

# INSPIREMD, INC.

# **FORM 424B5**

(Prospectus filed pursuant to Rule 424(b)(5))

## Filed 07/28/20

Telephone (888) 776-6804

CIK 0001433607

Symbol NSPR

SIC Code 3841 - Surgical and Medical Instruments and Apparatus

Industry Medical Equipment, Supplies & Distribution

Sector Healthcare

Fiscal Year 12/31



### PROSPECTUS SUPPLEMENT

(to Prospectus dated February 23, 2018)



InspireMD, Inc.

### Up to \$9,300,000 Shares of Common Stock

This prospectus supplement and accompanying prospectus relates to the issuance and sale of up to approximately \$9,300,000 of shares of our common stock, par value \$0.0001 per share, from time to time through our sales agent, A.G.P. / Alliance Global Partners, or A.G.P. These sales, if any, will be made pursuant to a sales agreement, dated July 28, 2020, between us and A.G.P., which we refer to as the sales agreement.

Sales of our common stock, if any, under this prospectus supplement and the accompanying prospectus may be made by any method permitted by law deemed to be an "at-the-market" offering as defined in Rule 415 under the Securities Act of 1933, as amended, which we refer to as the Securities Act, including sales made directly on the NYSE American market, on any other existing trading market for our common stock or to or through a market maker or through an electronic communications network. If expressly authorized by us, A.G.P. may also sell our common stock in privately negotiated transactions. A.G.P. will act as sales agent on a commercially reasonable efforts basis, consistent with its normal trading and sales practices and applicable state and federal laws, rules and regulations and the rules of the NYSE American market. There is no specific date on which the offering will end, there are no minimum sale requirements and there are no arrangements to place any of the proceeds of this offering in an escrow, trust or similar account.

A.G.P. will be entitled to compensation at a fixed commission rate of 3.0% of the gross proceeds from the sale of our common stock pursuant to the sales agreement. In connection with the sale of the common stock on our behalf, A.G.P. may, and will with respect to sales effected in an "at-the-market" offering, be deemed to be an "underwriter" within the meaning of the Securities Act, and the compensation of A.G.P. may be deemed to be underwriting commissions or discounts. We have also agreed to provide indemnification and contribution to A.G.P. against certain civil liabilities, including liabilities under the Securities Act.

Our common stock is quoted on the NYSE American market under the symbol "NSPR." The last reported sale price of our common stock on the NYSE American market on July 24, 2020 was \$0.5099 per share.

Investing in these securities involves a high degree of risk. Before buying shares of our common stock, you should carefully consider the risk factors described in "Risk Factors" beginning on page S-7 of this prospectus supplement and in the documents incorporated by reference into this prospectus supplement and any free writing prospectus that we have authorized for use in connection with this offering.

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

As of the date of this prospectus supplement, the aggregate market value of our outstanding common stock is \$28,020,435, of which \$27,916,254 is held by non-affiliates. That value is based on (i) 33,357,661 shares of our common stock outstanding currently, of which 33,233,636 shares are held by non-affiliates, and (ii) a price of \$0.84 per share, the closing price of our common stock on May 29, 2020. We have not offered any securities pursuant to General Instruction I.B.6 of Form S-3 during the 12 calendar months prior to and including the date of this prospectus supplement.

### A.G.P.

The date of this prospectus supplement is July 28, 2020

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### ABOUT THIS PROSPECTUS SUPPLEMENT

This prospectus supplement and the accompanying prospectus relate to the offering of our common stock. You should rely only on the information contained in or incorporated by reference in this prospectus supplement and the accompanying prospectus. We have not, and A.G.P. has not, authorized anyone to provide you with different information. If anyone provides you with different or inconsistent information, you should not rely on it. We are not, and A.G.P. is not, making an offer to sell these securities in any jurisdiction where the offer or sale is not permitted or in which the person making that offer or solicitation is not qualified to do so or to anyone to whom it is unlawful to make an offer or solicitation. You should assume that the information appearing in this prospectus supplement, the accompanying prospectus in incorporated by reference in this prospectus supplement and the accompanying prospectus is accurate only as of the date of those respective documents. Our business, financial condition, results of operations and prospects may have changed since those dates. You should read this prospectus supplement, the accompanying prospectus, the documents incorporated by reference in this prospectus supplement and the accompanying prospectus in their entirety before making an investment decision. You should also read and consider the information in the documents to which we have referred you in the sections of this prospectus supplement entitled "Where You Can Find Additional Information About Us" and "Incorporation of Certain Documents by Reference."

This document is in two parts. The first part is this prospectus supplement, which describes the terms of this offering and also adds to and updates information contained in the accompanying prospectus and the documents incorporated by reference in this prospectus supplement and the accompanying prospectus. The second part, the accompanying prospectus dated February 23, 2018, including the documents incorporated by reference therein, provides more general information, some of which may not apply to this offering. 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, on the one hand, and the information contained in the accompanying prospectus or in any document incorporated by reference that was filed with the Securities and Exchange Commission, or SEC, before the date of this prospectus supplement, on the other hand, you should rely on the information in this prospectus supplement. 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 into the accompanying prospectus 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 agreement, 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.

Unless otherwise indicated in this prospectus or the context otherwise requires, all references to "we," "us," "our," "the Company," and "InspireMD" refer to InspireMD, Inc., a Delaware corporation.

### SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus supplement, the accompanying prospectus and the documents that we incorporate by reference herein, may contain forward-looking statements within the meaning of Section 27A of the Securities Act and Section 21E of the Exchange Act. These forward-looking statements, which are often characterized by the terms "may," "believes," "projects," "expects," "plans", "anticipates," "plans," "intends," "could," "might," "will," "should," "approximately" or, in each case, their negative or other variations or comparable terminology, do not reflect historical facts but instead are based on our current assumptions and predictions regarding future events, such as business and financial performance. Specific forward-looking statements contained in this prospectus supplement (including such documents incorporated by reference herein) include, but are not limited to, projections of earnings, revenue or other financial items, any statements regarding the plans and objectives of management for future operations, any statements concerning proposed new products or services, any statements regarding future economic conditions or performance, any statements regarding expected benefits from any transactions and any statements of assumptions underlying any of the foregoing.

You should read this prospectus supplement, the accompanying prospectus and the documents that we incorporate by reference herein and therein and have filed as exhibits to the registration statement, of which this prospectus supplement and the accompanying prospectus is part, completely and with the understanding that our actual future results may be materially different from what we concurrently expect. You should assume that the information appearing in this prospectus supplement, the accompanying prospectus and any document incorporated herein and therein by reference is accurate as of its date only. Because the risk factors referred to in this prospectus supplement and the accompanying prospectus could cause actual results or outcomes to differ materially from those expressed in any forward-looking statements made by us or on our behalf, you should not place undue reliance on any forward-looking statements. These risk factors are discussed in "Risk Factors" beginning on page S-7 of this prospectus supplement, in our Annual Report on Form 10-K for the year ended December 31, 2019, filed with the SEC on March 10, 2020, in our Quarterly Report on Form 10-Q for the quarter ended March 31, 2020, filed with the SEC on May 11, 2020, and in subsequent periodic filings we make with the SEC.

Further, any forward-looking statement speaks only as of the date on which it is made, and we undertake no obligation to update any forward-looking statement to reflect events or circumstances after the date on which the statement is made or to reflect the occurrence of unanticipated events. New factors emerge from time to time, and it is not possible for us to predict which factors will arise. In addition, we cannot assess the impact of each factor on our business or the extent to which any factor, or combination of factors, may cause actual results to differ materially from those contained in any forward-looking statements. We qualify all of the information presented in this prospectus supplement, the accompanying prospectus and any document incorporated herein and therein by reference, and particularly our forward-looking statements, by these cautionary statements.

### PROSPECTUS SUPPLEMENT SUMMARY

This summary highlights information contained elsewhere or incorporated by reference in this prospectus supplement and the accompanying prospectus. This summary does not contain all of the information that you should consider before deciding to invest in our common stock. You should read this entire prospectus supplement and the accompanying prospectus carefully, including the "Risk Factors" section contained in this prospectus supplement and the accompanying prospectus, our consolidated financial statements and the related notes thereto and the other documents incorporated by reference in this prospectus supplement and in the accompanying prospectus.

### **Company Overview**

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

Our CGuard<sup>TM</sup> carotid embolic prevention system, or CGuard EPS, combines MicroNet and a self-expandable nitinol stent in a single device for use in carotid artery applications. Our CGuard EPS received CE mark approval in the European Union in March 2013, and we launched its release on a limited basis in October 2014. In January 2015, a new version of CGuard, with a rapid exchange delivery system, received CE mark approval in Europe and in September 2015, we announced the full market launch of CGuard EPS in Europe. Subsequently, we launched CGuard EPS in Russia and certain countries in Latin America and Asia, including India. We have received approval to launch CGuard EPS in Brazil, and we are seeking strategic partners for the potential launch of CGuard EPS in Japan and China.

In April 2017, we had a pre-investigational device exemption, or IDE, submission meeting with the U.S. Food and Drug Administration, or FDA, regarding CGuard EPS where we presented materials, including our draft synopsis for a clinical trial design, which we believed supported a formal IDE submission for the approval of a human clinical trial in the United States. The FDA agreed to our pre-clinical test plan and clinical trial design. On July 26, 2019, we submitted an IDE application for CGuard EPS. In connection with such application, on August 23, 2019, we received a request for additional information from the FDA in support of our application. We continue to work closely with the FDA to address the FDA's information and testing requests in support of our pending IDE application, as the initiation of clinical testing in the U.S. is our current highest priority. Following the resolution of all comments from the FDA, we re-submitted the IDE application in May 2020, as IDE approval by the FDA would be a critical step toward the commencement of a human clinical trial using CGuard EPS in the United States.

Additionally, we intend to continue to evaluate potential product and manufacturing enhancements for CGuard EPS that are expected to reduce cost of goods and/or provide the best-in-class performing delivery system. In furtherance of our strategy that focuses on establishing CGuard EPS as a viable alternative to vascular surgery, we are exploring adding a procedural protection device to our portfolio. We cannot give any assurance that we will receive sufficient (or any) proceeds from future financings or the timing of such financings, if ever, for potential product enhancements and manufacturing enhancements. In addition, such additional financings may be costly or difficult to complete. Even if we receive sufficient proceeds from future financings, there is no assurance that we will be able to timely apply for CE mark approval following our receipt of such proceeds. We believe these improvements may allow us to reduce our cost of goods and increase penetration in our existing geographies and better position us for entry into new markets.

### **Our Products and Market**

We consider the addressable market for our CGuard EPS to be individuals with diagnosed, symptomatic high-grade carotid artery stenosis (HGCS, ≥70% occlusion) for whom an intervention is preferable to medical (drug) therapy. This group includes not only carotid artery stenting patients but also individuals undergoing carotid endarterectomy, as the two approaches compete for the same patient population. Assuming full penetration of the intervention caseload by CGuard EPS, we estimate that the addressable market for CGuard EPS was approximately \$1.0 billion in 2017 (source: Health Research International 2017 Results of Update Report on Global Carotid Stenting Procedures and Markets by Major Geography and Addressable Markets).

Our MGuard<sup>TM</sup> Prime<sup>TM</sup> embolic protection system, or MGuard Prime EPS, is marketed for use in patients with acute coronary syndromes, notably acute myocardial infarction (heart attack) and saphenous vein graft coronary interventions (bypass surgery). MGuard Prime EPS combines MicroNet with a bare-metal cobalt-chromium based stent. MGuard Prime EPS received CE mark approval in the European Union in October 2010 for improving luminal diameter and providing embolic protection. However, as a result of a shift in industry preferences away from bare-metal stents in favor of drug-eluting (drug-coated) stents, in 2014 we decided to curtail further development of this product in order to focus on the development of a drug-eluting stent product, MGuard DES<sup>TM</sup>. Due to limited resources, however, our efforts have been limited to testing drug-eluting stents manufactured by potential partners for compatibility with MicroNet and seeking to incorporate MicroNet onto a drug-eluting stent manufactured by a potential partner. The FDA has clarified that the primary mode of action for drug-eluting cardiovascular stents, which are regulated as combination products, is that of the device component and has assigned the FDA Center for Devices and Radiological Health (CDRH) primary responsibility for premarket review and regulation, providing some clarity about what to expect regarding the regulatory framework related to the development of MGuard DES<sup>TM</sup>.

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

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

### **Our Growth Strategy**

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

• Widen the adoption of CGuard EPS. We are seeking to expand the population of CGuard EPS patients in those countries in which CGuard EPS is commercially available. In particular, our focus is on establishing CGuard EPS as a viable alternative (in appropriate cases) to conventional carotid stents and vascular surgery within the applicable medical communities. We intend to accomplish this goal by continuing to publish and present our clinical data and support investigator-initiated clinical registries. We have partnered and will continue to seek out partnerships with organizations focused on the treatment of stroke. We will also continue to engage advisory boards and to develop a network of key opinion leaders to assist us in our efforts to widen the adoption of CGuard EPS.

- Grow our presence in existing and new markets for CGuard EPS. We have launched CGuard EPS in most European and Latin American countries through a comprehensive distributor sales organizations network. We are continuing to focus on larger growing markets through this network by supporting our distributors with comprehensive marketing and clinical education programs. In November 2018, we obtained approval for reimbursement and commercial sale for CGuard EPS in Australia and immediately launched the product there, and in July 2020, we obtained registration for CGuard EPS in Brazil, clearing it for sale and distribution there. We are also pursuing additional product registrations and distribution contracts with local distributors in other countries in Europe, Asia and Latin America.
- Continue to leverage our 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 MicroNet technology to address imminent market needs for new product innovations to significantly improve patients' care. We continue to broadly develop and protect intellectual property related to our mesh technology. Examples of some areas include peripheral vascular disease, neurovascular disease, renal artery disease and bifurcation disease.
- Establish relationships with collaborative and development partners to fully develop and market our existing and future products. We are seeking strategic partners for collaborative research, development, marketing, distribution, or other agreements, which could assist with our development and commercialization efforts for CGuard EPS and MGuard DES, and other potential products that are based on our MicroNet technology.
- Continue to protect and expand our portfolio of patents. Our MicroNet technology and the use of patents to protect it are critical to our success. We own numerous patents for our MicroNet technology. Nineteen patent applications and patents are pending or in force (fifteen of which are issued patents) in the United States, some of which have corresponding patent applications and/or issued patents in Canada, China, Europe, Israel, India, and South Africa. We believe these patents and patent applications collectively cover all of our existing products and may be useful for protecting our future technological developments. We intend to aggressively continue patenting new technology, and to actively pursue any infringement covered by any of our patents. We believe that our patents, and patent applications once allowed, are important for maintaining the competitive differentiation of our products and maximizing our return on research and development investments.
- Resume development and successfully commercialize MGuard DES. While we have limited the focus of product development to our carotid products, if we resume development of our coronary products, we plan to evaluate opportunities to further develop MGuard DES.

### **Recent Developments**

Public Offering

On June 5, 2020, we closed an underwritten public offering of (i) 7,635,800 units, which we refer to as the Units, with each Unit being comprised of one share of the Company's common stock, par value \$0.0001 per share, and one Series F Warrant to purchase one share of common stock, and (ii) 14,586,400 prefunded units, which we refer to the Pre-Funded Units, with each Pre-Funded Unit being comprised of one pre-funded warrant, or a Pre-Funded Warrant, to purchase one share of common stock and one Series F Warrant. In connection with this public offering, A.G.P., as the underwriter, exercised the option practically in full, for 3,333,300 shares of common stock and 3,333,300 Series F Warrants. The offering price to the public was \$0.45 per Unit and \$0.449 per Pre-Funded Unit. The net proceeds to the Company from the offering and the exercise of the underwriter's over-allotment option were approximately \$10.7 million, after deducting underwriting discounts and commissions and payment of other estimated expenses associated with the offering, but excluding the proceeds, if any, from the exercise of Series F Warrants and the Pre-Funded Warrants sold in the offering.

Registration Clearance for CGuard<sup>TM</sup> MicroNet<sup>®</sup> in Brazil

On July 23, 2020, we announced that we obtained registration from the Brazilian registration authority, Agéncia Nacional de Vigiláncia Sanitária (ANVISA), for our CGuard MicroNet covered stent, clearing it for sale and distribution in Brazil.

### New Trial Results for CGuard EPS

On June 10, 2020, we reported the publication of the results of our PARADIGM trial in the *EuroIntervention* journal. In that trial, 101 unselected consecutive real-life patients were treated with our CGuard MicroNET covered stent for carotid stenosis and were monitored for postprocedural neurologic events for a period of 12 months. The results displayed sustained protection against any such neurologic events. At 30 days, only one adverse event occurred (a minor transient stroke with no other strokes, myocardial infarctions, or deaths). Furthermore, those study results showed that no strokes occurred between 30 days and twelve months.

On June 25, 2020, we reported the results from an investigator-initiated SIBERIA randomized clinical trial of our CGuard EPS, which evaluated 30-day silent brain infarcts associated with the use of the Acculink<sup>TM</sup> conventional open-cell nitinol stent vs. our CGuard Micronet-covered stent. Those results displayed that CGuard had a statistically significant (greater than three-fold) reduction in the procedure-generated mean cerebral lesion volume relative to Acculink. At 30 days, there were zero new cerebral lessons in the CGuard arm, compared to six in the Acculink arm, also statistically significant.

### COVID-19 Developments

In an effort to contain and mitigate the spread of COVID-19, which the World Health Organization, or WHO, declared to be a pandemic on March 12, 2020, many countries have imposed unprecedented restrictions on travel, quarantines and other public health safety measures. We did not experience a significant COVID-19 related impact on our financial condition and results of operations in the first quarter 2020. However, procedures utilizing CGuard EPS, which are generally scheduled or non-emergency procedures, have mostly been postponed as hospitals shift resources to patients affected by COVID-19. To our knowledge, most European countries in which we operate are slowly reinstating elective procedures, but we do not know when the hospitals will resume to normal pre-pandemic levels with such procedures. We anticipate that the continuation of the pandemic and related restrictions and safety measures may result in a significant decline in sales of our products for the upcoming periods.

In response to significant market volatility and uncertainties relating to COVID-19 and in order to alleviate corporate operating expenses, our board of directors, or Board, and management took voluntary reductions of compensation, and the salaries of most of our employees were also reduced.

Effective April 1, 2020, the Board approved a 50% decrease in the annual cash compensation for non-employee directors, from an aggregate amount of \$154,000 to \$77,000.

On April 21, 2020, Marvin Slosman, our President, Chief Executive Officer and director, signed a waiver reducing his monthly base salary from \$33,333 to \$16,666 for the period beginning April 1, 2020 and ending on such date as Mr. Slosman was to determine. Craig Shore, our Chief Financial Officer, Chief Administrative Officer, Secretary and Treasurer, also signed a waiver reducing his monthly base salary from New Israeli Shekels, or NIS, 80,125 to NIS 40,063 for the period beginning April 1, 2020 and ending on such date as Mr. Shore was to determine.

Effective April 1, 2020, we reduced the annual salaries of most of our employees by 20% to 30% until further notice.

Based on a determination made by each of Mr. Slosman and Mr. Shore on June 10, 2020, following the closing of our underwritten public offering in June 2020, as described above, Mr. Slosman's and Mr. Shore's monthly base salaries were restored, to \$33,333 and NIS 80,125, respectively, effective as of June 1, 2020.

Each of the salaries for the remaining officers, directors and employees was similarly reinstated by no later than June 30, 2020.

### Release from Former Underwriter

The terms of our engagement of the underwriter for our September 2019 financing contained a purported 12 month right of first refusal in favor of such underwriter with respect to future financings. Due to, among other things, difficulties in the relationship with that prior underwriter and our need to raise additional funds to finance our ongoing operations, we engaged A.G.P. in May 2020 as underwriter for our June 2020 public offering, and again in July 2020 for the current offering.

On July 28, 2020, we entered into a settlement agreement and release with that prior underwriter, under which it provided us a final, unconditional release from any further obligations arising out of or related to the engagement agreements, underwriting agreements and placement agency agreements which we had been party to with it and with respect to any services which it had provided to us. We, in turn, provided the prior underwriter a final, unconditional release from any further obligations arising out of or related to the prior agreements and services.

As consideration for the final release provided to us, we will pay to the prior underwriter \$400,000 in cash and reduce, to \$0.495, the exercise price per share of warrants to purchase 274,029 shares of our common stock that had been issued by us to the prior underwriter in various offerings that took place between March 2018 and September 2019. That reduced exercise price represents the exercise price for the Series F Warrants that we issued in our June 2020 public offering. The warrants that will be repriced had existing exercise prices per share ranging from \$187.50 to \$2.25 and a weighted average exercise price per share of \$7.32. All other terms of those warrants will remain unchanged.

### NYSE American Deficiency

On August 7, 2019, we received a notification from the NYSE American that we do not meet the continued listing standards of the NYSE American as set forth in Part 10 of the NYSE American Company Guide, or the 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 June 30, 2019, and net losses in our five most recent fiscal years ended December 31, 2018. As a result, we became subject to the procedures and requirements of Section 1009 of the Company Guide.

On October 11, 2019, the NYSE American accepted our plan to regain compliance with Section 1003(a)(iii) of the Company Guide by August 7, 2020. We are subject to periodic review during the period covered by the compliance plan. Failure to make progress consistent with the plan or to regain compliance with the continued listing standards by the end of the plan period could result in our common stock being delisted from the NYSE American.

As a result of our receipt of approximately \$10.7 million of net proceeds from our capital raise in our June 2020 public offering, as well as approximately \$1.5 million of additional funds from subsequent exercises of warrants and pre-funded warrants sold in that offering, and purchase options issued previously, we believe that we have sufficient stockholders' equity to regain compliance with Section 1003(a)(iii) of the Company Guide by August 7, 2020.

### **Corporate Information**

We were organized in the State of Delaware on February 29, 2008. Our principal executive offices are located at 4 Menorat Hamaor St., Tel Aviv, Israel 6744832. Our telephone number is (888) 776-6804. Our website address is www.inspire-md.com. Information accessed through our website is not incorporated into this prospectus supplement or the accompanying prospectus and is not a part of this prospectus supplement or the accompanying prospectus.

The Offering			
Common stock offered by us pursuant to this prospectus supplement	Shares of common stock, par value \$0.0001 per share, for an aggregate offering of up to approximately \$9,300,000.		
Common stock to be outstanding following the offering	Up to 51,264,093 shares, assuming the sale of the maximum aggregate amount of approximately \$9,300,000 of shares of our common stock at an assumed offering price of \$0.5099 per share, which is the last reported sale price for our common stock as reported on the NYSE American on July 24, 2020. The actual number of shares to be sold in the offering is not known currently and will furthermore vary depending on the sales prices in the offering.		
Manner of offering	"At-the-market offering" that may be made from time to time on the NYSE American or other market for our common stock in the United States through our agent, A.G.P. A.G.P. will make all sales using commercially reasonable efforts consistent with its normal trading and sales practices, on mutually agreeable terms between the sales agent and us. See "Plan of Distribution."		
Use of proceeds	We plan to use the net proceeds of this offering for research and development, sales and marketing, working capital and other general corporate purposes, and any other purposes that may be stated in any future prospectus supplement. See "Use of Proceeds."		
Risk factors	See "Risk Factors" beginning on page S-7 and the other information included in, or incorporated by reference into, this prospectus supplement for a discussion of certain factors you should carefully consider before deciding to		

NYSE American symbol for common stock

Our common stock is traded on the NYSE American market under the symbol "NSPR".

The number of shares of common stock to be outstanding immediately after this offering is based on 33,358,994 shares of common stock outstanding as of June 30, 2020. The number of shares outstanding as of June 30, 2020 excludes:

invest in shares of our common stock.

- 26,705,502 shares of common stock issuable upon exercise of outstanding warrants, with an exercise price ranging from \$0.495 to \$8,750 per share and having a weighted average exercise price of \$1.89 per share;
- 2,220,552 shares of common stock issuable upon conversion of the outstanding Series B Convertible Preferred Stock, or Series B Preferred Stock (including the payment of the cumulative dividends accrued on the Series B Preferred Stock in an aggregate of 951,665 shares of common stock but excluding additional shares of common stock that we will be required to issue to the holders of our Series B Preferred Stock upon conversion of shares of our Series B Preferred Stock as a result of the full ratchet anti-dilution price protection in the certificate of designation for the Series B Preferred Stock because the effective assumed public offering price of common stock in this offering is lower than \$0.45 per share), at the conversion price of \$0.45 per share and the stated value per share of \$33.00;
- 33,322 shares of common stock issuable upon conversion of the outstanding Series C Convertible Preferred Stock, or Series C Preferred Stock (excluding additional shares of common stock that we will be required to issue to the holders of our Series C Preferred Stock as a result of the full ratchet anti-dilution price protection in the certificate of designation for the Series C Preferred Stock because the effective assumed public offering price of common stock in this offering is lower than \$0.45 per share) at the conversion price of \$0.45 per share and the stated value per share of \$6.40;
- 60,928 shares of common stock issuable upon the exercise of outstanding options, with exercise prices ranging from \$0.001 to \$3,675,000 and having a weighted average exercise price of \$67,686 per share;
- 182,381 shares of common stock issuable upon the exercise of Restricted Stock Units outside our 2013 Long-Term Incentive Plan; and
- 483,491 shares of common stock available for future issuance under our 2013 Long-Term Incentive Plan.

### RISK FACTORS

An investment in our common stock involves certain risks, which should be carefully considered by prospective investors before investing. You should consider carefully the risk factors discussed below and those contained in the section entitled "Risk Factors" in the prospectus, in our Annual Report on Form 10-K for the year ended December 31, 2019, filed with the SEC on March 10, 2020, and our Quarterly Report on Form 10-Q for the quarter ended March 31, 2020, filed with the SEC on May 11, 2020, which are each incorporated herein by reference in their entirety, as well as any amendment or update to our risk factors reflected in subsequent filings with the SEC. If any of the risks or uncertainties described in our SEC filings actually occurs, our business, financial condition, results of operations or cash flow could be materially and adversely affected. 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 we have described are not the only ones facing our company. Additional risks and uncertainties not presently known to us or that we currently deem immaterial may also affect our business operations.

### Risks Relate to Our Common Stock, Preferred Stock and Warrants, and this Offering

The common stock offered under this prospectus supplement and the accompanying prospectus may be sold in "at-the-market" offerings, and investors who buy shares at different times will likely pay different prices.

Investors who purchase shares under this prospectus supplement and the accompanying prospectus at different times will likely pay different prices, and so may experience different outcomes in their investment results. We will have discretion, subject to market demand, to vary the timing, prices, and numbers of shares sold, and there is no minimum or maximum sales price. Investors may experience declines in the value of their shares as a result of share sales made at prices lower than the prices they paid.

### We have broad discretion in the use of the net proceeds of this offering and may not use them effectively.

We intend to use the net proceeds from this offering for research and development, sales and marketing, working capital and other general corporate purposes, and any other purposes that may be stated in any prospectus supplement. However, our management will have broad discretion in the application of the net proceeds from this offering and could spend the proceeds in ways that do not improve our results of operations or enhance the value of our common stock. The failure by management to apply these funds effectively could result in financial losses that could have a material adverse effect on our business, cause the price of our common stock to decline and delay the further development and commercialization of our products.

The actual number of shares we will issue under the sales agreement with A.G.P., at any one time or in total, and the aggregate proceeds that we receive as a result of those issuances, are uncertain.

Subject to certain limitations in the sales agreement with A.G.P. and in compliance with applicable law, we have the discretion to deliver placement notices to A.G.P. at any time throughout the term of the sales agreement. The number of shares that are sold to A.G.P. after delivering a placement notice, and the aggregate proceeds that we realize therefrom, will fluctuate based on the market price of our common stock during the sales period and limits we set with A.G.P.

The market prices of our common stock and our publicly traded warrants are subject to fluctuation and have been and may continue to be volatile, which could result in substantial losses for investors.

The market prices of our common stock and our Series A Warrants and Series B Warrants have been and are likely to continue to be highly volatile and could fluctuate widely in response to various factors, many of which are beyond our control, including the following:

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

In addition, the securities markets have from time to time experienced significant price and volume fluctuations that are unrelated to the operating performance of particular companies. Moreover, on March 12, 2020, the WHO declared COVID-19 to be a pandemic, and the COVID-19 pandemic has resulted in significant financial market volatility and uncertainty, which has persisted up through the current date. A continuation or worsening of the levels of market disruption and volatility seen in the recent past could have an adverse effect on our ability to access capital, on our business, results of operations and financial condition, and on the market price of our common stock.

Our common stock could be delisted from the NYSE American if we fail to regain compliance with the NYSE American's stockholders' equity continued listing standards. Our ability to publicly or privately sell equity securities and the liquidity of our common stock could be adversely affected if we are delisted from the NYSE American.

On August 7, 2019, we received a notice indicating that we do not meet certain of the NYSE American's continued listing standards as set forth in Part 10 of the Company Guide. Specifically, we were not in compliance with Section 1003(a)(iii) of the Company Guide because we reported stockholders' equity of less than \$6 million as of June 30, 2019, and had net losses in our five most recent fiscal years ended December 31, 2018. As a result, we had become subject to the procedures and requirements of Section 1009 of the Company Guide. On August 25, 2019, we submitted a plan of compliance to NYSE Regulation, addressing how we intend to regain compliance with Section 1003(a)(iii) of the Company Guide by August 7, 2020, and on October 11, 2019, NYSE American accepted our plan. We are subject to periodic review during the period covered by the compliance plan.

If we do not regain compliance by August 7, 2020, or fail to maintain our compliance with Section 1003(a)(iii) of the Company Guide following August 7, 2020, or if we do not maintain our progress consistent with the plan during the applicable plan period, the NYSE American will initiate delisting proceedings. As a result of our receipt of approximately \$10.7 million of net proceeds from our capital raise in our June 2020 public offering, as well as approximately \$1.5 million of additional funds from subsequent exercises of warrants and pre-funded warrants sold in that offering, and purchase options issued previously, we believe that we have sufficient stockholders' equity to regain compliance with Section 1003(a)(iii) of the Company Guide by August 7, 2020. Nevertheless, we will be subject to ongoing review for compliance with NYSE American requirements, and there can be no assurance that we will continue to remain in compliance with this standard.

Delisting from NYSE American would adversely affect our ability to raise additional financing through the public or private sale of equity securities, would significantly affect the ability of investors to trade our securities and would negatively affect the value and liquidity of our common stock. Delisting could also have additional negative ramifications, including the potential loss of confidence by employees, the loss of institutional investor interest and fewer business development opportunities.

## A low trading price could lead the NYSE American to take actions toward delisting our common stock, including immediately suspending trading in our common stock.

On January 7, 2019, we received notification from the NYSE American that our shares of common stock have been selling for a low price per share for a substantial period of time. Pursuant to Section 1003(f)(v) of the Company Guide, the NYSE American could take action to delist our common stock in the event that our common stock trades at levels viewed as abnormally low for a substantial period of time. NYSE American advised us that if our common stock trades below \$0.20 on a 30 trading day average, then it will be considered non-compliant with NYSE American's low selling price requirement. On March 29, 2019, we effected a 1-for-50 reverse stock split of our common stock.

Although on July 8, 2019, we received notice from NYSE American that we have resolved the continued listing deficiency with respect to low selling price pursuant to Section 1003(f)(v) of the Company Guide, in accordance with Section 1009(h) of the Company Guide, if we are again determined to be below any of the continued listing standards within 12 months of July 8, 2019, NYSE American will examine the relationship between the two incidents of noncompliance and re-evaluate our method of financial recovery from the first incident. NYSE Regulation will then take the appropriate action, which depending on the circumstances, may include truncating the compliance procedures described in Section 1009 of the Company Guide or immediately initiating delisting proceedings. If in the future we fall below the continued listing criterion of a minimum average share price of \$0.20 over a 30-day trading period, our common stock will be subject to immediate review by NYSE American. There can be no assurance that the market price of our common stock will remain above the levels viewed as abnormally low for a substantial period of time. In any event, other factors unrelated to the number of shares of our common stock outstanding, such as negative financial or operational results, could adversely affect the market price of our common stock, causing it to fall below the level viewed as a low selling price for a substantial period of time, and lead the NYSE American to immediately suspend trading in our common stock.

In addition, the NYSE American has advised us that its policy is to immediately suspend trading in shares of, and commence delisting procedures with respect to, a listed company if the market price of its shares falls below \$0.06 per share at any time during the trading day.

### If you purchase our securities sold in this offering you may experience immediate dilution in your investment as a result of this offering.

Because the price per share of common stock being offered in this offering may be substantially higher than the net tangible book value per share of our common stock, you may experience substantial dilution to the extent of the difference between the effective offering price per share of common stock 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 as of March 31, 2020, was approximately \$3.5 million, or \$0.81 per share of common stock. Net tangible book value per share is equal to our total tangible assets minus total liabilities, all divided by the number of shares of common stock outstanding. See "Dilution" beginning on page S-13 below for a more detailed discussion of the dilution you may incur if you participate in this offering.

Furthermore, the anti-dilution provisions of our Series B and C Preferred Stock may result in further dilution of your investment (see "Risk Factors — Risks Related Our Common Stock, Preferred Stock and Warrants, and this Offering —If the effective price per share of common stock being offered...").

If the effective price per share of common stock being offered in this offering is less than the respective current conversion price of our Series B or Series C Preferred Stock, we will be required to issue additional shares of common stock, as applicable, to the holders of the preferred stock, which will be dilutive to all of our other stockholders, including new investors in this offering.

The respective certificate of designation for our Series B Preferred Stock and Series C Preferred Stock contains anti-dilution provisions, which provisions require the lowering of the applicable conversion price, as then in effect, to the purchase price of equity or equity-linked securities issued in subsequent offerings. In accordance with this anti-dilution price protection, because the effective common stock purchase price in each of our March 2018 public offering, April 2018 public offering, July 2018 public offering, April 2019 public offering, September 2019 public offering and June 2020 public offering, was below the then current Series B Preferred Stock and the Series C Preferred Stock conversion price, we reduced the Series B Preferred Stock and the Series C Preferred Stock conversion price upon pricing of each such public offering. As a result of these provisions, if the effective price per share of common stock being offered in this offering is less than the respective current conversion price of our Series B or Series C Preferred Stock, each of these conversion prices shall be reduced to the effective price per share of common stock being offered in this offering. This reduction in the conversion prices will result in a greater number of shares of common stock being issuable upon conversion of the Series B Preferred Stock or Series C Preferred Stock for no additional consideration, causing greater dilution to our stockholders and investors in this offering. In addition, should we issue any securities following this offering at an effective common stock purchase price that is less than the then effective conversion price of our Series B Preferred Stock or Series C Preferred Stock, we will be required to further reduce the conversion prices of our Series B Preferred Stock and Series C Preferred Stock, which will result in a greater dilutive effect on our stockholders. Furthermore, as there is no floor price on the conversion price, we cannot determine the total number of shares issuable upon conversion. As such, it is possible that we may not have a sufficient number of authorized and available shares to satisfy the conversion of the Series B Preferred Stock or the Series C Preferred Stock if we enter into a future transaction that reduces the applicable conversion price. The foregoing features will increase the number of shares of common stock issuable upon conversion of the Series B Preferred Stock or Series C Preferred Stock for no additional consideration, assuming that the effective offering price of our common stock in a subsequent financing is lower than the conversion price of these securities then in effect, and will result in a greater dilutive effect on our stockholders.

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

We will need additional capital to fund our future operational plans but cannot assure you that we will be able to obtain sufficient capital from this offering or from other potential sources of financing. As part of any future financing, we are generally not restricted from issuing additional securities, 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. In particular, we may conduct one or more additional offerings simultaneously with, or following, this offering, subject to our seeking a waiver of the lock-up provisions imposed as part of our prior June 2020 offering. The issuance of securities in these or any other offerings may cause further dilution to our stockholders, including investors in this offering. In order to raise additional capital, such securities may be at prices that are not 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 securities 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.

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

Sales of a significant number of shares of our common stock or our warrants in the public market could harm the market prices of our common stock or warrants and make it more difficult for us to raise funds through future offerings of common stock or warrants. Our stockholders and the holders of our options and warrants may sell substantial amounts of our common stock or our publicly traded warrants in the public market. In addition, we will be required to issue additional shares of common stock to the holders of our Series B Preferred Stock upon conversion of shares of our Series B Preferred Stock and the payment of the dividends thereunder in common stock and to the holders of our Series C Preferred Stock upon conversion of such shares of our Series C Preferred Stock, as a result of the full ratchet anti-dilution price protection in the respective certificate of designation for the Series B Preferred Stock and the Series C Preferred Stock, if the effective common stock purchase price in a subsequent offering is less than the respective then-current conversion price of the Series B Preferred Stock or the Series C Preferred Stock, which in turn will increase the number of shares of common stock available for sale. See "Risk Factors — Risks Related to Our Common Stock, Preferred Stock and Warrants and this Offering — If the effective price per share of common stock being offered..."

In addition, the fact that our stockholders, option holders and warrant holders can sell substantial amounts of our common stock or our publicly traded warrants 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, or at all.

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. 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.

The Series B Preferred Stock provides for the payment of dividends in cash or in shares of our common stock, and we may not be permitted to pay such dividends in cash, which will require us to have shares of common stock available to pay the dividends.

Each share of the Series B Preferred Stock is entitled to receive cumulative dividends at the rate per share of 15% per annum of the stated value per share, until the fifth anniversary of the date of issuance of the Series B Preferred Stock, which is July 7, 2021. The dividends are payable, at our discretion, in cash, out of any funds legally available for such purpose, or in pay-in-kind shares of common stock calculated based on the conversion price, subject to adjustment as provided in the certificate of designation for the Series B Preferred Stock. The conversion price is subject to reduction if in the future we issue securities for less than the conversion price of our Series B Preferred Stock, as then in effect. As there is no floor price on the conversion price, we cannot determine the total number of shares issuable upon conversion or in connection with the dividend. It is possible that we will not have a sufficient number of available shares to pay the dividend in common stock, which would require the payment of the dividend in cash. We will not be permitted to pay the dividend in cash unless we are legally permitted to do so under Delaware law, which requires cash to be available from surplus or net profits, which may not be available at the time payment is due. In light of our recurring losses and negative cash flows from operating activities, we do not expect to have cash available to pay the dividends on our Series B Preferred Stock or to be permitted to make such payments under Delaware law, and will be relying on having available shares of common stock to pay such dividends, which will result in dilution to our stockholders. If we do not have such available shares, we may not be able to satisfy our dividend obligations.

### **CAPITALIZATION**

The following table summarizes our cash and cash equivalents, certain other items from our historical consolidated balance sheet, and capitalization as of March 31, 2020:

- on an actual basis;
- on a pro forma basis, giving effect to: (i) the underwritten public offering of an aggregate of 25,555,500 shares of our common stock or common stock equivalents (pre-funded warrants to purchase common stock), including shares of common stock issued upon exercise of the underwriter's over-allotment option, at \$0.45 per share, which offering closed on June 4, 2020; (ii) the exercise of 14,586,400 pre-funded warrants following that June 2020 offering; (iii) the exercise of 2,866,600 Series F Warrants following the closing of that June 2020 offering; (iv) the reduction of the conversion price of the Series B and Series C Preferred Stock to \$0.45 per share, effective as of June 2, 2020, pursuant to the full ratchet anti-dilution price protection in the respective certificates of designation for those series of preferred stock, resulting in 1,948,699 additional shares of common stock becoming issuable upon conversion of those series of preferred stock, which was also triggered by that June 2020 offering; and (v) the exercise of 1,976 of the purchase options that we issued to Dawson James Securities, Inc., or Dawson James, the placement agent for our July 2016 public offering, which exercise occurred following our June 2020 offering; and

• on a pro forma as adjusted basis, giving effect to the sale by us of 18,249,496 shares of common stock in this offering at an assumed public offering price of \$0.5099 per share, the last reported sale price for our common stock as reported on the NYSE American on July 24, 2020, after deducting the estimated commissions at the fixed commission rate of 3.0%, as well as estimated offering expenses.

The as adjusted information below is illustrative only and our capitalization following the completion of this offering is subject to various adjustments. You should read this table together with "Management's Discussion and Analysis of Financial Condition and Results of Operations" and our financial statements and the related notes for the quarter ended March 31, 2020, which were filed with the SEC as part of our Quarterly Report on Form 10-Q for the quarter ended March 31, 2020, which are incorporated by reference into this prospectus supplement.

March 31, 2020 (in thousands) (unaudited) Pro Forma Actual Pro Forma As Adjusted Cash and cash equivalents 3,141 15,307 24.226 **Equity:** Common stock, par value \$0.0001 per share – 150,000,000 shares authorized; 4,338,910 shares issued and outstanding actual, 34,963,296 shares outstanding pro forma and 53,212,792 shares outstanding pro forma as adjusted \$ 3 Preferred stock, par value \$0.0001 per share - 5,000,000 shares authorized: Series A Preferred Stock, par value \$0.0001 per share; none issued and outstanding actual and as adjusted Series B Convertible Preferred Stock, par value \$0.0001 per share; 17,303 shares issued and outstanding actual and as adjusted Series C Convertible Preferred Stock, par value \$0.0001 per share; 26,558 shares issued and outstanding actual and as adjusted 163,087 184,167 Additional paid-in capital 175,250 Accumulated deficit (159,610)(159,610)(159,610)\$ Total equity 3,477 15,643 24,562

Our capitalization will increase by the net proceeds that we receive from sales of our common stock, which will depend on the number of shares actually sold and the offering price for such shares. We are limited to the sale of not more than approximately \$9,300,000 of shares of our common stock pursuant to the sales agreement.

The above discussion and table are based on 4,338,910 shares of common stock outstanding (34,963,296 shares outstanding, on a pro forma basis) as of March 31, 2020, and exclude as of that date, on a pro forma basis, after taking into account our June 2020 public offering and all related changes described in the second bullet point above under "Capitalization":

• 4,016,597 shares of common stock issuable upon exercise of outstanding warrants, with an exercise price ranging from \$1.80 to \$32,266 per share and having a weighted average exercise price of \$9.77 per share;

- 555,138 shares of common stock issuable upon conversion of the outstanding Series B Convertible Preferred Stock, or Series B Preferred Stock (including the payment of the cumulative dividends accrued on the Series B Preferred Stock in an aggregate of 237,916 shares of common stock but excluding any additional shares of common stock that we would be required to issue to the holders of our Series B Preferred Stock upon conversion of shares of our Series B Preferred Stock as a result of the full ratchet anti-dilution price protection in the certificate of designation for the Series B Preferred Stock, to the extent that the effective public offering price of common stock in this offering would be lower than \$1.80 per share), at the conversion price of \$1.80 per share and the stated value per share of \$33.00;
- 94,428 shares of common stock issuable upon conversion of the outstanding Series C Convertible Preferred Stock, or Series C Preferred Stock (excluding additional shares of common stock that we would be required to issue to the holders of our Series C Preferred Stock as a result of the full ratchet anti-dilution price protection in the certificate of designation for the Series C Preferred Stock, to the extent that the effective public offering price of common stock in this offering would be lower than \$1.80 per share) at the conversion price of \$1.80 per share and the stated value per share of \$6.40;
- 60,929 shares of common stock issuable upon the exercise of outstanding options, with exercise prices ranging from \$0.001 to \$3,675,000 and having a weighted average exercise price of \$67,720 per share;
- 182,381 shares of common stock issuable upon the exercise of Restricted Stock Units outside our 2013 Long-Term Incentive Plan; and
- 483,491 shares of common stock available for future issuance under our 2013 Long-Term Incentive Plan.

### 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 March 31, 2020, was approximately \$3.5 million, or approximately \$0.81 per share of common stock, based upon 4,338,910 shares outstanding.

Our net tangible book value of our common stock as of March 31, 2020 on a pro forma basis (after giving effect to our June 2020 offering and all related changes, as described in the second bullet point under "Capitalization" above), was approximately \$15.7 million, or approximately \$0.45 per share of common stock, based upon 34,963,296 shares outstanding on a pro forma basis.

Net tangible book value per share (on an actual or pro forma basis) is equal to our total tangible assets, less our total liabilities, divided by the total number of shares outstanding (on an actual or pro forma basis) as of March 31, 2020.

After giving effect to the sale of up to a maximum aggregate amount of approximately \$9,300,000 of shares of our common stock at an assumed offering price of \$0.5099 per share, which is the last reported sale price for our common stock as reported on the NYSE American on July 24, 2020, and after deducting estimated offering commissions payable by us, our net tangible book value as of March 31, 2020 on a pro forma as adjusted basis (after giving effect to our June 2020 offering and all related changes, as described in the second bullet point under "Capitalization" above), would have been approximately \$24.6 million, or \$0.46 per share of common stock. This represents an immediate increase in the net tangible book value of \$0.01 per share to our existing stockholders and an immediate and substantial dilution in net tangible book value of \$0.05 per share to new investors who purchase our common stock in the offering.

The following table illustrates this calculation on a per share basis:

Assumed offering price per share	\$ 0.5099
Net tangible book value per share	\$ 0.81
Pro forma decrease in net tangible book value per share	 0.36
Pro forma net tangible book value per share as of March 31, 2020	0.45
Increase in net tangible book value per share attributable to the offering	\$ 0.01
Pro forma as adjusted net tangible book value per share after giving effect to the offering	\$ 0.46
Dilution in net tangible book value per share to new investors	\$ 0.05

The number of shares of our common stock to be outstanding immediately after this offering is based on 4,338,910 shares of our common stock outstanding (actual) or 34,963,296 shares outstanding (on a pro forma basis) as of March 31, 2020, before the offering.

The foregoing table does not give effect to the exercise of any outstanding options or warrants. To the extent options and warrants are exercised, there may be further dilution to new investors.

The above discussion and table are based on 4,338,910 shares of common stock outstanding (actual) or 34,963,296 shares outstanding (on a pro forma basis) as of March 31, 2020 and exclude as of that date, on a pro forma basis, after taking into account our June 2020 public offering and all related changes described in the second bullet point above under "Capitalization":

- 4,016,597 shares of common stock issuable upon exercise of outstanding warrants, with an exercise price ranging from \$1.80 to \$32,266 per share and having a weighted average exercise price of \$9.77 per share;
- 555,138 shares of common stock issuable upon conversion of the outstanding Series B Preferred Stock (including the payment of the cumulative dividends accrued on the Series B Preferred Stock in an aggregate of 237,916 shares of common stock but excluding any additional shares of common stock that we would be required to issue to the holders of our Series B Preferred Stock upon conversion of shares of our Series B Preferred Stock as a result of the full ratchet anti-dilution price protection in the certificate of designation for the Series B Preferred Stock, to the extent that the effective public offering price of common stock in this offering would be lower than \$1.80 per share), at the conversion price of \$1.80 per share and the stated value per share of \$33.00;
- 94,428 shares of common stock issuable upon conversion of the outstanding Series C Preferred Stock (excluding additional shares of common stock that we would be required to issue to the holders of our Series C Preferred Stock as a result of the full ratchet anti-dilution price protection in the certificate of designation for the Series C Preferred Stock, to the extent that the effective public offering price of common stock in this offering would be lower than \$1.80 per share) at the conversion price of \$1.80 per share and the stated value per share of \$6.40;
- 60,929 shares of common stock issuable upon the exercise of outstanding options, with exercise prices ranging from \$0.001 to \$3,675,000 and having a weighted average exercise price of \$67,720 per share;
- 182,381 shares of common stock issuable upon the exercise of Restricted Stock Units outside our 2013 Long-Term Incentive Plan; and
- 483,491 shares of common stock available for future issuance under our 2013 Long-Term Incentive Plan.

### **USE OF PROCEEDS**

After giving effect to the sale of the maximum aggregate approximate \$9.3 million amount of shares of our common stock that are available under this prospectus supplement, we estimate that the maximum potential net proceeds we will receive will be approximately \$8.9 million, after deducting the agent's fees and estimated offering expenses. However, we cannot guarantee if or when these net proceeds will be received and the method by which they are offered to the public. The amount of proceeds from this offering will depend upon the number of shares of our common stock sold and the market price at which they are sold. There can be no assurance that we will be able to sell any shares under or fully utilize the sales agreement with A.G.P. as a source of financing. Any portion of the gross approximate \$9.3 million amount included in this prospectus supplement that is not sold or included in an active placement notice pursuant to the sales agreement may be made available later for sale in other offerings pursuant to the accompanying base prospectus. If no shares are sold under the sales agreement, the full approximate \$9.3 million of shares of common stock may be made available later for sale in other offerings pursuant to the accompanying base prospectus.

We intend to use the net proceeds of this offering for our operations, including, but not limited to, for research and development, sales and marketing, and working capital and other general corporate purposes. We do not currently have more specific plans or commitments with respect to the net proceeds from this offering and, accordingly, are unable to quantify the allocation of such proceeds among the various potential uses.

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

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

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

Until we use the net proceeds of this offering, we intend to hold such funds in cash or invest the funds in short-term, investment grade, interest-bearing securities.

### DIVIDEND POLICY

In the past, we have not declared or paid cash dividends on our common stock. We do not intend to pay cash dividends in the future, rather, we intend to retain future earnings, if any, to fund the operation and expansion of our business and for general corporate purposes.

### PLAN OF DISTRIBUTION

We have entered into the sales agreement with A.G.P., under which we may issue and sell our common stock having an aggregate offering price of up to approximately \$9,300,000 from time to time through A.G.P., acting as our sales agent. The sales agreement has been filed as an exhibit to our Current Report on Form 8-K filed with the SEC on July 28, 2020, which is incorporated by reference in this prospectus supplement. The actual dollar amount and number of shares of common stock we sell pursuant to this prospectus supplement will be dependent, among other things, on market conditions and our capital raising requirements. The sales of our common stock, if any, under the sales agreement may be made by any method permitted by law deemed to be an "at-the-market" offering as defined in Rule 415 under the Securities Act, including sales made directly on the NYSE American market, on any other existing trading market for our common stock or to or through a market maker or through an electronic communications network. If expressly authorized by us, A.G.P. may also sell our common stock in privately negotiated transactions. We expect that a vast majority of the shares of common stock to be sold pursuant to the sales agreement will be sold to the public and not in privately negotiated transactions.

Each time that we wish to issue and sell shares of our common stock under the sales agreement, we will provide A.G.P. with a placement notice describing the amount of shares to be sold or the gross proceeds to be raised in a given time period, the time period during which sales are requested to be made, any limitation on the amount of shares of common stock that may be sold in any single day, any minimum price below which sales may not be made or any minimum price requested for sales in a given time period and any other instructions relevant to such requested sales. Upon receipt of a placement notice, A.G.P., as our sales agent, will use commercially reasonable efforts, consistent with its normal trading and sales practices and applicable state and federal laws, rules and regulations and the rules of the NYSE American, to sell shares of our common stock under the terms and subject to the conditions of the placement notice and the sales agreement. We or A.G.P. may suspend the offering of common stock pursuant to a placement notice upon proper notice and subject to other conditions. A.G.P., in its sole discretion, may decline to accept any placement notice. During the term of the sales agreement, A.G.P. will not engage in any market making, bidding, stabilization or other trading activity with regard to our common stock if such activity would be prohibited under Regulation M or other anti-manipulation rules under the Securities Act.

A.G.P. will provide written confirmation to us no later than the opening of the trading day on the NYSE American market following the trading day on which shares of our common stock are sold through A.G.P. under the sales agreement. Each confirmation will include the number of shares sold on the preceding day, the net proceeds to us and the commissions payable by us to A.G.P. in connection with the sales.

We will pay A.G.P. commissions for its services in acting as agent in the sale of our common stock pursuant to the sales agreement. A.G.P. will be entitled to compensation at a fixed commission rate of 3.0% of the gross proceeds from the sale of our common stock pursuant to the sales agreement, less certain concessions, as applicable, which concessions if applicable shall not in any way reduce the maximum amount of proceeds to be received by us as set forth on the cover of this prospectus supplement. Because there are no minimum sale requirements as a condition to this offering, the actual total public offering price, commissions and net proceeds to us, if any, are not determinable at this time. We estimate that the total expenses for this offering, excluding compensation payable to A.G.P. and certain expenses reimbursable to A.G.P. under the terms of the sales agreement, will be approximately \$40,000.

Settlement for sales of common stock will occur on the third trading day following the date on which any sales are made (or on such other date as is industry practice for regular-way trading), unless otherwise specified in the applicable placement notice, in return for payment of the net proceeds to us. There are no arrangements to place any of the proceeds of this offering in an escrow, trust or similar account. Sales of our common stock as contemplated in this prospectus supplement will be settled through the facilities of The Depository Trust Company or by such other means as we and A.G.P. may agree upon.

In connection with the sale of the common stock on our behalf, A.G.P. may, and will with respect to sales effected in an "at-the-market" offering, be deemed to be an "underwriter" within the meaning of the Securities Act, and the compensation of A.G.P. may be deemed to be underwriting commissions or discounts. We have agreed to provide indemnification and contribution to A.G.P. against certain civil liabilities, including liabilities under the Securities Act. We also have agreed to reimburse A.G.P. for its reasonable out-of-pocket expenses, including the fees and disbursements of counsel to A.G.P., incurred in connection with the offering, up to a maximum amount of \$40,000.

The offering pursuant to the sales agreement will terminate upon the earlier of (i) the sale of all shares of common stock subject to the agreement and (ii) termination of the sales agreement as permitted therein. We may terminate the sales agreement in our sole discretion at any time by giving 10 days' prior notice to A.G.P. A.G.P. may terminate the sales agreement under the circumstances specified in the sales agreement and in its sole discretion at any time by giving 10 days' prior notice to us.

This prospectus supplement and the accompanying base prospectus may be made available in electronic format on a website maintained by A.G.P., and A.G.P. may distribute this prospectus supplement and the accompanying base prospectus electronically.

A.G.P. has no relationship with us other than its current role as sales agent for our offering of common stock pursuant to the sales agreement described above. In June 2020, A.G.P. managed our underwritten public offering of units consisting of shares of common stock, pre-funded warrants to purchase common stock, and warrants. A.G.P. and its affiliates previously have provided, and may in the future provide, various investment banking and other financial services for us and our affiliates, for which services it has received, and may in the future receive, customary fees.

### LEGAL MATTERS

The validity of the securities being offered by this prospectus and legal matters relating to applicable laws will be passed upon for us by McDermott Will & Emery LLP, New York, New York, A.G.P. is being represented in connection with this offering by Olshan Frome Wolosky LLP, New York, New York.

### **EXPERTS**

The consolidated financial statements incorporated in this prospectus supplement by reference to the Annual Report on Form 10-K for the year ended December 31, 2019 have been so incorporated in reliance on the report (which contains an explanatory paragraph relating to the Company's ability to continue as a going concern as described in Note 1b to the financial statements) of 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 ADDITIONAL INFORMATION ABOUT US

We have filed a registration statement on Form S-3 with the SEC for the securities we are offering by this prospectus supplement. This prospectus supplement does not include all of the information contained in the registration statement. You should refer to the registration statement and its exhibits for additional information. We are subject to the informational requirements of the Securities Exchange Act of 1934, as amended, and in accordance therewith we file annual, quarterly, and other reports, proxy statements and other information with the SEC. Such reports, proxy statements and other information, including the Registration Statement, and exhibits and schedules thereto, are available to the public through the SEC's website at http://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 SEC.

We have filed with the SEC 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 for free at www.sec.gov. The registration statement and the documents referred to below under "Incorporation of Certain Information By Reference" are also available on our website, www.inspire-md.com.

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

### INCORPORATION OF CERTAIN DOCUMENTS BY REFERENCE

This prospectus supplement incorporates by reference the documents set forth below that we have previously filed with the SEC:

The following documents are incorporated by reference into this document:

- Our Annual Report on Form 10-K for the fiscal year ended December 31, 2019, filed with the Securities and Exchange Commission on March 10, 2020.
- Our Quarterly Report on Form 10-Q for the fiscal quarter ended March 31, 2020, filed with the Securities and Exchange Commission on May 11, 2020.
- Our Current Reports on Form 8-K (other than portions thereof furnished under Item 2.02 or Item 7.01 of Form 8-K and exhibits accompanying such reports that relate to such items) filed with the Securities and Exchange Commission on January 6, 2020, January 28, 2020, January 30, 2020, April 27, 2020, May 12, 2020, June 8, 2020, June 10, 2020, June 25, 2020, July 23, 2020 and July 28, 2020.

We also incorporate by reference into this prospectus supplement and accompanying prospectus all documents we file or furnish under Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act: (i) after the initial filing date of the registration statement of which this prospectus supplement is a part and before the effectiveness of the registration statement; and (ii) until all of the common stock to which this prospectus supplement and the accompanying prospectus relates has been sold or the offering is otherwise terminated. Any statement contained herein or in a document incorporated or deemed to be incorporated by reference herein shall be deemed to be modified or superseded for purposes hereof to the extent that a statement in any other subsequently filed document which is also incorporated or deemed to be incorporated herein modifies or supersedes such statement. Any such statement so modified or superseded shall not be deemed, except as so modified or superseded, to constitute a part of this prospectus supplement.

### **PROSPECTUS**



InspireMD, Inc.

\$30,000,000 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 \$30,000,000.

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 American under the symbol "NSPR." On February 20, 2018, the last reported sale price of our common stock as reported on the NYSE American was \$4.46 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.

As of February 14, 2018, the aggregate market value of our outstanding common stock held by non-affiliates, or the public float, was approximately \$9,120,979, which was calculated based on 1,634,584 shares of our outstanding common stock held by non-affiliates and a price of \$5.58 per share, the last reported sale price for our common stock on February 14, 2018. We have not offered any securities pursuant to General Instruction I.B.6 of Form S-3 during the 12 calendar months prior to and including the date of this prospectus.

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 4 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 February 23, 2018

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### ABOUT THIS PROSPECTUS

This prospectus is part of a registration statement on Form S-3 that we filed with the Securities and Exchange Commission using a "shelf' registration process. Under this shelf process, we may, from time to time, sell any combination of the securities described in this prospectus in one or more offerings up to a total amount of \$30,000,000.

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 supplement or issuer free writing prospectus, as applicable. You should assume that the information appearing in this prospectus, any prospectus supplement or any document incorporated by reference is accurate only as of the date of the applicable documents, regardless of the time of delivery of this prospectus or any sale of securities. Our business, financial condition, results of operations and prospects may have changed since that date.

### PROSPECTUS SUMMARY

This summary provides an overview of selected information contained elsewhere or incorporated by reference in this prospectus and does not contain all of the information you should consider before investing in our securities. You should carefully read the prospectus, the information incorporated by reference and the registration statement of which this prospectus is a part in their entirety before investing in our securities, including the information discussed under "Risk Factors" in this prospectus and the documents incorporated by reference and our financial statements and related notes 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.

### Overview

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

Our CGuard<sup>TM</sup> carotid embolic prevention system ("CGuard EPS") combines MicroNet and a self-expandable nitinol stent in a single device for use in carotid artery applications. Our CGuard EPS received CE mark approval in the European Union in March 2013, and we launched its release on a limited basis in October 2014. In January 2015, a new version of CGuard, with a rapid exchange delivery system, received CE mark approval in Europe and in September 2015, we announced the full market launch of CGuard EPS in Europe. Subsequently, we launched CGuard EPS in Russia and certain countries in Latin America and Asia, and, in January 2018, received regulatory approval to commercialize CGuard EPS in India.

In April 2017, we had a pre-investigational device exemption ("IDE") submission meeting with the U.S. Food and Drug Administration regarding CGuard EPS where we presented materials that we believed would support a formal IDE submission seeking approval to conduct a human clinical trial in the United States which included our draft synopsis for the clinical trial design. We intend to make a formal submission once sufficient funds are available.

If we receive sufficient proceeds from future financings, we plan to develop CGuard EPS with a smaller delivery catheter (5 French gauge), which we intend to submit for CE mark approval. We cannot give any assurance that we will receive sufficient (or any) proceeds from any such financings or the timing of such financings, if ever. In addition, such additional financings may be costly or difficult to complete. Even if we receive sufficient proceeds from future financings, there is no assurance that we will be able to timely apply for CE mark approval following our receipt of such proceeds.

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

We are also developing a neurovascular flow diverter, which is an endovascular device that directs blood flow away from cerebral aneurysms in order to ultimately seal the aneurysms. Our flow diverter would utilize an open cell, highly flexible metal scaffold to which MicroNet would be attached. We have completed initial pre-clinical testing of this product in both simulated bench models and standard in vivo pre-clinical models. However, we have currently suspended further development of this product as we plan to focus our resources primarily on the further expansion of our sales and marketing activities for CGuard EPS.

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

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

In 2017, we decided to shift our commercial strategy to focus on sales of our products through local distribution partners and our own internal sales initiatives to gain greater reach into all the relevant clinical specialties and to expand our geographic coverage. Pursuant to our new strategy, we completed our transition away from a single distributor covering 18 European countries to a direct distribution model intended to broaden our sales efforts to key clinical specialties. All territories previously covered by our former European distributor were transferred to local distributors by June 2017. We also have begun to participate in international trade shows and industry conferences in an attempt to gain market exposure and brand recognition.

### **Corporate Information**

We were organized in the State of Delaware on February 29, 2008. Our principal executive offices are located at 4 Menorat Hamaor St., Tel Aviv, Israel 6744832. Our telephone number is (888) 776-6804. 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 \$30,000,000 of common stock, preferred stock, warrants and/or units in one or more offerings and in any combination. This prospectus provides you with a general description of the securities we may offer. A prospectus supplement, which we will provide each time we offer securities, will describe the specific amounts, prices and terms of these securities.

#### Common Stock

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

### **Preferred Stock**

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

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

### Warrants

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

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

#### Units

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

### 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 December 31, 2017, 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," "believes," "estimates," and 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, and substantial doubt regarding our ability to continue as a going concern;
- our need to raise additional capital to meet our business requirements in the future and such capital raising may be costly or difficult to obtain and could
  dilute out stockholders' ownership interests;
- our ability to regain compliance with NYSE American listing standards;
- our ability to generate revenues from our products and obtain and maintain regulatory approvals for our products;
- our ability to adequately protect our 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 our technology is an attractive alternative to other procedures and products:

- market acceptance of our 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;
- 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;
- inability to carry out research, development and commercialization plans;
- loss of a key customer or supplier;
- technical problems with our research and products and potential product liability claims;
- product malfunctions;
- price increases for supplies and components;
- 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;
- adverse federal, state and local government regulation, in the United States, Europe or Israel and other foreign jurisdictions;
- the fact that we conduct business in multiple foreign jurisdictions, exposing us to foreign currency exchange rate fluctuations, logistical and communications challenges, burdens and costs of compliance with foreign laws and political and economic instability in each jurisdiction;
- the escalation of hostilities in Israel, which could impair our ability to manufacture our products; and
- loss or retirement of key executives and research scientists.

You should review carefully the section entitled "Risk Factors" beginning on page 4 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 we specify another use in the applicable prospectus supplement, we will use the net proceeds from the sale of the securities offered by us for general corporate purposes, including funding of our development programs, commercial planning and sales and marketing expenses, general and administrative expenses, acquisition or licensing of additional product candidates or businesses and working capital.

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

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

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

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

### DESCRIPTION OF CAPITAL STOCK

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

We have authorized 155,000,000 shares of capital stock, par value \$0.0001 per share, of which 150,000,000 are shares of common stock and 5,000,000 are shares of "blank check" preferred stock. On February 13, 2018, there were 1,675,592 shares of common stock, 17,303 shares of Series B Convertible Preferred Stock, 741,651 shares of Series C Convertible Preferred Stock and 750 shares of Series D Convertible Preferred Stock issued and outstanding. We currently have 200,000 shares of preferred stock designated as Series A Preferred Stock, 500,000 shares of preferred stock designated as Series B Convertible Preferred Stock, 1,172,000 shares of preferred stock designated as Series D Convertible Preferred Stock. 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-thirty-five reverse stock split of our common stock that occurred on February 7, 2018.

### **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 American under the symbol "NSPR."

### Preferred Stock

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

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

- the number of shares constituting that series and the distinctive designation of that series, which number may be increased or decreased (but not below the number of shares then outstanding) from time to time by action of the board of directors;
- the dividend rate and the manner and frequency of payment of dividends on the shares of that series, whether dividends will be cumulative, and, if so, from which date;
- whether that series will have voting rights, in addition to any voting rights provided by law, and, if so, the terms of such voting rights;
- whether that series will have conversion privileges, and, if so, the terms and conditions of such conversion, including provision for adjustment of the
  conversion rate in such events as the board of directors may determine;
- whether or not the shares of that series will be redeemable, and, if so, the terms and conditions of such redemption;
- whether that series will have a sinking fund for the redemption or purchase of shares of that series, and, if so, the terms and amount of such sinking fund;
- whether or not the shares of the series will have priority over or be on a parity with or be junior to the shares of any other series or class in any respect;

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

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

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

Although our board of directors has no intention at the present time of doing so, 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.

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

#### Delaware Anti-Takeover Law

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

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

Section 203 defines a business combination to include:

- any merger or consolidation involving the corporation and the interested stockholder;
- any sale, transfer, pledge or other disposition involving the interested stockholder of 10% or more of the assets of the corporation;
- subject to exceptions, any transaction that results in the issuance or transfer by the corporation of any stock of the corporation to the interested stockholder; or
- the receipt by the interested stockholder of the benefit of any loans, advances, guarantees, pledges or other financial benefits provided by or through the corporation.

In general, Section 203 defines an interested stockholder as any entity or person beneficially owning 15% or more of the outstanding voting stock of the corporation and any entity or person affiliated with, or 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 held of record by more than 2,000 stockholders. Our certificate of incorporation and bylaws do not opt out of Section 203.

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

### Certificate of Incorporation and Bylaws

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

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

### DESCRIPTION OF WARRANTS

As of February 13, 2018, there were 181,912 shares of common stock that may be issued upon exercise of outstanding warrants.

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

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

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

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

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

### **Exercise of Warrants**

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

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

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

### **Enforceability of Rights By Holders of Warrants**

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

### Warrant Agreement Will Not Be Qualified Under Trust Indenture Act

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

### **Governing Law**

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

### **DESCRIPTION OF UNITS**

We may issue units comprised of one or more of the other securities described in this prospectus or any prospectus supplement in any combination. Each unit will be issued so that the holder of the unit is also the holder, with the rights and obligations of a holder, of each security included in the unit. The unit agreement under which a unit is issued may provide that the securities included in the unit may not be held or transferred separately, at any time or at any times before a specified date or upon the occurrence of a specified event or occurrence.

The applicable prospectus supplement will describe:

- the designation and the terms of the units and of the securities comprising the units, including whether and under what circumstances those securities may be held or transferred separately;
- any unit agreement under which the units will be issued;
- any provisions for the issuance, payment, settlement, transfer or exchange of the units or of the securities comprising the units; and
- whether the units will be issued in fully registered or global form.

### PLAN OF DISTRIBUTION

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

- the name or names of any underwriters, if any, and if required, any dealers or agents;
- the purchase price of the securities and the proceeds we will receive from the sale;
- any underwriting discounts and other items constituting underwriters' compensation;
- any discounts or concessions allowed or reallowed 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 reallowed or paid to dealers may be changed from time to time. Unless otherwise set forth in the prospectus supplement, the obligations of the underwriters to purchase the offered securities will be subject to conditions precedent, and the underwriters will be obligated to purchase all of the offered securities, if any are purchased.

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 American, subject to official notice of issuance. Any underwriters to whom securities are sold by us for public offering and sale may make a market in the securities, but such underwriters will not be obligated to do so and may discontinue any market making at any time without notice.

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

### LEGAL MATTERS

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

### **EXPERTS**

The financial statements incorporated in this Prospectus by reference to the Annual Report on Form 10-K for the year ended December 31, 2017 have been so incorporated in reliance on the report (which contains an explanatory paragraph relating to the Company's ability to continue as a going concern as described in Note 1 to the financial statements) of Kesselman & Kesselman, an independent registered public accounting firm and a member firm of PricewaterhouseCoopers International Limited, given on the authority of said firm as experts in auditing and accounting.

### WHERE YOU CAN FIND MORE INFORMATION

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

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

We have filed with the Securities and Exchange Commission a registration statement under the Securities Act of 1933, as amended, relating to the offering of these securities. The registration statement, including the attached exhibits, contains additional relevant information about us and the securities. This prospectus does not contain all of the information set forth in the registration statement. You can obtain a copy of the registration statement, at prescribed rates, from the Securities and Exchange Commission at the address listed above, or for free at www.sec.gov. The registration statement and the documents referred to below under "Incorporation of Certain Information By Reference" are also available on our website, www.inspire-md.com.

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

### INCORPORATION OF CERTAIN INFORMATION BY REFERENCE

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

- Our Annual Report on Form 10-K for the fiscal year ended December 31, 2017, filed with the Securities and Exchange Commission on February 13, 2018;
- Our Current Report on Form 8-K, filed with the Securities and Exchange Commission on January 8, 2018 (two reports);
- Our Current Report on Form 8-K, filed with the Securities and Exchange Commission on January 19, 2018;
- Our Current Report on Form 8-K, filed with the Securities and Exchange Commission on January 26, 2018;
- Our Current Report on Form 8-K, filed with the Securities and Exchange Commission on February 1, 2018;
- Our Current Report on Form 8-K, filed with the Securities and Exchange Commission on February 7, 2018;
- Our Current Report on Form 8-K, filed with the Securities and Exchange Commission on February 14, 2018;
- Our Current Report on Form 8-K, filed with the Securities and Exchange Commission on February 20, 2018;
- Our Current Report on Form 8-K, filed with the Securities and Exchange Commission on February 21, 2018; 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. Any statement contained in a document incorporated by reference into this prospectus will be deemed to be modified or superseded for the purposes of this prospectus to the extent that a later statement contained in this prospectus or in any other document incorporated by reference into this prospectus modifies or supersedes the earlier statement. Any statement so modified or superseded will not be deemed, except as so modified or superseded, to constitute a part of this prospectus. 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 reports or documents that have 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: 4 Menorat Hamaor St., Tel Aviv, Israel 6744832, Attention: Craig Shore, Chief Financial Officer, or made by phone at (888) 776-6804. 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.



### Up to \$9,300,000 Common Stock

### PROSPECTUS SUPPLEMENT

A.G.P.

July 28, 2020