

InspireMD, Inc.
Form 424B5
March 04, 2015

Filed Pursuant to Rule 424(b)(5)
Registration No. 333-191875

PROSPECTUS SUPPLEMENT
(To Prospectus dated November 27, 2013)

InspireMD, Inc.

34,478,675 Shares of Common Stock
Warrants to Purchase 34,478,675 Shares of Common
Stock
34,478,675 Shares of Common Stock Underlying
Warrants

We are offering up to 34,478,675 shares of our common stock and warrants to purchase up to 34,478,675 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 share of common stock at an exercise price per warrant of \$0.55 per share. Each share of common stock and accompanying warrant will be sold at a negotiated price of \$0.40. 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 2, 2015, the last reported sale price of our common stock as reported on the NYSE MKT was \$0.60 per share.

Investing in our common stock involves a high degree of risk. See Risk Factors beginning on page S-15 of this prospectus supplement and page 5 of the accompanying prospectus.

We have retained H.C. Wainwright & Co., LLC to act as our exclusive sole bookrunner, or exclusive lead placement agent (lead placement agent), and Dawson James Securities, Inc. as our co-placement agent (co-placement agent and, collectively with the lead placement agent, the placement agents) in connection with the shares of common stock and warrants offered by this prospectus supplement. The placement agents have agreed to use their reasonable best efforts to arrange for the sale of the common stock and warrants offered by this prospectus supplement. The placement agents are not purchasing or selling any of the shares of common stock or warrants we are offering and the placement agents are not required to arrange the purchase or sale of any specific number of shares or dollar amount. We have agreed to pay to the placement agents the placement agent fees set forth in the table below, which assumes that we sell all of the common stock and warrants we are offering.

Per
Share⁽¹⁾ Total

34,478,675 Shares of Common Stock Warrants to Purchase 34,478,675 Shares of Common Stock 34,478,675 Shares

Public offering price	\$0.40	\$13,791,470
Placement agent's fees ⁽²⁾	\$.032	\$1,103,318
Proceeds, before expenses, to us	\$.368	\$12,688,152

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

(2) We have agreed to reimburse the lead placement agent for certain offering-related expenses. See Plan of Distribution.

We have agreed to pay to the placement agents a placement agent fee equal to 8% of the aggregate gross proceeds in this offering. We have also agreed to reimburse the lead placement agent for its expenses in connection with this offering in an amount equal to 1% of the aggregate gross proceeds in this offering. We estimate total expenses of this offering, excluding the placement agent fees, will be approximately \$192,915. Because there is no minimum offering amount required as a condition to closing in this offering, the actual public offering amount, placement agent fees, and proceeds to us, if any, are not presently determinable and may be substantially less than the total maximum offering amounts set forth above. See Plan of Distribution beginning on page S-49 of this prospectus supplement for more information on this offering and the placement agent arrangements.

Certain of our directors and executive officers and their affiliated entities, have agreed to purchase an aggregate of \$1,300,000 in shares of our common stock and warrants in this offering at the offering price.

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.

Delivery of the shares of common stock and warrants is expected to be made on or about March 9, 2015, subject to customary closing conditions.

H.C. WAINWRIGHT & CO.
DAWSON JAMES SECURITIES, INC.

The date of this prospectus supplement is March 4, 2015.

TABLE OF CONTENTS

TABLE OF CONTENTS
PROSPECTUS SUPPLEMENT

<u>ABOUT THIS PROSPECTUS SUPPLEMENT</u>	<u>S-ii</u>
<u>PROSPECTUS SUPPLEMENT SUMMARY</u>	<u>S-1</u>
<u>THE OFFERING</u>	<u>S-13</u>
<u>RISK FACTORS</u>	<u>S-15</u>
<u>SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS</u>	<u>S-36</u>
<u>USE OF PROCEEDS</u>	<u>S-38</u>
<u>PRICE RANGE OF OUR COMMON STOCK</u>	<u>S-39</u>
<u>DIVIDEND POLICY</u>	<u>S-39</u>
<u>DILUTION</u>	<u>S-40</u>
<u>MATERIAL U.S. FEDERAL TAX CONSEQUENCES</u>	<u>S-42</u>
<u>DESCRIPTION OF SECURITIES WE ARE OFFERING</u>	<u>S-48</u>
<u>PLAN OF DISTRIBUTION</u>	<u>S-49</u>
<u>LEGAL MATTERS</u>	<u>S-51</u>
<u>EXPERTS</u>	<u>S-51</u>
<u>WHERE YOU CAN FIND MORE INFORMATION</u>	<u>S-51</u>
<u>INCORPORATION OF CERTAIN INFORMATION BY REFERENCE</u>	<u>S-52</u>
PROSPECTUS	
<u>About this Prospectus</u>	<u>1</u>
<u>Prospectus Summary</u>	<u>2</u>
<u>Risk Factors</u>	<u>5</u>
<u>Special Note Regarding Forward-Looking Statements</u>	<u>5</u>
<u>Use of Proceeds</u>	<u>6</u>
<u>Description of Capital Stock</u>	<u>7</u>
<u>Description of Warrants</u>	<u>12</u>
<u>Description of Units</u>	<u>14</u>
<u>Plan Of Distribution</u>	<u>14</u>
<u>Legal Matters</u>	<u>16</u>
<u>Experts</u>	<u>16</u>
<u>Where You Can Find More Information</u>	<u>16</u>
<u>Information Incorporated by Reference</u>	<u>17</u>

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.

TABLE OF CONTENTS

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 placement agents have 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.

TABLE OF CONTENTS

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 coronary and vascular 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 initial MGuard coronary products (MGuard and MGuard Prime Embolic Protection Stent (EPS)) are 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 our bare-metal MGuard products in the European Union, Southeast Asia, India, Latin America and Israel. In October 2007, our first generation MGuard stent combining the MicroNet with a stainless steel stent received CE mark approval for the treatment of coronary artery disease in the European Union. We subsequently replaced the stainless steel stent with a more advanced cobalt-chromium based stent. Our cobalt-chromium based MGuard coronary product is referred to as the MGuard Prime EPS and, unless otherwise indicated, in this prospectus supplement, references to bare-metal MGuard coronary stents are to both our initial stainless steel based MGuard coronary product and our more current cobalt-chromium based MGuard Prime EPS. MGuard Prime EPS received CE mark approval in the European Union in October 2010 for improving luminal diameter and providing embolic protection.

In October 2014, we launched a limited market release of our CGuard carotid embolic prevention system (EPS) in certain European countries. CGuard EPS combines MicroNet and a self-expandable nitinol stent in a single device to treat carotid artery disease. CGuard EPS received CE mark approval in the European Union in March 2013. In January 2015, we received CE mark approval for our CGuard RX rapid exchange delivery system for its MicroNet covered embolic prevention system. The new RX delivery system will enable clinicians to place the CGuard technology using an easy-to-use, and familiar, delivery system. The CGuard MicroNet mesh covered carotid stent remains unchanged.

We are also developing a pipeline of other products and additional applications by leveraging our MicroNet technology. Among the products in development is a coronary stent product incorporating drug-eluting (drug-coated) stents with MicroNet, for which in vivo pre-clinical testing began in the fourth calendar quarter of 2014 and will continue through 2015. We also intend to explore possible new applications of our technology in other vascular procedures and interventional medical specialties, specifically peripheral and neurovascular procedures.

Presently, none of our products may be sold or marketed in the U.S.

Since our formation, we have experienced net losses. We had a net loss of approximately \$20.3 million during the

nine months ended September 30, 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 in operation at the same level we are currently performing.

S-1

TABLE OF CONTENTS

Recent Developments

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. These reported dislodgements primarily occurred during the preparation of the MGuard Prime EPS, upon removal of the protective sleeve or during withdrawal of the MGuard Prime EPS into the guide catheter. To address this problem, we subsequently modified our manufacturing process of MGuard Prime EPS stents in order to improve stent retention and performance. We received approvals from the European regulatory agency and the U.S. Food and Drug Administration to resume the manufacturing of the MGuard Prime EPS stent with a modified stent securement process on June 18, 2014 and October 23, 2014, respectively. We also received approval to modify and re-deploy existing MGuard Prime EPS stents that had been returned to us by clinical and commercial sites worldwide. All returned inventory has been modified and returned to direct hospital customers and the majority of our distributor partners, who have begun shipping modified product back into hospital accounts. We began shipping products to new customers in our direct markets in Western Europe in late September 2014 and intend to complete the full re-launch of MGuard Prime EPS in 2015.

As a result of the voluntary field corrective action, we suspended enrollment in our MASTER II trial (defined below), which had been previously launched to support our investigational device exemption (IDE) application for MGuard Prime EPS with the U.S. Food and Drug Administration, pending a review by the U.S. Food and Drug Administration of the manufacturing improvements to the MGuard Prime EPS. The U.S. Food and Drug Administration approved the re-commencement of the MASTER II trial in October 2014. Notwithstanding the U.S. Food and Drug Administration approval to re-commence enrollment of the MASTER II trial, in light of current market conditions moving toward the use of drug-eluting stents over bare-metal stents, we elected not to resume enrollment in the MASTER II trial. As a result of this change, the MASTER II trial will no longer be a U.S. Food and Drug registration trial. We intend to devote many of the resources originally planned for the MASTER II trial toward developing a drug-eluting stent coronary product incorporating our MicroNet mesh.

In September 2014, we announced the results of the first clinical trial of CGuard EPS, the CARENET (CARotid Embolic protection study using MicroNET) trial. The CARENET trial was a multi-specialty trial that assessed the peri-procedural safety and efficacy of CGuard systems in the treatment of carotid lesions. The CARENET trial recruited 30 patients and achieved its primary end point with 0 percent MACE (meaning no death, stroke or myocardial infarction) at 30 days. Additionally, as compared to published historical control groups of non-mesh covered carotid stents, the incidence of new ischemic lesions as assessed by diffusion-weighted magnetic resonance imaging after carotid artery stenting was reduced by almost 50 percent. The CARENET trial also reported an average lesion volume per patient that was 10 times smaller than these historical control groups. The reduction in both the number of new ischemic lesions and the volume of those lesions indicates therapeutic benefits of the MicroNet technology in this patient cohort after 30 days, as compared to the historical control groups.

In October 2014, we launched a limited market release of and received first commercial orders for the CGuard EPS in certain European countries. The full launch of the CGuard EPS will occur concurrently with the introduction of the new rapid exchange delivery system for CGuard EPS. Our rapid exchange delivery system received CE mark approval in January 2015. We plan to focus our full launch of the CGuard on countries in the European Union and Latin America.

During the fourth quarter of 2014, we began implementing a focused spending plan. The plan included reducing the focus of clinical and development expenses related to our bare metal stent product and increasing the focus on our drug eluting stent product. Prior to the fourth quarter of 2014, a large portion of our organization was supporting our

MASTER II trial, in which we determined not to resume enrollment, and instead allocated resources to drug eluting stents and the CGuard platform.

During the first quarter of 2015, the board of director approved implementing another cost reduction/focused spending plan. The plan has four components: (i) reducing headcount; (ii) limiting the focus of clinical and development expenses to only the drug eluting stent product; (iii) limiting sales and marketing expenses to only those related to the CGuard EPS stent launch; and (iv) reducing across the board all other expenses (conferences, travel, promotional expenses, executive cash salaries, director cash fees, etc.). Prior to

S-2

TABLE OF CONTENTS

the cost reduction plan, a large portion of our organization was supporting clinical trials and promotional activities related to our bare metal stent platform. We decided to discontinue all work and promotion (such as conferences, clinical studies, and some sales activities) related to the bare metal platform. This decision allowed us to eliminate certain positions that related only to these activities. In addition, we dramatically cut all expenses not directly related to the CGuard launch and drug eluting platform development.

In addition, to reduce the usage of cash, on January 5, 2015, we amended our employment agreements with Alan Milinazzo and James Barry, Ph.D. to provide that, for a limited period of time to be mutually agreed to by us and each of Mr. Milinazzo and Dr. Barry, each of Mr. Milinazzo and Dr. Barry shall receive 50% of his base salary in cash payments, with the remaining 50% to be paid in an equivalent amount of shares of restricted common stock, payable and granted in equal installments in accordance with our normal payroll practices. On the same date, our compensation committee amended its compensation policy for directors to provide that effective as of July 1, 2014, each director would forego any cash compensation in exchange for such number of immediately vested 10 year stock options having a Black-Scholes value equal to the cash compensation otherwise due to such director under our current director compensation policies. On February 22, 2015, Dr. Barry's employment agreement was further amended to provide that the payment arrangement described above would continue until the earlier of (i) September 30, 2015 and (ii) our raising an aggregate of \$5 million from investors.

At the Market Equity Offering Program

Between October 23, 2013 and as of the date of this prospectus supplement, we sold 948,000 shares of our common stock, at \$2.40 per share, pursuant to the at-the-market issuance sales agreement with MLV & Co. LLC. These sales resulted in net proceeds to us of approximately \$2.2 million. Prior to these sales, we had not made any sales under this at-the-market equity offering program, and, as the date of this prospectus supplement, shares of our common stock having an aggregate value of approximately \$37.7 million remained available for sale under this offering program.

Our securities purchase agreement with purchasers of shares of our common stock and warrants to purchase our common stock, dated November 4, 2014, entered into in connection with the registered direct offering described below, prohibits us from issuing and selling additional shares of our common stock under this at-the-market equity offering program until November 7, 2016.

Registered Direct Offering

On November 7, 2014, we sold 6,261,846 shares of our common stock and warrants to purchase 3,130,923 shares of our common stock in a registered direct offering. The common stock was sold at a negotiated purchase price of \$1.30 per share, and each purchaser received a warrant to purchase one-half of a share of common stock for each share of common stock that it purchased in the offering. The warrants are non-exercisable for six months after the date of issuance and have a term of exercise of 42 months after the date of issuance and an exercise price of \$1.75. This offering resulted in net proceeds to us of approximately \$7.4 million after deducting placement agent fees.

Our Industry

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 procedures and advances in technology coupled with the increase in the elderly population, obesity rates and advances in technology.

Coronary artery disease is one of the leading causes of death worldwide. According to Fact Sheet No. 310/updated May 2014 of the World Health Organization, approximately 7.4 million people worldwide died of

S-3

TABLE OF CONTENTS

ischaemic heart disease in 2012. The treatment of coronary artery disease includes alternative treatment methodologies, that is, coronary artery bypass grafting or angioplasty (a therapeutic procedure to treat narrowed coronary arteries of the heart found in patients with heart disease) with or without stenting. According to the MEDTECH OUTLOOK, the percutaneous coronary intervention procedures involving stents used to treat coronary artery diseases had an estimated 68% market penetration rate in 2013.

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 Fact Sheet No. 310, approximately 6.7 million people worldwide died of stroke in 2012.

The 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. 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. The use of a stent with an embolic protection system avoids open surgery and we believe will increase the number of patients being treated.

Our Products and Applications

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.

MGuard Products Coronary Applications

Our MGuard coronary with a bio-stable mesh and our planned MGuard coronary with a drug-eluting mesh are aimed at the treatment of coronary arterial disease.

Bare-Metal Stent MGuard Products. Our MGuard stent and MGuard Prime EPS are comprised of MicroNet wrapped around a bare-metal stent. In comparison to a conventional bare-metal stent, we believe our MGuard coronary products with MicroNet mesh provide 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), the most severe type of heart attack. 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.

We have studied over 1,200 patients who were treated with our MGuard products. In the second calendar quarter of 2011, we conducted the MGuard for Acute ST Elevation Reperfusion trial, which we refer to as our MASTER I trial. The Master I trial was a prospective, randomized study in Europe, South America and Israel to compare the MGuard stent with commercially-approved bare-metal and drug-eluting stents in achieving superior myocardial reperfusion (the restoration of blood flow) in primary angioplasty for the

S-4

TABLE OF CONTENTS

treatment of acute STEMI. The MASTER I trial enrolled 433 subjects, 50% of whom were treated with an MGuard stent and 50% of whom were treated with a commercially-approved bare-metal or drug-eluting stent. The MASTER I trial demonstrated that among patients with acute STEMI undergoing emergency percutaneous coronary intervention (PCI), or angioplasty, use of the MGuard stent resulted in superior rates of epicardial coronary flow, or blood flow within the vessels that run along the outer surface of the heart, and complete ST-segment resolution, or restoration of blood flow to the heart muscle after a heart attack, compared to commercially-approved bare-metal or drug-eluting stents. Although each of MGuard stents and commercially-approved bare-metal or drug-eluting stents showed statistically similar rates of major adverse cardiac events 30 days following the procedure, the mortality rate was 0% for the subjects treated with the MGuard stent as opposed to 1.8% for the subjects treated with commercially-approved bare-metal or drug-eluting stents 30 days following the procedure

In connection with our efforts to seek approval of our MGuard Prime EPS by the U.S. Food and Drug Administration, we filed an IDE 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 IDE application, which allowed us to initiate enrollment in the trial. This trial, which we refer to as the MASTER II trial, was 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 MASTER II trial was designed to have two co-primary end points: superiority in complete ST-resolution and non-inferiority in death and target vessel myocardial infarction. In addition, a sub-study was planned to assess the effect of MGuard Prime EPS on infarct size, as measured by magnetic resonance imaging, and an additional sub-study was to be conducted to assess the late lumen loss, measured at 13 months. We successfully enrolled 310 patients in the trial prior to suspending enrollment in April 2014 due to manufacturing process changes in connection with the voluntary field correction action, pending a review by the U.S. Food and Drug Administration of the manufacturing improvements to the MGuard Prime EPS. The U.S. Food and Drug Administration approved the re-commencement of the MASTER II trial in October 2014. However, we elected to discontinue enrollment in the MASTER II trial in its current form, in light of current market conditions moving toward the use of drug-eluting stents over bare-metal stents, and MASTER II will no longer be a U.S. Food and Drug registration trial. Notwithstanding the discontinuance of the enrollment for the MASTER II trial, the preliminary analysis of the 30-day end point data from the 310 patients enrolled prior to the suspension of the enrollment is encouraging. We intend to continue to follow these 310 MASTER II trial patients for one year from time of enrollment. The 30 day results from the MASTER II Trial were presented at the International Conference for Innovations in Cardiovascular Systems (ICI) meeting in Tel-Aviv, Israel in 2014. There were no significant differences in procedural and clinical endpoints, most likely due to the small group size which is too small to find any statistical differences.

A 30 day pooled analysis of MASTER I and MASTER II trial results was presented at the ICI meeting in Tel-Aviv, Israel in 2014 and the results clearly showed that MGuard demonstrated a significant reduction in all-cause and cardiac mortality at 30 days (MGuard 0.3% vs. Control 1.9%; $p=0.04$) compared to conventional bare metal or drug eluting stents.

The 30 day and six month results from the International MGuard Prime Observational Study (iMos) were also presented at the ICI meeting in December 2014. The iMOS registry seeks to evaluate the real world clinical performance of the MGuard Prime EPS in STEMI patients undergoing percutaneous coronary intervention. The 30 day and six month results indicate that MGuard Prime EPS is feasible, based on 100% device and lesion success rates, and safe, based on no deaths at 30 days follow-up, two deaths at six month follow-up and very low MACE rates at 30 days and six month follow-up. The use of the MGuard Prime EPS seemed also highly effective in achieving myocardial reperfusion, as suggested by the high rates of TIMI-3 flow (91.8%) and partial or complete STR (87%).

Recently we began enrollment in a multi-center, single-arm post-market registry of 500 patients with STEMI to collect post-CE mark trial clinical data on patients treated with MGuard Prime EPS from 50 planned sites across Europe, which we refer to as our eMASTER study. We plan to evaluate the safety and efficacy of the MGuard Prime EPS in the treatment of de novo stenotic lesions in coronary arteries in

S-5

TABLE OF CONTENTS

patients undergoing PCI due to STEMI, based on patients with complete ST-segment resolution and rates of all-cause death or myocardial infarction at 30 days.

Drug-Eluting Stent (or DES) MicroNet Product. We recently entered the second phase of development work for our MGuard DES, which is expected to incorporate our MicroNet with a drug-eluting stent, through a strategic partnership with a third party drug-eluting stent candidate manufacturer. We intend to develop a total of two strategic partnerships with manufactures of U.S. Food and Drug Administration-approved or CE-marked drug-eluting stents and bring two viable drug-eluting stent products with our MicroNet mesh into the in vivo pre-clinical testing phase which, if successful, should lead to submission for CE registration of a DES-MicroNet platform. The initial testing of drug-eluting stent candidates for technical feasibility testing with our MicroNet mesh was 100% successful. 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.

CGuard Carotid Applications

In October 2014, we initiated a limited market release of CGuard EPS, which is comprised of our MicroNet mesh and a self-expandable stent (a stent that expands without balloon dilation pressure or need of an inflation balloon) for use in carotid artery applications. We launched CGuard EPS in Germany, Poland, Switzerland, Belgium, Italy and Spain. 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 to 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 technology is a highly flexible stent system that easily conforms to the carotid anatomy.

In September 2014, we reported the results of the CARENET trial at the Transcatheter Cardiovascular Therapeutics (TCT) meeting in Washington D.C. In the CARENET trial, the CGuard system demonstrated better results over historical data using conventional commercially available carotid stents.

We believe that our CGuard EPS design will provide substantial 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.

The full launch of the CGuard EPS will occur concurrently with the introduction of the new rapid exchange delivery system for CGuard EPS. Since July 2014, we have been working on our next generation rapid exchange delivery system, which is the type of delivery system the majority of physicians that place carotid stents prefer. Our CGuard EPS is currently sold with the over-the-wire delivery system. An over-the-wire delivery system has two lumens and ports. The guide wire lumen and port exists independent of the other lumen for stent delivery and thus two operators must perform the procedure. A rapid exchange delivery system, on the other hand, has a guide wire that passes through the delivery system, running through the guiding catheter. It has one port and thus can be operated by one operator, and as such, can require less time to complete the procedure. The length of the guide wire required for the rapid exchange delivery system is significantly shorter than for the over-the-wire delivery system, and as such, an

ordinary guiding wire can be used without adding an extension wire. Our rapid exchange delivery system recently received CE mark approval in January 2015. We plan to focus our full launch of the CGuard on countries in the European Union and Latin America. We will primarily target high volume centers in core European markets. We intend to market and sell our CGuard EPS for use in multiple medical specialties that perform carotid artery stenting. These customers would include interventional cardiologists, vascular surgeons, interventional neuroradiologists and interventional radiologists. The full launch of our CGuard EPS will not include the U.S. We are preparing

S-6

TABLE OF CONTENTS

materials required to conduct a clinical trial in the U.S. Once complete, we will request a pre-submission guidance meeting with the U.S. Food and Drug Administration.

PVGuard Peripheral Vascular Applications

We intend to develop our MicroNet mesh sleeve and a self-expandable stent for use in peripheral vascular applications. Peripheral artery disease, also known as peripheral vascular disease, is usually characterized by the accumulation of plaque in arteries in the legs. This accumulation can lead to the need for amputation or even death, when untreated. Peripheral artery disease is treated either by trying to clear the artery of the blockage, or by implanting a stent in the affected area to push the blockage out of the way of normal blood flow.

As in carotid procedures, peripheral procedures are characterized by the necessity of controlling embolic showers both during and post-procedure. Controlling embolic showers is so important in these indications that physicians often use fully covered stents, at the risk of blocking branching vessels, to ensure that emboli do not fall into the bloodstream and move to the brain. We believe that our MicroNet design will provide substantial advantages over existing therapies in treating peripheral artery stenosis.

Product Development and Critical Milestones

Below is a list of the products described above and our projected critical milestones with respect to each. As used below, CQ stands for calendar quarter (e.g., CQ1-2015 means January 1, 2015 through March 31, 2015). The use of the term "to be determined" in the table below with regard to certain milestones indicates that the achievements of such milestones is unable to be accurately predicted as such milestones are too far in the future.

Product	Indication	CE Mark	European Union Sales	FDA Approval ⁽¹⁾	U.S. Sales
MGuard stent (bare-metal stent)	Bypass/Coronary	Oct. 2007	CQ1-2008	To be determined	To be determined
Drug-Eluting Stent with MicroNet	Bypass/Coronary	To be determined	To be determined	To be determined	To be determined
CGuard Carotid	Carotid Arteries	March 2013	Oct. 2014	To be determined	To be determined

⁽¹⁾ We anticipate that the MGuard and CGuard products will be classified as Class III medical devices by the U.S. Food and Drug Administration.

Growth Strategy

Our primary business objective is to utilize our proprietary technology to become the industry standard for treatment of acute coronary syndromes 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.

Successfully commercialize CGuard EPS. We have launched limited market release of CGuard through direct sales organization in select European countries. The initial commercial phase of our launch will be through our direct sales

team in Europe and is expected to focus on high volume, key opinion leaders in the carotid space. By the time we convert to full market release, we expect to have generated usage and a broader awareness of the CGuard in key European markets, as well as a fully developed the rapid exchange delivery system for CGuard EPS.

Successfully develop and commercialize the next generation of drug-eluting stent incorporating MicroNet. While we market our MGuard products with bare-metal stents, we are developing a drug-eluting stent that incorporates MicroNet and expect to proceed with the in vivo pre-clinical testing of the product with a CE-marked drug-eluting stent candidate. If successful, and if no CE mark trial is required due to the fact that each of MicroNet and the drug-eluting stent is CE-marked, this work is expected to lead to submission by us of a DES-MicroNet platform for CE mark

S-7

TABLE OF CONTENTS

approval in the second half of 2015. We intend to develop two strategic partnerships with manufactures of U.S. Food and Drug Administration-approved or CE-marked drug-eluting stents and bring two viable drug-eluting stent products with our MicroNet mesh into the in vivo pre-clinical testing phase.

Grow our presence in existing and new markets for MGuard coronary products. We have commercialized bare-metal based MGuard products in Europe, Russia, Asia and Latin America through our distributor network, and we are pursuing additional registrations and contracts in other countries such as Canada, Australia, South Korea and certain smaller countries in Latin America. We have completed the modification of our stent securement process on inventory and are back to full commercial activities in direct markets in Western Europe and sales are under way, and we believe that the eMASTER study will reinforce this positive momentum. We intend to complete the full re-launch of MGuard Prime EPS in 2015, and we have implemented a hybrid sales strategy with direct sales representatives in key European markets to support the full re-launch. We intend to re-evaluate our commercialization strategies for MGuard coronary products in the U.S. and Japan in the future following future development of the DES-MicroNet product and future clinical trial results.

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 file 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 MGuard, DES with MicroNet, CGuard EPS and other potential products that are based on our MicroNet technology. We are in discussions with multiple potential partners and may enter into an arrangement to pursue further development and commercialization of these products.

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 U.S. and corresponding patent applications 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.

Intellectual Property

Patents

We have filed fourteen patent applications that are pending in the U.S. covering aspects of our MGuard and CGuard technology. We have filed corresponding patent applications in Canada, China, Europe, Israel, India and South Africa, for an aggregate total of 42 patents and pending applications including two issued U.S. patents. These patent rights are directed to cover percutaneous therapy, knitted stent jackets, stent and

TABLE OF CONTENTS

filter assemblies, *in vivo* filter assembly, optimized stent jackets, stent apparatuses for treatment via body lumens and methods of use, stent apparatuses for treatment via body lumens and methods of manufacture and use, among others. In lay terms, these patent applications generally cover three aspects of our products: the mesh sleeve with and without a drug, the product and the delivery mechanism of the stent. On October 27, 2010, our patent application pertaining to Stent Apparatus for Treatment via Body Lumens and Method of Use, South African patent application 2007/10751, was issued as South African Patent No. 2007/10751. On October 25, 2011, our patent application pertaining to In Vivo Filter Assembly, U.S. Patent Application 11/582,354, was issued as U.S. Patent 8,043,323. On June 13, 2012, our patent application pertaining to Filter Assemblies, Chinese Patent Application No. 200780046659.9, was issued as Chinese Patent No. ZL200780046659.9. On September 26, 2012, our patent application pertaining to Bifurcated Stent Assemblies, Chinese Patent Application No. 200780046676.2, was issued as Chinese Patent No. ZL200780046676.2. On October 10, 2012, our patent application pertaining to Knitted Stent Jackets, Chinese Patent Application No. 200780046697.4, was issued as Chinese Patent No. ZL200780046697.4. On January 2, 2013, our patent application pertaining to Optimized Stent Jacket, Chinese Patent Application No. 200780043259.2, was issued as Chinese Patent No. ZL200780043259.2. We have also had Israeli Patent No. 198189 entitled Filter Assemblies issued March 27, 2014, and Patent No. 198190, entitled Knitted Stent Jackets issued Feb. 1, 2014, and Canadian Patent No. 2609687 entitled Stent Apparatuses For Treatment Via Body Lumens issued April 22, 2014. U.S. Patent Application No. 11/797,168, filed May 1, 2007, was issued as U.S. Patent No. 8,961,586 on February 24, 2015. We also believe that one or more pending patent applications, upon issuance, will cover our existing products. We also believe that the patent applications we have filed, in particular those covering the use of a knitted micron-level mesh sleeve over a stent for various indications, if issued as patents with claims substantially in their present form, would likely create a significant barrier for another company seeking to use similar technology.

Trademarks

We use the InspireMD® and MGuard® trademarks in connection with our products. We have registered these trademarks in the European Union. The trademarks are renewable indefinitely, so long as we make the appropriate filings when required. We also have a registration for the MNP Micronet Protection Logo in the European Union. We have also applied to register the names MicroNet™, Carenet™, CGuard™ and MGuard Prime™ as trademarks in the U.S. and the names Carenet™, CGuard™ and MGuard Prime™ in the European Union. We also use and may have common law rights to various trademarks, trade names, and service marks including the following: PVGuard™, NGuard™, and RGuard™.

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. The bare-metal stent and the drug-eluting stent markets in the U.S. and Europe are dominated by Abbott Laboratories, Boston Scientific Corporation, and Medtronic, Inc. The carotid stent market in the U.S. and Europe are dominated by Abbott Laboratories, Boston Scientific Corporation, Covidien Ltd., and Cordis Corporation. Gore Medical and Terumo 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. Due to ongoing consolidation in the industry, there are high barriers to entry for small manufacturers in both the European and the U.S. markets. However, we believe that the European market is somewhat more fragmented, and small competitors appear able to gain market share with greater ease.

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. As the market moves towards next-generation stenting technologies, minimally invasive procedures should become more effective, driving the growth of the market in the future. We plan to continue our research and development efforts in order to be at the forefront of the acute myocardial infarction solutions.

S-9

TABLE OF CONTENTS

According to the MEDTECH OUTLOOK, the worldwide stent market is dominated by three major players, with a combined total market share of approximately 92%. Within the bare-metal stent market and drug-eluting stent market, the top three companies have approximately 71% and 97% of the market share, respectively. These three companies are Abbott Laboratories, Boston Scientific Corporation and Medtronic, Inc. To date, our sales are not significant enough to register in market share. As such, one of the challenges we face to the further growth of our products 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.

In addition to the challenges from our competitors, we face challenges related specifically to our products. None of our products is currently approved by the U.S. Food and Drug Administration. Clinical trials necessary to support a pre-market approval application to the U.S. Food and Drug Administration for our MicroNet products will be expensive and will require the enrollment of a large number of patients. Suitable patients may be difficult to identify and recruit, which may cause a delay in the development and commercialization of our product candidates. Furthermore, our rights to our intellectual property with respect to our products could be challenged. 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 MicroNet products based on one or more of these patents, and/or will allege misappropriation of their proprietary confidential information or other intellectual property.

Manufacturing and Suppliers

We manufacture our stainless steel stents through a combination of outsourcing and assembly at our own facility. Third parties in Germany manufacture the base stent and catheter materials, and we add our proprietary mesh sleeve to the stent. Our current exclusive product supplier is QualiMed Innovative Medizinprodukte GmbH. QualiMed Innovative Medizinprodukte GmbH is a specialized German stent manufacturer that electro polishes and crimps the stent onto a balloon catheter that creates the base for our stainless steel MGuard stents. QualiMed Innovative Medizinprodukte GmbH has agreed to take responsibility for verifying and validating the entire stent system by performing the necessary bench test and biocompatibility testing. During the production process, QualiMed Innovative Medizinprodukte GmbH is responsible for integrating the mesh covered stent with the delivery system, sterilization, packaging and labeling. Our manufacturing agreement with QualiMed Innovative Medizinprodukte GmbH expires in September 2017, unless earlier terminated by either party in the event of breach of material terms of the agreement, liquidation of the other party, our failure to receive requested products for more than 60 days, a substantiated intellectual property claim is brought against the other party or the development agreement between the parties is terminated. The manufacturing agreement provides for a rebate program that rewards us for increases in sales of our products.

The polymer fiber for MicroNet is supplied by Biogeneral, Inc., a San Diego, California-based specialty polymer manufacturer for medical and engineering applications.

Natec Medical Ltd. supplies us with catheters that help create the base for our MGuard stents. Our agreement with Natec Medical Ltd., which may be terminated by either party upon six months notice, calls for non-binding minimum orders and discounted catheters upon reaching certain purchasing thresholds.

Creganna-Tactx Medical, Ireland supplies us with over the wire catheters for CGuard EPS.

Vention Medical Advance Components, Boston, Massachusetts supplies us with rapid exchange catheters for CGuard EPS.

S-10

TABLE OF CONTENTS

Our MGuard Prime EPS cobalt-chromium stent was designed by Svelte Medical Systems Inc. We have an agreement with Svelte Medical Systems Inc. that grants us a non-exclusive, worldwide license for production and use of the MGuard Prime EPS cobalt-chromium stent for the life of the stent's patent, subject to the earlier termination of the agreement upon the bankruptcy of either party or the uncured default by either party under any material provision of the agreement. Our royalty payments to Svelte Medical Systems Inc. are determined by the sales volume of MGuard Prime EPS stents. Until October 20, 2012, we paid a royalty of 7% for all product sales outside of the U.S. and, for products sales within the U.S., a rate of 7% for the first \$10.0 million of sales and a rate of 10% for all sales exceeding \$10.0 million. We also shared with Svelte Medical Systems Inc. in the cost of obtaining the CE mark approval, with its costs not to exceed \$85,000, and the cost of obtaining U.S. Food and Drug Administration approval, with its costs not to exceed \$200,000. On October 20, 2012, we amended our agreement with Svelte Medical Systems Inc., pursuant to which Svelte Medical Systems Inc. reduced the royalty rate to 2.9% of all net sales both inside and outside the U.S. in exchange for (i) us waiving the \$85,000 in regulatory fees for the CE mark that were owed to us by Svelte Medical Systems Inc., (ii) us making full payment of royalties in the amount of \$205,587 due to Svelte Medical Systems, Inc. as of September 30, 2012, and (iii) \$1,763,000, payable in 215,000 shares of our common stock (as adjusted for the one-for-four reverse stock split of our common stock that occurred on December 21, 2012), that were valued at the closing price of our common stock on October 19, 2012 of \$8.20 per share (as adjusted for the one-for-four reverse stock split of our common stock that occurred on December 21, 2012). On August 22, 2013, we further amended our agreement with Svelte Medical Systems Inc., pursuant to which (i) we agreed to pay Svelte Medical Systems Inc. an advanced payment of \$192,000, representing a royalty rate of 2.0% of all net sales for the period from July 1, 2013 to June 30, 2015, assuming net sales of \$1.2 million per quarter, (ii) we agreed to pay a royalty rate of 2.5% on any net sales exceeding \$10.56 million for the period from July 1, 2013 to June 30, 2015 and (iii) the royalty rate was increased to 2.9% of all net sales beginning July 1, 2015. We have mutual indemnification obligations with Svelte Medical Systems Inc. for any damages suffered as a result of third party actions based upon breaches of representations and warranties or the failure to perform certain covenants in the license agreement, and Svelte Medical Systems Inc. will also indemnify us for any damages suffered as a result of third party actions based upon intellectual property or design claims against the MGuard Prime EPS cobalt-chromium stent.

Our MGuard Prime EPS cobalt-chromium stent and our CGuard carotid stents are being manufactured and supplied by MeKo Laserstrahl-Materialbearbeitung. Our agreement with MeKo Laserstrahl-Materialbearbeitung for the production of electro polished L605 bare-metal stents for MGuard Prime EPS and CGuard EPS is priced on a per-stent basis, subject to the quantity of stents ordered. The complete assembly process for MGuard Prime EPS and CGuard EPS, including knitting and securing the sleeve to the stent and the crimping of the sleeve stent on to a balloon catheter, is done at our Israel manufacturing site. Once MGuard Prime EPS and CGuard EPS have been assembled, they are sent for sterilization in Germany and then back to Israel for final packaging.

Drug-eluting stents for our DES-MicroNet product will be supplied by existing drug-eluting stent manufacturers. We plan to develop two strategic partnerships with drug-eluting stent manufacturers who would supply U.S. Food and Drug Administration-approved or CE-marked stents.

Each MGuard stent is manufactured from two main components, the stent and the mesh polymer. The stent is made out of stainless steel or cobalt chromium. Both of these materials are readily available and we acquire them in the open market. The mesh is made from polyethylene terephthalate. This material is readily available in the market as well, because it is used for many medical applications. In the event that our supplier can no longer supply this material in fiber form, we would need to qualify another supplier, which could take several months. In addition, in order to retain the approval of the CE mark, we are required to perform periodic audits of the quality control systems of our key suppliers in order to insure that their products meet our predetermined specifications.

A CGuard EPS consists of a CGuard stent and the delivery system. Each CGuard stent is manufactured from two main components, a self-expanding stent and the mesh polymer. The stent is made out of nitinol. This material is readily available and we acquire it in the open market. The mesh is made from polyethylene terephthalate. We have pending patent rights that cover the proposed CGuard stent with mesh. This material is readily available in the market as well, because it is used for many medical applications. In the event that our

S-11

TABLE OF CONTENTS

supplier can no longer supply this material in fiber form, we would need to qualify another supplier, which could take several months. The delivery system for CGuard is made out of polymer tubes we acquire from an original equipment manufacturer. In the event that our supplier can no longer supply this material, we would need to qualify another supplier, which could take several months. In addition, in order to retain the approval of the CE mark, we are required to perform periodic audits of the quality control systems of our key suppliers in order to insure that their products meet our predetermined specifications.

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.

S-12

TABLE OF CONTENTS

THE OFFERING

Issuer

InspireMD, Inc.

Securities offered by us in this offering

34,478,675 shares of our common stock, par value \$0.0001 per share

Warrants to purchase up to 34,478,675 shares of common stock, with an exercise price equal to \$0.55 per full share.

34,478,675 shares of common stock issuable upon exercise of the warrants.

Offering price

\$0.40 per share of common stock and accompanying warrant to purchase one share of our common stock.

Common stock outstanding immediately before this offering

43,786,411 shares

Common stock outstanding immediately after this offering

78,265,086 shares (assuming the sale of all shares covered by this prospectus and assuming no exercise of any of the warrants offered hereby)

Use of proceeds

We estimate that our net proceeds from this offering (based on a public offering price of \$0.40 per share) will be approximately \$12.5 million after deducting estimated placement agent fees and other estimated offering expenses payable by us (assuming the sale of all shares covered by this prospectus and assuming no exercise of any of the warrants offered hereby).

We plan to use the net proceeds of this offering to commercially launch CGuard EPS, conduct sales activities related to MGuard Prime EPS and advance the development of our pipeline. Any balance of the net proceeds will be used for general corporate purposes. See Use of Proceeds.

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-15 of this prospectus supplement and page 5 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.

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.

S-13

TABLE OF CONTENTS

The number of shares to be outstanding immediately before and immediately after this offering is based on 43,786,411 shares of our common stock outstanding as of March 2, 2015 and excludes as of that date:

1,953,712 shares of common stock issuable upon the exercise of currently outstanding warrants with an exercise price of \$7.20 per share;

637,500 shares of common stock issuable upon the exercise of currently outstanding warrants with an exercise price of \$6.00 per share;

659,091 shares of common stock issuable upon the exercise of currently outstanding warrants with an exercise price of \$3.00 per share;

168,351 shares of common stock issuable upon the exercise of currently outstanding warrants with an exercise price of \$2.97 per share;

3,130,923 shares of common stock issuable upon the exercise of currently outstanding warrants with an exercise price of \$1.75 per share;

7,113,297 shares of common stock issuable upon the exercise of currently outstanding options with exercise prices ranging from \$0.0001 to \$10.40 and having a weighted average exercise price of \$3.28 per share;

84,534 shares of common stock available for future issuance under our 2011 UMBRELLA Option Plan; and

362,201 shares of common stock available for future issuance under our 2013 Long-Term Incentive Plan.

Certain of our directors and executive officers and their affiliated entities, have indicated an interest in purchasing an aggregate of up to approximately \$1,300,000 in shares of our common stock and warrants in this offering at the offering price. However, because indications of interest are not binding agreements or commitments to purchase, these directors and executive officers may determine to purchase fewer shares than they indicate an interest in purchasing or not to purchase any shares in this offering.

S-14

TABLE OF CONTENTS

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.

To date, we have experienced net losses. A substantial portion of the expenses associated with our manufacturing facilities are fixed in nature (i.e., depreciation) and will reduce our operating margin until such time, if ever, as we are able to increase utilization of our capacity through increased sales of our products. The clinical trials necessary to support our anticipated growth will be expensive and lengthy. In addition, our strategic plan will require a significant investment in clinical trials, product development and sales and marketing programs, which may not result in the accelerated revenue growth that we anticipate. Because we expect to continue incurring negative cash flows from operations, there can be no assurance that we will ever generate sufficient revenues to become profitable.

Our financial statements for the quarter ended September 30, 2014 contain an explanatory paragraph in the footnotes, as to our inability 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 and have significant future commitments, substantial doubt exists regarding our ability to remain in operation at the same level we are currently performing. Accordingly, the footnotes to our financial statements for the three months ended September 30, 2014 include an explanatory paragraph as to our potential inability to continue as a going concern. Additionally, 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, we anticipate that we will have a going concern paragraph from our independent registered public accounting firm for the year ended December 31, 2014 when we file our annual financial statements for fiscal year ended December 31, 2014.

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 our 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 transaction we will need to raise additional capital no later than the first quarter of 2016, depending on the proceeds of 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, a drug-eluting stent with MicroNet, PVGuard and any additional products;
- pursuing growth opportunities, including more rapid expansion;
 - acquiring complementary businesses;
- making capital improvements to improve our infrastructure;
 - hiring qualified management and key employees;
 - developing new services, programming or products;

S-15

TABLE OF CONTENTS

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 and any future recalls and/or product withdrawals due to product defects or product enhancements and modifications, could 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. As a result of our voluntary field action, we are subject to numerous risks and uncertainties, including the following:

although we received European regulatory approval to resume manufacturing and distribution of our MGuard Prime EPS stent with a modified stent securement process, our suspension of shipments has and will continue to adversely impact revenue;

we are more susceptible to claims such as products 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;

the indirect costs associated with the voluntary field action and re-launch of our product are difficult to predict and will likely divert significant managerial, financial and other resources, which could have an adverse effect on our

We will need to raise additional capital to meet our business requirements in the future and such capital raising may

financial condition and operating results and could hinder our ability to carry out initiatives relating to other new products or product enhancements; and

S-16

TABLE OF CONTENTS

our decision to implement the voluntary field action and discontinue shipments, and any future action, 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 rejected such claims in a detailed response letter sent to both distributors. Following exchanges between the first distributor and our attorney, we have been negotiating a possible settlement of the dispute, which is currently still being discussed. 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.

We expect to derive our revenue from sales of our MGuard and CGuard stent products and other products we may develop. 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 and CGuard stent products and other products we may develop. Future sales of these products, if any, will be subject to the receipt of regulatory approvals and commercial and market uncertainties that may be outside our control. Even if we are successful in development of a DES-MicroNet product or any other products we may develop, there can be no assurance that the product will gain market acceptance or prove to be commercially successful. If we fail to generate such revenues, 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

We expect to derive our revenue from sales of our MGuard and CGuard stent products and other products we may

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

S-17

TABLE OF CONTENTS

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 U.S. 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 U.S. 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 U.S.

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 U.S., 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 and CGuard products at our facility in Tel Aviv, Israel, and we have contracted with QualiMed Innovative Medizinprodukte GmbH, a German manufacturer, to assist in production of MGuard. If there were a disruption to our existing manufacturing facility, we would have no other means of

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

manufacturing our MGuard or CGuard 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 or CGuard 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.

S-18

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

TABLE OF CONTENTS

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 or Cguard 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 stent 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.

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 and the delay in the U.S. Food and Drug Administration review process following the voluntary field corrective action. With respect to the drug-eluting stent incorporating MicroNet, it will take more than a year to complete the clinical trials, if required for CE mark approval, and submit the DES-MicroNet product for CE mark approval and begin to commercialize the product, even if the trials are successful.

Physicians may not widely adopt our stents 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.

We believe that physicians will not widely adopt our stents 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, including coronary artery bypass grafting balloon angioplasty, bare-metal stents and other drug-eluting stents, provided by Boston Scientific Corporation, Medtronic Inc., Abbott Laboratories and others, or to carotid endarterectomy or using conventional stenting for carotid artery disease.

S-19

TABLE OF CONTENTS

We cannot provide any assurance that the data collected from our current and planned clinical trials will be sufficient to demonstrate that our stents are an attractive alternative to other procedures. 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 stents 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 stents will vary. Clinical trials conducted with our stents have involved procedures performed by physicians who are technically proficient and are high-volume stent users. 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 stents 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 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. While physicians currently consider drug-eluting stents to be the industry standard for treatment of coronary artery disease, none of our stent products incorporates drug-eluting stents. Although we are in the process of developing a product incorporating a drug-eluting stent and MicroNet, there is no assurance that we will complete the development and commercialize the DES-MicroNet 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, including the U.S. Food and Drug Administration if we seek in the future to sell our products in the United States, may take a significant amount of time in evaluating product approval applications. For example, there are currently several methods of measuring restenosis and we do not know which of these metrics, or combination of these metrics, will be considered appropriate by applicable regulators for evaluating the clinical efficacy of stents. Treatments may exhibit a favorable measure using one of these metrics and an unfavorable measure using another metric. Any change in the 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 U.S., 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

S-20

TABLE OF CONTENTS

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 product for which we obtain marketing approval in the U.S., along with the manufacturing processes, post-approval clinical data and promotional activities for such product, will be subject to continual review and periodic inspections by the U.S. Food and Drug Administration and other regulatory bodies. In particular, we and our suppliers will be required to comply with the U.S. Food and Drug Administration's Quality System Regulation, which covers the methods and documentation of the design, testing, production, control, quality assurance, labeling, packaging, storage and shipping of, any product for which we obtain marketing approval in the U.S. The U.S. Food and Drug Administration enforces the Quality System Regulation through unannounced inspections. We and our third-party manufacturers and suppliers have not yet been inspected by the U.S. Food and Drug Administration and will have to successfully complete such inspections before we receive U.S. regulatory approval for our products. Failure by us or one of our suppliers to comply with statutes and regulations administered by the U.S. Food and Drug Administration and other regulatory bodies, or failure to take adequate response to any observations, could result in, among other things, any of the following enforcement actions:

- warning letters or untitled letters;
- fines and civil penalties;
- unanticipated expenditures;
- delays in approving, or refusal to approve, our products;
- withdrawal or suspension of approval by the U.S. Food and Drug Administration or other regulatory bodies;
- product recall or seizure;
- orders for physician notification or device repair, replacement or refund;
- interruption of production;
- operating restrictions;
- injunctions; and
- criminal prosecution.

If any of these actions were to occur, it could harm our reputation and could cause our product sales and profitability to suffer. Furthermore, key component suppliers may not currently be or may not continue to be in compliance with applicable regulatory requirements.

Even if regulatory approval of a product is granted in the U.S., the approval may be subject to limitations on the indicated uses for which the product may be marketed. If the U.S. Food and Drug Administration determines that our promotional materials, training or other activities constitute promotion of an unapproved use, it could request that we cease or modify our training or promotional materials or subject us to regulatory enforcement actions. It is also possible that other federal, state or foreign enforcement authorities might take action if they consider our training or other promotional materials to constitute promotion of an unapproved use, which could result in significant fines or penalties under other statutory authorities, such as laws prohibiting false claims for reimbursement.

Moreover, any modification to a device that has received U.S. Food and Drug Administration approval that could significantly affect its safety or effectiveness, or that would constitute a major change in its intended use, design or manufacture, requires a new approval from the U.S. Food and Drug Administration. If the U.S. Food and Drug

Administration disagrees with any determination by us that new approval is not

S-21

TABLE OF CONTENTS

required, we may be required to cease marketing or to recall the modified product until approval is obtained. In addition, we could also be subject to significant regulatory fines or penalties.

Additionally, we may be required to conduct costly post-market testing and surveillance to monitor the safety or efficacy of our products, and we will be required to report adverse events and malfunctions related to our products. Later discovery of previously unknown problems with our products, including unanticipated adverse events or adverse events of unanticipated severity or frequency, manufacturing problems, or failure to comply with regulatory requirements, such as Quality System Regulation, may result in restrictions on such products or manufacturing processes, withdrawal of the products from the market, voluntary or mandatory recalls, fines, suspension of regulatory approvals, product seizures, injunctions or the imposition of civil or criminal penalties.

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.

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 U.S. 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 U.S. and internationally in connection with our current product 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 Medical 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

S-22

TABLE OF CONTENTS

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, we depend on QualiMed Innovative Medizinprodukte GmbH, which manufactures the body of the stent, MeKo Laserstrahl-Materialbearbeitung for the laser cutting of the stent, Natec Medical Ltd. and Creganna-Tactx Medical, Ireland for the supply of catheters, and Biogeneral Inc. for the fiber. For CGuard EPS, we depend on Vention Medical Advance Components for the supply of rapid exchange catheters. 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 become subject to claims by much larger and better capitalized competitors seeking to invalidate our intelle

Our relationship with our strategic partners in connection with the DES-MicroNet product development may not prove successful.

We plan to develop the DES-MicroNet product with two strategic partners who would supply U.S. Food and Drug Administration-approved or CE-marked drug-eluting stents. Our successful development of the DES-MicroNet product will depend, among other things, on our partners' ability to supply drug-eluting stents that we may require. Our partners may not be able to supply us with drug-eluting stents due to bankruptcy, insolvency, liquidation, or reorganization; a lawsuit asserting patent infringement, misappropriation of intellectual property, or related claims filed against them; or failure to comply with ongoing regulatory

S-23

TABLE OF CONTENTS

requirements. If our partners are unable to produce sufficient quantities of drug-eluting stents for use in our current and planned clinical trials, or if their manufacturing process yields substandard stents, our development and commercialization efforts would be delayed and could increase our costs.

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. We also have liability insurance for our ongoing clinical trials. 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.

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;

We may be exposed to product liability claims and insurance may not be sufficient to cover these claims. 49

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;

S-24

TABLE OF CONTENTS

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 U.S. and in the European Union, our business could be significantly and adversely affected by recent healthcare reform legislation and other administration and legislative proposals.

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 Patient Protection and Affordable Care Act and the Health Care and Education Reconciliation Act were enacted into law in the U.S. in March 2010. Certain provisions of these acts will not be fully implemented until 2018 for a number of years and there are many 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

S-25

TABLE OF CONTENTS

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 or CGuard stent in the U.S., 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. It is uncertain at this point 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 ultimately implemented at the federal or state level in the U.S., 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 U.S.

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.

Our strategic business plan may not produce the intended growth in revenue and operating income.

Our strategies include making significant investments in sales and marketing programs to achieve revenue growth and margin improvement targets. If we do not achieve the expected benefits from these investments or otherwise fail to execute on our strategic initiatives, we may not achieve the growth improvement we are targeting and our results of operations may be adversely affected.

In addition, as part of our strategy for growth, we may make acquisitions and enter into strategic alliances such as joint ventures and joint development agreements. However, we may not be able to identify suitable acquisition candidates, complete acquisitions or integrate acquisitions successfully, and our strategic alliances may not prove to be successful. In this regard, acquisitions involve numerous risks, including difficulties in the integration of the operations, technologies, services and products of the acquired companies and the diversion of management's attention from other business concerns. Although we will endeavor to evaluate the risks inherent in any particular transaction, there can be no assurance that we will properly ascertain all such risks. In addition, acquisitions could result in the incurrence of substantial additional indebtedness and other expenses or in potentially dilutive issuances of equity securities. There can be no assurance that difficulties encountered with acquisitions will not have a material adverse effect on our business, financial condition and results of operations.

We may have violated Israeli securities law.

We may have violated section 15 of the Israeli Securities Law of 1968. Section 15 of the Israeli Securities Law of 1968 requires the filing of a prospectus with the Israel Securities Authority and the delivery thereof to offerees in connection with an offer or sale of securities to more than 35 offerees (where for the purpose of calculating such number, offerees of the type listed on the First Addendum of the Israeli Securities Law of 1968 shall not be taken into account) during any 12-month period. We allegedly issued securities to

S-26

TABLE OF CONTENTS

more than 35 investors during certain 12-month periods, ending in October 2008. Our wholly-owned subsidiary, InspireMD Ltd., a private company incorporated under the laws of the State of Israel, applied for a no-action determination from the Israel Security Authority on February 14, 2011 in connection with the foregoing. To date, the Israel Securities Authority has not responded to InspireMD Ltd.'s application for no-action determination and we are unable to predict when a response will be received. The maximum penalties for violating section 15 of the Israeli Securities Law of 1968 are as follows: imprisonment of five years; a fine of up to approximately \$317,000 to be paid by management of the violating company; and a fine of up to approximately \$1,590,000 to be paid by the violating company, any of which penalties could result in a material adverse effect on our operations. We believe that it is unlikely that either we or any individual will be subject to fines or other penalties as a result of these alleged violations.

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.

S-27

TABLE OF CONTENTS

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

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

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 U.S. 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 U.S. 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

S-28

TABLE OF CONTENTS

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 2014 is 26.5% 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.

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

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;

S-29

TABLE OF CONTENTS

sales of our common stock, particularly under any registration statement for the purposes of selling any other securities, including management shares;
limited availability of freely-tradable unrestricted shares of our common stock to satisfy purchase orders and demand;
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 Exchange, we submitted a plan of compliance to the NYSE MKT on February 19, 2015 addressing how we intend to regain compliance with Sections 1003(a)(iii) of the Company Guide by July 20, 2016 and Section 1003(a)(iv) of the Company Guide by June 1, 2015.

If our compliance plan is not accepted, delisting proceedings will commence. Furthermore, if the plan is accepted but we are not in compliance with the continued listing standards by June 1, 2015 for Section 1003(a)(iv) of the Company Guide and July 20, 2016 for Section 1003(a)(iii) of the Company Guide, or if we do not make 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 commercially launch CGuard EPS, conduct sales activities related to MGuard Prime EPS, advance the development of our pipeline and for general corporate purposes. However, our management will have

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

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.

S-30

TABLE OF CONTENTS

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 34,478,675 shares in this offering, based on a public offering price of \$0.40 per share and after deducting the placement agent fees and estimated offering expenses payable by us, you will experience immediate dilution of \$0.32 per share, representing the difference between our as adjusted net tangible book value per share as of September 30, 2014 after giving effect to this offering and the public offering price. See the section entitled "Dilution" on page S-40 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. It also requires an independent registered public accounting firm to test our internal control over financial reporting and report on the effectiveness of such controls. 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

S-31

TABLE OF CONTENTS

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 U.S. 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.

S-32

TABLE OF CONTENTS

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.

S-33

TABLE OF CONTENTS

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 February 1, 2015 was \$8.2 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:

Edgar Filing: InspireMD, Inc. - Form 424B5

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)

S-34

TABLE OF CONTENTS

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.

S-35

TABLE OF CONTENTS

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.

S-36

TABLE OF CONTENTS

You should review carefully the section entitled "Risk Factors" beginning on page S-15 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.

S-37

TABLE OF CONTENTS

USE OF PROCEEDS

We estimate that the net proceeds from the sale of the securities offered under this prospectus, after deducting placement agent fees and commissions and estimated offering expenses payable by us will be \$12.5 million if we sell the maximum amount of common stock and warrants offered hereby. However, this is a best efforts offering with no minimum, and we may not sell all or any of the securities; as a result, we may receive significantly less in net proceeds, and the net proceeds received may not be sufficient to continue to operate our business. 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 commercially launch CGuard EPS, conduct sales activities related to MGuard Prime EPS and advance the development of our pipeline. Any balance of the net proceeds will be used for general corporate purposes.

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 further develop our drug-eluting stent with MicroNet platform and CGuard rapid exchange platform and commercially launch CGuard 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.

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 U.S. Food and Drug Administration or other 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 invest the funds in short-term, investment grade, interest-bearing securities.

TABLE OF CONTENTS**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 (i) the intra-day high and low sales price per share for our common stock, as reported on the NYSE MKT, for the period of April 11, 2013 to February 25, 2013, and (ii) the high and low bid prices for our common stock, as reported by the OTC Bulletin Board, for the period of July 1, 2012 to April 10, 2013. The quotations reflect inter-dealer prices, without retail mark-up, mark-down or commission, and may not represent actual transactions. The OTC Bulletin Board quotations prior to December 21, 2012 are adjusted for the one-for-four reverse stock split of our common stock that occurred on such date:

	Common Stock	
	High	Low
Fiscal Year Ending December 31, 2015		
First quarter (through March 2, 2015)	\$ 1.01	\$ 0.54
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	\$ 2.46
Transition Period Ended December 31, 2013		
Second quarter	\$ 3.67	\$ 2.27
First quarter	\$ 2.68	\$ 1.80
Fiscal Year Ended June 30, 2013		
Fourth quarter	\$ 3.15	\$ 1.88
Third quarter	\$ 4.25	\$ 1.95
Second quarter	\$ 10.16	\$ 3.01
First quarter	\$ 10.00	\$ 3.84

The closing price of our common stock on the NYSE MKT on March 2, 2015 was \$0.60 per share. Immediately prior to this offering, we had 43,786,411 issued and outstanding shares of common stock, which were held by approximately 220 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.

TABLE OF CONTENTS**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. Our net tangible book value of our common stock as of September 30, 2014 was approximately \$(7.2 million), or approximately \$(0.20) per share of common stock based on 36,134,465 shares outstanding (including 35,107,130 shares and vested restricted shares and 1,027,335 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 the sale of 34,478,675 shares of common stock in the aggregate amount of \$13,791,470 in this offering at a public offering price of \$0.40 per share, and after deducting the placement agent fees and estimated offering expenses payable by us, our net tangible book value as of September 30, 2014 would have been approximately \$5.32 million, or approximately \$0.08 per share of common stock based on 70,613,140 shares of common stock outstanding on a pro forma basis at that time. This represents an immediate increase in net tangible book value of \$0.27 per share to our existing stockholders and an immediate dilution of approximately \$0.32 per share to new investors participating in this offering, as illustrated by the following table:

Public offering price per share of common stock	\$ 0.40
Net tangible book value per share of common stock as of September 30, 2014	\$(0.20)
Increase in net tangible book value per share of common stock attributable to the offering	\$ 0.27
Pro forma net tangible book value per share of common stock as of September 30, 2014 after giving effect to the offering	\$ 0.08
Dilution in net tangible book value per share of common stock to new investors in the offering	\$ 0.32

The information discussed above is illustrative only and will adjust based on the actual public offering price and other terms of this offering determined at pricing.

We may sell less than 34,478,675 shares of common stock. An increase of 1,000,000 shares in the number of shares sold by us would increase our as adjusted net tangible book value after this offering by approximately \$5.7 million, or \$0.08 per share, and the dilution per share to new investors would be approximately \$0.32 per share, assuming that the public offering price remains the same and after deducting the estimated placement agent fees and other estimated offering expenses payable by us.

Similarly, a decrease of 1,000,000 shares in the number of shares sold by us would increase our as adjusted net tangible book value after this offering by approximately \$5.0 million, or \$0.07 per share, and the dilution per share to new investors would be approximately \$0.33 per share, assuming that the public offering price remains the same and after deducting the estimated placement agent fees and other estimated offering expenses payable by us.

The discussion of dilution, and the table quantifying it, assume the sale of all shares covered by this prospectus and no exercise of any of the warrants offered hereby 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 as of September 30, 2014:

Edgar Filing: InspireMD, Inc. - Form 424B5

1,953,712 shares of common stock issuable upon the exercise of currently outstanding warrants with an exercise price of \$7.20 per share;

637,500 shares of common stock issuable upon the exercise of currently outstanding warrants with an exercise price of \$6.00 per share;

S-40

TABLE OF CONTENTS

659,091 shares of common stock issuable upon the exercise of currently outstanding warrants with an exercise price of \$3.00 per share;

168,351 shares of common stock issuable upon the exercise of currently outstanding warrants with an exercise price of \$2.97 per share;

6,038,028 shares of common stock issuable upon the exercise of currently outstanding options with exercise prices ranging from \$0.0001 to \$10.40 and having a weighted average exercise price of \$3.83 per share;

205,206 shares of common stock available for future issuance under our 2011 UMBRELLA Option Plan; and

2,816,897 shares of common stock available for future issuance under our 2013 Long-Term Incentive Plan.

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.

S-41

TABLE OF CONTENTS

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

S-42

TABLE OF CONTENTS

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 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.

For purposes of determining the initial tax basis, we expect that holders will allocate \$ of the purchase price to the Share and \$ of the purchase price to the Warrant. However, the IRS will not be bound by this allocation of the purchase price, and, therefore, the IRS or a U.S. court may not respect the allocation set forth above. Each holder should consult its own tax advisor regarding the allocation of the purchase price.

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.

S-43

TABLE OF CONTENTS

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.

S-44

TABLE OF CONTENTS

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.

S-45

TABLE OF CONTENTS

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.

TABLE OF CONTENTS

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.

S-47

TABLE OF CONTENTS

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 7 of the accompanying prospectus, as supplemented by the information below. As of March 2, 2015, we had 43,786,411 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 immediately, and at any time up to the date that is five years 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 a warrant is \$0.55 per 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.

S-48

TABLE OF CONTENTS

PLAN OF DISTRIBUTION

Pursuant to a placement agency agreement, dated as of March 4, 2015, between us, H.C. Wainwright & Co., LLC (H.C. Wainwright & Co.) and Dawson James Securities, Inc. (Dawson James) and, collectively with H.C. Wainwright & Co., the placement agents), we have engaged H.C. Wainwright & Co. as our exclusive sole bookrunner, or exclusive lead placement agent, and Dawson James as our co-placement agent to solicit offers to purchase the common stock and warrants offered by this prospectus supplement. The placement agents are not purchasing any common stock or warrants for their own account in this offering, and are not required to arrange the purchase or sale of any additional specific number or dollar amount of the securities. H.C. Wainwright & Co. may engage one or more sub-agents or selected dealers in connection with the offering.

The placement agents have agreed to use their reasonable best efforts to arrange for the sale of all of the securities in this offering. There is no requirement that any minimum number of shares of common stock or warrants or dollar amount of common stock or warrants be sold in this offering and there can be no assurance that we will sell all or any of the common stock and warrants being offered. We will enter into securities purchase agreements directly with certain institutional investors. We will not enter into any securities purchase agreement with all investors and such investors not entering into such agreements shall rely solely on this prospectus in connection with the purchase of securities in this offering.

We currently anticipate that the closing of this offering will occur on or about March 9, 2015, subject to customary closing conditions. On the closing date, the following will occur:

we will receive funds in the amount of the aggregate purchase price;

The placement agents will receive the placement agent fees in accordance with the terms of the placement agency agreement; and

we will deliver the shares of common stock and warrants to the investors.

We have agreed to pay the placement agents a placement agent fee equal to 8% of the aggregate gross proceeds in this offering, excluding the proceeds, if any, from the exercise of the warrants. We have also agreed to reimburse H.C. Wainwright & Co. for its expenses in connection with this offering on a non-accountable basis in an amount equal to 1% of the aggregate gross proceeds in this offering. We have also granted to H.C. Wainwright & Co. a right of first refusal to act as lead underwriter or lead placement agent if we or our subsidiaries raise any capital through a public offering or a private placement of equity or convertible debt securities using an underwriter or placement agent during the 6 months following the consummation of this offering.

The following table shows the per share and total placement agent fees we will pay in connection with the sale of the common stock and warrants, assuming the purchase of all of the common stock and warrants we are offering.

Per share placement agent fees	\$0.032
Total	\$1,103,318

We estimate the total expenses of this offering which will be payable by us, excluding the placement agent fees, will be approximately \$192,915. After deducting the fees due to the placement agents and our estimated offering expenses, we expect the net proceeds from this offering to be approximately \$12.5 million.

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

H.C. Wainwright & Co. and Dawson James may be deemed to be an underwriter within the meaning of Section 2(a)(11) of the Securities Act of 1933, as amended, and any commissions received by them and any profit realized on the resale of the common stock and warrants sold by them while acting as principal might be deemed to be underwriting discounts or commissions under the Securities Act of 1933, as amended. As an underwriter, H.C. Wainwright & Co. and Dawson James would be required to comply with the requirements

S-49

TABLE OF CONTENTS

of the Securities Act of 1933, as amended, and the Securities Exchange Act of 1934, as amended, including, without limitation, Rule 415(a)(4) under the Securities Act of 1933, as amended, and Rule 10b-5 and Regulation M under the Securities Exchange Act of 1934, as amended. These rules and regulations may limit the timing of purchases and sales of shares of common stock and warrants by H.C. Wainwright & Co. and Dawson James acting as principal. Under these rules and regulations, H.C. Wainwright & Co. and Dawson James:

may not engage in any stabilization activity in connection with our securities; and may not bid for or purchase any of our securities or attempt to induce any person to purchase any of our securities, other than as permitted under the Securities Exchange Act of 1934, as amended, until it has completed its participation in the distribution.

A copy of the placement agency agreement, the form of securities purchase agreement we entered into with certain of the purchasers and the form of warrant will be included as exhibits to our current report on Form 8-K that will be filed with the SEC in connection with the consummation of this offering.

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.

S-50

TABLE OF CONTENTS

LEGAL MATTERS

The validity of the shares of common stock offered by this prospectus supplement has been passed upon for us by Haynes and Boone, LLP. Ellenoff Grossman & Schole, LLP, New York, New York, is acting as counsel for the lead placement agent in connection with the securities offered hereby.

EXPERTS

The financial statements incorporated in this prospectus supplement by reference to the Transition Report on Form 10-KT for the transition period from July 1, 2013 to December 31, 2013, as amended by Amendment No. 1 filed with the Securities and Exchange Commission on September 25, 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 Transition Reports on Form 10-KT, 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, 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 the information on our website, and you should not consider it to be a part of this prospectus.

TABLE OF CONTENTS

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 and prior to the termination of the offering:

Our Transition Report on Form 10-KT for the transition period from July 1, 2013 to December 31, 2013, filed with the Securities and Exchange Commission on February 26, 2014, as amended by Amendment No. 1 filed with the Securities and Exchange Commission on September 25, 2014;

Our quarterly report on Form 10-Q for the fiscal quarter ended March 31, 2014, filed with the Securities and Exchange Commission on May 7, 2014;

Our quarterly report on Form 10-Q for the fiscal quarter ended June 30, 2014, filed with the Securities and Exchange Commission on August 4, 2014;

Our quarterly report on Form 10-Q for the fiscal quarter ended September 30, 2014, filed with the Securities and Exchange Commission on November 12, 2014;

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 October 27, 2014;

Our Current Report on Form 8-K, filed with the Securities and Exchange Commission on February 4, 2014;

Our Current Report on Form 8-K, filed with the Securities and Exchange Commission on February 5, 2014;

Our Current Report on Form 8-K, filed with the Securities and Exchange Commission on February 18, 2014;

Our Current Report on Form 8-K, filed with the Securities and Exchange Commission on February 27, 2014;

Our Current Report on Form 8-K, filed with the Securities and Exchange Commission on March 5, 2014;

Our Current Report on Form 8-K, filed with the Securities and Exchange Commission on March 21, 2014;

Our Current Report on Form 8-K, filed with the Securities and Exchange Commission on April 30, 2014;

Our Current Report on Form 8-K, filed with the Securities and Exchange Commission on May 8, 2014;

Our Current Report on Form 8-K, filed with the Securities and Exchange Commission on May 20, 2014;

Our Current Report on Form 8-K, filed with the Securities and Exchange Commission on June 23, 2014;

Our Current Report on Form 8-K, filed with the Securities and Exchange Commission on July 8, 2014;

Our Current Report on Form 8-K, filed with the Securities and Exchange Commission on July 18, 2014;

S-52

TABLE OF CONTENTS

Our Current Report on Form 8-K, filed with the Securities and Exchange Commission on July 24, 2014;
Our Current Report on Form 8-K, filed with the Securities and Exchange Commission on August 11, 2014;
Our Current Report on Form 8-K, filed with the Securities and Exchange Commission on September 16, 2014;
Our Current Report on Form 8-K, filed with the Securities and Exchange Commission on September 19, 2014;
Our Current Report on Form 8-K, filed with the Securities and Exchange Commission on October 1, 2014;
Our Current Report on Form 8-K, filed with the Securities and Exchange Commission on October 14, 2014;
Our Current Report on Form 8-K, filed with the Securities and Exchange Commission on October 29, 2014;
Our Current Report on Form 8-K, filed with the Securities and Exchange Commission on November 5, 2014;
Our Current Report on Form 8-K, filed with the Securities and Exchange Commission on November 10, 2014;
Our Current Report on Form 8-K, filed with the Securities and Exchange Commission on December 9, 2014;
Our Current Report on Form 8-K, filed with the Securities and Exchange Commission on December 15, 2014;
Our Current Report on Form 8-K, filed with the Securities and Exchange Commission on January 6, 2015;
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;
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; 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. We have not authorized anyone else to provide you with different information. You should not assume that the

TABLE OF CONTENTS

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: 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 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.

S-54

TABLE OF CONTENTS

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 5 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.

TABLE OF CONTENTS

TABLE OF CONTENTS

	Page
<u>ABOUT THIS PROSPECTUS</u>	<u>1</u>
<u>PROSPECTUS SUMMARY</u>	<u>2</u>
<u>RISK FACTORS</u>	<u>5</u>
<u>SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS</u>	<u>5</u>
<u>USE OF PROCEEDS</u>	<u>6</u>
<u>DESCRIPTION OF CAPITAL STOCK</u>	<u>7</u>
<u>DESCRIPTION OF WARRANTS</u>	<u>12</u>
<u>DESCRIPTION OF UNITS</u>	<u>14</u>
<u>PLAN OF DISTRIBUTION</u>	<u>14</u>
<u>LEGAL MATTERS</u>	<u>16</u>
<u>EXPERTS</u>	<u>16</u>
<u>WHERE YOU CAN FIND MORE INFORMATION</u>	<u>16</u>
<u>INCORPORATION OF CERTAIN INFORMATION BY REFERENCE</u>	<u>17</u>

i

TABLE OF CONTENTS

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.

TABLE OF CONTENTS

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

TABLE OF CONTENTS

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.

TABLE OF CONTENTS

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.

TABLE OF CONTENTS

RISK FACTORS

An investment in our securities involves a high degree of risk. The prospectus supplement applicable to each offering of our securities will contain a discussion of the risks applicable to an investment in our securities. Before deciding whether to invest in our securities, you should carefully consider the specific factors discussed under the heading "Risk Factors" in the applicable prospectus supplement, together with all of the other information contained or incorporated by reference in the prospectus supplement or appearing or incorporated by reference in this prospectus. You should also consider the risks, uncertainties and assumptions discussed under Item 1A, "Risk Factors," in our Annual Report on Form 10-K for the fiscal year ended June 30, 2013, all of which are incorporated herein by reference, as updated or superseded by the risks and uncertainties described under similar headings in the other documents that are filed after the date hereof and incorporated by reference into this prospectus and any prospectus supplement related to a particular offering. The risks and uncertainties we have described are not the only ones we face. Additional risks and uncertainties not presently known to us or that we currently deem immaterial may also affect our operations. Past financial performance may not be a reliable indicator of future performance, and historical trends should not be used to anticipate results or trends in future periods. If any of these risks actually occurs, our business, business prospects, financial condition or results of operations 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. Please also read carefully the section below entitled "Special Note Regarding Forward-Looking Statements."

SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus, each prospectus supplement and the information incorporated by reference in this prospectus and each prospectus supplement 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," "similar 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;
- our ability to complete clinical trials as anticipated and obtain and maintain regulatory approvals for our products;
- our ability to adequately protect our intellectual property;
- 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;

5

TABLE OF CONTENTS

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 5 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.

TABLE OF CONTENTS

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.

7

TABLE OF CONTENTS

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

8

TABLE OF CONTENTS

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

Edgar Filing: InspireMD, Inc. - Form 424B5

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

9

TABLE OF CONTENTS

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;

10

TABLE OF CONTENTS

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
11

TABLE OF CONTENTS

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;

TABLE OF CONTENTS

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.

13

TABLE OF CONTENTS

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.

TABLE OF CONTENTS

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.

TABLE OF CONTENTS

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.

TABLE OF CONTENTS

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.

TABLE OF CONTENTS

InspireMD, Inc.

**34,478,675 Shares of Common Stock
Warrants to Purchase 34,478,675 Shares of Common
Stock
34,478,675 Shares of Common Stock Underlying
Warrants**

March 4, 2015
