would still be governed by the Israeli law. Consequently, you may be effectively prevented from pursuing remedies under U.S. federal and state securities laws against us or any of our non-U.S. directors or officers.

The tax benefits that are currently available to us under Israeli law require us to satisfy specified conditions. If we fail to satisfy these conditions, we may be required to pay increased taxes and would likely be denied these benefits in the future.

InspireMD Ltd. has been granted a "Beneficiary Enterprise" status by the Investment Center in the Israeli Ministry of Industry Trade and Labor, and we are therefore eligible for tax benefits under the Israeli Law for the Encouragement of Capital Investments, 1959. The main benefit is a two-year exemption from corporate tax, commencing when we begin to generate net income derived from the beneficiary activities in facilities located in Israel, and a reduced corporate tax rate for an additional five years, depending on the level of foreign investment in each year. In addition, under the January 1, 2011 amendment to the Israeli Law for the Encouragement of Capital Investments, 1959, a uniform corporate tax rate of 16% applies to all qualifying income of "Preferred Enterprise," which we may be able to apply as an alternative tax benefit.

The tax benefits available to a Beneficiary Enterprise or a Preferred Enterprise are dependent upon the fulfillment of conditions stipulated under the Israeli Law for the Encouragement of Capital Investments, 1959 and its regulations, as amended, which include, among other things, maintaining our manufacturing facilities in Israel. If we fail to comply with these conditions, in whole or in part, the tax benefits could be cancelled and we could be required to refund any tax benefits that we received in the past. If we are no longer eligible for these tax benefits, our Israeli taxable income would be subject to regular Israeli corporate tax rates. The standard corporate tax rate for Israeli companies in 2015 is 26.5% and in 2016 is 25% of taxable income. The termination or reduction of these tax benefits would increase our tax liability, which would reduce our profits.

In addition to losing eligibility for tax benefits currently available to us under Israeli law, if we do not maintain our manufacturing facilities in Israel, we will not be able to realize certain tax credits and deferred tax assets, if any, including any net operating losses to offset against future profits.

The tax benefits available to Beneficiary Enterprises may be reduced or eliminated in the future. This would likely increase our tax liability.

The Israeli government may reduce or eliminate in the future tax benefits available to Beneficiary enterprises and Preferred Enterprises. Our Beneficiary Enterprise status and the resulting tax benefits may not continue in the future at their current levels or at any level. The 2011 amendment regarding Preferred Enterprise may not be applicable to us or may not fully compensate us for the change. The termination or reduction of these tax benefits would likely increase our tax liability. The amount, if any, by which our tax liability would increase will depend upon the rate of any tax increase, the amount of any tax benefit reduction, and the amount of any taxable income that we may earn in the future.

Risks Related to Our Common Stock and this Offering

Our stock price has been and may continue to be volatile, which could result in substantial losses for investors.

The market price of our common stock has been and is likely to continue to be highly volatile and could fluctuate widely in response to various factors, many of which are beyond our control, including the following:

- technological innovations or new products and services by us or our competitors;
- additions or departures of key personnel;
- our ability to execute our business plan;
- operating results that fall below expectations;
- loss of any strategic relationship;
- industry developments;
- economic, political and other external factors; and
- period-to-period fluctuations in our financial results.

In addition, the securities markets have from time to time experienced significant price and volume fluctuations that are unrelated to the operating performance of particular companies. These market fluctuations may also significantly affect the market price of our common stock.

Our common stock could be delisted from the NYSE MKT if we fail to regain compliance with the NYSE MKT's continued listing standards on the schedule required by the NYSE MKT.

On January 20, 2015, we received a notice indicating that we do not meet certain of the NYSE MKT's continued listing standards as set forth in Part 10 of the NYSE MKT Company Guide ("Company Guide"). Specifically, we are not in compliance with Section 1003(a)(iii) of the Company Guide because we reported stockholders' equity of less than \$6 million as of September 30, 2014 and had net losses in our five most recent fiscal years. In addition, the NYSE MKT indicated that we are not in compliance with Section 1003(a)(iv) of the Company Guide because we have sustained losses that are substantial in relation to our overall operations or our existing financial resources, or our financial condition has become impaired such that it appears questionable, in the opinion of the NYSE MKT, as to whether we will be able to continue operations and/or meet our obligations as they mature. As a result, we have become subject to the procedures and requirements of Section 1009 of the Company Guide.

In order to maintain our listing on the NYSE MKT, we submitted a plan of compliance to the NYSE MKT on February 19, 2015 addressing how we intend to regain compliance with Section 1003(a)(iii) of the Company Guide by July 20, 2016 and Section 1003(a)(iv) of the Company Guide by June 1, 2015. On March 9, 2015, we closed a public offering of our common stock and warrants that resulted in net proceeds of approximately \$12.5 million after deducting placement agent fees and other estimated offering expenses. In light of this, the NYSE MKT determined that we have resolved the continued listing deficiency with respect to Section 1003(a)(iv) of the Company Guide. In addition, the NYSE MKT has accepted our plan to gain compliance with the Section 1003(a)(iii) of the Company Guide by July 20, 2016.

If we do not regain compliance with Section 1003(a)(iii) of the Company Guide by July 20, 2016, or if we do not maintain our progress consistent with the plan during the applicable plan period, the NYSE MKT will initiate delisting proceedings. The market price and liquidity of our common stock could be adversely affected by the commencement of such proceedings. If those proceedings resulted in delisting of our common stock and resulting cessation of trading of the stock on the NYSE MKT, we believe that the market price and liquidity of our common stock would be adversely affected.

Our management team may invest or spend the proceeds of this offering in ways with which you may not agree or in ways which may not yield a significant return.

Our management will have broad discretion over the use of proceeds from this offering. We intend to use the net proceeds of this offering to to conduct sales activities related to CGuard™ EPS™ and MGuard Prime™ EPS and for general corporate purposes. However, our management will have broad discretion in the application of the net proceeds from this offering and could spend the proceeds in ways that do not improve our results of operations or enhance the value of our common stock. The failure by management to apply these funds effectively could result in financial losses that could have a material adverse effect on our business, cause the price of our common stock to decline and delay the development of our product candidates.

You will experience immediate and substantial dilution.

The offering price per share in this offering exceeds the net tangible book value per share of our common stock outstanding prior to this offering. After giving effect to the sale by us of _____ shares in this offering, based on a public offering price of \$ _____ per share and after deducting the underwriting discount and estimated offering expenses payable by us, and the sale of _____ shares of common stock at the public offering price in our concurrent private placement, you will experience immediate dilution of \$ _____ per share, representing the difference between our as adjusted net tangible book value per share as of September 30, 2015 after giving effect to this offering and the public offering price. See the section entitled “Dilution” on page S-29 below for a more detailed illustration of the dilution you will incur if you participate in this offering.

Purchasers in this offering may experience additional dilution in the book value of their investment in the future.

We are not restricted from issuing additional securities in the future, including shares of common stock, securities that are convertible into or exchangeable for, or that represent the right to receive, common stock or substantially similar securities. The issuance of these securities may cause further dilution to our stockholders. In order to raise additional capital, we may in the future offer such additional securities at prices that may not be the same as the price per share in this offering. We cannot assure you that we will be able to sell shares or other securities in any other offering at a price per share that is equal to or greater than the price per share paid by investors in this offering, and investors purchasing shares or other securities in the future could have rights superior to existing stockholders, including investors who purchase shares of common stock in this offering. The price per share at which we sell additional shares of our common stock or securities convertible into common stock in future transactions may be higher or lower than the price per share in this offering. The exercise of outstanding stock options and the vesting of outstanding restricted stock units may also result in further dilution of your investment.

The warrants are a new issue of securities with no established trading market.

The warrants are a new issue of securities with no established trading market. The warrants will not be listed on any securities exchange and we do not expect them to be quoted on any quotation system. A trading market for the warrants is not expected to develop, and even if a market develops it may not provide meaningful liquidity. The absence of a trading market or liquidity for the warrants may adversely affect their value.

We do not expect to pay dividends in the future. As a result, any return on investment may be limited to the value of our common stock.

We do not anticipate paying cash dividends on our common stock in the foreseeable future. The payment of dividends on our common stock will depend on our earnings, financial condition and other business and economic factors as our board of directors may consider relevant. We are also subject to certain restrictions pursuant to our loan and security agreement with Hercules Technology Growth Capital, Inc., which prohibits us from paying dividends or distributions on our common stock. If we do not pay dividends, our common stock may be less valuable because a return on an investment in our common stock will only occur if our stock price appreciates.

We are subject to financial reporting and other requirements that place significant demands on our resources.

We are subject to reporting and other obligations under the Securities Exchange Act of 1934, as amended, including the requirements of Section 404 of the Sarbanes-Oxley Act of 2002. Section 404 requires us to conduct an annual management assessment of the effectiveness of our internal controls over financial reporting. These reporting and other obligations place significant demands on our management, administrative, operational, internal audit and accounting resources. Any failure to maintain effective internal controls could have a material adverse effect on our business, operating results and stock price. Moreover, effective internal control is necessary for us to provide reliable financial reports and prevent fraud. If we cannot provide reliable financial reports or prevent fraud, we may not be able to manage our business as effectively as we would if an effective control environment existed, and our business and reputation with investors may be harmed.

There are inherent limitations in all control systems, and misstatements due to error or fraud may occur and not be detected.

The ongoing internal control provisions of Section 404 of the Sarbanes-Oxley Act of 2002 require us to identify of material weaknesses in internal control over financial reporting, which is a process to provide reasonable assurance regarding the reliability of financial reporting for external purposes in accordance with accounting principles generally accepted in the United States. Our management, including our chief executive officer and chief financial officer, does not expect that our internal controls and disclosure controls will prevent all errors and all fraud. A control system, no matter how well conceived and operated, can provide only reasonable, not absolute, assurance that the objectives of the control system are met. In addition, the design of a control system must reflect the fact that there are resource constraints and the benefit of controls must be relative to their costs. Because of the inherent limitations in all control systems, no evaluation of controls can provide absolute assurance that all control issues and instances of fraud, if any, in our company have been detected. These inherent limitations include the realities that judgments in decision-making can be faulty and that breakdowns can occur because of simple errors or mistakes. Further, controls can be circumvented by individual acts of some persons, by collusion of two or more persons, or by management override of the controls. The design of any system of controls is also based in part upon certain assumptions about the likelihood of future events, and there can be no assurance that any design will succeed in achieving its stated goals under all potential future conditions. Over time, a control may be inadequate because of changes in conditions, such as growth of the company or increased transaction volume, or the degree of compliance with the policies or procedures may deteriorate. Because of inherent limitations in a cost-effective control system, misstatements due to error or fraud may occur and not be detected.

In addition, discovery and disclosure of a material weakness, by definition, could have a material adverse impact on our financial statements. Such an occurrence could discourage certain customers or suppliers from doing business with us, cause downgrades in our future debt ratings leading to higher borrowing costs and affect how our stock trades. This could in turn negatively affect our ability to access public debt or equity markets for capital.

Delaware law and our corporate charter and bylaws contain anti-takeover provisions that could delay or discourage takeover attempts that stockholders may consider favorable.

Our board of directors is authorized to issue shares of preferred stock in one or more series and to fix the voting powers, preferences and other rights and limitations of the preferred stock. Accordingly, we may issue shares of preferred stock with a preference over our common stock with respect to dividends or distributions on liquidation or dissolution, or that may otherwise adversely affect the voting or other rights of the holders of common stock. Issuances of preferred stock, depending upon the rights, preferences and designations of the preferred stock, may have the effect of delaying, deterring or preventing a change of control, even if that change of control might benefit our stockholders. In addition, we are subject to Section 203 of the Delaware General Corporation Law. Section 203 generally prohibits a public Delaware corporation from engaging in a “business combination” with an “interested stockholder” for a period of three years after the date of the transaction in which the person became an interested stockholder, unless (i) prior to the date of the transaction, the board of directors of the corporation approved either the business combination or the transaction which resulted in the stockholder becoming an interested stockholder; (ii) the interested stockholder owned at least 85% of the voting stock of the corporation outstanding at the time the transaction commenced, excluding for purposes of determining the number of shares outstanding (a) shares owned by persons who are directors and also officers and (b) shares owned 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 (iii) on or subsequent to the date of the transaction, the business combination is approved by the board and authorized at an annual or special meeting of stockholders, and not by written consent, by the affirmative vote of at least 66 2/3% of the outstanding voting stock which is not owned by the interested stockholder.

Section 203 could delay or prohibit mergers or other takeover or change in control attempts with respect to us and, accordingly, may discourage attempts to acquire us even though such a transaction may offer our stockholders the opportunity to sell their stock at a price above the prevailing market price.

Offers or availability for sale of a substantial number of shares of our common stock may cause the price of our common stock to decline.

Sales of a significant number of shares of our common stock in the public market could harm the market price of our common stock and make it more difficult for us to raise funds through future offerings of common stock. Our stockholders and the holders of our options and warrants may sell substantial amounts of our common stock in the public market. The availability of these shares of our common stock for resale in the public market has the potential to cause the supply of our common stock to exceed investor demand, thereby decreasing the price of our common stock.

In addition, the fact that our stockholders, option holders and warrant holders can sell substantial amounts of our common stock in the public market, whether or not sales have occurred or are occurring, could make it more difficult for us to raise additional financing through the sale of equity or equity-related securities in the future at a time and price that we deem reasonable or appropriate.

If securities and/or industry analysts fail to continue publishing research about our business, if they change their recommendations adversely or if our results of operations do not meet their expectations, our stock price and trading volume could decline.

The trading market for our common stock will be influenced by the research and reports that industry or securities analysts publish about us or our business. If one or more of these analysts cease coverage of our company or fail to publish reports on us regularly, we could lose visibility in the financial markets, which in turn could cause our stock price or trading volume to decline. In addition, it is likely that in some future period our operating results will be below the expectations of securities analysts or investors. If one or more of the analysts who cover us downgrade our stock, or if our results of operations do not meet their expectations, our stock price could decline.

Risks Related to our Indebtedness

Our obligations under our \$10 million principal term loan are secured by substantially all of our assets, so if we default on those obligations, the lender could foreclose on our assets. As a result of these security interests, such

assets would only be available to satisfy claims of our general creditors or to holders of our equity securities if we were to become insolvent at a time when the value of such assets exceeded the amount of our indebtedness and other obligations. In addition, the existence of these security interests may adversely affect our financial flexibility.

The lender under our \$10 million principal term loan has a security interest in substantially all of our assets and those of InspireMD Ltd., our wholly-owned subsidiary. As a result, if we default under our obligations to the lender, the lender could foreclose on its security interests and liquidate some or all of these assets, which would harm our business, financial condition and results of operations.

In the event of a default in connection with our bankruptcy, insolvency, liquidation, or reorganization, the lender would have a prior right to substantially all of our assets to the exclusion of our general creditors. In that event, our assets would first be used to repay in full all indebtedness and other obligations secured by the lender, resulting in all or a portion of our assets being unavailable to satisfy the claims of any unsecured indebtedness. Only after satisfying the claims of any unsecured creditors would any amount be available for our equity holders.

The pledge of these assets and other restrictions may limit our flexibility in raising capital for other purposes. Because substantially all of our assets are pledged under the \$10 million principal term loan, our ability to incur additional secured indebtedness or to sell or dispose of assets to raise capital may be impaired, which could have an adverse effect on our financial flexibility.

Our loan and security agreement contains customary events of default. In addition, an event of default will include the occurrence of a circumstance that would reasonably be expected to have a material adverse effect upon (i) our business, operations, properties, assets, prospects or condition (financial or otherwise), (ii) our ability to perform our obligations under the agreement and any related loan documents or (iii) the collateral, the lender's liens on the collateral or the priority of such liens.

We have a substantial amount of indebtedness, which may adversely affect our cash flow and our ability to operate our business.

Pursuant to the terms of our loan and security agreement, the lender made a term loan to us and InspireMD Ltd. in aggregate amount of \$10 million. We are required to make monthly payments of interest and principal in the amount of approximately \$380,000 per month. The final payment of the loan will be February 1, 2017. The current principal amount of the loan as of March 1, 2016 was \$4.0 million.

The terms of our term loan could have negative consequences to us, such as:

- we may be unable to obtain additional financing to fund working capital, operating losses, capital expenditures or acquisitions on terms acceptable to us, or at all;
- the amount of our interest expense may increase because our term loan has a variable rate of interest at any time that the prime rate, as reported in the Wall Street Journal, is above 5.5%;
- we will need to use a substantial portion of our cash flows to pay principal and interest on our term loan, which will reduce the amount of money we have for operations, working capital, capital expenditures, expansion, acquisitions or general corporate or other business activities;
- we may have a higher level of debt than some of our competitors, which may put us at a competitive disadvantage;
- we may be unable to refinance our indebtedness on terms acceptable to us, or at all; and
- we may be more vulnerable to economic downturns and adverse developments in our industry or the economy in general.

Our ability to meet our expenses and debt obligations will depend on our future performance, which will be affected by financial, business, economic, regulatory and other factors. We will be unable to control many of these factors, such as economic conditions. We cannot be certain that our earnings will be sufficient to allow us to pay the principal and interest on our debt and meet any other obligations. If we do not have enough money to service our debt, we may be required, but unable to refinance all or part of our existing debt, sell assets, borrow money or raise equity on terms acceptable to us, if at all, and the lender could foreclose on its security interests and liquidate some or all of our assets.

Our loan and security agreement contains covenants that could limit our financing options and liquidity position, which would limit our ability to grow our business.

Covenants in our loan and security agreement impose operating and financial restrictions on us. These restrictions prohibit or limit our ability, and the ability of InspireMD Ltd., to, among other things:

- pay cash dividends to our stockholders;
- redeem or repurchase our common stock or other equity;
- incur additional indebtedness;
- permit liens on assets;
- make certain investments (including through the acquisition of stock, shares, partnership or limited liability company interests, any loan, advance or capital contribution)
- sell, lease, license, lend or otherwise convey an interest in a material portion of our assets; and
- cease making public filings under the Securities Exchange Act of 1934, as amended.

These restrictions may limit our ability to obtain additional financing, withstand downturns in our business or take advantage of business opportunities. Moreover, additional debt financing we may seek, if permitted, may contain terms that include more restrictive covenants, may require repayment on an accelerated schedule or may impose other obligations that limit our ability to grow our business, acquire needed assets, or take other actions we might otherwise consider appropriate or desirable.

SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus supplement and the accompanying prospectus and the information incorporated by reference herein and therein contain “forward-looking statements,” which include information relating to future events, future financial performance, strategies, expectations, competitive environment and regulation. Words such as “may,” “should,” “could,” “would,” “predicts,” “potential,” “continue,” “expects,” “anticipates,” “future,” “intends,” “plans,” “believes,” “estimates,” and other expressions, as well as statements in future tense, identify forward-looking statements. Forward-looking statements should not be read as a guarantee of future performance or results and will probably not be accurate indications of when such performance or results will be achieved. Forward-looking statements are based on information we have when those statements are made or our management’s good faith belief as of that time with respect to future events, and are subject to risks and uncertainties that could cause actual performance or results to differ materially from those expressed in or suggested by the forward-looking statements. Important factors that could cause such differences include, but are not limited to:

- our history of recurring losses and negative cash flows from operating activities, significant future commitments and the uncertainty regarding the adequacy of our liquidity to pursue our complete business objectives;
- market acceptance of our existing and new products;
- negative clinical trial results or lengthy product delays in key markets;
- an inability to secure and maintain regulatory approvals for the sale of our products;
- our dependence on single suppliers for certain product components and our ability to comply with stringent manufacturing quality standards and to increase production as necessary;
- intense competition in our industry, with competitors having substantially greater financial, technological, research and development, regulatory and clinical, manufacturing, marketing and sales, distribution and personnel resources than we do;
- entry of new competitors and products and potential technological obsolescence of our products;
- our limited manufacturing capabilities and reliance on subcontractors for assistance;
- loss of a key customer or supplier;
- technical problems with our research and products and potential product liability claims;
- product malfunctions;
- adverse economic conditions;
- insufficient or inadequate reimbursement by governmental and other third party payers for our products;

- our efforts to successfully obtain and maintain intellectual property protection covering our products, which may not be successful;
- legislative or regulatory reform of the healthcare system in both the U.S. and foreign jurisdictions;
- the fact that we will need to raise additional capital to meet our business requirements in the future and that such capital raising may be costly, dilutive or difficult to obtain;
- the fact that we conduct business in multiple foreign jurisdictions, exposing us to foreign currency exchange rate fluctuations, logistical and communications challenges, burdens and costs of compliance with foreign laws and political and economic instability in each jurisdiction;
- the escalation of hostilities in Israel, which could impair our ability to manufacture our products; and
- loss or retirement of key executives and research scientists.

You should review carefully the section entitled “Risk Factors” beginning on page S-10 of this prospectus supplement for a discussion of these and other risks that relate to our business and investing in our securities. The forward-looking statements contained or incorporated by reference in this prospectus supplement are expressly qualified in their entirety by this cautionary statement. We do not undertake any obligation to publicly update any forward-looking statement to reflect events or circumstances after the date on which any such statement is made or to reflect the occurrence of unanticipated events.

USE OF PROCEEDS

We estimate that the net proceeds from the sale of the securities offered under this prospectus, after deducting the underwriting discount and estimated offering expenses payable by us, will be \$. If a warrant holder elects to exercise the warrants issued in this offering, we may also receive proceeds from the exercise of the warrants. We cannot predict when or if the warrants will be exercised. It is possible that the warrants may expire and may never be exercised.

We intend to use the net proceeds from this offering to to conduct sales activities related to CGuard™ EPS™ and MGuard Prime™ EPS. Any balance of the net proceeds will be used for general corporate purposes.

Investors are cautioned, however, that expenditures may vary substantially from these uses. Investors will be relying on the judgment of our management, who will have broad discretion regarding the application of the proceeds of this offering. The amounts and timing of our actual expenditures will depend upon numerous factors, including the amount of cash generated by our operations, the amount of competition we face and other operational factors. We may find it necessary or advisable to use portions of the proceeds from this offering for other purposes.

From time to time, we evaluate these and other factors and we anticipate continuing to make such evaluations to determine if the existing allocation of resources, including the proceeds of this offering, is being optimized. Circumstances that may give rise to a change in the use of proceeds include:

- a change in development plan or strategy;
 - the addition of new products or applications;
 - technical delays;
 - delays or difficulties with our clinical trials;
 - negative results from our clinical trials;
 - difficulty obtaining regulatory approval;
 - failure to achieve sales as anticipated; and
- the availability of other sources of cash including cash flow from operations and new bank debt financing arrangements, if any.

Until we use the net proceeds of this offering, we will hold such funds in cash or invest the funds in short-term, investment grade, interest-bearing securities. Investors are cautioned that the proceeds from this offering are expected to be sufficient to enable us to continue operations for only a short period of time. We will need to raise additional funds to conduct sales activities related to CGuard™ EPS™ and MGuard Prime™ EPS. We expect that we will have to raise such additional funds through the sale of additional equity or equity back securities. Any future equity or equity linked financing that we may need may not be able available on terms favorable to us or at all.

PRICE RANGE OF OUR COMMON STOCK

Our common stock has been quoted on the NYSE MKT since April 11, 2013 under the symbol “NSPR.” Prior to that date, it was traded on the OTC Bulletin Board.

The following table sets forth the intra-day high and low sales price per share for our common stock, as reported on the NYSE MKT, for the periods indicated. The sales prices for our common stock prior to October 1, 2015 are adjusted for the one-for-ten reverse stock split of our common stock that occurred on such date:

	Common Stock	
	High	Low
Fiscal Year Ending December 31, 2016		
First quarter (through March 11, 2016)	\$0.95	\$0.39
Fiscal Year Ended December 31, 2015		
Fourth quarter	\$2.12	\$0.63
Third quarter	\$3.20	\$1.50
Second quarter	\$4.20	\$1.90
First quarter	\$10.10	\$2.30
Fiscal Year Ended December 31, 2014		
Fourth quarter	\$2.23	\$0.70
Third quarter	\$3.02	\$1.81
Second quarter	\$3.25	\$1.79
First quarter	\$3.80	\$2.48

The closing price of our common stock on the NYSE MKT on March 14, 2016 was \$0.84 per share. Immediately prior to this offering, we had 7,794,075 issued and outstanding shares of common stock, which were held by approximately 214 holders of record.

DIVIDEND POLICY

In the past, we have not declared or paid cash dividends on our common stock. Our loan and security agreement with Hercules Technology Growth Capital, Inc., dated October 23, 2013, prohibits us from paying dividends or distributions on our common stock. Even if we are permitted to pay cash dividends in the future, we do not intend to do so. Rather, we intend to retain future earnings, if any, to fund the operation and expansion of our business and for general corporate purposes.

DILUTION

If you invest in our common stock, your interest will be diluted to the extent of the difference between the price per share you pay in this offering and the net tangible book value per share of our common stock immediately after this offering and the concurrent private placement. Our net tangible book value of our common stock as of September 30, 2015 was approximately \$(0.7 million), or approximately \$(0.09) per share of common stock based on 7,785,268 shares outstanding (including 7,632,752 shares and vested restricted shares and 152,516 unvested restricted shares) at that time. “Net tangible book value” is total assets minus the sum of liabilities and intangible assets. “Net tangible book value per share” is net tangible book value divided by the total number of shares outstanding.

After giving effect to (i) the sale of shares of common stock in the aggregate amount of \$ in this offering at a public offering price of \$ per share, and after deducting the underwriting discount and estimated offering expenses payable by us, and (ii) the sale of shares of common stock at the public offering price in our concurrent private placement, our net tangible book value as of September 30, 2015 would have been approximately \$ million, or approximately \$ per share of common stock based on shares of common stock outstanding on a pro forma basis at that time. This represents an immediate increase in net tangible book value of \$ per share to our existing stockholders and an immediate dilution of approximately \$ per share to new investors participating in this offering, as illustrated by the following table:

Public offering price per share of common stock	\$
Net tangible book value per share of common stock as of September 30, 2015	\$
Increase in net tangible book value per share of common stock attributable to the offering and the concurrent private placement	\$
Pro forma net tangible book value per share of common stock as of September 30, 2015 after giving effect to the offering and concurrent private placement	\$
Dilution in net tangible book value per share of common stock to new investors in the offering	\$

The discussion of dilution, and the table quantifying it, attribute no value to the warrants included in the unit of securities being issued in this offering or the concurrent private placement, and assume no exercise of any of the warrants offered hereby or thereby or any outstanding options or warrants or other potentially dilutive securities. The exercise of potentially dilutive securities having an exercise price less than the offering price would increase the dilutive effect to new investors.

In particular, the table above excludes the following potentially dilutive securities as of September 30, 2015:

195,393 shares of common stock issuable upon the exercise of currently outstanding warrants with an exercise price of \$72.00 per share;

63,750 shares of common stock issuable upon the exercise of currently outstanding warrants with an exercise price of \$60.00 per share;

65,912 shares of common stock issuable upon the exercise of currently outstanding warrants with an exercise price of \$30.00 per share;

16,836 shares of common stock issuable upon the exercise of currently outstanding warrants with an exercise price of \$29.70 per share;

313,100 shares of common stock issuable upon the exercise of currently outstanding warrants to purchase one-half of one share of common stock with an exercise price for two warrants of \$17.50 per full share;

3,436,970 shares of common stock issuable upon the exercise of currently outstanding warrants with an exercise price of \$5.50 per share;

shares of common stock issuable upon the exercise of warrants that we have agreed to issue to the underwriter or its designees in this offering equal to 5% of the shares of common stock sold in this offering, at a price per share equal to 125% of the public offering price in this offering;

336,430 shares of common stock issuable upon the exercise of currently outstanding options with exercise prices ranging from \$0.0001 to \$84.00 and having a weighted average exercise price of \$30.25 per share;

243,580 shares of common stock available for future issuance under our 2011 UMBRELLA Option Plan, 243,580 of which will be granted to Isaac Blech in connection with his appointment to our board of directors; and

673,261 shares of common stock available for future issuance under our 2013 Long-Term Incentive Plan, 536,420 of which will be granted to Isaac Blech in connection with his appointment to our board of directors.

To the extent that any of these options are exercised, new options are issued under our equity incentive plans and subsequently exercised or we issue additional shares of common stock in the future, there will be further dilution to new investors participating in this offering.

MATERIAL U.S. FEDERAL TAX CONSEQUENCES

The following is a general summary of material U.S. federal income tax consequences of the acquisition of shares of common stock (the “Shares”) in the offering, the acquisition, exercise, disposition, and lapse of warrants (the “Warrants”) in the offering, and the acquisition, ownership, and disposition of shares of common stock issuable upon exercise of the warrants (the “Warrant Shares”).

Scope of this Summary

This summary is for general information purposes only and does not purport to be a complete analysis of all potential U.S. federal income tax consequences of the acquisition, ownership and disposition of Shares, Warrants and Warrant Shares. Except as specifically set forth below, this summary does not discuss applicable tax reporting requirements. In addition, this summary does not take into account the individual facts and circumstances of any particular holder that may affect the U.S. federal income tax consequences to such holder. Accordingly, this summary is not intended to be, and should not be construed as, legal or U.S. federal income tax advice with respect to any particular holder. Each holder should consult its own tax advisors regarding the U.S. federal, state and local, and non-U.S. tax consequences of the acquisition, ownership and disposition of Shares, Warrants and Warrant Shares.

No legal opinion from U.S. legal counsel or ruling from the Internal Revenue Service (the “IRS”) has been requested, or will be obtained, regarding the U.S. federal income tax consequences of the acquisition, ownership and disposition of Shares, Warrants and Warrant Shares. This summary is not binding on the IRS, and the IRS is not precluded from taking a position that is different from, and contrary to, the positions taken in this summary.

Authorities

This summary is based on the Internal Revenue Code of 1986, as amended (the “Code”), Treasury Regulations, published rulings of the IRS, published administrative positions of the IRS, and U.S. court decisions that are applicable and, in each case, as in effect and available, as of the date of this prospectus supplement. Any of the authorities on which this summary is based could be changed in a material and adverse manner at any time, and any such change could be applied on a retroactive basis.

U.S. Holders

As used in this summary, the term “U.S. Holder” means a beneficial owner of Shares and Warrants acquired pursuant to this prospectus supplement and Warrant Shares acquired upon exercise of the warrants that is for U.S. federal income tax purposes:

- an individual who is a citizen or resident of the U.S.;

- a corporation (or other entity taxable as a corporation) organized under the laws of the U.S., any state thereof or the District of Columbia;

- an estate whose income is subject to U.S. federal income taxation regardless of its source; or

- a trust that (1) is subject to the primary supervision of a court within the U.S. and the control of one or more U.S. persons for all substantial decisions or (2) has a valid election in effect under applicable Treasury Regulations to be treated as a U.S. person.

Non-U.S. Holders

The term “Non-U.S. Holder” means any beneficial owner of Shares and Warrants acquired pursuant to this prospectus supplement and Warrant Shares acquired upon exercise of the warrants that is not a U.S. Holder.

Holders Subject to Special U.S. Federal Income Tax Rules

This summary deals only with persons or entities who acquire Shares and Warrants in the offering and who hold Shares, Warrants or Warrant Shares as a capital asset within the meaning of Section 1221 of the Code (generally, property held for investment purposes). This summary does not address all aspects of U.S. federal income taxation that may be applicable to holders in light of their particular circumstances or to holders subject to special treatment under U.S. federal income tax law, such as (without limitation): banks, insurance companies, and other financial institutions; dealers or traders in securities, commodities or foreign currencies; regulated investment companies; U.S. expatriates or former long-term residents of the U.S.; persons holding Shares, Warrants or Warrant Shares as part of a straddle, appreciated financial position, synthetic security, hedge, conversion transaction or other integrated investment; persons holding Shares, Warrants or Warrant Shares as a result of a constructive sale; entities that acquire Shares, Warrants and Warrant Shares that are treated as partnerships for U.S. federal income tax purposes and partners in such partnerships; real estate investment trusts; U.S. Holders that have a “functional currency” other than the U.S. dollar; holders that acquired Shares, Warrants, or Warrant Shares in connection with the exercise of employee stock options or otherwise as consideration for services; or holders that are “controlled foreign corporations” or “passive foreign investment companies.” Holders that are subject to special provisions under the Code, including holders described immediately above, should consult their own tax advisors regarding the U.S. federal, state and local, and

non-U.S. tax consequences arising from and relating to the acquisition, ownership and disposition of Shares, Warrants and Warrant Shares.

If an entity or arrangement that is classified as a partnership (or other “pass-through” entity) for U.S. federal income tax purposes holds Shares, Warrants or Warrant Shares, the U.S. federal income tax consequences to such entity and the partners (or other owners) of such entity generally will depend on the activities of the entity and the status of such partners (or owners). This summary does not address the tax consequences to any such owner or entity. Partners (or other owners) of entities or arrangements that are classified as partnerships or as “pass-through” entities for U.S. federal income tax purposes should consult their own tax advisors regarding the U.S. federal income tax consequences arising from and relating to the acquisition, ownership, and disposition of Shares, Warrants and Warrant Shares.

Tax Consequences Not Addressed

This summary does not address the U.S. state and local, U.S. federal estate and gift, U.S. federal alternative minimum tax, or non-U.S. tax consequences to holders of the acquisition, ownership, and disposition of Shares, Warrants and Warrant Shares. Each holder should consult its own tax advisors regarding the U.S. state and local, U.S. federal estate and gift, U.S. federal alternative minimum tax, and non-U.S. tax consequences of the acquisition, ownership, and disposition of Shares, Warrants and Warrant Shares.

Certain Material U.S. Federal Income Tax Consequences of the Purchase of Shares and Warrants to U.S. Holders and Non-U.S. Holders

For U.S. federal income tax purposes, the purchase of Shares and Warrants in this offering by U.S. Holders and Non-U.S. Holders will be treated as the purchase of two components: a component consisting of one Share and a component consisting of one Warrant to purchase one half of one share of common stock. The purchase price for the Shares and Warrants will be allocated between these two components in proportion to their relative fair market values at the time the Shares and Warrants are purchased by the holder. This allocation of the purchase price will establish a holder's initial tax basis for U.S. federal income tax purposes for each Share and Warrant.

U.S. Federal Income Tax Consequences to U.S. Holders of the Exercise and Disposition of Warrants

Exercise of Warrants

A U.S. Holder generally will not recognize gain or loss on the exercise of a Warrant and related receipt of a Warrant Share (unless cash is received in lieu of the issuance of a fractional Warrant Share). A U.S. Holder's initial tax basis in the Warrant Share received on the exercise of a Warrant should be equal to the sum of (a) such U.S. Holder's tax basis

in such Warrant plus (b) the exercise price paid by such U.S. Holder on the exercise of such Warrant. A U.S. Holder's holding period for the Warrant Share received on the exercise of a Warrant should begin on the date that such Warrant is exercised by such U.S. Holder.

Disposition of Warrants

A U.S. Holder will recognize gain or loss on the sale or other taxable disposition of a Warrant (including upon lapse or expiration) in an amount equal to the difference, if any, between (a) the amount of cash plus the fair market value of any property received and (b) such U.S. Holder's tax basis in the Warrant sold or otherwise disposed of. Any such gain or loss generally will be capital gain or loss and will be long-term capital gain or loss if the Warrant is held for more than one year. Long-term capital gains recognized by certain non-corporate U.S. Holders (including individuals) will generally be subject to a preferential rate of U.S. federal income tax. Deductions for capital losses are subject to limitations.

Certain Adjustments to the Warrants

Under Section 305 of the Code, an adjustment to the number of Warrant Shares that will be issued on the exercise of the Warrants, or an adjustment to the exercise price of the Warrants, may be treated as a constructive distribution to a U.S. Holder of the Warrants if, and to the extent that, such adjustment has the effect of increasing such U.S. Holder's proportionate interest in our "earnings and profits" or assets, depending on the circumstances of such adjustment (for example, if such adjustment is to compensate for a distribution of cash or other property to our shareholders). Adjustments to the exercise price of a Warrant made pursuant to a bona fide reasonable adjustment formula that has the effect of preventing dilution of the interest of the holders of the Warrants should generally not result in a constructive distribution. (See the more detailed discussion of the rules applicable to distributions made by us at "U.S. Federal Income Tax Consequences to U.S. Holders of the Acquisition, Ownership and Disposition of Shares and Warrant Shares - Distributions" below).

U.S. Federal Income Tax Consequences to U.S. Holders of the Acquisition, Ownership and Disposition of Shares and Warrant Shares

Distributions

Distributions made on Shares and Warrant Shares generally will be included in a U.S. Holder's income as ordinary dividend income to the extent of our current and accumulated earnings and profits (determined under U.S. federal income tax principles) as of the end of our taxable year in which the distribution occurs. Dividends received by non-corporate U.S. Holders are generally taxed at a maximum tax rate of 20%, provided certain holding period and other requirements are satisfied. Distributions in excess of our current and accumulated earnings and profits will be treated as a return of capital to the extent of a U.S. Holder's adjusted tax basis in the Shares or Warrant Shares and thereafter as capital gain from the sale or exchange of such Shares or Warrant Shares, which will be taxable according to rules discussed under the heading "Sale, Certain Redemptions or Other Taxable Dispositions of Shares and Warrant Shares," below. Dividends received by a corporate holder may be eligible for a dividends received deduction, subject to applicable limitations.

Sale, Certain Redemptions or Other Taxable Dispositions of Shares and Warrant Shares

Upon the sale, redemption, or other taxable disposition of Shares or Warrant Shares, a U.S. Holder generally will recognize capital gain or loss equal to the difference between (i) the amount of cash and the fair market value of any property received upon such taxable disposition and (ii) the U.S. Holder's adjusted tax basis in the Shares or Warrant Shares. Such capital gain or loss will be long-term capital gain or loss if a U.S. Holder's holding period in the Shares or Warrant Shares is more than one year at the time of the taxable disposition. Long-term capital gains recognized by non-corporate U.S. Holders will generally be subject to a maximum U.S. federal income tax rate of 20%. Deductions for capital losses are subject to limitations.

Other U.S. Federal Income Tax Consequences Applicable to U.S. Holders

Additional Tax on Passive Income

Individuals, estates and certain trusts whose income exceeds certain thresholds will be required to pay a 3.8% Medicare surtax on "net investment income" including, among other things, dividends on and net gain from the disposition of Shares or Warrant Shares. U.S. Holders should consult their own tax advisors regarding the effect, if

any, of this tax on their ownership and disposition of Shares, Warrants and Warrant Shares.

Information Reporting and Backup Withholding

Information reporting requirements generally will apply to payments of dividends on Shares and Warrant Shares and to the proceeds of a sale of Shares, Warrants or Warrant Shares paid to a U.S. Holder unless the U.S. Holder is an exempt recipient (such as a corporation). Backup withholding will apply to those payments if the U.S. Holder fails to provide its correct taxpayer identification number, or certification of exempt status, or if the U.S. Holder is notified by the IRS that it has failed to report in full payments of interest and dividend income. Backup withholding is not an additional tax, and any amounts withheld under the backup withholding rules generally will be allowed as a refund or a credit against a U.S. Holder's U.S. federal income tax liability, if any, provided the required information is furnished in a timely manner to the IRS.

U.S. Federal Income Tax Consequences to Non-U.S. Holders of the Acquisition, Ownership and Disposition of Shares, Warrants and Warrant Shares

U.S. Federal Income Tax Consequences to Non-U.S. Holders of the Exercise and Disposition of Warrants

Exercise of Warrants

A Non-U.S. Holder generally will not recognize gain or loss on the exercise of a Warrant and related receipt of a Warrant Share (unless cash is received in lieu of the issuance of a fractional Warrant Share and certain other conditions are present, as discussed below under "Sale or Other Taxable Disposition of Shares, Warrants and Warrant Shares"). A Non-U.S. Holder's initial tax basis in the Warrant Share received on the exercise of a Warrant should be equal to the sum of (a) such Non-U.S. Holder's tax basis in such Warrant plus (b) the exercise price paid by such Non-U.S. Holder on the exercise of such Warrant. A Non-U.S. Holder's holding period for the Warrant Share received on the exercise of a Warrant should begin on the date that such Warrant is exercised by such Non-U.S. Holder.

Certain Adjustments to the Warrants

Under Section 305 of the Code, an adjustment to the number of Warrant Shares that will be issued on the exercise of the Warrants, or an adjustment to the exercise price of the Warrants, may be treated as a constructive distribution to a Non-U.S. Holder of the Warrants if, and to the extent that, such adjustment has the effect of increasing such Non-U.S. Holder's proportionate interest in our "earnings and profits" or assets, depending on the circumstances of such adjustment (for example, if such adjustment is to compensate for a distribution of cash or other property to our shareholders). See the more detailed discussion of the rules applicable to distributions made by us under the heading "Dividends" below.

Dividends

Distributions on Shares or Warrant Shares will constitute dividends for U.S. federal income tax purposes to the extent paid from our current and accumulated earnings and profits, as determined under U.S. federal income tax principles. To the extent those distributions exceed our current and accumulated earnings and profits, they will constitute a return of capital and will first reduce a Non-U.S. Holder's basis in Shares or Warrant Shares, but not below zero, and then will be treated as gain from the sale of stock, which will be taxable according to rules discussed under the heading "Sale or Other Taxable Disposition of Shares, Warrants and Warrant Shares," below. Any dividends paid to a Non-U.S. Holder with respect to Shares or Warrant Shares generally will be subject to withholding tax at a 30% gross rate, subject to any exemption or lower rate under an applicable treaty if the Non-U.S. Holder provides us with a properly executed IRS Form W-8BEN-E or W-8BEN. A Non-U.S. Holder that provides us with a properly executed IRS Form W-8ECI (or other applicable form) relating to income effectively connected with the conduct of a trade or business within the U.S. will not be subject to the 30% withholding tax.

Dividends that are effectively connected with the conduct of a trade or business within the U.S. are not subject to the withholding tax (assuming proper certification and disclosure), but instead are subject to U.S. federal income tax on a net income basis at applicable graduated individual or corporate rates, subject to an applicable treaty that provides otherwise. Any such effectively connected income received by a non-U.S. corporation may, under certain circumstances, be subject to an additional branch profits tax on its effectively connected earnings and profits at a 30% rate, subject to any exemption or lower rate as may be specified by an applicable income tax treaty.

A Non-U.S. Holder of Shares or Warrant Shares who wishes to claim the benefit of an applicable treaty rate or exemption is required to satisfy certain certification and other requirements. If a Non-U.S. Holder is eligible for an exemption from or a reduced rate of U.S. withholding tax pursuant to an income tax treaty, it may obtain a refund of any excess amounts withheld by timely filing an appropriate claim for refund with the IRS.

Sale or Other Taxable Disposition of Shares, Warrants and Warrant Shares

In general, a Non-U.S. Holder of Shares, Warrants or Warrant Shares will not be subject to U.S. federal income tax on gain recognized from a sale, exchange, or other taxable disposition of such Shares, Warrants or Warrant Shares, unless:

the gain is effectively connected with a U.S. trade or business carried on by the Non-U.S. Holder (and, where an income tax treaty applies, is attributable to a U.S. permanent establishment of the Non-U.S. Holder), in which case the Non-U.S. Holder will be subject to tax on the net gain from the sale at regular graduated U.S. federal income tax rates, and if the Non-U.S. Holder is a corporation, may be subject to an additional U.S. branch profits tax at a gross rate equal to 30% of its effectively connected earnings and profits for that taxable year, subject to any exemption or lower rate as may be specified by an applicable income tax treaty;

the Non-U.S. Holder is an individual who is present in the U.S. for 183 days or more in the taxable year of disposition and certain other conditions are met, in which case the Non-U.S. Holder will be subject to a 30% tax on the gain from the sale, which may be offset by U.S. source capital losses; or

we are or have been a “United States real property holding corporation” (“USRPHC”) for U.S. federal income tax purposes at any time during the shorter of the Non-U.S. Holder's holding period or the 5-year period ending on the date of disposition of Shares, Warrants or Warrant Shares; provided, with respect to the Shares and Warrant Shares, that as long as our common stock is regularly traded on an established securities market as determined under the Treasury Regulations (the “Regularly Traded Exception”), a Non-U.S. Holder would not be subject to taxation on the gain on the sale of Shares or Warrant Shares under this rule unless the Non-U.S. Holder has owned more than 5% of our common stock at any time during such 5-year or shorter period (a “5% Shareholder”). In determining whether a Non-U.S. Holder is a 5% Shareholder, such holder's Warrants may be included in such determination. In addition, certain attribution rules apply in determining ownership for this purpose. While the Shares and Warrant Shares will be listed on the NYSE MKT and therefore may satisfy the Regularly Traded Exception, since the Warrants are not expected to be listed on a securities market, the Warrants are unlikely to qualify for the Regularly Traded Exception. Non-U.S. Holders should be aware that we have made no determination as to whether we are or have been a USRPHC, and we can provide no assurances that we are not and will not become a USRPHC in the future. In addition, in the event that we are or become a USRPHC, we can provide no assurances that the Shares, Warrants or Warrant Shares will meet the Regularly Traded Exception at the time a Non-U.S. Holder purchases such securities or sells, exchanges or otherwise disposes of such securities. Non-U.S. Holders should consult with their own tax advisors regarding the consequences to them of investing in a USRPHC. As a USRPHC, a Non-U.S. Holder will be taxed as if any gain or loss were effectively connected with the conduct of a trade or business as described above in “Dividends” in the event that (i) such holder is a 5% Shareholder, or (ii) the Regularly Traded Exception is not satisfied during the relevant period.

Information Reporting and Backup Withholding

Generally, we must report annually to the IRS and to Non-U.S. Holders the amount of dividends paid on the Shares and Warrant Shares to Non-U.S. Holders and the amount of tax, if any, withheld with respect to those payments. Copies of the information returns reporting such dividends and withholding may also be made available to the tax authorities in the country in which a Non-U.S. Holder resides under the provisions of an applicable income tax treaty.

In general, a Non-U.S. Holder will not be subject to backup withholding with respect to payments of dividends that we make, provided we receive a statement meeting certain requirements to the effect that the Non-U.S. Holder is not a U.S. person and we do not have actual knowledge or reason to know that the holder is a U.S. person, as defined under the Code, that is not an exempt recipient. The requirements for the statement will be met if (1) the Non-U.S. Holder provides its name, address and U.S. taxpayer identification number, if any, and certifies, under penalty of perjury, that it is not a U.S. person (which certification may be made on IRS Form W-8BEN or W-8BEN-E, as applicable) or (2) a financial institution holding the instrument on behalf of the Non-U.S. Holder certifies, under penalty of perjury, that such statement has been received by it and furnishes us or our paying agent with a copy of the statement. In addition, a Non-U.S. Holder will be subject to information reporting and, depending on the circumstances, backup withholding with respect to payments of the proceeds of a sale of Shares, Warrants and Warrant Shares within the U.S. or conducted through certain U.S.-related financial intermediaries, unless the statement described above has been received, and we do not have actual knowledge or reason to know that a holder is a U.S. person, as defined under the Code, that is not an exempt recipient, or the Non-U.S. Holder otherwise establishes an exemption. Backup withholding is not an additional tax and any amounts withheld under the backup withholding rules will be allowed as a refund or a credit against a Non-U.S. Holder's U.S. federal income tax liability, if any, provided the required information is furnished in a timely manner to the IRS.

Rules Relating to Foreign Accounts

Generally, we will be required to withhold tax at a rate of 30% on dividends in respect of Shares and Warrant Shares, and gross proceeds from the sale of, Shares, Warrants and Warrant Shares held by or through certain foreign entities beginning after June 30, 2014, in the case of dividends, and beginning after December 31, 2016, in the case of such gross proceeds, unless such entity is in compliance with its obligations under the Foreign Account Tax Compliance Act, or "FATCA."

DESCRIPTION OF SECURITIES WE ARE OFFERING

Common Stock

The material terms and provisions of our common stock and each other class of our securities that qualifies or limits our common stock are described under the caption “Description of Capital Stock” starting on page 8 of the accompanying prospectus, as supplemented by the information below. As of March 14, 2016, we had 7,794,075 shares of common stock outstanding.

Warrants

The following is a brief summary of certain terms and conditions of the warrants and is subject in all respects to the provisions contained in the warrants.

Form. The warrants will be issued as individual warrants to each of the investors. You should review a copy of the form of warrant, which is attached as an exhibit to our Current Report on Form 8-K being filed with the Securities and Exchange Commission in connection with this offering, for a complete description of the terms and conditions of the warrants.

Exercisability. The warrants are exercisable at any time after the date of issuance, and at any time up to the date that is 60 months from the date of issuance, at which time any unexercised warrants will expire and cease to be exercisable. The warrants will be exercisable, at the option of each holder, in whole or in part by delivering to us a duly executed exercise notice and by payment in full in immediately available funds for the number of shares of common stock purchased upon such exercise. If a registration statement registering the issuance of the shares of common stock underlying the warrants under the Securities Act of 1933, as amended, is not then effective or available, the holder may exercise the warrant through a cashless exercise, in whole or in part, in which case the holder would receive upon such exercise the net number of shares of common stock determined according to the formula set forth in the warrant. No fractional shares of common stock will be issued in connection with the exercise of a warrant. In lieu of fractional shares, we will either pay the holder an amount in cash equal to the fractional amount multiplied by the exercise price or round up to the next whole share.

Exercise Limitation. A holder will not have the right to exercise any portion of the warrant if the holder (together with its affiliates) would beneficially own in excess of 4.99% of the number of shares of our stock outstanding immediately

after giving effect to the exercise, as such percentage ownership is determined in accordance with the terms of the warrants. However, any holder may increase or decrease such percentage to any other percentage not in excess of 9.99%, provided that any increase in such percentage shall not be effective until 61 days after such notice to us.

Exercise Price; Anti-Dilution. The initial exercise price per share of common stock purchasable upon exercise of two warrants is \$ _____ per full share of common stock. The exercise price is subject to appropriate adjustment in the event of certain stock dividends and distributions, stock splits, stock combinations, reclassifications or similar events affecting our common stock.

Transferability. Subject to applicable laws, the warrants may be offered for sale, sold, transferred or assigned without our consent. There is currently no trading market for the warrants and a trading market is not expected to develop.

Exchange Listing. We do not plan to apply to list the warrants on the NYSE MKT, any other national securities exchange or any other nationally recognized trading system.

Fundamental Transactions. In the event of a fundamental transaction, as described in the warrants and generally including any reorganization, recapitalization or reclassification of our common stock, the sale, transfer or other disposition of all or substantially all of our properties or assets, our consolidation or merger with or into another person, the holders of the warrants will be entitled to receive upon exercise of the warrants the kind and amount of securities, cash or other property that the holders would have received had they exercised the warrants immediately prior to such fundamental transaction.

Rights as a Stockholder. Except as otherwise provided in the warrants or by virtue of such holder's ownership of shares of our common stock, the holder of a warrant does not have the rights or privileges of a holder of our common stock, including any voting rights, until the holder exercises the warrant.

This prospectus supplement also relates to the offering of the underwriter's warrants and of the shares of our common stock issuable upon exercise, if any, of such warrants. See "Underwriting" section below for more information.

UNDERWRITING

We have entered into an underwriting agreement with Dawson James Securities, Inc. with respect to the common stock and warrants being offered. Subject to the terms and conditions of the underwriting agreement, we have agreed to sell to the underwriter, and the underwriter has agreed to purchase from us on a firm commitment basis, the number of shares of our common stock and warrants set forth opposite its name in the table below.

Underwriter	Number of Shares	Warrants
Dawson James Securities, Inc.		
Total		

The underwriting agreement provides that the obligations of the underwriter are subject to certain conditions precedent and that the underwriter has agreed to purchase all of the shares of common stock and warrants sold under the underwriting agreement if any of these shares or warrants are purchased.

The underwriter proposes to offer to the public the shares of our common stock and warrants purchased pursuant to the underwriting agreement at the public offering price per share and warrant on the cover page of this prospectus supplement. The underwriter may offer some of the shares and warrants to other securities dealers at such price less a concession of \$ per share and warrant. The underwriter may also allow, and such dealers may reallocate, a concession not in excess of \$ per share and warrant to other dealers. After the shares and warrants are released for sale to the public, the underwriter may change the offering price and other selling terms at various times.

The factors considered in determining the public offering price included the recent market price of our common stock, the general condition of the securities market at the time of this offering, the history of, and the prospects for, the industry in which we compete, our past and present operations and our prospects for future revenues.

Dawson James Securities, Inc., its officers and its registered representatives may participate in this offering on the same terms and conditions as the investors participating in this offering.

The following table shows the per share and warrant and total underwriting discounts and commissions we will pay in connection with the sale of the common stock and warrants.

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Per share and warrant underwriting discount	\$
Total	\$

We have also agreed to reimburse the underwriter for its expenses in connection with this offering, up to \$25,000, and have agreed to reimburse the underwriter for its reasonable “blue sky” fees and expenses, up to \$20,000. We have also granted to the underwriter a right of first refusal to act as lead managing underwriter or book runner, or as lead placement agent for any and all future equity, equity-linked or debt (excluding commercial bank debt) offerings during the eighteen months following the consummation of this offering.

We estimate the total expenses of this offering which will be payable by us, excluding the underwriting discount, will be approximately \$. After deducting the underwriting discount and our estimated offering expenses, we expect the net proceeds from this offering to be approximately \$.

We have agreed to issue to the underwriter or its designees warrants to purchase up to 5% of the number of shares of common stock sold in this offering. The underwriter warrants will be exercisable at any time and from time to time, in whole or in part, during the period commencing six months following the consummation of this offering, and ending five years from the consummation of this offering, at a price per share equal to 125% of the public offering price in this offering. The underwriter warrants provide for a cashless exercise provision, piggyback registration rights and customary anti-dilution provisions (for stock dividends and splits and recapitalizations) consistent with FINRA Rule 5110. The underwriter warrants and the underlying securities are deemed compensation by FINRA, and are therefore subject to FINRA Rule 5110(g)(1). In accordance with FINRA Rule 5110(g)(1), neither the underwriter warrants nor any securities issued upon exercise of the underwriter warrants may be sold, transferred, assigned, pledged, or hypothecated, or be the subject of any hedging, short sale, derivative, put, or call transaction that would result in the effective economic disposition of such securities by any person for a period of 180 days immediately following the date of effectiveness or commencement of sales of the offering pursuant to which the underwriter warrants are being issued, except the transfer of any security: (i) by operation of law or by reason of reorganization of our company; (ii) to any FINRA member firm participating in this offering and the officers or partners thereof, if all securities so transferred remain subject to the lock-up restriction described above for the remainder of the time period; (iii) if the aggregate amount of our securities held by either an underwriter or a related person do not exceed 1% of the securities being offered; (iv) that is beneficially owned on a pro-rata basis by all equity owners of an investment fund, provided that no participating member manages or otherwise directs investments by the fund, and participating members in the aggregate do not own more than 10% of the equity in the fund; or (v) the exercise or conversion of any security, if all securities received remain subject to the lock-up restriction set forth above for the remainder of the time period. The underwriter warrants and the shares of common stock underlying the underwriter warrants are being registered pursuant to this prospectus supplement.

Concurrently with the closing of this offering, certain of our directors and executive officers have agreed to purchase in a private placement an aggregate amount of \$ _____ of our common stock and warrants on the same terms as this offering. In connection with such private placement, we have agreed to retain the underwriter as our placement agent for the private placement and to pay a placement agent fee of 8% of the offering proceeds, to reimburse the placement agent for its expenses up to \$25,000 and to issue the placement agent warrants to purchase up to 5% of the number of shares of common stock sold in the private placement. The placement agent warrants will be exercisable at any time and from time to time, in whole or in part, during the period commencing six months following the consummation of this offering, and ending five years from the consummation of this offering, at a price per share equal to 125% of the private placement offering price (which is identical to the price in this offering). The placement agent warrants provide for a cashless exercise provision, and will be subject to same restrictions set forth in the preceding paragraph. Neither the placement agent warrants nor the shares of common stock underlying the placement agent warrants are being registered pursuant to this prospectus supplement.

We have agreed to indemnify the underwriter and certain other persons against certain liabilities relating to or arising out of the underwriter's activities under the underwriting agreement. We have also agreed to contribute to payments that the underwriter may be required to make in respect of such liabilities.

Stabilization. In connection with this offering, the underwriters may engage in stabilizing transactions, overallotment transactions, syndicate covering transactions, penalty bids and purchases to cover positions created by short sales.

Stabilizing transactions permit bids to purchase common stock so long as the stabilizing bids do not exceed a specified maximum, and are engaged in for the purpose of preventing or retarding a decline in the market price of the common stock while the offering is in progress.

Syndicate covering transactions involve purchases of common stock in the open market after the distribution has been completed in order to cover syndicate short positions. If the underwriters sell more shares than set forth herein and, therefore, have a naked short position, the position can be closed out only by buying shares in the open market. A naked short position is more likely to be created if the underwriters are concerned that after pricing there could be downward pressure on the price of the shares in the open market that could adversely affect investors who purchase in the offering.

Penalty bids permit the representative to reclaim a selling concession from a syndicate member when the common stock originally sold by that syndicate member are purchased in stabilizing or syndicate covering transactions to cover syndicate short positions.

This prospectus supplement and the accompanying prospectus may be made available in electronic format on Internet sites or through other online services maintained by the underwriter or its affiliates. In those cases, prospective investors may view offering terms online and may be allowed to place orders online. Other than this prospectus

supplement and the accompanying prospectus in electronic format, any information on the underwriter's or its affiliates' websites and any information contained in any other website maintained by the underwriter or any affiliate of the underwriter is not part of this prospectus supplement, the accompanying prospectus or the registration statement of which this prospectus supplement and the accompanying prospectus form a part, has not been approved and/or endorsed by us or the underwriter and should not be relied upon by investors.

The underwriter or its affiliates may engage in transactions with, and may perform, from time to time, investment banking and advisory services for us in the ordinary course of their business and for which they would receive customary fees and expenses. In addition, in the ordinary course of their business activities, the underwriter and its affiliates may make or hold a broad array of investments and actively trade debt and equity securities (or related derivative securities) and financial instruments (including bank loans) for its own account and for the accounts of its customers. Such investments and securities activities may involve securities and/or instruments of ours or our affiliates. The underwriter and its affiliates may also make investment recommendations and/or publish or express independent research views in respect of such securities or financial instruments and may hold, or recommend to clients that they acquire, long and/or short positions in such securities and instruments.

The transfer agent and registrar for our common stock is Action Stock Transfer Corp. The transfer agent's address is 2469 E. Fort Union Blvd., Suite 214, Salt Lake City, Utah 84121. We will act as transfer agent for the warrants being offered hereby.

Our common stock is traded on the NYSE MKT LLC under the symbol "NSPR." The warrants to purchase common stock issued to the investors in this offering are not expected to be eligible for trading on any market.

LEGAL MATTERS

The validity of the shares of common stock and warrants offered by this prospectus supplement has been passed upon for us by Haynes and Boone, LLP. Schiff Hardin LLP, Washington, DC, is acting as counsel for the underwriter in connection with the securities offered hereby.

EXPERTS

The financial statements incorporated in this prospectus supplement by reference to the Annual Report on Form 10-K for the year ended December 31, 2014, have been so incorporated in reliance on the report of Kesselman & Kesselman, an independent registered public accounting firm and a member firm of PricewaterhouseCoopers International Limited, given on the authority of said firm as experts in auditing and accounting.

WHERE YOU CAN FIND MORE INFORMATION

We are subject to the informational requirements of the Securities Exchange Act of 1934, as amended, and in accordance therewith file annual, quarterly and current reports, proxy statements and other information with the Securities and Exchange Commission. Such reports, proxy statements and other information can be read and copied at the Securities and Exchange Commission's public reference facilities at 100 F Street, N.E., Washington, D.C. 20549, at prescribed rates. Please call the Securities and Exchange Commission at 1-800-732-0330 for further information on the operation of the public reference facilities. In addition, the Securities and Exchange Commission maintains a website that contains reports, proxy and information statements and other information regarding registrants that file electronically with the Securities and Exchange Commission. The address of the Securities and Exchange Commission's website is www.sec.gov.

We make available free of charge on or through our website at www.inspire-md.com, our Annual Reports on Form 10-K, Transition Reports on Form 10-KT, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K and amendments to those reports filed or furnished pursuant to Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended, and proxy statements as soon as reasonably practicable after we electronically file such material with or otherwise furnish it to the Securities and Exchange Commission.

We have filed with the Securities and Exchange Commission a registration statement under the Securities Act of 1933, as amended, relating to the offering of these securities. The registration statement, including the attached

exhibits, 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 obtain a copy of the registration statement, at prescribed rates, from the Securities and Exchange Commission at the address listed above, or for free at www.sec.gov. The registration statement and the documents referred to below under “Incorporation of Certain Information By Reference” are also available on our website, www.inspire-md.com.

We have not incorporated by reference into this prospectus supplement the information on our website, and you should not consider it to be a part of this prospectus supplement.

INCORPORATION OF CERTAIN INFORMATION BY REFERENCE

The Securities and Exchange Commission allows us to “incorporate by reference” the information we have filed with it, which means that we can disclose important information to you by referring you to those documents. The information we incorporate by reference is an important part of this prospectus, and later information that we file with the Securities and Exchange Commission will automatically update and supersede this information. We incorporate by reference the documents listed below and any future documents (in each case excluding information furnished pursuant to Items 2.02 and 7.01 of Form 8-K) we file with the Securities and Exchange Commission pursuant to Sections 13(a), 13(c), 14 or 15(d) of the Securities Exchange Act of 1934, as amended, subsequent to the date of this prospectus supplement and prior to the termination of the offering:

Our Annual Report on Form 10-K for the fiscal year ended December 31, 2014, filed with the Securities and Exchange Commission on March 12, 2015;

Our quarterly report on Form 10-Q for the fiscal quarter ended March 31, 2015, filed with the Securities and Exchange Commission on May 11, 2015;

Our quarterly report on Form 10-Q for the fiscal quarter ended June 30, 2015, filed with the Securities and Exchange Commission on August 5, 2015;

Our quarterly report on Form 10-Q for the fiscal quarter ended September 30, 2015, filed with the Securities and Exchange Commission on November 9, 2015;

The portions of our definitive proxy statement on Schedule 14A that are deemed “filed” with the SEC under the Securities Exchange Act of 1934, as amended, filed on July 29, 2015;

- Our Current Report on Form 8-K, filed with the Securities and Exchange Commission on January 6, 2015 (except with respect to Item 2.02 and the related exhibits furnished pursuant to Item 9.01);
- Our Current Report on Form 8-K, filed with the Securities and Exchange Commission on January 13, 2015;
- Our Current Report on Form 8-K, filed with the Securities and Exchange Commission on January 21, 2015;
- Our Current Report on Form 8-K, filed with the Securities and Exchange Commission on January 27, 2015 (except with respect to Item 7.01 and the related exhibits furnished pursuant to Item 9.01);
- Our Current Report on Form 8-K, filed with the Securities and Exchange Commission on January 30, 2015;
- Our Current Report on Form 8-K, filed with the Securities and Exchange Commission on February 25, 2015;
- Our Current Report on Form 8-K, filed with the Securities and Exchange Commission on March 3, 2015;
- Our Current Report on Form 8-K, filed with the Securities and Exchange Commission on March 4, 2015;
- Our Current Report on Form 8-K, filed with the Securities and Exchange Commission on March 9, 2015;
- Our Current Report on Form 8-K, filed with the Securities and Exchange Commission on March 16, 2015;
- Our Current Report on Form 8-K, filed with the Securities and Exchange Commission on April 15, 2015 (except with respect to Item 2.02 and the related exhibits furnished pursuant to Item 9.01);
- Our Current Report on Form 8-K, filed with the Securities and Exchange Commission on April 27, 2015;
- Our Current Report on Form 8-K, filed with the Securities and Exchange Commission on May 12, 2015;
- Our Current Report on Form 8-K, filed with the Securities and Exchange Commission on May 22, 2015 (except with respect to Item 7.01 and the related exhibits furnished pursuant to Item 9.01);
- Our Current Report on Form 8-K, filed with the Securities and Exchange Commission on July 6, 2015;
- Our Current Report on Form 8-K, filed with the Securities and Exchange Commission on July 17, 2015;
- Our Current Report on Form 8-K, filed with the Securities and Exchange Commission on August 5, 2015 (except with respect to Items 2.02 and 7.01 and the related exhibits furnished pursuant to Item 9.01);
- Our Current Report on Form 8-K, filed with the Securities and Exchange Commission on September 9, 2015 (except with respect to Item 7.01 and the related exhibits furnished pursuant to Item 9.01);
- Our Current Report on Form 8-K, filed with the Securities and Exchange Commission on September 17, 2015;
- Our Current Report on Form 8-K, filed with the Securities and Exchange Commission on September 17, 2015;
- Our Current Report on Form 8-K, filed with the Securities and Exchange Commission on September 28, 2015;

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- Our Current Report on Form 8-K, filed with the Securities and Exchange Commission on October 1, 2015;
- Our Current Report on Form 8-K, filed with the Securities and Exchange Commission on October 5, 2015;
- Our Current Report on Form 8-K, filed with the Securities and Exchange Commission on October 19, 2015;
- Our Current Report on Form 8-K, filed with the Securities and Exchange Commission on November 20, 2015;

- Our Current Report on Form 8-K, filed with the Securities and Exchange Commission on December 2, 2015;
- Our Current Report on Form 8-K, filed with the Securities and Exchange Commission on January 15, 2016;
- Our Current Report on Form 8-K, filed with the Securities and Exchange Commission on January 22, 2016;
- Our Current Report on Form 8-K, filed with the Securities and Exchange Commission on January 28, 2016; and

The description of our common stock, which is contained in our registration statement on Form 8-A, filed with the Securities and Exchange Commission on March 12, 2013, as updated or amended in any amendment or report filed for such purpose.

You should rely only on the information incorporated by reference or provided in this prospectus supplement. We have not authorized anyone else to provide you with different information. You should not assume that the information in this prospectus supplement is accurate as of any date other than the date of this prospectus supplement or the date of the documents incorporated by reference in this prospectus supplement.

We will provide without charge to each person to whom a copy of this prospectus supplement is delivered, upon written or oral request, a copy of any or all of the information that has been incorporated by reference in this prospectus supplement but not delivered with this prospectus supplement (other than an exhibit to these filings, unless we have specifically incorporated that exhibit by reference in this prospectus supplement). Any such request should be addressed to us at: 321 Columbus Avenue, Boston, Massachusetts 02116, Attention: Craig Shore, Chief Financial Officer, or made by phone at (857) 453-6553. You may also access the documents incorporated by reference in this prospectus supplement through our website at www.inspire-md.com. Except for the specific incorporated documents listed above, no information available on or through our website shall be deemed to be incorporated in this prospectus supplement or the registration statement of which it forms a part.

PROSPECTUS

InspireMD, Inc.

\$75,000,000

Common Stock

Preferred Stock

Warrants

Units

We may offer and sell from time to time, in one or more series or issuances and on terms that we will determine at the time of the offering, any combination of the securities described in this prospectus, up to an aggregate amount of \$75,000,000.

We will provide specific terms of any offering in a supplement to this prospectus. Any prospectus supplement may also add, update, or change information contained in this prospectus. You should carefully read this prospectus and the applicable prospectus supplement as well as the documents incorporated or deemed to be incorporated by reference in this prospectus before you purchase any of the securities offered hereby.

These securities may be offered and sold in the same offering or in separate offerings; to or through underwriters, dealers, and agents; or directly to purchasers. The names of any underwriters, dealers, or agents involved in the sale of our securities, their compensation and any over-allotment options held by them will be described in the applicable prospectus supplement. See “Plan of Distribution.”

Our common stock is listed on the NYSE MKT under the symbol “NSPR.” On October 21, 2013, the last reported sale price of our common stock was \$3.23 per share. We recommend that you obtain current market quotations for our common stock prior to making an investment decision. We will provide information in any applicable prospectus

supplement regarding any listing of securities other than shares of our common stock on any securities exchange.

You should carefully read this prospectus, any prospectus supplement relating to any specific offering of securities, and all information incorporated by reference herein and therein.

Investing in our securities involves a high degree of risk. These risks are discussed in this prospectus under “Risk Factors” beginning on page 6 and in the documents incorporated by reference into 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 November 27, 2013

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ABOUT THIS PROSPECTUS

This prospectus is part of a registration statement on Form S-3 that we filed with the Securities and Exchange Commission using 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. The prospectus supplement may also add to, update or change information contained in the prospectus and, accordingly, to the extent inconsistent, information in this prospectus is superseded by the information in the prospectus supplement.

The prospectus supplement to be attached to the front of this prospectus may describe, as applicable: the terms of the securities offered; the public offering price; the price paid for the securities; net proceeds; and the other specific terms related to the offering of the securities.

You should only rely on the information contained or incorporated by reference in this prospectus and any prospectus supplement or issuer free writing prospectus relating to a particular offering. No person has been authorized to give any information or make any representations in connection with this offering other than those contained or incorporated by reference in this prospectus, any accompanying prospectus supplement and any related issuer free writing prospectus in connection with the offering described herein and therein, and, if given or made, such information or representations must not be relied upon as having been authorized by us. Neither this prospectus nor any prospectus supplement nor any related issuer free writing prospectus shall constitute an offer to sell or a solicitation of an offer to buy offered securities in any jurisdiction in which it is unlawful for such person to make such an offering or solicitation. This prospectus does not contain all of the information included in the registration statement. For a more complete understanding of the offering of the securities, you should refer to the registration statement, including its exhibits.

You should read the entire prospectus and any prospectus supplement and any related issuer free writing prospectus, as well as the documents incorporated by reference into this prospectus or any prospectus supplement or any related issuer free writing prospectus, before making an investment decision. Neither the delivery of this prospectus or any prospectus supplement or any issuer free writing prospectus nor any sale made hereunder shall under any circumstances imply that the information contained or incorporated by reference herein or in any prospectus supplement or issuer free writing prospectus is correct as of any date subsequent to the date hereof or of such prospectus supplement or issuer free writing prospectus, as applicable. You should assume that the information appearing in this prospectus, any prospectus supplement or any document incorporated by reference is accurate only as of the date of the applicable documents, regardless of the time of delivery of this prospectus or any sale of

securities. Our business, financial condition, results of operations and prospects may have changed since that date.

PROSPECTUS SUMMARY

This summary provides an overview of selected information contained elsewhere or incorporated by reference in this prospectus and does not contain all of the information you should consider before investing in our securities. You should carefully read the prospectus, the information incorporated by reference and the registration statement of which this prospectus is a part in their entirety before investing in our securities, including the information discussed under “Risk Factors” in this prospectus and the documents incorporated by reference and our financial statements and notes thereto that are incorporated by reference in this prospectus. As used in this prospectus, unless the context otherwise indicates, the terms “we,” “our,” “us,” or “the Company” refer to InspireMD, Inc., a Delaware corporation, and its subsidiaries taken as a whole.

Unless otherwise indicated, all information in this prospectus reflects a one-for-four reverse stock split of our common stock that occurred on December 21, 2012.

The Company

We are a medical device company focusing on the development and commercialization of our proprietary stent platform technology, MGuard™. MGuard provides embolic protection in stenting procedures by placing a micron mesh sleeve over a stent. Since our formation, we have experienced net losses.

Our initial products are marketed for use mainly in patients with acute coronary syndromes, notably acute myocardial infarction (heart attack) and saphenous vein graft coronary interventions (bypass surgery). According to the TYPHOON STEMI trial (New England Journal of Medicine, 2006) and the SOS SVG Trial (Journal of the American College of Cardiology, 2009), of patients with acute myocardial infarction and saphenous vein graft coronary interventions, 7.5% to 44% experience major adverse cardiac events, including cardiac death, heart attack and restenting of the artery. When performing stenting procedures in patients with acute coronary symptoms, interventional cardiologists face a difficult dilemma in choosing, with the aim of ensuring adequate protection from distal embolization (the dislodgement of particles from the artery wall that results in blood clot), between bare-metal stents, which have a high rate of restenosis (formation of new blockages), and drug-eluting (drug-coated) stents, which have a high rate of late thrombosis (formation of clots months or years after implantation), require administration of anti-platelet drugs for at least one year post procedure, are more costly than bare-metal stents and have additional side effects. We believe that MGuard is a simple and seamless solution for these patients.

We intend to study our MGuard technology for use in a broad range of coronary related situations in which complex lesions occur and intend to seek to make it an industry standard for treatment of acute coronary syndromes. We

believe that patients will benefit from a cost-effective alternative which we believe will prove to have a superior clinical efficacy and safety profile than other stent technologies. We believe that with our MGuard technology, we are well positioned to emerge as a key player in the global stent market.

In October 2007, our first generation product, the MGuard Coronary, received CE Mark approval for treatment of coronary arterial disease in the European Union. CE Mark is a mandatory conformance mark on many products marketed in the European Economic Area and certifies that a product has met European Union consumer safety, health or environmental requirements. We began shipping our product to customers in Europe in January 2008 and have since expanded our global distribution network to Southeast Asia, India, Latin America and Israel.

Presently, none of our products may be sold or marketed in the U.S. In connection with our efforts to seek approval of our MGuard Coronary with bio-stable mesh by the U.S. Food and Drug Administration, we filed an investigational device exemption application with the U.S. Food and Drug Administration during the summer of 2012 in order to conduct a pivotal trial. On April 19, 2013, we received an approval with conditions from the U.S. Food and Drug Administration for our investigational device exemption application, which allowed us to initiate enrollment in the trial. This trial is expected to be a multi-center, randomized study, consisting of up to 1,114 patients suffering from STEMI, throughout 35 sites in the U.S. and an additional 35 sites in Europe. The trial will have two co-primary endpoints: superiority in complete ST resolution and non-inferiority in death and target vessel myocardial infarction. In addition, a 356 patient sub-study will be conducted to assess the effect of the MGuard Coronary on infarct size, as measured by magnetic resonance imaging, and an additional 200 patient sub-study will be conducted to assess the late lumen loss, measured at 13 months. We expect that the clinical follow-ups for the subjects in the study will be at 30 days, six months and 12 months. The budget for this study is estimated to be up to \$13.0 million and the enrollment phase for the study is expected to last 18 months. We began enrollment in the trial on July 29, 2013.

Our initial MGuard Coronary product incorporated a stainless steel stent. We replaced this stainless steel platform with a more advanced cobalt-chromium based platform, which we refer to as the MGuard Prime™ version of the MGuard Coronary product. We believe the new platform will prove to be superior because cobalt-chromium stents are generally known in the industry to provide better deliverability and possibly even a reduction in major adverse cardiac events.

The MGuard Prime version of the MGuard Coronary product received CE Mark approval in the European Union in October 2010 for improving luminal diameter and providing embolic protection. We believe we can use and leverage the clinical trial results of our original stainless steel based MGuard Coronary to help market our new cobalt-chromium based MGuard Prime version of the MGuard Coronary product. In addition, MGuard Carotid received CE Mark approval in the European Union in March 2013.

For the twelve months ended June 30, 2013, our total revenue was approximately \$4.9 million and our net loss was approximately \$29.3 million. For the twelve months ended June 30, 2012, our total revenue was approximately \$5.3 million and our net loss was approximately \$17.6 million.

Corporate and Other Information

We were organized in the State of Delaware on February 29, 2008. Our principal executive offices are located at 800 Boylston Street, Suite 16041, Boston, Massachusetts 02199. Our telephone number is (857) 453-6553. Our website address is www.inspire-md.com. Information accessed through our website is not incorporated into this prospectus and is not a part of this prospectus.

The Securities We May Offer

We may offer up to \$75,000,000 of common stock, preferred stock, warrants and/or units in one or more offerings and in any combination. This prospectus provides you with a general description of the securities we may offer. A prospectus supplement, which we will provide each time we offer securities, will describe the specific amounts, prices and terms of these securities.

Common Stock

We may issue shares of our common stock from time to time. The holders of our common stock are entitled to one vote per share. Our certificate of incorporation does not provide for cumulative voting. Our directors are divided into three classes. At each annual meeting of stockholders, directors elected to succeed those directors whose terms expire are elected for a term of office to expire at the third succeeding annual meeting of stockholders after their election. The holders of our common stock are entitled to receive ratably such dividends, if any, as may be declared by our board of directors out of legally available funds; however, the current policy of our board of directors is to retain earnings, if any, for operations and growth. Upon liquidation, dissolution or winding-up, the holders of our common stock are entitled to share ratably in all assets that are legally available for distribution. The holders of our common stock have no preemptive, subscription, redemption or conversion rights. The rights, preferences and privileges of holders of our common stock are subject to, and may be adversely affected by, the rights of the holders of any series of preferred stock, which may be designated solely by action of our board of directors and issued in the future.

Preferred Stock

We may issue shares of our preferred stock from time to time, in one or more series. Our board of directors will determine the rights, preferences, privileges and restrictions of the preferred stock, including 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, without any further vote or action by stockholders. Convertible preferred stock will be convertible into our common stock or exchangeable for our other securities. Conversion may be mandatory or at your option or both and would be at prescribed conversion rates.

If we sell any series of preferred stock under this prospectus and applicable prospectus supplements, we will fix the rights, preferences, privileges and restrictions of the preferred stock of such series in the certificate of designation relating to that series. We will file as an exhibit to the registration statement of which this prospectus is a part, or will incorporate by reference from reports that we file with the Securities and Exchange Commission, the form of any certificate of designation that describes the terms of the series of preferred stock we are offering before the issuance of the related series of preferred stock. We urge you to read the applicable prospectus supplement related to the series of preferred stock being offered, as well as the complete certificate of designation that contains the terms of the applicable series of preferred stock.

Warrants

We may issue warrants for the purchase of common stock or preferred stock in one or more series. We may issue warrants independently or together with common stock or preferred stock, and the warrants may be attached to or separate from these securities. We will evidence each series of warrants by warrant certificates that we will issue under a separate agreement. We may enter into warrant agreements with a bank or trust company that we select to be our warrant agent. We will indicate the name and address of the warrant agent in the applicable prospectus supplement relating to a particular series of warrants.

In this prospectus, we have summarized certain general features of the warrants. We urge you, however, to read the applicable prospectus supplement related to the particular series of warrants being offered, as well as the warrant agreements and warrant certificates that contain the terms of the warrants. We will file as exhibits to the registration statement of which this prospectus is a part, or will incorporate by reference from reports that we file with the Securities and Exchange Commission, the form of warrant agreement or warrant certificate containing the terms of the warrants we are offering before the issuance of the warrants.

Units

We may issue units consisting of common stock, preferred stock and/or warrants for the purchase of common stock or preferred stock in one or more series. In this prospectus, we have summarized certain general features of the units. We urge you, however, to read the applicable prospectus supplement related to the series of units being offered, as well as the unit agreements that contain the terms of the units. We will file as exhibits to the registration statement of which this prospectus is a part, or will incorporate by reference reports that we file with the Securities and Exchange Commission, the form of unit agreement and any supplemental agreements that describe the terms of the series of units we are offering before the issuance of the related series of units.

- disputes over ownership of intellectual property;
- our dependence on a single manufacturing facility and our ability to comply with stringent manufacturing quality standards and to increase production as necessary;
- the risk that the data collected from our current and planned clinical trials may not be sufficient to demonstrate that the MGuard technology is an attractive alternative to other procedures and products;
- intense competition in our industry, with competitors having substantially greater financial, technological, research and development, regulatory and clinical, manufacturing, marketing and sales, distribution and personnel resources than we do;
- entry of new competitors and products and potential technological obsolescence of our products;
- loss of a key customer or supplier;

- technical problems with our research and products and potential product liability claims;
- adverse economic conditions;
- adverse federal, state and local government regulation, in the United States, Europe or Israel;
- price increases for supplies and components;
- inability to carry out research, development and commercialization plans; and
- loss or retirement of key executives and research scientists.

You should review carefully the section entitled “Risk Factors” beginning on page 6 of this prospectus for a discussion of these and other risks that relate to our business and investing in our securities. The forward-looking statements contained or incorporated by reference in this prospectus or any prospectus supplement are expressly qualified in their entirety by this cautionary statement. We do not undertake any obligation to publicly update any forward-looking statement to reflect events or circumstances after the date on which any such statement is made or to reflect the occurrence of unanticipated events.

USE OF PROCEEDS

Unless otherwise indicated in the prospectus supplement, we will use the net proceeds from the sale of securities offered by this prospectus to support the worldwide commercialization of MGuard Coronary in acute myocardial infarction and develop our pipeline of new products. This is expected to include expanding our manufacturing capability, building our sales and marketing capacity, completing clinical trials and obtaining necessary government approvals, including U.S. Food and Drug Administration approval in the United States. Any balance of the net proceeds will be used for general corporate purposes.

Investors are cautioned, however, that expenditures may vary substantially from these uses. Investors will be relying on the judgment of our management, who will have broad discretion regarding the application of the proceeds of this offering. The amounts and timing of our actual expenditures will depend upon numerous factors, including the amount of cash generated by our operations, the amount of competition and other operational factors. We may find it necessary or advisable to use portions of the proceeds from this offering for other purposes.

From time to time, we evaluate these and other factors and we anticipate continuing to make such evaluations to determine if the existing allocation of resources, including the proceeds of this offering, is being optimized. Circumstances that may give rise to a change in the use of proceeds include:

- a change in development plan or strategy;
 - the addition of new products or applications;
 - technical delays;
 - delays or difficulties with our clinical trials;
 - negative results from our clinical trials;
 - difficulty obtaining U.S. Food and Drug Administration approval;
 - failure to achieve sales as anticipated; and
- the availability of other sources of cash including cash flow from operations and new bank debt financing arrangements, if any.

Pending other uses, we intend to invest the proceeds to us in investment-grade, interest-bearing securities such as money market funds, certificates of deposit, or direct or guaranteed obligations of the U.S. government, or hold as cash. We cannot predict whether the proceeds invested will yield a favorable, or any, return.

DESCRIPTION OF CAPITAL STOCK

The following description of common stock and preferred stock summarizes the material terms and provisions of the common stock and preferred stock that we may offer under this prospectus, but is not complete. For the complete terms of our common stock and preferred stock, please refer to our amended and restated certificate of incorporation, as amended, any certificates of designation for our preferred stock, and our amended and restated bylaws, as may be amended from time to time. While the terms we have summarized below will apply generally to any future common stock or preferred stock that we may offer, we will describe the specific terms of any series of preferred stock in more detail in the applicable prospectus supplement. If we so indicate in a prospectus supplement, the terms of any preferred stock we offer under that prospectus supplement may differ from the terms we describe below.

We have authorized 130,000,000 shares of capital stock, par value \$0.0001 per share, of which 125,000,000 are shares of common stock and 5,000,000 are shares of “blank check” preferred stock. On October 21, 2013, there were 34,512,568 shares of common stock issued and outstanding and no shares of preferred stock issued and outstanding. We currently have 200,000 shares of preferred stock designated as Series A Preferred Stock in connection with our stockholder rights agreement. See “Delaware Anti-Takeover Law, Provisions of our Certificate of Incorporation and Bylaws and our Stockholder Rights Agreement–Stockholder Rights Agreement.” The authorized and unissued shares of common stock and the authorized and undesignated shares of preferred stock are available for issuance without further action by our stockholders, unless such action is required by applicable law or the rules of any stock exchange on which our securities may be listed. Unless approval of our stockholders is so required, our board of directors does not intend to seek stockholder approval for the issuance and sale of our common stock or preferred stock.

The discussion below gives effect to the one-for-four reverse stock split of our common stock that occurred on December 21, 2012.

Common Stock

The holders of our common stock are entitled to one vote per share. Our certificate of incorporation does not provide for cumulative voting. Our directors are divided into three classes. At each annual meeting of stockholders, directors elected to succeed those directors whose terms expire are elected for a term of office to expire at the third succeeding annual meeting of stockholders after their election. The holders of our common stock are entitled to receive ratably such dividends, if any, as may be declared by our board of directors out of legally available funds; however, the current policy of our board of directors is to retain earnings, if any, for operations and growth. Upon liquidation, dissolution or winding-up, the holders of our common stock are entitled to share ratably in all assets that are legally available for distribution. The holders of our common stock have no preemptive, subscription, redemption or conversion rights. The rights, preferences and privileges of holders of our common stock are subject to, and may be adversely affected by, the rights of the holders of any series of preferred stock, which may be designated solely by

action of our board of directors and issued in the future.

The transfer agent and registrar for our common stock is Action Stock Transfer Corp. The transfer agent's address is 2469 E. Fort Union Blvd., Suite 214, Salt Lake City, Utah 84121. Our common stock is listed on the NYSE MKT under the symbol "NSPR."

Preferred Stock

The board of directors is authorized, subject to any limitations prescribed by law, without further vote or action by the stockholders, to issue from time to time shares of preferred stock in one or more series. Each such series of preferred stock shall have such number of shares, designations, preferences, voting powers, qualifications, and special or relative rights or privileges as shall be determined by the board of directors, which may include, among others, dividend rights, voting rights, liquidation preferences, conversion rights and preemptive rights. Issuance of preferred stock by our board of directors may result in such shares having dividend and/or liquidation preferences senior to the rights of the holders of our common stock and could dilute the voting rights of the holders of our common stock.

Prior to the issuance of shares of each series of preferred stock, the board of directors is required by the Delaware General Corporation Law and our certificate of incorporation to adopt resolutions and file a certificate of designation with the Secretary of State of the State of Delaware. The certificate of designation fixes for each class or series the designations, powers, preferences, rights, qualifications, limitations and restrictions, including, but not limited to, some or all of the following:

the number of shares constituting that series and the distinctive designation of that series, which number may be increased or decreased (but not below the number of shares then outstanding) from time to time by action of the board of directors;

the dividend rate and the manner and frequency of payment of dividends on the shares of that series, whether dividends will be cumulative, and, if so, from which date;

whether that series will have voting rights, in addition to any voting rights provided by law, and, if so, the terms of such voting rights;

whether that series will have conversion privileges, and, if so, the terms and conditions of such conversion, including provision for adjustment of the conversion rate in such events as the board of directors may determine;

whether or not the shares of that series will be redeemable, and, if so, the terms and conditions of such redemption;

whether that series will have a sinking fund for the redemption or purchase of shares of that series, and, if so, the terms and amount of such sinking fund;

whether or not the shares of the series will have priority over or be on a parity with or be junior to the shares of any other series or class in any respect;

the rights of the shares of that series in the event of voluntary or involuntary liquidation, dissolution or winding up of the corporation, and the relative rights or priority, if any, of payment of shares of that series; and

any other relative rights, preferences and limitations of that series.

Once designated by our board of directors, each series of preferred stock may have specific financial and other terms that will be described in a prospectus supplement. The description of the preferred stock that is set forth in any prospectus supplement is not complete without reference to the documents that govern the preferred stock. These include our certificate of incorporation and any certificates of designation that our board of directors may adopt.

All shares of preferred stock offered hereby will, when issued, be fully paid and nonassessable, including shares of preferred stock issued upon the exercise of preferred stock warrants or subscription rights, if any.

Although our board of directors has no intention at the present time of doing so (except in connection with our stockholder rights plan, as described below), it could authorize the issuance of a series of preferred stock that could, depending on the terms of such series, impede the completion of a merger, tender offer or other takeover attempt. See “Delaware Anti-Takeover Law, Provisions of our Certificate of Incorporation and Bylaws and our Stockholder Rights Agreement–Stockholder Rights Agreement” regarding certain rights to purchase shares of our Series A Preferred Stock.

Potential Common Stock Issuances to March 31, 2011 Investors

Pursuant to the terms of the securities purchase agreement that we entered into on March 31, 2011 with certain investors, in the event that we issue any shares of common stock or securities that would entitle the holder to acquire any shares of common stock on or before March 31, 2014 at a price per share less than \$6.00, we are required, subject to certain limitations, to issue the investors in that financing additional shares of common stock, for no additional consideration, in an amount sufficient that the amount paid by each investor in the March 31, 2011 financing, when divided by the total number of shares issued to each such investor (in the original March 31, 2011 financing and as a result of this dilution adjustment) will result in an adjusted per share price paid by these investors equal to the original price per share paid multiplied by a fraction, (A) the numerator of which shall be (1) the number of shares of common stock outstanding immediately prior to such issuance plus (2) the number of shares of common stock that the aggregate consideration received by us in the offering would purchase at the original purchase price; and (B) the denominator of which shall be (1) the number of shares of common stock outstanding immediately prior to such issuance plus (2) the number of such additional shares of common stock so issued. This formula is intended to be a weighted average dilution adjustment.

Registration Rights

On April 5, 2012, in connection with our private placement of convertible debentures and warrants, we entered into a registration rights agreement with the purchasers pursuant to which we agreed to provide certain registration rights with respect to the common stock issuable upon conversion of the convertible debentures and exercise of the warrants. Specifically, we agreed to file a registration statement with the Securities and Exchange Commission covering the resale of the common stock issuable upon conversion of the convertible debentures and exercise of the warrants on or before May 21, 2012 and to cause such registration statement to be declared effective by the Securities and Exchange Commission on or before July 9, 2012 in the event that the registration statement is not reviewed by the Securities and Exchange Commission and by August 8, 2012 in the event that the registration statement is reviewed by the Securities and Exchange Commission and the Securities and Exchange Commission issues comments.

If (i) the registration statement was not filed by May 21, 2012, (ii) the registration statement was not declared effective by the Securities and Exchange Commission by July 9, 2012 in the case of a no review, (iii) the registration statement was not declared effective by the Securities and Exchange Commission by August 8, 2012 in the case of a review by the Securities and Exchange Commission pursuant to which the Securities and Exchange Commission issues comments or (iv) the registration statement ceases to remain continuously effective for more than 30 consecutive calendar days or more than an aggregate of 60 calendar days during any 12-month period after its first effective date, then we are subject to liquidated damage payments to the holders of the securities sold in the private placement in an amount equal to 1% of the aggregate purchase price paid by such purchasers per month of delinquency.

Notwithstanding the foregoing, (i) the maximum aggregate liquidated damages due under the registration rights agreement shall be 6% of the aggregate purchase price paid by the purchasers, and (ii) if any partial amount of liquidated damages remains unpaid for more than seven days, we shall pay interest of 18% per annum, accruing daily, on such unpaid amount.

A registration statement was filed in satisfaction of the requirements described above on May 17, 2012, was declared effective on May 30, 2012 and remains in effect. Pursuant to the registration rights agreement, we must maintain the effectiveness of these registration statement from the effective date until the date on which all securities registered under the applicable registration statement have been sold, or are otherwise able to be sold pursuant to Rule 144 without volume or manner-of-sale restrictions, subject to the our right to suspend or defer the use of the registration statement in certain events.

Delaware Anti-Takeover Law, Provisions of our Certificate of Incorporation and Bylaws and our Stockholder Rights Agreement

Delaware Anti-Takeover Law

We are subject to Section 203 of the Delaware General Corporation Law. Section 203 generally prohibits a public Delaware corporation from engaging in a “business combination” with an “interested stockholder” for a period of three years after the date of the transaction in which the person became an interested stockholder, unless:

prior to the date of the transaction, the board of directors of the corporation approved either the business combination or the transaction which 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 commenced, excluding for purposes of determining the number of shares outstanding (i) shares owned by persons who are directors and also officers and (ii) shares owned 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 subsequent to the date of the transaction, the business combination is approved by the board and authorized at an annual or special meeting of stockholders, and not by written consent, by the affirmative vote of at least 66 2/3% of the outstanding voting stock which is not owned by the interested stockholder.

Section 203 defines a business combination to include:

any merger or consolidation involving the corporation and the interested stockholder;

any sale, transfer, pledge or other disposition involving the interested stockholder of 10% or more of the assets of the corporation;

subject to exceptions, any transaction that results in the issuance or transfer by the corporation of any stock of the corporation to the interested stockholder; or

the receipt by the interested stockholder of the benefit of any loans, advances, guarantees, pledges or other financial benefits provided by or through the corporation.

In general, Section 203 defines an interested stockholder as any entity or person beneficially owning 15% or more of the outstanding voting stock of the corporation and any entity or person affiliated with, or controlling, or controlled by, the entity or person. The term “owner” is broadly defined to include any person that, individually, with or through that person’s affiliates or associates, among other things, beneficially owns the stock, or has the right to acquire the stock, whether or not the right is immediately exercisable, under any agreement or understanding or upon the exercise of warrants or options or otherwise or has the right to vote the stock under any agreement or understanding, or has an agreement or understanding with the beneficial owner of the stock for the purpose of acquiring, holding, voting or disposing of the stock.

The restrictions in Section 203 do not apply to corporations that have elected, in the manner provided in Section 203, not to be subject to Section 203 of the Delaware General Corporation Law or, with certain exceptions, which do not have a class of voting stock that is listed on a national securities exchange or authorized for quotation on the Nasdaq Stock Market or held of record by more than 2,000 stockholders. Our certificate of incorporation and bylaws do not opt out of Section 203.

Section 203 could delay or prohibit mergers or other takeover or change in control attempts with respect to us and, accordingly, may discourage attempts to acquire us even though such a transaction may offer our stockholders the opportunity to sell their stock at a price above the prevailing market price.

Certificate of Incorporation and Bylaws

Provisions of our certificate of incorporation and bylaws may delay or discourage transactions involving an actual or potential change in our control or change in our management, including transactions in which stockholders might otherwise receive a premium for their shares, or transactions that our stockholders might otherwise deem to be in their best interests. Therefore, these provisions could adversely affect the price of our common stock. Among other things, our certificate of incorporation and bylaws:

- permit our board of directors to issue up to 5,000,000 shares of preferred stock, without further action by the stockholders, with any rights, preferences and privileges as they may designate, including the right to approve an acquisition or other change in control;
- provide that the authorized number of directors may be changed only by resolution of the board of directors;
- provide that all vacancies, including newly created directorships, may, except as otherwise required by law, be filled by the affirmative vote of a majority of directors then in office, even if less than a quorum;
- divide our board of directors into three classes, with each class serving staggered three-year terms;
- do not provide for cumulative voting rights (therefore allowing the holders of a majority of the shares of common stock entitled to vote in any election of directors to elect all of the directors standing for election, if they should so choose);
- provide that special meetings of our stockholders may be called only by our board of directors; and
- set forth an advance notice procedure with regard to the nomination, other than by or at the direction of our board of directors, of candidates for election as directors and with regard to business to be brought before a meeting of stockholders.

Stockholder Rights Agreement

Attempts to acquire control of us may also be discouraged, delayed or prevented by our stockholder rights agreement. Pursuant to the rights agreement, we will distribute as a dividend to our stockholders of record at the close of business on November 15, 2013 one preferred stock purchase right for each outstanding share of our common stock, which will entitle the registered holder to purchase from us one 1/1,000 of a share of Series A Preferred Stock at a purchase price of \$21.00 per one one-thousandth (1/1,000) of a share, subject to adjustment.

Initially, the rights will be attached to all certificates representing shares of common stock. The rights will separate from the common stock upon the earlier of:

ten business days following a public announcement that a person or group of affiliated or associated persons has acquired, or obtained the right to acquire, beneficial ownership of 15% or more of the shares of common stock then outstanding (subject to certain exceptions) (such person is referred to as an “acquiring person”); or

ten business days (or some later date as determined by the board of directors) following the commencement of a tender or exchange offer that would result in a person or group beneficially owning 15% or more of the shares of common stock then outstanding (subject to certain exceptions).

The rights are not exercisable until they separate from the common stock, as described above, and will expire at the close of business on October 22, 2014, unless earlier redeemed by us as described below.

Each share of Series A Preferred Stock purchasable upon exercise of the rights will be entitled to an aggregate dividend of 1,000 times the dividend declared per share of common stock. Each share of Series A Preferred Stock will have 1,000 votes, voting together with the shares of common stock. Upon any liquidation (voluntary or otherwise), dissolution or winding up of, each share of Series A Preferred Stock will be entitled to receive an amount equal to the greater of (i) \$1,000 per share, plus accrued and unpaid dividends and distributions, and (ii) 1,000 times the aggregate amount to be distributed per share to holders of shares of common stock. These rights are protected by customary anti-dilution provisions.

If any person becomes an acquiring person, each holder of a right (other than the acquiring person and any associate or affiliate thereof) will have the right to receive, upon exercise, common stock (or, in some circumstances, cash, property or other securities of us) having a value equal to two times the purchase price of the right. All rights that are, or (under some circumstances) were, beneficially owned by any acquiring person will be null and void.

If any of the following occur, then at any time following a public announcement that a person has become an acquiring person, each holder of a right (other than the acquiring person and any associate or affiliate thereof) will have the right to receive, upon exercise, common stock of the acquiring company having a value equal to two times the purchase price of the right:

- we enter into a merger in which we are not the surviving corporation;

- we are the surviving corporation in a merger pursuant to which all or part of the outstanding shares of our common stock are changed into or exchanged for stock or other securities of any other person or cash or any other property;
- or

- more than 50% of the combined assets, cash flow or earning power of us and our subsidiaries is sold or transferred (in each case other than certain consolidations with, mergers with and into, or sales of assets, cash flow or earning power by or to our subsidiaries).

At any time after a person becomes an acquiring person and prior to the acquisition by a person or group of 50% or more of the shares of common stock then outstanding, our board of directors may, without payment of the purchase price by the holder, exchange the rights, in whole or in part, as follows: one right (other than the rights owned by the acquiring person or group, which will become void) for one share of common stock, subject to adjustment.

At any time until a person has become an acquiring person, we may redeem all, but not less than all, of the rights at a price of \$0.001 per right (payable in cash, shares of common stock or other consideration deemed appropriate by the board and subject to adjustment). Immediately upon the action of the board ordering redemption of the rights, the rights will terminate and the only right of the holders of these rights will be to receive the \$0.001 redemption price.

DESCRIPTION OF WARRANTS

As of October 23, 2013, there were 3,476,628 shares of common stock that may be issued upon exercise of outstanding warrants.

We may issue warrants for the purchase of common stock or preferred stock in one or more series. We may issue warrants independently or together with common stock or preferred stock, and the warrants may be attached to or separate from these securities.

We will evidence each series of warrants by warrant certificates that we may issue under a separate agreement. We may enter into a warrant agreement with a warrant agent. Each warrant agent may be a bank that we select which has its principal office in the United States. We may also choose to act as our own warrant agent. We will indicate the name and address of any such warrant agent in the applicable prospectus supplement relating to a particular series of warrants.

We will describe in the applicable prospectus supplement the terms of the series of warrants, including:

- the offering price and aggregate number of warrants offered;

- if applicable, the designation and terms of the securities with which the warrants are issued and the number of warrants issued with each such security or each principal amount of such security;

- if applicable, the date on and after which the warrants and the related securities will be separately transferable;
- in the case of warrants to purchase common stock or preferred stock, the number or amount of shares of common stock or preferred stock, as the case may be, purchasable upon the exercise of one warrant and the price at which and currency in which these shares may be purchased upon such exercise;
- the manner of exercise of the warrants, including any cashless exercise rights;
- the warrant agreement under which the warrants will be issued;
- the effect of any merger, consolidation, sale or other disposition of our business on the warrant agreement and the warrants;
- anti-dilution provisions of the warrants, if any;
- the terms of any rights to redeem or call the warrants;
- any provisions for changes to or adjustments in the exercise price or number of securities issuable upon exercise of the warrants;
- the dates on which the right to exercise the warrants will commence and expire or, if the warrants are not continuously exercisable during that period, the specific date or dates on which the warrants will be exercisable;
- the manner in which the warrant agreement and warrants may be modified;
- the identities of the warrant agent and any calculation or other agent for the warrants;
- federal income tax consequences of holding or exercising the warrants;
- the terms of the securities issuable upon exercise of the warrants;
- any securities exchange or quotation system on which the warrants or any securities deliverable upon exercise of the warrants may be listed or quoted; and
- any other specific terms, preferences, rights or limitations of or restrictions on the warrants.

Before exercising their warrants, holders of warrants will not have any of the rights of holders of the securities purchasable upon such exercise, including, in the case of warrants to purchase common stock or preferred stock, the right to receive dividends, if any, or, payments upon our liquidation, dissolution or winding up or to exercise voting rights, if any.

Exercise of Warrants

Each warrant will entitle the holder to purchase the securities that we specify in the applicable prospectus supplement at the exercise price that we describe in the applicable prospectus supplement. Unless we otherwise specify in the applicable prospectus supplement, holders of the warrants may exercise the warrants at any time up to 5:00 P.M. eastern time, the close of business, on the expiration date that we set forth in the applicable prospectus supplement. After the close of business on the expiration date, unexercised warrants will become void.

Holders of the warrants may exercise the warrants by delivering the warrant certificate representing the warrants to be exercised together with specified information, and paying the required exercise price by the methods provided in the applicable prospectus supplement. We will set forth on the reverse side of the warrant certificate, and in the applicable prospectus supplement, the information that the holder of the warrant will be required to deliver to the warrant agent.

Upon receipt of the required payment and the warrant certificate properly completed and duly executed at the corporate trust office of the warrant agent or any other office indicated in the applicable prospectus supplement, we will issue and deliver the securities purchasable upon such exercise. If fewer than all of the warrants represented by the warrant certificate are exercised, then we will issue a new warrant certificate for the remaining amount of warrants.

Enforceability of Rights By Holders of Warrants

Any warrant agent will act solely as our agent under the applicable warrant agreement and will not assume any obligation or relationship of agency or trust with any holder of any warrant. A single bank or trust company may act as warrant agent for more than one issue of warrants. A warrant agent will have no duty or responsibility in case of any default by us under the applicable warrant agreement or warrant, including any duty or responsibility to initiate any proceedings at law or otherwise, or to make any demand upon us. Any holder of a warrant may, without the consent of the related warrant agent or the holder of any other warrant, enforce by appropriate legal action the holder's right to exercise, and receive the securities purchasable upon exercise of, its warrants in accordance with their terms.

Warrant Agreement Will Not Be Qualified Under Trust Indenture Act

No warrant agreement will be qualified as an indenture, and no warrant agent will be required to qualify as a trustee, under the Trust Indenture Act. Therefore, holders of warrants issued under a warrant agreement will not have the protection of the Trust Indenture Act with respect to their warrants.

Governing Law

Each warrant agreement and any warrants issued under the warrant agreements will be governed by New York law.

DESCRIPTION OF UNITS

We may issue units comprised of one or more of the other securities described in this prospectus or any prospectus supplement in any combination. Each unit will be issued so that the holder of the unit is also the holder, with the rights and obligations of a holder, of each security included in the unit. The unit agreement under which a unit is issued may

provide that the securities included in the unit may not be held or transferred separately, at any time or at any times before a specified date or upon the occurrence of a specified event or occurrence.

The applicable prospectus supplement will describe:

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

- any unit agreement under which the units will be issued;

- any provisions for the issuance, payment, settlement, transfer or exchange of the units or of the securities comprising the units; and

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

PLAN OF DISTRIBUTION

We may sell the securities being offered pursuant to this prospectus to or through underwriters, through dealers, through agents, or directly to one or more purchasers or through a combination of these methods. The applicable prospectus supplement will describe the terms of the offering of the securities, including:

- the name or names of any underwriters, if any, and if required, any dealers or agents;
- the purchase price of the securities and the proceeds we will receive from the sale;
- any underwriting discounts and other items constituting underwriters' compensation;
- any discounts or concessions allowed or reallocated or paid to dealers; and
- any securities exchange or market on which the securities may be listed or traded.

We may distribute the securities from time to time in one or more transactions at:

- a fixed price or prices, which may be changed;
- market prices prevailing at the time of sale, directly by us or through a designated agent;
- prices related to such prevailing market prices; or
- negotiated prices.

Only underwriters named in the prospectus supplement are underwriters of the securities offered by the prospectus supplement.

If underwriters are used in an offering, we will execute an underwriting agreement with such 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. The securities may be offered to the public either through underwriting syndicates represented by managing underwriters or directly by one or more investment banking firms or others, as designated. 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 reallocated 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.

We may grant to the underwriters options to purchase additional securities to cover over-allotments, if any, at the public offering price, with additional underwriting commissions or discounts, as may be set forth in a related prospectus supplement. The terms of any over-allotment option will be set forth in the prospectus supplement for those securities.

If we use a dealer in the sale of the securities being offered pursuant to this prospectus or any prospectus supplement, we will sell the securities to the dealer, as principal. The dealer may then resell the securities to the public at varying prices to be determined by the dealer at the time of resale. The names of the dealers and the terms of the transaction will be specified in a prospectus supplement.

We may sell the securities directly or through agents we designate from time to time. We will name any agent involved in the offering and sale of securities and we will describe any commissions we will pay the agent in the prospectus supplement. Unless the prospectus supplement states otherwise, any agent will act on a best-efforts basis for the period of its appointment.

We may authorize agents or underwriters to solicit offers by institutional investors to purchase securities from us at the public offering price set forth in the prospectus supplement pursuant to delayed delivery contracts providing for payment and delivery on a specified date in the future. We will describe the conditions to these contracts and the commissions we must pay for solicitation of these contracts in the prospectus supplement.

In connection with the sale of the securities, underwriters, dealers or agents may receive compensation from us or from purchasers of the securities for whom they act as agents, in the form of discounts, concessions or commissions. Underwriters may sell the securities to or through dealers, and those dealers may receive compensation in the form of discounts, concessions or commissions from the underwriters or commissions from the purchasers for whom they may act as agents. Underwriters, dealers and agents that participate in the distribution of the securities, and any institutional investors or others that purchase securities directly for the purpose of resale or distribution, may be deemed to be underwriters, and any discounts or commissions received by them from us and any profit on the resale of the common stock by them may be deemed to be underwriting discounts and commissions under the Securities Act of 1933, as amended.

We may provide agents, underwriters and other purchasers with indemnification against particular civil liabilities, including liabilities under the Securities Act of 1933, as amended, or contribution with respect to payments that the agents, underwriters or other purchasers may make with respect to such liabilities. Agents and underwriters may engage in transactions with, or perform services for, us in the ordinary course of business.

To facilitate the public offering of a series of securities, persons participating in the offering may engage in transactions that stabilize, maintain, or otherwise affect the market price of the securities. This may include over-allotments or short sales of the securities, which involves the sale by persons participating in the offering of more securities than have been sold to them by us. In addition, those persons may stabilize or maintain the price of the securities by bidding for or purchasing securities in the open market or by imposing penalty bids, whereby selling concessions allowed to underwriters or dealers participating in any such offering may be reclaimed if securities sold by them are repurchased in connection with stabilization transactions. The effect of these transactions may be to stabilize or maintain the market price of the securities at a level above that which might otherwise prevail in the open market. Such transactions, if commenced, may be discontinued at any time. We make no representation or prediction as to the direction or magnitude of any effect that the transactions described above, if implemented, may have on the price of our securities.

Unless otherwise specified in the applicable prospectus supplement, any common stock sold pursuant to a prospectus supplement will be eligible for listing on the NYSE MKT, 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 such underwriters will not be obligated to do so and may discontinue any market making at any time without notice.

In order to comply with the securities laws of some states, if applicable, the securities offered pursuant to this prospectus will be sold in those states only through registered or licensed brokers or dealers. In addition, in some states securities may not be sold unless they have been registered or qualified for sale in the applicable state or an exemption from the registration or qualification requirement is available and complied with.

LEGAL MATTERS

The validity of the securities offered by this prospectus will be passed upon by Haynes and Boone, LLP, New York, New York.

EXPERTS

The financial statements incorporated in this prospectus by reference to the Annual Report on Form 10-K for the fiscal year ended June 30, 2013 have been so incorporated in reliance on the report of Kesselman & Kesselman C.P.A.s, a member firm of PricewaterhouseCoopers International Limited, an independent registered public accounting firm, given on the authority of said firm as experts in auditing and accounting.

WHERE YOU CAN FIND MORE INFORMATION

We are subject to the informational requirements of the Securities Exchange Act of 1934, as amended, and in accordance therewith file annual, quarterly and current reports, proxy statements and other information with the Securities and Exchange Commission. Such reports, proxy statements and other information can be read and copied at the Securities and Exchange Commission's public reference facilities at 100 F Street, N.E., Washington, D.C. 20549, at prescribed rates. Please call the Securities and Exchange Commission at 1-800-732-0330 for further information on the operation of the public reference facilities. In addition, the Securities and Exchange Commission maintains a website that contains reports, proxy and information statements and other information regarding registrants that file electronically with the Securities and Exchange Commission. The address of the Securities and Exchange Commission's website is www.sec.gov.

We make available free of charge on or through our website at www.inspire-md.com, our Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K and amendments to those reports filed or furnished pursuant to Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended, as soon as reasonably practicable after we electronically file such material with or otherwise furnish it to the Securities and Exchange Commission.

We have filed with the Securities and Exchange Commission a registration statement under the Securities Act of 1933, as amended, relating to the offering of these securities. The registration statement, including the attached exhibits, 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 obtain a copy of the registration statement, at prescribed rates, from the Securities and Exchange Commission at the address listed above, or for free at www.sec.gov. The registration statement and the documents referred to below under “Incorporation of Certain Information By Reference” are also available on our website, www.inspire-md.com.

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 INFORMATION BY REFERENCE

The Securities and Exchange Commission allows us to “incorporate by reference” the information we have filed with it, which means that we can disclose important information to you by referring you to those documents. The information we incorporate by reference is an important part of this prospectus, and later information that we file with the Securities and Exchange Commission will automatically update and supersede this information. We incorporate by reference the documents listed below and any future documents (excluding information furnished pursuant to Items 2.02 and 7.01 of Form 8-K) we file with the Securities and Exchange Commission pursuant to Sections 13(a), 13(c), 14 or 15(d) of the Securities Exchange Act of 1934, as amended, subsequent to the date of this prospectus and prior to the termination of the offering:

Our Annual Report on Form 10-K for the fiscal year ended June 30, 2013, filed with the Securities and Exchange Commission on September 17, 2013;

- Our Current Report on Form 8-K, filed with the Securities and Exchange Commission on July 5, 2013;
 - Our Current Report on Form 8-K, filed with the Securities and Exchange Commission on July 30, 2013;
 - Our Current Report on Form 8-K, filed with the Securities and Exchange Commission on August 26, 2013;
 - Our Current Report on Form 8-K, filed with the Securities and Exchange Commission on August 30, 2013;
 - Our Current Report on Form 8-K, filed with the Securities and Exchange Commission on September 9, 2013, as amended by Amendment No. 1 filed with the Securities and Exchange Commission on September 16, 2013;
 - Our Current Report on Form 8-K, filed with the Securities and Exchange Commission on September 12, 2013;
 - Our Current Report on Form 8-K, filed with the Securities and Exchange Commission on September 18, 2013; and
- The description of our common stock, which is contained in our registration statement on Form 8-A, filed with the Securities and Exchange Commission on March 12, 2013, as updated or amended in any amendment or report filed for such purpose.

All filings filed by us pursuant to the Securities Exchange Act of 1934, as amended, after the date of the initial filing of this registration statement and prior to the effectiveness of such registration statement (excluding information furnished pursuant to Items 2.02 and 7.01 of Form 8-K) shall also be deemed to be incorporated by reference into the prospectus.

You should rely only on the information incorporated by reference or provided in this prospectus. We have not authorized anyone else to provide you with different information. You should not assume that the information in this prospectus is accurate as of any date other than the date of this prospectus or the date of the documents incorporated by reference in this prospectus.

We will provide without charge to each person to whom a copy of this prospectus is delivered, upon written or oral request, a copy of any or all of the information that has been incorporated by reference in this prospectus but not delivered with this prospectus (other than an exhibit to these filings, unless we have specifically incorporated that exhibit by reference in this prospectus). Any such request should be addressed to us at: 800 Boylston Street, Suite 16041, Boston, Massachusetts 02199, Attention: Craig Shore, Chief Financial Officer, or made by phone at (857) 453-6553. You may also access the documents incorporated by reference in this prospectus through our website at www.inspire-md.com. Except for the specific incorporated documents listed above, no information available on or through our website shall be deemed to be incorporated in this prospectus or the registration statement of which it forms a part.

InspireMD, Inc.

Shares of Common Stock
Warrants to Purchase Shares of Common Stock
Shares of Common Stock Underlying Warrants

March , 2016