

Lightwave Logic, Inc.
Form S-3
May 02, 2018

As Filed with the Securities and Exchange Commission on May 2, 2018

Registration No. 333-

**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549**

FORM S-3 REGISTRATION STATEMENT

UNDER THE SECURITIES ACT OF 1933

LIGHTWAVE LOGIC, INC.

(Name of Registrant As Specified in its Charter)

Nevada

*(State or Other Jurisdiction of
Incorporation or Organization)*

3080

*(Primary Standard Industrial
Classification Code Number)*

82-049-7368

(I.R.S. Employer Identification No.)

**369 Inverness Parkway, Suite 350
Englewood, Colorado 80112
(720) 340-4949**

(Address and Telephone Number of Principal Executive Offices)

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Approximate Date of Proposed Sale to the Public:

As soon as practicable after this Registration Statement becomes effective.

If the only securities being registered on this Form are being offered pursuant to dividend or interest reinvestment plans, please check the following box: "

If any of the securities being registered on this Form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933, other than securities offered only in connection with dividend or interest reinvestment plans, check the following box:

If this Form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, please check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. "

If this Form is a post-effective amendment filed pursuant to Rule 462(c) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. "

If this Form is a registration statement pursuant to General Instruction I.D. or a post-effective amendment thereto that shall become effective upon filing with the Commission pursuant to Rule 462(e) under the Securities Act, check the following box. "

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If this Form is a post-effective amendment to a registration statement filed pursuant to General Instruction I.D. filed to register additional securities or additional classes of securities pursuant to Rule 413(b) under the Securities Act, check the following box. "

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. See the definitions of “large accelerated filer,” “accelerated filer,” “smaller reporting company,” and “emerging growth company” in Rule 12b-2 of the Exchange Act.

Large accelerated filer	..	Accelerated filer	b
Non-accelerated filer	..	Smaller reporting company	..
<i>(Do not check if a smaller reporting company)</i>		Emerging growth company	..

If an emerging growth company, indicate by checkmark if the registrant has not elected to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 7(a)(2)(B) of the Securities Act. ”

STATEMENT PURSUANT TO RULE 429

The registrant is filing a single prospectus in this registration statement, pursuant to Rule 429 under the Securities Act of 1933. The prospectus is a combined prospectus relating to (i) 5,000,000 shares of the common stock, par value \$0.001 per share (Common Stock) of Lightwave Logic, Inc., a Nevada corporation (the Company) that are being registered hereunder (ii) 196,732 shares of Common Stock that are currently registered and remain unsold under Pre-Effective Amendment No. 2 to Form S-1 (File No. 333-217384); (iii) 2,845,417 shares of Common Stock (including 366,611 shares of Common Stock issuable as commitment shares), and 3,977,568 shares of Common Stock underlying outstanding warrants that are currently registered and remain unsold under Post-Effective Amendment No. 1 to Form S-1 (File No. 333-209531); (iv) 1,261,510 shares of Common Stock, and 2,816,199 shares of Common Stock underlying outstanding warrants that are currently registered and remain unsold under Post-Effective Amendment No. 2 to Form S-1 (File No. 333-206059); (v); 1,869,300 shares of Common Stock, and 3,738,600 shares of Common Stock underlying outstanding warrants that are currently registered and remain unsold under Post-Effective Amendment No. 3 to Form S-1 (File No. 333-198665) (collectively, the Prior Registration Statements), as amended, originally filed with the Securities and Exchange Commission on June 1, 2017, February 16, 2016, August 3, 2015 and September 9, 2014, respectively, and each subsequently declared effective. Pursuant to Rule 429 under the Securities Act of 1933, as amended, this registration statement on Form S-3 upon effectiveness will serve as a post-effective amendment to each of the Prior Registration Statements. If securities previously registered under the Prior Registration Statements are offered and sold before the effective date of this registration statement, the amount of previously registered securities so sold will not be included in the prospectus hereunder.

CALCULATION OF REGISTRATION FEE

TITLE OF EACH CLASS OF SECURITIES TO BE REGISTERED	AMOUNT TO BE REGISTERED(1)	PROPOSED	PROPOSED	AMOUNT OF REGISTRATION FEE(2)
		MAXIMUM OFFERING PRICE PER SHARE	MAXIMUM AGGREGATE OFFERING PRICE	
Common Stock, par value \$0.001 per share	6,172,959(3)	\$ -	\$ -	\$ -
Common Stock, par value \$0.001 per share	5,000,000(4)	1.09(5)	5,450,000(5)	678.53
Common Stock underlying warrants	10,532,367(3)	-	-	-
TOTAL	21,705,326		\$ -	\$ 678.53

(1)

Pursuant to Rule 416 under the Securities Act of 1933, as amended (the Securities Act), the securities being registered hereunder also include such indeterminate number of additional shares of Common Stock as may from time to time be issued after the date hereof as a result of stock splits, stock dividends, recapitalizations or similar transactions.

(2)

No registration fee is payable in connection with the aggregate of 16,705,326 shares of Common Stock (including shares of Common Stock underlying warrants) that were previously registered under the Prior Registration Statements, because such shares are being carried forward from the Prior Registration Statements pursuant to Rule 429 under the Securities Act. A registration fee is only payable in connection with the aggregate of 5,000,000 shares of Common Stock that were not previously registered under the Prior Registration Statements, with a proposed maximum aggregate offering price of \$5,450,000. See Statement Pursuant to Rule 429 above.

(3)

16,705,326 shares of Common Stock registered under the registrant's registration statements on Form S-1 (File Nos. 333-217384, 333-209531, 333-206059 and 333-198665) (the Prior Registration Statements) are included in this registration statement. Pursuant to Rule 429(b), this registration statement, upon effectiveness, constitutes a post-effective amendment to the Prior Registration Statements, which post-effective amendment shall hereafter become effective concurrently with the effectiveness of this registration statement and in accordance with Section 8(c)

of the Act. If securities previously registered under the Prior Registration Statements are offered and sold before the effective date of this registration statement, the amount of previously registered securities so sold will not be included in the prospectus hereunder.

(4)

5,000,000 shares of Common Stock not previously registered under the Prior Registration Statements are being newly registered hereunder.

(5)

The offering price has been estimated solely for the purpose of computing the amount of the registration fee in accordance with Rule 457(c) under the Securities Act of 1933. The price per share and aggregate offering price are based on the average of the high and low sales prices of the registrant's common stock on April 26, 2018, as reported on the OTC Markets (OTCQB).

The Registrant amends this registration statement on such date or dates as may be necessary to delay its effective date until the Registrant shall file a further amendment which specifically states that this registration statement shall hereafter become effective in accordance with Section 8(a) of the Securities Act of 1933, or until the registration statement shall become effective on such date as the Commission, acting pursuant to Section 8(a), may determine.

EXPLANATORY NOTE

As of April 10, 2018, aggregate market value of the voting and non-voting common equity held by non-affiliates of the registrant was approximately 87,750,650, and as such the registrant is eligible pursuant to General Instruction I.B.1 to utilize Form S-3 for securities to be offered for cash for the account of any person other than the registrant. As such, this registration statement is being filed on Form S-3 for the registration of 5,000,000 shares of Common Stock, and upon effectiveness this registration statement will also serve as a post-effective amendment to the Prior Registration Statements.

The information in this prospectus is not complete and may be changed. We may not sell these securities until the registration statement filed with the Securities and Exchange Commission becomes effective. This prospectus is not an offer to sell these securities and we are not soliciting offers to buy these securities in any state where the offer or sale is not permitted.

PRELIMINARY PROSPECTUS SUBJECT TO COMPLETION

May 2, 2018

21,705,326 Shares of Common Stock

This prospectus relates to the resale of up to 21,705,326 shares of the Common Stock, par value \$0.001 per share (Common Stock) of Lightwave Logic, Inc. (Company , us or we) which may be offered by the selling securityholders identified in this prospectus, from time to time. Of the shares of Common Stock being offered by the selling securityholders, 5,563,343 shares (including 366,611 commitment shares) have been or may be issued pursuant to a purchase agreement between Lincoln Park Capital Fund, LLC (Lincoln Park or LPC) and the Company, dated as of January 29, 2016 (the Purchase Agreement). See The Lincoln Park Transaction for a description of the Purchase Agreement, and Selling Securityholders for additional information regarding Lincoln Park and the other selling securityholders.

The registration statement of which this prospectus is a part is registering for sale up to 5,000,000 additional shares of our Common Stock by Lincoln Park that may be issued to Lincoln Park pursuant to the Purchase Agreement, in addition to such shares which are being carried over from the Prior Registration Statements pursuant to Rule 429 under the Securities Act of 1933, as amended (the Securities Act) as set forth below.

We previously filed a registration statement on Form S-1 (File No. 333- 217384) with the SEC on April 19, 2017, which was amended on May 19, 2017 and June 2, 2017 and declared effective on June 15, 2017 (the 2017 Registration Statement), registering for resale up to 5,000,000 shares of Common Stock that have been or may be issued to Lincoln Park pursuant to the Purchase Agreement, of which 196,732 remain available for resale as of April 20, 2018.

We also previously filed a registration statement on Form S-1 (File No. 333-209531) with the SEC on February 16, 2016, which was initially declared effective on April 7, 2016 (the 2016 Registration Statement), registering for resale up to 12,955,136 shares of our Common Stock related to the Purchase Agreement and a separate private placement (including 5,000,000 shares issuable as commitment shares and purchase shares to Lincoln Park pursuant to the Purchase Agreement, 1,657,320 shares issued or issuable (as shares underlying warrants) to Lincoln Park pursuant to the private placement and 6,297,816 shares issued or issuable (as shares underlying warrants) to the other selling securityholders named therein pursuant to the private placement), of which 6,822,985 remain available for resale as of April 20, 2018 (including 366,611 shares issuable as commitment shares to Lincoln Park under the Purchase Agreement), 828,660 shares issuable (as shares underlying warrants) to Lincoln Park pursuant to the private placement and 5,627,714 shares issued or issuable (as shares underlying warrants) to the other selling securityholders named therein pursuant to the private placement).

We also previously filed a registration statement on Form S-1 (File No. 333-206059) with the SEC on August 3, 2015, which was initially declared effective by the SEC on August 11, 2015 (the 2015 Registration Statement), registering for resale up to 5,632,398 shares of our Common Stock related to a private placement (including 2,250,018 shares issued or issuable (as shares underlying warrants) to Lincoln Park and 3,382,380 shares issued or issuable (as shares underlying warrants) to the other selling securityholders named therein pursuant to the private placement), of which 4,077,709 remain available for resale as of April 20, 2018 (including 1,125,010 shares issuable as shares underlying warrants to Lincoln Park and 2,952,699 shares issued or issuable (as shares underlying warrants) to the other selling securityholders named therein pursuant to the private placement).

We also previously filed a registration statement on Form S-1 (File No. 333-198665) with the SEC on September 9, 2014, which was initially declared effective by the SEC on September 17, 2014 (the 2014 Registration Statement), registering for resale up to 8,415,200 shares of our Common Stock issued pursuant to private placements (including 1,340,000 shares issued or issuable (as shares underlying warrants) to Lincoln Park and 7,075,200 shares issued or issuable (as shares underlying warrants) to the other selling securityholders named therein pursuant to the private placements), of which 5,607,900 remain available for resale as of April 20, 2018 (including 201,000 shares issuable as shares underlying warrants to Lincoln Park pursuant to private placements and 5,406,900 shares issued or issuable as shares underlying warrants to the other selling securityholders named therein pursuant to private placements).

The registration of the shares hereunder does not mean that the selling securityholders will actually offer or sell the full number of the shares being registered pursuant to this prospectus. We will not receive any proceeds from the sales of shares of our Common Stock by the selling securityholders; however we may receive proceeds upon the sale of up to 5,000,000 shares to Lincoln Park under the Purchase Agreement, which have not yet been sold, or through the exercise of warrants held by the selling securityholders.

Lincoln Park is an underwriter within the meaning of Section 2(a)(11) of the Securities Act. Lincoln Park or the other selling securityholders may offer the securities registered hereunder directly or through agents or to or through underwriters or dealers. The securities may be offered and sold through public or private transactions at market prices prevailing at the time of sale, at a fixed price or fixed prices, at negotiated prices, at various prices determined at the time of sale or at prices related to prevailing market prices. See "Plan of Distribution" for more information about how the selling securityholders may sell the shares of Common Stock being registered pursuant to this prospectus.

Our Common Stock is currently quoted on the OTC Markets (OTCQB) under the symbol "LWLG". On April 30, 2018 the Company had 75,515,193 shares issued and outstanding, and the last reported sale price of our Common Stock was \$1.10 per share.

We will pay the expenses incurred in registering the shares, including legal and accounting fees. See Plan of Distribution .

Investing in our securities involves a high degree of risk. See Risk Factors beginning on page 6 of this prospectus for a discussion of information that should be considered in connection with an investment in our securities.

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

The date of this prospectus is _____, 2018.

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ABOUT THIS PROSPECTUS

The information contained in this prospectus is not complete and may be changed. You should rely only on the information provided in or incorporated by reference in this prospectus, in any prospectus supplement or in a related free writing prospectus, or documents to which we otherwise refer you. We have not authorized anyone else to provide you with different information.

We have not authorized any dealer, agent or other person to give any information or to make any representation other than those contained or incorporated by reference in this prospectus and any accompanying prospectus supplement or any related free writing prospectus. You must not rely upon any information or representation not contained or incorporated by reference in this prospectus or an accompanying prospectus supplement or any related free writing prospectus. This prospectus and the accompanying prospectus supplement and any related free writing prospectus, if any, do not constitute an offer to sell or the solicitation of an offer to buy any securities other than the registered securities to which they relate, nor do this prospectus and the accompanying prospectus supplement and any related free writing prospectus, if any, constitute an offer to sell or the solicitation of an offer to buy securities in any jurisdiction to any person to whom it is unlawful to make such offer or solicitation in such jurisdiction. You should not assume that the information contained in this prospectus and the accompanying prospectus supplement and any related free writing prospectus, if any, is accurate on any date subsequent to the date set forth on the front of such document or that any information we have incorporated by reference is correct on any date subsequent to the date of the document incorporated by reference, even though this prospectus and any accompanying prospectus supplement and any related free writing prospectus is delivered or securities are sold on a later date.

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 in this 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 agreements, and should not be deemed to be a representation, warranty or covenant to you. Moreover, such representations, warranties or covenants were accurate only as of the date when made. Accordingly, such representations, warranties and covenants should not be relied on as accurately representing the current state of our affairs.

Our trademarks in the United States include P²ICTM and PerkinamineTM. All other trademarks, service marks and trade names included or incorporated by reference in this prospectus are the property of their respective owners.

In this prospectus unless the context otherwise requires, all references to the Company, we, our or us and other similar terms means Lightwave Logic, Inc., a Nevada corporation.

FORWARD-LOOKING STATEMENTS

This prospectus contains forward-looking statements. Forward-looking statements involve risks and uncertainties, such as statements about our plans, objectives, expectations, assumptions or future events. In some cases, you can identify forward-looking statements by terminology such as anticipate, estimate, plan, project, continuing, expect, we believe, we intend, may, should, will, could and similar expressions denoting uncertainty or a may, will or is expected to occur in the future. These statements involve estimates, assumptions, known and unknown risks, uncertainties and other factors that could cause actual results to differ materially from any future results, performances or achievements expressed or implied by the forward-looking statements. You should not place undue reliance on these forward-looking statements.

Factors that are known to us that could cause a different result than projected by the forward-looking statement, include, but are not limited to:

- inability to generate revenue or to manage growth;
- lack of available funding;
- lack of a market for or market acceptance of our products;
- competition from third parties;
- general economic and business conditions;
- competition from third parties;
- intellectual property rights of third parties;
- changes in the price of our stock and dilution;

- regulatory constraints and potential legal liability;
- ability to maintain effective internal controls

- security breaches, cybersecurity attacks and other significant disruptions in our information technology systems;
- changes in technology and methods of marketing;
- delays in completing various engineering and manufacturing programs;
- changes in customer order patterns and qualification of new customers;
- changes in product mix;
- success in technological advances and delivering technological innovations;
- shortages in components;
- production delays due to performance quality issues with outsourced components;
- those events and factors described by us in the section entitled “Risk Factors”;
- other risks to which our Company is subject; and
- other factors beyond the Company's control.

Any forward-looking statement made by us in this prospectus is based only on information currently available to us and speaks only as of the date on which it is made. We undertake no obligation to publicly update any forward-looking statement, whether written or oral, that may be made from time to time, whether as a result of new information, future developments or otherwise.

PROSPECTUS SUMMARY

Our Company

We were incorporated under the laws of the State of Nevada on June 24, 1997 and in 2004 we acquired PSI-TEC Corp., and in 2006 we merged with PSI-TEC Corp. PSI-TEC Corp. was incorporated under the laws of the State of Delaware on September 12, 1995. In 2008 we changed our name to Lightwave Logic, Inc. Unless the context otherwise requires, all references to the **Company**, **we**, **our** or **us** and other similar terms means Lightwave Logic, Inc., a Nevada corporation.

Our principal executive office is located at 369 Inverness Parkway, Suite 350, Englewood, CO 80112, and our telephone number is (720) 340-4949. Our website address is www.lightwavelogic.com. No information found on our website is part of this prospectus.

Overview

Lightwave Logic, Inc. is a development stage company whose P2ICTM technology addresses advanced telecommunication, data communications, and data center markets utilizing its advanced organic electro-optic polymer systems. The Company currently has two business segments to support its development activities, its materials development segment, and its photonic device design and development segment.

Materials Development

The Company designs and synthesizes organic chromophores for use in its own proprietary electro-optic *polymer systems* and photonic device designs. A polymer system is not solely a material, but also encompasses various technical enhancements necessary for its implementation. These include host polymers, poling methodologies, and molecular spacer systems that are customized to achieve specific optical properties. Our organic electro-optic polymer systems compounds are mixed into solution form that allows for thin film application. Our proprietary electro-optic polymers are designed at the molecular level for potentially superior performance, stability and cost-efficiency. We believe they have the potential to replace more expensive, lower-performance materials and devices used in fiber-optic ground, wireless and satellite communication networks.

Our patented and patent pending molecular architectures are based on a well-understood chemical and quantum mechanical occurrence known as *aromaticity*. Aromaticity provides a high degree of molecular stability that enables our core molecular structures to maintain stability under a broad range of polymerization conditions that otherwise appear to affect other current polymer molecular designs.

We expect our patented and patent-pending optical materials along with trade secrets and licensed materials, to be the core of and the enabling technology for future generations of optical devices, modules, sub-systems and systems that we will develop or potentially out-license to electro-optic device manufacturers. The Company contemplates future applications that may address the needs of semiconductor companies, aerospace companies and government agencies.

Prototype Device Design and Development

Electro-optic Modulators

The Company designs its own proprietary electro-optical modulation devices. Electro-optical modulators convert data from electric signals (binary data) into optical signals that can then be transmitted over high-speed fiber-optic cables. These devices are key components that have historically limited the ability of telecommunications, data communications, data centers networks to keep up with the seemingly endless flow of data in the form of voice calls, text messages, pictures, video streaming that are being transmitted to a growing array of devices.

Polymer Photonic Integrated Circuits (P²ICTM)

The Company also designs its own proprietary Polymer Photonic Integrated Circuits. A Polymer Photonic Integrated Circuit is a photonic device that integrates several photonic functions on a single chip. We believe that our technology can enable the ultra-miniaturization needed to increase the number of photonic functions residing on a semiconductor chip to create a progression like what was seen in the computer integrated circuits, commonly referred to as Moore's Law.

Current photonic technology is based on inorganic crystalline materials, which due to physical limitations have not been able to address devices such as slot waveguides that require highly miniaturized geometries. Slot modulators have the potential to scale in integration for increased functionality and would be highly beneficial to data center infrastructure. Organic electro-optic polymers have greater potential because they can be applied as a thin film coating. Our polymers are unique in that they can withstand extremely high semiconductor process temperatures to seamlessly integrate into existing CMOS, Indium Phosphide (InP), Gallium Arsenide (GaAs), and other semiconductor manufacturing lines. Our devices, enabled by our organic electro-optic polymer material systems, work by affecting the optical properties of light in the presence of an electric field at extremely high frequencies (wide bandwidths) and possess inherent advantages over current crystalline electro-optic material contained in most modulator devices such as lithium niobate, indium phosphide and gallium arsenide.

Recent Significant Events and Milestones Achieved

In April 2017 we achieved bandwidth suitable for 25Gbps data rates in an all-organic polymer ridge waveguide intensity modulator prototype, a significant improvement over our initial 10Gbps device modulator prototype. This breakthrough was significant because a 25Gbps data rate is important to the optical networking industry because this data rate is a major node to achieve 100 Gbps (using 4 channels of 25 Gbps). In July 2017 we advanced our high-speed modulation performance to satisfy 28Gbps data rates for QSFP28 standards and 100Gbps data center applications.

In September 2017 we achieved outstanding performance of our ridge waveguide Mach-Zehnder modulators ahead of schedule, with bandwidth performance levels that will enable 50Gbps modulation in fiber-optic communications. This important achievement will allow users to utilize arrays of 4 x 50Gbps polymer modulators using PAM-4 encoding to access 400Gbps data rate systems. Pulse-Amplitude Modulation (PAM-4) is an encoding scheme that can double the amount of data that can be transmitted.

In February 2018 we began the transition of moving our Newark, Delaware synthetic laboratory and our Longmont, Colorado optical testing laboratory and corporate headquarters to our new office, laboratory and research and development space located at 369 Inverness Parkway, Suite 350, Englewood, Colorado. The new 13,420 square foot Englewood facility includes fully functional 1,000 square feet of class 1,000 cleanroom, 500 square feet of class 10,000 cleanroom, chemistry laboratories, and analytic laboratories. The new Englewood facility streamlines all of our Company's research and development workflow for greater operational efficiencies. We expect to complete the transition of moving our Newark, Delaware synthetic laboratory and our Longmont, Colorado optical testing laboratory and corporate headquarters to the new Englewood facility by the end of March 2018.

As we move forward through 2018, we expect to continue building our world-class design team for both polymer materials and integrated photonics technology platform to further optimize our P²IC platform. With the now consolidated facility in Englewood, Colorado, we will complete our clean-room and laboratories so that we can keep key technologies and processes internal to the Company. We will package our modulators for customer evaluation, and will continue to design our polymers for improved data rates and lower power operation. We will engage with customers to fine tune our technology to meet customer expectations, and we will scale our technology to provide cost

effective technological solutions for the fiber communications market segments. We will partner with other companies as necessary, e.g. our packaging partner in 2017/18 is allowing us to move quickly towards customer prototypes.

The Lincoln Park Transaction

On January 29, 2016, the Company entered into the Purchase Agreement with Lincoln Park (such transaction, the Financing), pursuant to which Lincoln Park agreed to purchase from us up to \$20,000,000 of our Common Stock (subject to certain limitations) from time to time over a 36-month period. In connection with the Financing, the Company also entered into a registration rights agreement with Lincoln Park whereby the Company agreed to file registration statements (each of which this prospectus is a part pursuant to Rule 429 under the Securities Act), with the SEC covering the shares of the Company's Common Stock that may be issued to Lincoln Park under the Purchase Agreement. After April 7, 2016, when the 2016 Registration Statement was declared effective, the Company may, from time to time and at its sole discretion, direct Lincoln Park to purchase up to 100,000 shares of our Common Stock on any such business day, provided that in no event shall Lincoln Park purchase more than \$500,000 worth of our Common Stock on any single business day (each, a Regular Purchase), plus an additional accelerated amount under certain circumstances. We may also, in our sole discretion, direct Lincoln Park on each purchase date to make accelerated purchases on the following business day up to the lesser of (i) two (2) times the number of shares purchased pursuant to a Regular Purchase or (ii) 30% of the trading volume on the accelerated purchase date at a purchase price equal to the lesser of (i) the closing sale price on the accelerated purchase date and (ii) 95% of the accelerated purchase date's volume weighted average price. Except as described in this prospectus, there are no trading volume requirements or restrictions under the Purchase Agreement, and we control the timing and amount of any sales of our Common Stock to Lincoln Park. The purchase price of the up to 100,000 shares that may be sold to Lincoln Park under the Purchase Agreement on any business day will be based on the market price of our Common Stock immediately preceding the time of sale as computed under the Purchase Agreement without any fixed discount. The purchase price per share will be equitably adjusted for any reorganization, recapitalization, non-cash dividend, forward or reverse stock split, or other similar transaction occurring during the business days used to compute such price. We may at any time in our sole discretion terminate the Purchase Agreement without fee, penalty or cost upon one business day's prior notice.

The Purchase Agreement contains customary representations, warranties, covenants, closing conditions and indemnification and termination provisions by, among and for the benefit of the parties. Lincoln Park has covenanted not to cause or engage in any manner whatsoever, any direct or indirect short selling or hedging of the Company's Common Stock.

In consideration for entering into the Purchase Agreement, the Company issued to Lincoln Park 350,000 shares of Common Stock as a commitment fee and is obliged to issue up to an additional 650,000 commitment shares, pro rata for no consideration, when and if Lincoln Park purchases (at the Company's discretion) the \$20,000,000 aggregate commitment. For example, if we elect, at our sole discretion, to require Lincoln Park to purchase \$50,000 of our stock then we would issue 1,625 additional commitment shares, which is the product of \$50,000 (the amount we have elected to sell) divided by \$11,280,750 (remaining total amount we can sell Lincoln Park pursuant to the Purchase Agreement) multiplied by 366,611 (the total number of additional commitment shares). The additional commitment shares will only be issued pursuant to this formula as and when we elect at our discretion to sell stock to Lincoln Park. The commitment fee and all available commitment shares have been previously registered under the 2016 Registration Statement and are being registered hereunder pursuant to Rule 429 under the Securities Act. Lincoln Park may not assign or transfer its rights and obligations under the Purchase Agreement. The Purchase Agreement may be terminated by the Company at any time at its discretion without any cost to the Company.

As of April 20, 2018, the Company has issued 9,633,389 shares of Common Stock to Lincoln Park pursuant to the Purchase Agreement, all of which were previously registered under the Prior Registration Statements, of which 633,389 shares of Common Stock were issued as commitment shares for no proceeds (including the 350,000 initial

commitment shares), for a total proceeds of \$8,719,250. Of the shares issued to Lincoln Park pursuant to the Purchase Agreement and registered under the 2016 and 2017 Registration Statement, 9,436,657 shares have been resold by Lincoln Park, for which we received no proceeds.

RISK FACTORS

Investing in our securities involves a high degree of risk. Prior to making a decision about investing in our securities, you should carefully consider and evaluate the specific factors discussed under the heading "Risk Factors" in our Annual Report on Form 10-K for the fiscal year ended December 31, 2017 filed on March 16, 2018 with the SEC, which is incorporated herein by reference, and may be amended, supplemented or superseded from time to time by other reports we file with the SEC in the future. Additional risks related to the sale of shares of Common Stock hereunder by Lincoln Park are set forth below:

Sales of shares to Lincoln Park under the Purchase Agreement may affect the price of our Common Stock and make it more difficult to raise additional equity capital.

All 5,563,343 shares registered hereunder which may be sold to Lincoln Park pursuant to the Purchase Agreement are expected to be freely tradable. It is anticipated that such shares registered hereunder will be sold over, if at all, before January of 2019 commencing on the date that the registration statement of which this prospectus is a part becomes effective. The sale by Lincoln Park of a significant amount of shares registered hereunder at any given time could cause the market price of our Common Stock to decline and to be highly volatile. We may ultimately sell all, some or none of the shares of Common Stock registered in this offering to Lincoln Park. If we sell these shares to Lincoln Park, Lincoln Park may sell all, some or none of such shares. Therefore, sales to Lincoln Park by us under the Purchase Agreement may result in substantial dilution to the interests of other holders of our Common Stock. In addition, if we sell a substantial number of shares to Lincoln Park under the Purchase Agreement, or if investors expect that we will do so, the actual sales of shares or the mere existence of our arrangement with Lincoln Park may make it more difficult for us to sell equity or equity-related securities in the future at a time and at a price that we might otherwise wish to effect such sales. However, we have the right to control the timing and amount of any sales of our shares to Lincoln Park and the Purchase Agreement may be terminated by us at any time at our discretion without any cost to us.

The risks and uncertainties we have described are not the only risks that we face. Additional risks and uncertainties not presently known to us or that we currently deem immaterial may also affect our operations. The occurrence of these known or unknown risks might cause you to lose all or part of your investment.

See also the statements contained under the heading "Forward Looking Statements."

USE OF PROCEEDS

This prospectus relates to shares of our Common Stock that may be offered and sold from time to time by the selling securityholders. We will receive no proceeds from the sale of shares of Common Stock by Lincoln Park in this offering. However, we may receive gross proceeds of up to \$20,000,000 under the Purchase Agreement (of which we have received \$8,719,250 as of April 20, 2018), including the sale of up to 5,563,343 shares issued or issuable

pursuant to the Purchase Agreement, which are being registered hereunder for resale by Lincoln Park. We have not received any proceeds from the sale of the 12,603,020 shares of Common Stock previously sold by the selling securityholders under the Prior Registration Statements. However, we may receive up to \$10,046,255 from the exercise by the selling securityholders of the 10,532,372 warrants outstanding (i.e., 3,977,568 warrants exercisable at \$0.80 per share, 1,408,102 warrants exercisable at \$0.85 per share, 1,768,800 warrants exercisable at \$1.00 per share, 1,408,102 warrants exercisable at \$1.02 per share and 1,969,800 warrants exercisable at \$1.25 per share).

We intend to use approximately 60% of any proceeds received under the Purchase Agreement or from the exercise of warrants towards our research and development efforts which may include, without limitation, (a) retaining additional management, sales, marketing, technical and other staff to our workforce, (b) expanding our research and development facilities, including the purchase of additional laboratory and production equipment, (c) marketing our future products as they are introduced into the marketplace, (d) developing and maintaining collaborative relationships with strategic partners, (e) developing and improving our manufacturing processes and quality controls, and approximately 40% of any proceeds received may be used for increasing our general and administrative activities related to our operations as a reporting public company and related corporate compliance requirements.

DILUTION

Shares of our Common Stock being sold under this prospectus by the selling securityholders, including Lincoln Park, will not affect the rights or privileges of our existing stockholders, except that the economic and voting interests of each of our existing stockholders will be diluted as a result of the shares that we may issue and sell to Lincoln Park from time to time under the Purchase Agreement and the issuance of shares underlying the warrants upon the exercise of any such warrants, if any, by the selling securityholders. Although the number of shares of Common Stock that our existing stockholders own will not decrease, the shares owned by our existing stockholders will represent a smaller percentage of our total outstanding shares after any such issuances under the Purchase Agreement.

THE LINCOLN PARK TRANSACTION

General

On January 29, 2016, the Company entered into the Purchase Agreement with Lincoln Park pursuant to which Lincoln Park agreed to purchase from us up to \$20,000,000 of our Common Stock (subject to certain limitations) from time to time over a 36-month period. In connection with the Purchase Agreement, the Company also entered into a registration rights agreement with Lincoln Park (the RRA) whereby the Company agreed to file registration statements (each of which this prospectus is a part pursuant to Rule 429 under the Securities Act), with the SEC covering the shares of the Company's Common Stock that may be issued to Lincoln Park under the Purchase Agreement. As required by the RRA, the Company filed the 2016 Registration Statement, in part to register 5,000,000 shares of Common Stock issuable under the Purchase Agreement, and the Company filed the 2017 Registration Statement to register an additional 5,000,000 shares of Common Stock issuable under the Purchase Agreement. After April 7, 2016, when the 2016 Registration Statement was declared effective, the Company may, from time to time and at its sole discretion, direct Lincoln Park to purchase up to 100,000 shares of our Common Stock on any such business day, provided that such shares are covered by an effective registration statement and in no event shall Lincoln Park purchase more than \$500,000 worth of our Common Stock on any single business day, plus an additional accelerated amount under certain circumstances. Except as described in this prospectus, there are no trading volume requirements or restrictions under the Purchase Agreement, and we will control the timing and amount of any sales of our Common Stock to Lincoln Park. The purchase price of the up to 100,000 shares that may be sold to Lincoln Park under the Purchase Agreement on any business day will be based on the market price of our Common Stock immediately preceding the time of sale as computed under the Purchase Agreement without any fixed discount. The purchase price per share will be equitably adjusted for any reorganization, recapitalization, non-cash dividend, forward or reverse stock split, or other similar transaction occurring during the business days used to compute such price. We may at any time in our sole discretion terminate the Purchase Agreement without fee, penalty or cost upon one business day's notice.

The Purchase Agreement contains customary representations, warranties, covenants, closing conditions and indemnification and termination provisions by, among and for the benefit of the parties. Lincoln Park has covenanted not to cause or engage in any manner whatsoever, any direct or indirect short selling or hedging of the Company's Common Stock.

In consideration for entering into the Purchase Agreement, the Company issued to Lincoln Park 350,000 shares of Common Stock as a commitment fee and is obliged to issue up to an additional 650,000 commitment shares, pro rata for no consideration, when and if Lincoln Park purchases (at the Company's discretion) the \$20,000,000 aggregate commitment. For example, if we elect, at our sole discretion, to require Lincoln Park to purchase \$50,000 of our stock

then we would issue 1,625 additional commitment shares, which is the product of \$50,000 (the amount we have elected to sell) divided by \$11,731,050 (remaining total amount we can sell Lincoln Park pursuant to the Purchase Agreement) multiplied by 650,000 (the total number of additional commitment shares). The additional commitment shares will only be issued pursuant to this formula as and when we elect at our discretion to sell stock to Lincoln Park. The commitment fee and all available commitment shares have been previously registered under the 2016 Registration Statement and are being registered hereunder pursuant to Rule 429 under the Securities Act. Lincoln Park may not assign or transfer its rights and obligations under the Purchase Agreement. The Purchase Agreement may be terminated by the Company at any time at its discretion without any cost to the Company.

As of April 20, 2018, the Company has issued 9,633,389 shares of Common Stock to Lincoln Park pursuant to the Purchase Agreement, all of which were previously registered under the Prior Registration Statements, of which 633,389 shares of Common Stock were issued as commitment shares for no proceeds (including the 350,000 initial commitment shares), for a total proceeds of \$8,719,250. Of the shares issued to Lincoln Park pursuant to the Purchase Agreement and registered under the 2016 and 2017 Registration Statement, 9,436,657 shares have been resold by Lincoln Park, for which we received no proceeds. The table below sets forth the dates and amounts, grouped by month, of the issuances of shares to Lincoln Park under the Purchase Agreement, since the date of effectiveness of the 2017 Registration Statement on June 15, 2017:

Month and Year⁽¹⁾	Purchase Amount⁽²⁾	Shares Purchased⁽³⁾	Commitment Shares Issued⁽⁴⁾	Total Shares
June 2017	\$584,600	400,000	19,001	419,001
July 2017	\$614,600	500,000	19,974	519,974
August 2017	\$537,700	500,000	17,477	517,477
September 2017	\$630,000	500,000	20,476	520,476
October 2017	\$537,300	400,000	17,464	417,464
November 2017	\$1,040,700	800,000	33,824	833,824
December 2017	\$705,000	600,000	22,914	622,914
January 2018	\$348,000	300,000	11,310	311,310
February 2018	\$335,900	300,000	10,918	310,918
March 2018	\$309,800	300,000	10,070	310,070
April 2018	\$450,300	400,000	14,636	414,636
Total	\$6,093,900	5,000,000.00	198,064	5,198,064.00

(1)

No shares of Common Stock were sold to Lincoln Park between March 31, 2017 and June 21, 2017. The shares of Common Stock sold to Lincoln Park under the Purchase Agreement through March 31, 2017 are presented by month in the 2017 Registration Statement.

(2)

The Purchase amount reflects the total purchase amount for all transactions during each given month.

(3)

All Shares purchased in the table were previously registered under the 2017 Registration Statement.

(4)

All commitment shares issued were previously registered under the 2016 Registration Statement.

Purchase of Shares under the Purchase Agreement

Under the Purchase Agreement, on any business day selected by us, we may direct Lincoln Park to purchase up to 100,000 shares of our Common Stock on any such business day so long as one business day has passed since the last purchase. On any day that the closing sale price of our Common Stock is not below \$1.00 the purchase amount may be increased, at our sole discretion, to up to 150,000 shares per purchase and on any day that the closing sale price of our Common Stock is not below \$1.50 the purchase amount may be increased, at our sole discretion, to up to 200,000 shares per purchase, at our sole discretion, to up to \$500,000 per purchase (each, a "Regular Purchase"). The purchase price per share for each such Regular Purchase will be equal to the lower of:

.
the lowest sale price for our Common Stock on the purchase date of such shares; or

.
the arithmetic average of the three lowest closing sale prices for our Common Stock during the 12 consecutive business days ending on the business day immediately preceding the purchase date of such shares.

In addition to Regular Purchases described above, we may also direct Lincoln Park, on any business day on which we have properly submitted a Regular Purchase notice, to purchase an additional amount of our Common Stock, which we refer to as an Accelerated Purchase, not to exceed the lesser of:

.
30% of the aggregate shares of our Common Stock traded during normal trading hours on the purchase date; and

.
two times the number of purchase shares purchased pursuant to the corresponding Regular Purchase.

The purchase price per share for each such Accelerated Purchase will be equal to the lower of:

.
95% of the volume weighted average price during (i) the entire trading day on the purchase date, if the volume of shares of our Common Stock traded on the purchase date has not exceeded a volume maximum calculated in accordance with the Purchase Agreement, or (ii) the portion of the trading day of the purchase date (calculated starting at the beginning of normal trading hours) until such time at which the volume of shares of our Common Stock traded has exceeded such volume maximum; or

.
the closing sale price of our Common Stock on the purchase date.

In the case of both Regular Purchases and Accelerated Purchases, the purchase price per share will be equitably adjusted for any reorganization, recapitalization, non-cash dividend, stock split, reverse stock split or other similar transaction occurring during the business days used to compute the purchase price.

Other than as set forth above, there are no trading volume requirements or restrictions under the Purchase Agreement, and we will control the timing and amount of any sales of our Common Stock to Lincoln Park.

Events of Default

Events of default under the Purchase Agreement include the following:

.
the effectiveness of the registration statement of which this prospectus forms a part lapses for any reason (including, without limitation, the issuance of a stop order), or any required prospectus supplement and accompanying prospectus are unavailable for the resale by Lincoln Park of our Common Stock offered hereby, and such lapse or unavailability continues for a period of 10 consecutive business days or for more than an aggregate of 30 business days in any 365-day period;

.
suspension by our principal market of our Common Stock from trading for a period of one business day;

.
the de-listing of our Common Stock from our principal market, provided our Common Stock is not immediately thereafter trading on the New York Stock Exchange, the NASDAQ Global Market, the NASDAQ Global Select Market, the NASDAQ Capital Market, the NYSE MKT, the NYSE Arca, or the OTCQX operated by the OTC Markets Group, Inc. (or nationally recognized successor thereto);

the transfer agent's failure for three business days to issue to Lincoln Park shares of our Common Stock which Lincoln Park is entitled to receive under the Purchase Agreement;

any breach of the representations or warranties or covenants contained in the Purchase Agreement or any related agreement which has or which could have a material adverse effect on us subject to a cure period of five business days;

any voluntary or involuntary participation or threatened participation in insolvency or bankruptcy proceedings by or against us; or

if at any time we are not eligible to transfer our Common Stock electronically or a material adverse change in our business, financial condition, operations or prospects has occurred.

Lincoln Park does not have the right to terminate the Purchase Agreement upon any of the events of default set forth above. During an event of default, all of which are outside of Lincoln Park's control, shares of our Common Stock cannot be sold by us or purchased by Lincoln Park under the Purchase Agreement.

Our Termination Rights

We have the unconditional right, at any time, for any reason and without any payment or liability to us, to give notice to Lincoln Park to terminate the Purchase Agreement. In the event of bankruptcy proceedings by or against us, the Purchase Agreement will automatically terminate without action of any party.

No Short-Selling or Hedging by Lincoln Park

Lincoln Park has agreed that neither it nor any of its affiliates shall engage in any direct or indirect short-selling or hedging of our Common Stock during any time prior to the termination of the Purchase Agreement.

The following table sets forth the amount of gross proceeds we would receive from Lincoln Park from our sale of shares to Lincoln Park under the Purchase Agreement at varying purchase prices:

Assumed Average Purchase Price Per Share	Number of Registered Shares to be Issued if Full Purchase (1)(2)	Percentage of Outstanding Shares After Giving Effect to the Issuance to Lincoln Park (3)	Proceeds from the Sale of Shares to Lincoln Park Under the \$20M Purchase Agreement
\$0.50	5,081,250	6.30%	\$2,500,000.00
\$0.60	5,097,500	6.32%	\$3,000,000.00
\$1.10	5,178,750	6.42%	\$5,500,000.00
\$2.00	5,325,000	6.59%	\$10,000,000.00
\$2.25	5,365,625	6.63%	\$11,250,000.00
\$0.50	5,081,250	6.30%	\$2,500,000.00

(1)

Although the Purchase Agreement provides that we may sell shares valued at up to \$20,000,000, with \$11,280,750 remaining available, of our Common Stock to Lincoln Park, we are only registering (i) the 366,611 commitment shares remaining under the Purchase Agreement, (ii) 196,732 shares which have been sold to Lincoln Park pursuant to the Purchase Agreement that have not been resold by Lincoln Park and (iii) 5,000,000 additional shares that may be sold to Lincoln Park under the Purchase Agreement. The shares registered hereunder may or may not cover all the shares we ultimately sell to Lincoln Park under the Purchase Agreement, depending on the purchase price per share. As a result, we have included in this column only those shares that we are registering in this offering.

(2)

The number of registered shares to be issued excludes any commitment shares because no proceeds will be attributable to such commitment shares and excludes shares that may be issued to Lincoln Park under the Purchase Agreement which are not registered in this offering.

(3)

The denominator is based on 75,515,193 shares outstanding as of April 30, 2018, adjusted to include the number of shares set forth in the adjacent column which we would have sold to Lincoln Park at the applicable assumed average purchase price per share. The numerator does not include the shares issued to Lincoln Park as commitment shares in connection with this offering, and is based on the number of shares registered in this offering to be sold under the Purchase Agreement at the applicable assumed purchase price per share set forth in the adjacent column.

(4)

The closing sale price of our shares on April 20, 2018.

THE PRIVATE PLACEMENTS

General

The Company previously registered shares of Common Stock and warrants underlying shares of Common Stock purchased by the selling securityholders in four separate private placements under the Prior Registration Statements., all of which are being post effectively amended to register such shares issued in each private placement hereunder pursuant to Rule 429 under the Securities Act.

For each private placement (except the August 2014 private placement to which the first bullet point below does not apply, the following general terms apply:

Pursuant to each subscription agreement, the Company shall use commercially reasonable efforts to keep the registration statement covering such shares (including shares underlying warrants) thereunder effective pursuant to Rule 415 promulgated under the Securities Act until the date as of which each selling securityholder may sell all of the registrable securities without restriction pursuant to the last sentence of Rule 144(b)(1)(i) promulgated under the Securities Act (or successor thereto).

The warrants shall expire on the fifth (5th) anniversary of the closing date of each private placement, and may be partially exercised. If at any time after the six month anniversary of the closing date of each private placement, or any successor provision then in effect, there is no effective registration statement registering, or no current prospectus available for, the resale of the shares of Common Stock underlying the Warrant by the holder, then the Warrant may also be exercised, in whole or in part, solely with respect to such unregistered shares of Common Stock, at such time by means of a “cashless exercise” in accordance with the formula set forth in the warrant.

In case the Company shall (i) pay a dividend in its Common Stock or make a distribution in its Common Stock, (ii) subdivide its outstanding Common Stock into a greater number of shares, (iii) combine its outstanding Common Stock into a smaller number of shares (including a recapitalization in connection with any consolidation or merger), then the exercise price on the record date of such division or the effective date of such action shall be adjusted by multiplying such exercise price by a fraction, the numerator of which is the number of shares of Common Stock outstanding immediately before such event and the denominator of which is the number of shares of Common Stock outstanding immediately after such event and the number of shares of Common Stock for which the Warrant may be exercised immediately before such event shall be adjusted by multiplying such number by a fraction, the numerator of which is

the exercise price immediately before such event and the denominator of which is the exercise price immediately after such event.

In the case of any consolidation or merger of the Company with or into another corporation (other than any consolidation or merger in which the Company is the continuing corporation and which does not result in any reclassification of the outstanding shares of Common Stock) or the conversion of such outstanding shares of Common Stock into shares or other stock or other securities or property, or the liquidation, sale or transfer of the property of the Company as an entity or substantially as an entirety and for other unusual events, there shall be deliverable upon exercise of the Warrant (in lieu of the number of shares of Common Stock theretofore deliverable) the number of shares of stock or other securities or property to which a holder of the number of shares of Common Stock which would otherwise have been deliverable upon the exercise of this Warrant would have been entitled upon such action if this Warrant had been exercised immediately prior to such action.

Each private placement was made directly by us and no underwriter or placement agent was engaged by us in connection with any of the private placements.

As of April 20, 2018, the selling securityholders have sold 5,860,751 shares related to the private placements under the Prior Registration Statements, for which we have not received any proceeds. However, we may receive up to \$10,046,255 from the exercise by the selling securityholders of 10,532,372 warrants which remain outstanding as of April 20, 2018. All shares of Common Stock purchased in the private placements (including shares underlying warrants) not sold by the selling securityholders under the Prior Registration Statements as of April 20, 2018 are set forth in the section entitled *Selling Securityholders* below.

July 2014 Private Placement

On July 11, 2014 we completed a private placement solely to accredited investors of units, with each unit consisting of 67,000 shares of our Common Stock and a warrant to purchase 33,500 shares of Common Stock at \$1.00 per share and 33,500 shares of Common Stock at \$1.25 per share, for \$50,000 per unit, or approximately \$0.75 per share of Common Stock. We also simultaneously completed a Regulation S private placement offering of units having the same terms as the placement described above, and in total, the Company sold 60.8 units for total proceeds to us in both offerings equal to \$3,140,000.

In connection with the private placement, each investor executed a subscription agreement which contains, among other things, registration rights whereby we were required, within sixty (60) calendar days from the July 11, 2014, to register the Common Stock and the shares of Common Stock underlying the warrants by filing a registration statement with the Commission and as a result the 2014 Registration Statement was filed on September 9, 2014 and declared effective on September 17, 2014 (which following the effectiveness of the registration statement of which this prospectus is a part, shall be deemed to be post-effectively amended by this prospectus pursuant to Rule 429 under the Securities Act).

August 2014 Private Placement

On August 25, 2014, we sold one (1) unit (i.e., 67,000 shares of Common Stock and a warrant to purchase 33,500 shares of Common Stock at \$1.00 per share and 33,500 shares of Common Stock at \$1.25 per share) to an accredited investor in consideration for \$50,000 on terms substantially similar to the July 2014 private placement including, without limitation, the terms of the warrant. In connection with this sale, we granted such investor piggy back registration rights, and we are therefore registering such investor's 134,000 shares of Common Stock, of which 67,000 shares underlie warrants which have not been exercised as of the date hereof, in this prospectus.

June 2015 Private Placement

On June 15, 2015, we completed a private placement offering solely to accredited investors of units, with each unit consisting of 147,060 shares of the Company's Common Stock, and a warrant to purchase 73,530 shares of Common Stock at \$0.85 per share, and 73,530 shares of Common Stock at \$1.02 per share, for \$100,000 per unit, or approximately \$0.68 per share of Common Stock. In total, the Company sold 1,915 units for total proceeds to the Company in the private placement equal to \$1,915,000.

In connection with the Offering, each investor executed a subscription agreement which contains, among other things, registration rights which required us to file a registration statement within sixty (60) calendar days from the Closing Date, register the Common Stock and the shares of Common Stock underlying the warrants by filing a registration

statement with the SEC, and as a result the 2015 Registration Statement was filed on August 3, 2015 and declared effective on August 11, 2015 (which following the effectiveness of the registration statement of which this prospectus is a part, shall be deemed to be post-effectively amended by this prospectus pursuant to Rule 429 under the Securities Act).

December 2015 Private Placement

On December 30, 2015, we completed a private placement solely to accredited investors of units, with each unit consisting of 82,866 shares of the Company's Common Stock, and a warrant to purchase 82,866 shares of Common Stock at \$0.80 per share, for \$50,000 per unit, or approximately \$0.60 per share of Common Stock. In total, the Company sold 48 units for total proceeds to the Company in the Offering equal to \$2,400,000.

In connection with the private placement, each investor executed a subscription agreement which contains, among other things, registration rights which required us to file a registration statement within sixty (60) calendar days from December 30, 2015, register the Common Stock and the shares of Common Stock underlying the warrants by filing a registration statement with the SEC, and as a result the 2016 Registration Statement was filed on February 16, 2016 and was declared effective on April 7, 2016 (which following the effectiveness of the registration statement of which this prospectus is a part, shall be deemed to be post-effectively amended by this prospectus pursuant to Rule 429 under the Securities Act).

SELLING SECURITYHOLDERS

The shares of Common Stock being offered by the selling securityholders are (i) those previously issued pursuant to the private placements (ii) those which underlie warrants which were issued pursuant to the private placements and (iii) Lincoln Park pursuant to the Purchase Agreement. We are registering these shares of common stock in order to permit the selling securityholders to offer the shares for resale from time to time. Lincoln Park purchased shares in the private placements and accordingly, may resell shares being registered hereunder pursuant to the private placements and pursuant to the Purchase Agreement. We are registering these shares of Common Stock in order to permit the selling securityholders to offer the shares for resale from time to time.

None of the selling securityholders are licensed broker-dealers or affiliates of licensed broker-dealers.

Except as otherwise set forth in the footnotes herein below, neither the selling securityholders nor any of their affiliates have held a position or office, or had any other material relationship, with us within the past three years.

We do not know when or in what amounts the selling securityholders may offer shares for sale. The selling securityholders may elect not to sell any or all of the shares offered by this prospectus. Because the selling securityholders may offer all, some or none of the shares, we cannot estimate the number of the shares that will be held by the selling securityholders after completion of this offering. However, for purposes of this table, we have assumed that, after completion of the offering, all of the shares covered by this prospectus will be sold by the selling securityholders.

The following table presents information regarding the selling securityholders. The information concerning beneficial ownership has been taken from our stock transfer records is dated as of April 20, 2018. Beneficial ownership has been calculated in accordance with the rules of the SEC, which generally attribute beneficial ownership of securities to persons who possess sole or shared voting power or investment power with respect to those securities and include shares of Common Stock issuable pursuant to the exercise of stock options or warrants that are either immediately exercisable or exercisable within 60 days of April 20, 2018.

Selling Securityholder ⁽¹⁾	Shares Beneficially Owned Before Offering ⁽²⁾	Number of Shares being Registered/to be Sold in	Percentage of Outstanding Shares Beneficially Owned
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		the Offering	After Offering (%)(³)
Lincoln Park Capital Fund, LLC ⁽⁴⁾	2,351,402 ⁽⁵⁾	7,351,402	-
Haskell Limited Partnership ⁽⁶⁾	1,153,811	562,120	*
HP Haskell LLC ⁽⁶⁾	73,530	73,530	-
Richard Haskell ⁽⁷⁾	1,275,606 ⁽⁸⁾	48,265	*
Susan Haskell ⁽⁹⁾	306,226	306,226	-
Robert C. Bantle Revocable Trust ⁽¹⁰⁾	281,060	281,060	*
Donald E. Pyle	1,472,763	831,686	*
Thomas Collentine	442,342	386,322	*
Michael Kritz	84,530	36,765	*
Voshell Investments LLC ⁽¹¹⁾	606,912	459,852	*
Mark Smith	892,360	882,360	-
William McAlvany	346,935	147,060	*
Robert W. Ashton	281,060	281,060	*
Stephen E. Hart	557,060	482,060	*
Ondek Investments ⁽¹²⁾	520,608	232,732	*
Revocable Trust of Joseph A. Miller, Jr. ⁽¹³⁾	456,800 ⁽¹⁴⁾	26,800	*
Phillips Smith Family Trust ⁽¹⁵⁾	13,400	13,400	-
Rushen Investments Ltd. ⁽¹⁶⁾	134,000	134,000	-
Cordovano Family Trust ⁽¹⁷⁾	86,090 ⁽¹⁸⁾	26,800	*
Periscope Partners LP ⁽¹⁹⁾	73,250	67,000	-
Ronald A. Bucchi ⁽²⁰⁾	767,400 ⁽²¹⁾	26,800	*
Thomas E. Zelibor ⁽²²⁾	1,326,824 ⁽²³⁾	13,400	1.44
James S. Marcelli ⁽²⁴⁾	1,553,400 ⁽²⁵⁾	13,400	1.68
Steven Engler	26,900	13,400	*
Herman Verheyen	264,000	67,000	*

Walter Caers	568,000	67,000	*
Jean Ramijssen	205,500	67,000	*
Jan Serrien	149,866	149,866	-
Andreas Verder	67,000	67,000	-
Walter Mortelmans	134,000	134,000	-
Patrick Rosa	211,230	67,000	*
Rudi Wynen	67,000	67,000	-
Luc Jansen	315,598	315,598	-
Patrick Frankignoul	134,000	134,000	-
Fernand Frankignoul	198,466	149,866	-
Jacques de Groot	67,000	67,000	-
Bert Jansen	33,500	33,500	-
Luc Olluyn	67,000	67,000	-
D.J. Van Beem	67,000	67,000	-
Guido Cloetens	33,500	33,500	-
Geraldina Van Loock	67,000	67,000	-
Rene Vijt	67,000	67,000	-
Marc Haverhals	67,000	67,000	-
Michael and Lisa Ramone	639,338 ⁽²⁶⁾	433,732	*
Andrew Kolenda	994,882	540,932	*
Richard A. O'Halloran ⁽²⁷⁾	585,325	299,732	*
Gary A. Bryde	387,800	134,000	*
Jeffrey A. Berlin	558,480	536,000	*
Steven R. Fasick	234,409	134,000	*
Richard Smith	107,700	26,800	*
Michael D. Loessner	134,000	134,000	-
Paul Berger	67,000	67,000	-
David M. Bovi	804,000	134,000	*
David Liu	317,642 ⁽²⁸⁾	299,732	*
William T. Ondek	587,608	67,000	*
David Malatesta	693,778	516,598	*
Daniel Malatesta	677,056	449,598	*
Marc de Nil	165,732	165,732	-
Nancy G. Hart	165,732	165,732	-
Edward Rone	613,872	82,866	*
Marc Waeterschoot	331,464	331,464	-
Marco Beenen	82,866	82,866	-
Didier Schepens	82,866	82,866	-
Steve Koerselman	165,732	165,732	-
Mary Haskell ⁽²⁹⁾	215,732	165,732	*
Craig Anthony Labus Revocable Trust ⁽³⁰⁾	82,866	82,866	-
Tolfan Ventures LLC ⁽³¹⁾	497,196	497,196	-
Kevin J. Sweeney	414,772	165,732	*

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Elysee Development Corporation	781,875	662,928	*
Harry William Bell Jr.	497,196 ⁽³²⁾	331,464	*
Donna B. Bell	497,196 ⁽³²⁾	165,732	*
Thomas J. Dunn	381,464	331,464	*

* Less than one percent (1%).

(1)

Unless otherwise stated below, the address of each selling securityholder is c/o Lightwave Logic, Inc. 369 Inverness Parkway, Suite 350 Englewood, Colorado 80112.

(2)

Half of the number of shares for each selling securityholder (except Lincoln Park) represents shares which were previously issued, and the other half represents shares underlying warrants which have not been exercised.

(3)

Calculated by dividing (i) the total number of shares beneficially owned by each selling securityholder on April 20, 2018, assuming all shares of Common Stock registered hereunder, including shares of Common Stock underlying warrants, have been resold by such shareholder, by (ii) the number of shares of our Common Stock outstanding as of April 20, 2018, as adjusted to include the issuance of 5,366,611 shares of Common Stock (including 5,000,000 purchase shares and 366,611 commitment shares) which are registered hereunder pursuant to the Purchase Agreement and the exercise of all warrants of which the 10,532,372 shares of Common Stock underlying such warrants are registered hereunder.

(4)

Josh Scheinfeld and Jonathan Cope, the principals of Lincoln Park, are deemed to be beneficial owners of all of the shares of Common Stock owned by Lincoln Park. Messrs. Scheinfeld and Cope have shared voting and disposition power over such shares being offered under this prospectus.

(5)

Excludes the 5,000,000 shares of Common Stock which may be sold following the effectiveness of the registration statement of which this prospectus is a part to Lincoln Park hereunder in connection with the Purchase Agreement. Includes (i) 196,732 shares of Common stock previously purchased under The Purchase Agreement and not resold as of April 20, 2018; (ii) 828,660 warrants to purchase Common Stock, the underlying shares of which were registered under the 2016 Registration Statement, purchased by Lincoln Park in the December 30, 2015 private placement; (iii) 1,125,010 warrants to purchase Common Stock, the underlying shares of which were registered under the 2015 Registration Statement, purchased by Lincoln Park in the June 15, 2015 private placement and (iv) 201,000 warrants to purchase Common Stock previously acquired by Lincoln Park in the July 11, 2014 private placement, the underlying shares of which were registered under the 2014 Registration Statement and are subject to blocker provisions which restrict the exercise of such instrument if, as a result of such exercise, Lincoln Park, the holder, together with its affiliates and any other person whose beneficial ownership of Common Stock would be aggregated with Lincoln Park for purposes of Section 13(d) of the Exchange Act, would cause Lincoln Park to beneficially own in excess of 4.99% of our then issued and outstanding shares of Common Stock (including the shares of Common Stock issuable upon such exercise), as such percentage ownership is determined in accordance with the terms of each warrant. Any warrant that is not currently exercisable because of a blocker is not deemed to be beneficially owned by Lincoln Park. See the description under the heading The Lincoln Park Transaction for more information about the Purchase Agreement.

(6)

Richard Haskell is deemed to be the beneficial owner of all of the shares of Common Stock owned by Haskell Limited Partnership and HP Haskell LLC. Mr. Haskell has sole voting and disposition power over such shares being offered under this prospectus.

(7)

Richard Haskell is deemed to be the beneficial owner of all of the shares of Common Stock and warrants owned by Haskell Limited Partnership and HP Haskell LLC. Mr. Haskell has sole voting and disposition power over such shares being offered under this prospectus. Mr. Haskell disclaims beneficial ownership of the shares held by his spouse,

Susan Haskell and by Mary Haskel.

(8)

Includes (i) 1,153,811 shares of Common Stock and warrants to purchase shares of Common Stock held by Haskell Limited Partnership, (ii) 73,530 shares of Common Stock and warrants to purchase shares of Common Stock held by HP Haskell LLC, and (iii) 48,265 shares of Common Stock and warrants to purchase shares of Common Stock held by Richard Haskell in his individual capacity.

(9)

(Susan Haskell disclaims beneficial ownership of the shares held by her spouse, Richard Haskell, Haskell Limited Partnership and HP Haskell LLC. Includes shares held as custodian for Jalen Christian Kelley and Emily Ann Haskell.

(10)

Robert C. Bantle is deemed to be the beneficial owners of all of the shares of Common Stock owned by Robert C. Bantle Revocable Trust, dated December 16, 2010. Mr. Bantle has sole voting and disposition power over such shares being offered under this prospectus.

(11)

Gerald Nudo may be deemed the beneficial owner of all the shares of Common Stock owned by Voshell Investments, LLC. Mr. Nudo has sole voting and disposition power over such shares being offered under this prospectus.

(12)

William T. Ondek is deemed to be the beneficial owner of all of the shares of Common Stock owned by Ondek Investments. Mr. Ondek has sole voting and disposition power over such shares being offered under this prospectus.

(13)

Joseph A. Miller is deemed to be the beneficial owner of all of the shares of Common Stock owned by the Revocable Trust of Joseph A. Miller, Jr. Mr. Miller has sole voting and disposition power over such shares being offered under this prospectus.

(14)

Includes 13,400 shares of Common Stock, options to purchase up to 430,000 shares of Common Stock and warrants to purchase up to 13,400 shares of Common Stock. Mr. Miller, the beneficial owner, serves as Director of the Company.

(15)

Phillips Smith has sole voting and disposition power over such shares being offered under this prospectus.

(16)

Melissa A. Lawey and Sion Blokland, the principals of Rushen Investments Ltd., are deemed to be beneficial owners of all of the shares of Common Stock owned by Rushen Investments Ltd. Ms. Lawey and Mr. Blokland have shared voting and disposition power over such shares being offered under this prospectus.

(17)

Steven Cordovano is deemed to be the beneficial owner of all of the shares of Common Stock owned by the Cordovano Family Trust. Mr. Cordovano has sole voting and disposition power over such shares being offered under this prospectus. Mr. Cordovano is the beneficial owner of options to purchase up to 25,000 shares of Common Stock.

(18)

Includes shares of Common Stock held by Steven Cordovano.

(19)

Leon Frenkel is deemed to be the beneficial owner of all of the shares of Common Stock owned by Periscope Partners LP. Mr. Frenkel has sole voting and disposition power over such shares being offered under this prospectus.

(20)

Ronald A. Bucchi serves as Director of the Company.

(21)

Consists of 174,000 shares of Common Stock, an option to purchase up to 580,000 shares of Common Stock and warrants to purchase up to 13,400 shares of Common Stock. Mr. Bucchi disclaims beneficial ownership of 53,000 shares held by his spouse.

(22)

Thomas E. Zelibor serves as Chair of the Company's Board of Directors

(23)

Consists of 50,124 shares of Common Stock, an option to purchase up to 1,270,000 shares of Common Stock and a warrant to purchase up to 6,700 shares of Common Stock.

(24)

James S. Marcelli serves as Director, Chief Operating Officer, President and Principal Financial Officer of the Company.

(25)

Consists of 246,700 shares of Common Stock, an option to purchase up to 1,300,000 shares of Common Stock, and a warrant to purchase up to 6,700 shares of Common Stock.

(26)

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Includes 134,000 shares of Common Stock 134,000 and shares of Common Stock underlying warrants owned by Michael Ramone and Lisa Ramone as joint tenants and 82,866 shares of Common Stock 82,866 and shares of Common Stock underlying warrants owned by Michael Ramone.

(27)

Includes shares held in the name of Richard A. O'Halloran and Richard O'Halloran, respectively.

(28)

Includes (i) 520,608 shares of Common Stock and warrants to purchase shares of Common Stock held by Ondek Investments, and (ii) 67,000 shares of Common Stock underlying warrants held by William T. Ondek in his individual capacity.

(29)

Mary Haskell disclaims beneficial ownership of the shares owned by Susan Haskell and Richard Haskell.

(30)

Craig Anthony is deemed to be the beneficial owner of all of the shares of Common Stock owned by Craig Anthony Labus Revocable Trust. Mr. Anthony has sole voting and disposition power over such shares being offered under this prospectus.

(31)

John Murphy is deemed to be the beneficial owner of all of the shares of common stock owned by Tolfan Ventures LLC. Mr. Murphy has sole voting and disposition power over such shares being offered under this prospectus.

(32)

Includes 165,732 shares and a warrant to purchase 165,732 shares purchased by Harry William Bell Jr., and 82,866 shares and a warrant to purchase 82,866 shares purchased by Donna Bell. Mr. Bell disclaims ownership of the shares owned by Ms. Bell and Ms. Bell disclaims ownership of the shares owned by Mr. Bell.

DESCRIPTION OF OUR COMMON STOCK

Each outstanding share of Common Stock is entitled to one vote on all matters to be submitted to a vote of the stockholders. Holders do not have preemptive rights, so we may issue additional shares that may reduce each holder's voting and financial interest in our Company. Cumulative voting does not apply to the election of directors, so holders of more than 50% of the shares voted for the election of directors can elect all of the directors. All elections for directors shall be decided by a plurality vote; all other questions shall be decided by majority vote except as otherwise provided by Nevada Statutes. Our bylaws permit the holders of the same percentage of all stockholders entitled to vote at a meeting to take action by written consent without a meeting.

Holders of Common Stock are entitled to receive dividends when, as and if declared by the board of directors out of funds legally available therefor. In the event of liquidation, dissolution or winding up of our Company, holders are entitled to share ratably in all assets remaining available for distribution to them after payment of liabilities and after provision has been made for each class of stock, if any, having preference over the Common Stock. Holders do not have any conversion, redemption provisions or other subscription rights. All of the outstanding shares of Common Stock are fully paid and non-assessable.

As of April 20, 2018, our articles of incorporation authorizes us to issue 250,000,000 shares of Common Stock, par value \$0.001 per share, and 1,000,000 shares of preferred stock, par value \$0.001 per share. As of April 30, 2018, 75,515,193 shares of Common Stock were outstanding and no shares of preferred stock were outstanding.

Nevada Anti-Takeover Law and Charter and Bylaws Provisions

Nevada Revised Statutes sections 78.378 to 78.3793 provide state regulation over the acquisition of a controlling interest in certain Nevada corporations unless the articles of incorporation or bylaws of the corporation provide that the provisions of these sections do not apply. Our articles of incorporation and bylaws do not state that these provisions do not apply. The statute creates a number of restrictions on the ability of a person or entity to acquire control of a Nevada company by setting down certain rules of conduct and voting restrictions in any acquisition attempt, among other things. The statute is limited to corporations that are organized in the state of Nevada and that have 200 or more shareholders, at least 100 of whom are shareholders of record and residents of the State of Nevada; and does business in the State of Nevada directly or through an affiliated corporation. Because of these conditions, the statute does not apply to our Company.

Provisions of our Articles of Incorporation and our Bylaws may delay or discourage transactions involving an actual or potential change in our control or change in our management. Therefore, these provisions could adversely affect the price of our Common Stock. Among other things, our Articles of Incorporation and our Bylaws (i) provide that the Bylaws may be altered, amended or repealed and new Bylaws may be adopted only by the board of directors, (ii) provide that the authorized number of directors, which may not be less than three or more than nine, may be changed only by resolution of the board of directors, (iii) permit our board of directors to issue up to 1,000,000 shares of preferred stock, with any rights, preferences and privileges as they may designate, including the right to approve an acquisition or other change in our control and (iv) our Articles of Incorporation provide that the shareholders shall not have pre-emptive rights to acquire unissued shares of the stock of the Company.

PLAN OF DISTRIBUTION

This prospectus relates to the resale of up to 21,705,326 shares of our Common Stock by the selling securityholders named herein, which includes 5,609,611 shares previously issued to selling securityholders in the private placements, 10,532,372 shares of Common Stock underlying warrants held by such selling securityholders, and 5,563,343 shares of Common Stock previously issued or which may be issued to Lincoln Park under the Purchase Agreement (including 366,611 commitment shares).

The Private Placements

Selling securityholders named herein and any of their pledgees, assignees and successors-in-interest may, from time to time, sell any or all of their shares of our Common Stock covered hereby on the principal trading market or any other stock exchange, market or trading facility on which the shares are traded or in private transactions. These sales may be at fixed or negotiated prices. Such selling securityholders may use any one or more of the following methods when selling shares:

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ordinary brokerage transactions and transactions in which the broker-dealer solicits purchasers;

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block trades in which the broker-dealer will attempt to sell the shares as agent but may position and resell a portion of the block as principal to facilitate the transaction;

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purchases by a broker-dealer as principal and resale by the broker-dealer for its account;

.

an exchange distribution in accordance with the rules of the applicable exchange;

.

privately negotiated transactions;

.

settlement of short sales entered into after the effective date of the registration statement of which this prospectus is a part;

.

in transactions through broker-dealers that agree with the selling securityholders to sell a specified number of such shares at a stipulated price per share;

through the writing or settlement of options or other hedging transactions, whether through an options exchange or otherwise;

a combination of any such methods of sale; or

any other method permitted pursuant to applicable law.

Such selling securityholders may also sell shares under Rule 144 under the Securities Act, if available, rather than under this prospectus.

Broker-dealers engaged by such selling securityholders may arrange for other brokers-dealers to participate in sales. Broker-dealers may receive commissions or discounts from the selling securityholders (or, if any broker-dealer acts as agent for the purchaser of shares, from the purchaser) in amounts to be negotiated, but, except as set forth in a supplement to this prospectus, in the case of an agency transaction not in excess of a customary brokerage commission in compliance with FINRA Rule 2440; and in the case of a principal transaction a markup or markdown in compliance with FINRA IM-2440.

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

Such selling securityholders and any broker-dealers or agents that are involved in selling the shares may be deemed to be "underwriters" within the meaning of the Securities Act in connection with such sales. In such event, any commissions received by such broker-dealers or agents and any profit on the resale of the shares purchased by them may be deemed to be underwriting commissions or discounts under the Securities Act. No such selling securityholder has informed the Company that it has any written or oral agreement or understanding, directly or indirectly, with any person to distribute the Common Stock. In no event shall any broker-dealer receive fees, commissions and markups which, in the aggregate, would exceed eight percent (8%).

The Company is required to pay certain fees and expenses incurred by the Company incident to the registration of the shares.

Because such selling securityholders may be deemed to be "underwriters" within the meaning of the Securities Act, they will be subject to the prospectus delivery requirements of the Securities Act including Rule 172 thereunder. No selling securityholder (other than Lincoln Park) has advised us that there is an underwriter or coordinating broker acting in connection with the proposed sale of the resale shares by such selling securityholders.

The resale shares will be sold only through registered or licensed brokers or dealers if required under applicable state securities laws. In addition, in certain states, the resale shares of Common Stock covered hereby 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 is complied with.

Under applicable rules and regulations under the Exchange Act, any person engaged in the distribution of the resale shares may not simultaneously engage in market making activities with respect to the Common Stock for the applicable restricted period, as defined in Regulation M, prior to the commencement of the distribution. In addition, such selling securityholders will be subject to applicable provisions of the Exchange Act and the rules and regulations thereunder, including Regulation M, which may limit the timing of purchases and sales of shares of the Common Stock by the selling securityholders or any other person. We will make copies of this prospectus available to the selling securityholders and have informed them of the need to deliver a copy of this prospectus to each purchaser at or prior to the time of the sale (including by compliance with Rule 172 under the Securities Act).

The Lincoln Park Transaction

5,563,343 shares of our Common Stock may be offered by this prospectus by Lincoln Park pursuant to the Purchase Agreement. The Common Stock may be sold or distributed from time to time by Lincoln Park directly to one or more purchasers or through brokers, dealers, or underwriters who may act solely as agents at market prices prevailing at the time of sale, at prices related to the prevailing market prices, at negotiated prices, or at fixed prices, which may be changed. The sale of the Common Stock offered by this prospectus could be affected in one or more of the following methods:

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ordinary brokers' transactions;

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transactions involving cross or block trades;

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through brokers, dealers, or underwriters who may act solely as agents;

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“at the market” into an existing market for the Common Stock;

in other ways not involving market makers or established business markets, including direct sales to purchasers or sales effected through agents;

in privately negotiated transactions; or

any combination of the foregoing.

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

Lincoln Park is an underwriter within the meaning of Section 2(a)(11) of the Securities Act.

Lincoln Park has informed us that it intends to use an unaffiliated broker-dealer to effectuate all sales, if any, of the Common Stock that it may purchase from us pursuant to the Purchase Agreement. Such sales will be made at prices and at terms then prevailing or at prices related to the then current market price. Each such unaffiliated broker-dealer will be an underwriter within the meaning of Section 2(a)(11) of the Securities Act. Lincoln Park has informed us that each such broker-dealer will receive commissions from Lincoln Park that will not exceed customary brokerage commissions. In compliance with the guidelines of the Financial Industry Regulatory Authority, Inc., or FINRA, the maximum consideration or discount to be received by any FINRA member or independent broker dealer may not exceed 8% of the aggregate amount of the securities offered pursuant to this prospectus.

Brokers, dealers, underwriters or agents participating in the distribution of the shares as agents may receive compensation in the form of commissions, discounts, or concessions from Lincoln Park and/or purchasers of the Common Stock for whom the broker-dealers may act as agent. The compensation paid to a particular broker-dealer may be less than or in excess of customary commissions. Neither we nor Lincoln Park can presently estimate the amount of compensation that any agent will receive. We know of no existing arrangements between Lincoln Park or any other stockholder, broker, dealer, underwriter or agent relating to the sale or distribution of the shares offered by this prospectus. At the time a particular offer of shares is made, a prospectus supplement, if required, will be distributed that will set forth the names of any agents, underwriters or dealers and any compensation from Lincoln Park, and any other required information.

LEGAL MATTERS

The validity of the securities being offered by this prospectus has been passed upon for us by Snell & Wilmer LLP, Reno, Nevada.

EXPERTS

Morison Cogen LLP, our independent registered public accounting firm, has audited our balance sheets as of December 31, 2017 and 2016, and the related statements of operations, stockholders' equity, and cash flows for each of the years in the three-year period ended December 31, 2017, and the related notes (herein referred to as "financial statements"), as set forth in their report, which is incorporated by reference in the prospectus and elsewhere in this registration statement. We have included our financial statements in this prospectus and elsewhere in the registration statement. Our consolidated financial statements are incorporated by reference in reliance on Morison Cogen LLP's report, given on their authority as experts in accounting and auditing.

INCORPORATION OF CERTAIN DOCUMENTS BY REFERENCE

The SEC allows us to incorporate by reference into this prospectus the information in other documents that we file with it. This means that we can disclose important information to you by referring you to those documents. The information incorporated by reference is considered to be a part of this prospectus, and information in documents that we file later with the SEC will automatically update and supersede information contained in documents filed earlier with the SEC or contained in this prospectus. We incorporate by reference in this prospectus (i) the documents listed below, (ii) all documents that we file with the SEC under Section 13(a), 13(c), 14 or 15(d) of the Exchange Act after the date of the initial filing of the registration statement of which this prospectus is included and prior to the effectiveness of such registration statement, and (iii) and any future filings that we may make with the SEC under Sections 13(a), 13(c), 14, or 15(d) of the Exchange Act prior to the termination of the offering under this prospectus; provided, however, that we are not incorporating, in each case, any documents or information deemed to have been

furnished and not filed in accordance with SEC rules:

- Our Annual Report on Form 10-K for the year ended December 31, 2017, as filed with the SEC on March 16, 2018.
- Our Current Report on Form 8-K, as filed with the SEC on February 2, 2018.
- The description of our Common Stock contained in our Annual Report on Form 10-K for the year ended December 31, 2017, as filed with the SEC on March 16, 2018, including any amendment or report filed for the purpose of updating such description.
- Our definitive proxy statement on Schedule 14A, as filed with the SEC on April 13, 2018.
- All reports and other documents subsequently filed by us pursuant to Sections 13(a), 13(c), 14 and 15(d) of the Exchange Act after the date of the registration statement to which this prospectus forms a part of and prior to the effectiveness of such registration statement or after the date of this prospectus and prior to the termination or completion of the offering of Securities under this prospectus shall be deemed to be incorporated by reference in this prospectus and to be a part hereof from the date of filing such reports and other documents.

WHERE YOU CAN FIND ADDITIONAL INFORMATION

We filed with the Securities and Exchange Commission a registration statement under the Securities Act of 1933 for the shares of Common Stock in this offering. This prospectus does not contain all of the information in the registration statement and the exhibits and schedule that were filed with the registration statement. For further information with respect to us and our Common Stock, we refer you to the registration statement and the exhibits and schedule that were filed with the registration statement. Statements contained in this prospectus about the contents of any contract or any other document that is filed as an exhibit to the registration statement are not necessarily complete, and we refer you to the full text of the contract or other document filed as an exhibit to the registration statement. A copy of the registration statement and the exhibits and schedules that were filed with the registration statement may be inspected without charge at the Public Reference Room maintained by the Securities and Exchange Commission at 100 F Street, N.E. Washington, DC 20549, and copies of all or any part of the registration statement may be obtained from the Securities and Exchange Commission upon payment of the prescribed fee. Information regarding the operation of the Public Reference Room may be obtained by calling the Securities and Exchange Commission at 1-800-SEC-0330. 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 SEC. The address of the website is www.sec.gov.

We file periodic reports under the Securities Exchange Act of 1934, including annual, quarterly and special reports, and other information with the Securities and Exchange Commission. These periodic reports and other information are available for inspection and copying at the regional offices, public reference facilities and website of the Securities and Exchange Commission referred to above.

We make available free of charge on or through our internet website 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 soon as reasonably practicable after we electronically file such material with, or furnish it to, the Securities and Exchange Commission.

PART II
INFORMATION NOT REQUIRED IN THE PROSPECTUS

Item 14. Other Expenses of Issuance and Distribution.

The following table sets forth all costs and expenses, payable by us in connection with the sale of the Common Stock being registered. All amounts shown are estimates except for the SEC registration fee.

	Amount to be Paid
SEC registration fee	\$ 679
Printing and engraving expenses	\$ 5,000
Legal fees and expenses	\$ 15,000
Accounting fees and expenses	\$ 5,000
Transfer agent and registrar fees and expenses	\$ 2,500
Miscellaneous expenses	\$ 1,821
Total	\$ 30,000

Item 15. Indemnification of Directors and Officers.

**DISCLOSURE OF COMMISSION POSITION ON INDEMNIFICATION
FOR SECURITIES ACT LIABILITY**

Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers or persons controlling the registrant pursuant to the foregoing provisions, the registrant has been informed that in the opinion of the SEC such indemnification is against public policy as expressed in the Securities Act and is, therefore, unenforceable.

Item 16.

Exhibits and Financial Statement Schedules.**(a) Exhibits**

Exhibit No.	Description	Location
5.1	<u>Opinion of Snell & Wilmer LLP</u>	Filed herewith
10.1	<u>Form of Subscription Agreement (Regulation D)</u>	Incorporated by reference to the Company's Form 8-K as filed with the SEC on July 14, 2014
10.2	<u>Form of Subscription Agreement (Regulation S)</u>	Incorporated by reference to the Company's Form 8-K as filed with the SEC on July 14, 2014
10.3	<u>Form of Warrant (Regulation D)</u>	Incorporated by reference to the Company's Form 8-K as filed with the SEC on July 14, 2014
10.4	<u>Form of Warrant (Regulation S)</u>	Incorporated by reference to the Company's Form 8-K as filed with the SEC on July 14, 2014
10.5	<u>Form of Subscription Agreement</u>	Incorporated by reference to the Company's Form 8-K as filed with the SEC on June 15, 2015
10.6	<u>Form of Warrant</u>	Incorporated by reference to the Company's Form 8-K as filed with the SEC on June 15, 2015
10.7	<u>Form of Subscription Agreement (Regulation D)</u>	Incorporated by reference to the Company's Form 8-K as filed with the SEC on December 31, 2015
10.8	<u>Form of Subscription Agreement (Regulation S)</u>	Incorporated by reference to the Company's Form 8-K as filed with the SEC on December 31, 2015
10.9	<u>Form of Warrant (Regulation D)</u>	Incorporated by reference to the Company's Form 8-K as filed with the SEC on December 31, 2015
10.10	<u>Form of Warrant (Regulation S)</u>	Incorporated by reference to the Company's Form 8-K as filed with the SEC on December 31, 2015

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|-------|---|---|
| 10.11 | <u>Purchase Agreement dated as of January 29, 2016, by and between the Company and Lincoln Park Capital Fund, LLC</u> | Incorporated by reference to the Company's Form 8-K as filed with the SEC on February 1, 2016 |
| 10.12 | <u>Registration Rights Agreement, dated as of January 29, 2016, by and between the Company and Lincoln Park Capital Fund, LLC</u> | Incorporated by reference to the Company's Form 8-K as filed with the SEC on February 1, 2016 |
| 23.1 | <u>Consent of Morison Cogen LLP, independent registered public accounting firm</u> | Filed herewith |
| 23.2 | <u>Consent of Snell & Wilmer LLP (contained in Exhibit 5.1)</u> | Filed herewith |

(b) Financial Statement Schedules

No financial statement schedules are provided because the information called for is not required or is shown either in the financial statements or the notes thereto.

Item 17.

Undertakings.

The undersigned registrant hereby undertakes:

(1) To file, during any period in which offers or sales are being made, a post-effective amendment to this registration statement:

(i) To include any prospectus required by Section 10(a)(3) of the Securities Act of 1933;

(ii) To reflect in the prospectus any facts or events arising after the effective date of the registration statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in the registration statement. Notwithstanding the foregoing, any increase or decrease in volume of securities offered (if the total dollar value of securities offered would not exceed that which was registered) and any deviation from the low or high end of the estimated maximum offering range may be reflected in the form of prospectus filed with the Commission pursuant to Rule 424(b) if, in the aggregate, the changes in volume

and price represent no more than a 20 percent change in the maximum aggregate offering price set forth in the Calculation of Registration Fee table in the effective registration statement; and

(iii) To include any material information with respect to the plan of distribution not previously disclosed in the registration statement or any material change to such information in the registration statement;

(2) That, for the purpose of determining any liability under the Securities Act of 1933, each such post-effective amendment shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

(3) To remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of the offering.

(4) That, for the purpose of determining liability of the registrant under the Securities Act of 1933 to any purchaser:

If the registrant is subject to Rule 430C, each prospectus filed pursuant to Rule 424(b) as part of a registration statement relating to an offering, other than registration statements relying on Rule 430B or other than prospectuses filed in reliance on Rule 430A, shall be deemed to be part of and included in the registration statement as of the date it is first used after effectiveness. Provided, however, that no statement made in a registration statement or prospectus that is part of the registration statement or made in a document incorporated or deemed incorporated by reference into the registration statement or prospectus that is part of the registration statement will, as to a purchaser with a time of contract of sale prior to such first use, supersede or modify any statement that was made in the registration statement or prospectus that was part of the registration statement or made in any such document immediately prior to such date of first use.

(5) Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers and controlling persons of the Registrant pursuant to the foregoing provisions, or otherwise, the Registrant has been advised that in the opinion of the Securities and Exchange Commission such indemnification is against public policy as expressed in the Securities Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the Registrant of expenses incurred or paid by a director, officer or controlling person of the Registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the Registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Securities Act and will be governed by the final adjudication of such issue.

(6) That, for purposes of determining any liability under the Securities Act of 1933, each filing of the registrant's annual report pursuant to section 13(a) or section 15(d) of the Securities Exchange Act of 1934 (and, where applicable, each filing of an employee benefit plan's annual report pursuant to section 15(d) of the Securities Exchange Act of 1934) that is incorporated by reference in the registration statement shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

SIGNATURES

Pursuant to the requirements of the Securities Act, the Registrant has duly caused this Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Longmont, State of Colorado on the 2nd day of May 2018.

LIGHTWAVE LOGIC, INC.

By: */s/ Michael S. Lebby*
Michael S. Lebby
Chief Executive Officer and Director

POWER OF ATTORNEY

We, the undersigned officers and directors of Lightwave Logic, Inc., do hereby constitute and appoint Thomas E. Zelibor and James S. Marcelli, and each of them singly (with full power to each of them to act alone) our true and lawful attorney-in-fact and agent, with full power of substitution and resubstitution in each of them, for him and in his name, place and stead, in any and all capacities, to sign any and all amendments to this Registration Statement, and to file the same, with exhibits thereto, and other documents in connection therewith, with the SEC, granting unto said attorneys-in-fact and agents, and each of them full power and authority to do and perform each and every act and thing requisite are necessary to be done in and about the premises, as fully to all intents and purposes as he might or could do in person, hereby ratifying and confirming all that said attorneys-in-fact and agents, and any of them or their or his substitute or substitutes, may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Act, this Registration Statement has been signed by the following persons in the capacities and on the dates indicated.

Signature	Title	Date
<i>/s/ Thomas E. Zelibor</i> Thomas E. Zelibor	Chairman of the Board of Directors	May 2, 2018
<i>/s/ Michael S. Lebby</i> Michael S. Lebby	Chief Executive Officer and Director	May 2, 2018

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/s/ James S. Marcelli James S. Marcelli	President, Chief Operating Officer, Principal Financial Officer and Director	May 2, 2018
/s/ William C. Pickett, III William C. Pickett, III	Director	May 2, 2018
/s/ Joseph A. Miller Joseph A. Miller	Director	May 2, 2018
/s/ Ronald A. Bucchi Ronald A. Bucchi	Director	May 2, 2018
/s/ Siraj Nour El-Ahmadi Siraj Nour El-Ahmadi	Director	May 2, 2018
/s/ Frederick J. Leonberger Frederick J. Leonberger	Director	May 2, 2018