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

POST-EFFECTIVE AMENDMENT NO. 3 TO

**FORM S-1**

REGISTRATION STATEMENT UNDER THE SECURITIES ACT OF 1933

**BioSig Technologies, Inc.**

(Exact name of registrant as specified in its charter)

**Delaware**

(State or other jurisdiction of  
incorporation or organization)

**3845**

(Primary Standard Industrial  
Classification Code Number)

**26-4333375**

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

**8441 Wayzata Blvd., Suite 240  
Minneapolis, Minnesota 55426**

**(763) 999-7330**

(Address, including zip code, and telephone number,  
including area code, of registrant's principal executive offices)

**Kenneth Londoner  
Executive Chairman**

**8441 Wayzata Blvd., Suite 240  
Minneapolis, Minnesota 55426**

**(763) 999-7330**

(Name, address, including zip code, and telephone number,  
including area code, of agent for service)

***Copies of all communications, including communications sent to agent for service, should be sent to:***

**Rick A. Werner, Esq.  
Haynes and Boone, LLP  
30 Rockefeller Plaza, 26th Floor  
New York, New York 10112  
Tel. (212) 659-7300  
Fax (212) 884-8234**

**Approximate date of commencement of proposed sale to the public:** As soon as practicable after the effective date of this Registration Statement.

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 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 post-effective amendment filed pursuant to Rule 462(d) 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.

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company, or an emerging growth 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.  
(Check one):

Large accelerated filer

Accelerated filer

Non-accelerated filer

Smaller reporting company

(Do not check if a smaller reporting company)

Emerging growth company

If an emerging growth company, indicate by check mark if the registrant has elected not 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.

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## EXPLANATORY NOTE

This Post-Effective Amendment No. 3 constitutes the third post-effective amendment to the registrant's Registration Statement on Form S-1, File No. 333-190080, which was first filed with the Securities Exchange Commission on July 22, 2013, as amended on September 11, 2013, October 4, 2013, January 21, 2014, March 28, 2014, May 1, 2014, May 22, 2014, June 11, 2014 and June 20, 2014 (the "Registration Statement").

The primary purpose of this Post-Effective Amendment No. 3 is to (i) incorporate the registrant's Annual Report on Form 10-K for the fiscal year ended December 31, 2016, along with certain other documents filed by the registrant with the Securities Exchange Commission since December 31, 2016, into the prospectus forming a part hereof, (ii) provide for the incorporation by reference in the Registration Statement of all documents subsequently filed by the Registrant pursuant to Sections 13(a), 13(c), 14 or 15(d) of the Securities Exchange Act of 1934, as amended (the "Exchange Act"); and (iii) make certain other updates to the prospectus forming a part hereof.

**The registrant hereby 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 thereafter 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 said Section 8(a), may determine.**

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**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 is effective. This prospectus is not an offer to sell these securities and it is not soliciting an offer to buy these securities in any state where the offer or sale is not permitted.**

**SUBJECT TO COMPLETION, DATED MAY 26, 2017**

**PRELIMINARY PROSPECTUS**



**BioSig Technologies, Inc.**

**Up to 713,345 Shares of Common Stock Underlying Series C Preferred Stock and up to 3,127,510 Shares of Common Stock Underlying Warrants  
Up to 1,149,612 Shares of Common Stock**

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This prospectus relates to the resale of up to (i) 713,345 shares of our common stock to be offered by the selling stockholders upon the conversion of 1,070 shares of our Series C Preferred Stock, at a conversion price of \$1.50 per share, (ii) 30,001 shares of our common stock to be offered by the selling stockholders which were issued to the selling stockholders upon conversion of an aggregate of 45 shares of our Series C Preferred Stock, at a conversion price of \$1.50 per share on June 10, 2016 and November 28, 2016 (iii) 3,127,510 shares of our common stock to be offered by the selling stockholders upon the exercise of outstanding common stock purchase warrants and (iv) 1,149,612 shares of our common stock to be offered by the selling stockholders.

Our common stock trades in the over-the-counter market and is quoted on the OTCQB tier of the OTC Markets Group, Inc. under the symbol "BSGM." Only a limited public market currently exists for our common stock. On May 25, 2017, the last reported sale price of our shares of common stock on the OTCQB was \$1.43 per share.

We will not receive any of the proceeds from the sale of common stock by the selling stockholders. However, we will receive proceeds from the exercise of the warrants if the warrants are exercised for cash. We intend to use those proceeds, if any, for general corporate purposes. All expenses of registration incurred in connection with this offering are being borne by us, but all selling and other expenses incurred by the selling stockholders will be borne by the selling stockholders.

**We qualify as an "emerging growth company" as defined in the Jumpstart our Business Startups Act of 2012, or JOBS Act, and have elected to comply with certain reduced public company reporting requirements in this and future filings.**

**Investing in our common stock is highly speculative and involves a high degree of risk. You should carefully consider the risks and uncertainties in the section entitled "Risk Factors" beginning on page 3 of this prospectus before making a decision to purchase our stock.**

**We may amend or supplement this prospectus from time to time by filing amendments or supplements as required. You should read the entire prospectus and any amendments or supplements carefully before you make your investment decision.**

**Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or passed upon the adequacy or accuracy of this prospectus. Any representation to the contrary is a criminal offense.**

The date of this prospectus is \_\_\_\_\_, 2017

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**You should rely only on the information contained in this prospectus. We have not authorized any other person to provide you with different information. If anyone provides you with different or inconsistent information, you should not rely on it. We are not making an offer to sell these securities in any jurisdiction where offer or sale is not permitted. You should assume that the information appearing in this prospectus is accurate only as of the date on the front cover of this prospectus. Our business, financial condition, results of operations and prospects may have changed since that date.**

**Information contained on our website is not part of this prospectus.**

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## PROSPECTUS SUMMARY

*The following summary highlights information contained elsewhere in this prospectus. It may not contain all the information that may be important to you. You should read this entire prospectus carefully, including the sections entitled "Risk Factors" and "Management's Discussion and Analysis of Financial Condition and Results of Operations," and our historical financial statements and related notes included elsewhere in this prospectus, any accompanying prospectus supplement or the documents incorporated herein by reference before making an investment decision. In this prospectus, unless the context requires otherwise, all references to "we," "our," "us" and the "Company" refer to BioSig Technologies, Inc.*

### **Overview**

We are a development stage medical device company that is developing a proprietary technology platform to minimize noise and artifacts from cardiac recordings during electrophysiology studies, where signals that measure electrical activity of the heart, such as electrocardiograms and electrograms, are measured. These signals are also evaluated during ablation, a procedure that involves delivery of energy through the tip of a catheter that scars or destroys heart tissue in order to correct heart rhythm disturbances. Our product under development, the PURE (Precise Uninterrupted Real-time evaluation of Electrograms) EP System, is a surface electrocardiogram and intracardiac multichannel recording and analysis system that acquires, processes and displays electrocardiogram and electrograms required during electrophysiology studies and ablation procedures. The PURE EP System is intended to be used in addition to existing electrophysiology recorders. We believe that data provided by the PURE EP System will increase the workload ability and enhance the capabilities of the typical electrophysiology laboratory.

We were formed as BioSig Technologies, Inc., a Nevada corporation, in February 2009. In April 2011, we merged with our wholly-owned subsidiary, BioSig Technologies Inc., a Delaware corporation, with the Delaware corporation continuing as the surviving entity. We have not generated any revenue to date and consequently our operations are subject to all risks inherent in the establishment of a new business enterprise.

Our principal executive offices are located at 8441 Wayzata Blvd., Suite 240, Minneapolis, Minnesota 55426, telephone number (763) 999-7330. Our website address is [www.biosigtech.com](http://www.biosigtech.com). Information accessed through our website is not incorporated into this prospectus and is not a part of this prospectus.

## The Offering

Common stock offered by the selling stockholders:	Up to 713,345 shares of our common stock to be offered by the selling stockholders issued or issuable upon the conversion of shares of Series C Preferred Stock and up to 30,001 shares of our common stock to be offered by the selling stockholders which were issued to the selling stockholders upon conversion of an aggregate of 45 shares of our Series C Preferred Stock on June 10, 2016 and November 28, 2016 and up to 3,127,510 shares of our common stock to be offered by the selling stockholders upon the exercise of outstanding common stock purchase warrants and up to 1,149,612 shares of our common stock to be offered by the selling stockholders.
Common stock outstanding prior to the offering:	25,215,052
Common stock outstanding after this offering:	29,064,848 (1)
Use of proceeds:	We will not receive any proceeds from the sale of the common stock offered by the selling stockholders. However, we will receive proceeds from the exercise price of the warrants if the warrants are exercised for cash. We intend to use those proceeds, if any, for general corporate purposes.
OTCQB trading symbol:	“BSGM”
Risk factors:	You should carefully consider the information set forth in this prospectus and, in particular, the specific factors set forth in the “Risk Factors” section beginning on page 3 of this prospectus before deciding whether or not to invest in shares of our common stock.

- (1) The number of shares of common stock outstanding after the offering is based upon 25,215,052 shares outstanding as of May 18, 2017, and assumes the exercise of all warrants with respect to those shares being registered for resale pursuant to the registration statement of which this prospectus forms a part.

The number of shares of common stock outstanding after this offering excludes:

- 8,245,190 shares of common stock issuable upon the exercise of currently outstanding options at a weighted average exercise price of \$2.24 per share;
- 3,377,638 shares of common stock available for future issuance under the BioSig Technologies, Inc. 2012 Equity Incentive Plan;
- 278,540 shares of common stock issuable for accrued dividends on our Series C Preferred Stock as of March 31, 2017;
- 7,774,068 shares of common stock issuable upon exercise of warrants at a weighted average exercise price of \$2.03 per share.

## **RISK FACTORS**

An investment in our securities involves a high degree of risk. Before deciding whether to invest in our securities, you should carefully consider the risks and uncertainties and all other information contained or incorporated by reference in this prospectus, including the risks and uncertainties discussed under Item 1A, “Risk Factors,” in our Annual Report on Form 10-K for the fiscal year ended December 31, 2016, which is incorporated herein by reference, as updated or superseded by the risks and uncertainties described under similar headings in the other documents that are filed after the date hereof and incorporated by reference into this prospectus. The risks and uncertainties we have described are not the only ones we face. Additional risks and uncertainties not presently known to us or that we currently deem immaterial may also affect our operations. Past financial performance may not be a reliable indicator of future performance, and historical trends should not be used to anticipate results or trends in future periods. If any of these risks actually occurs, our business, business prospects, financial condition or results of operations could be seriously harmed. This could cause the trading price of our common stock to decline, resulting in a loss of all or part of your investment. Please also read carefully the section below entitled “Special Note Regarding Forward-Looking Statements.”



## **SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS**

This prospectus contains “forward-looking statements,” which include information relating to future events, future financial performance, strategies, expectations, competitive environment and regulation. Words such as “may,” “should,” “could,” “would,” “predict,” “potential,” “continue,” “expect,” “anticipate,” “future,” “intend,” “plan,” “believe,” “estimate,” and similar expressions, as well as statements in future tense, identify forward-looking statements. Forward-looking statements should not be read as a guarantee of the occurrence or the expected timing of future performance or results. Forward-looking statements are based on information we have when those statements are made or our management’s good faith belief as of that time with respect to future events, and are subject to risks and uncertainties that could cause actual performance or results to differ materially from those expressed in or suggested by the forward-looking statements. Important factors that could cause such differences include, but are not limited to:

- inability to manufacture our product candidates on a commercial scale on our own, or in collaboration with third parties;
- difficulties in obtaining financing on commercially reasonable terms;
- changes in the size and nature of our competition;
- loss of one or more key executives or scientists; and
- difficulties in securing regulatory approval to market our product candidates.

You should review carefully the section entitled “Risk Factors” beginning on page 3 of this prospectus for a discussion of these and other risks that relate to our business and investing in shares of our common stock. We undertake no obligation to update or revise publicly any forward-looking statements, whether as a result of new information, future events or otherwise.

## **USE OF PROCEEDS**

All shares of our common stock offered by this prospectus are being registered for the accounts of the selling stockholders and we will not receive any proceeds from the sale of these shares. However, we will receive proceeds from the exercise price of the warrants if the warrants are exercised for cash. We intend to use those proceeds, if any, for general corporate purposes.

## SELLING STOCKHOLDERS

Up to 4,990,467 shares of our common stock are currently being offered by the selling stockholders under this prospectus. This reflects the sum of (a) the number of shares of common stock into which (i) the Series C Preferred Stock are currently exercisable, at a price of \$1.50 per share per \$1,000 principal amount of Series C Preferred Stock and (ii) the warrants are exercisable, and (b) the shares of common stock (i) issued in lieu of cash payments on the interest accrued on certain bridge notes that were subsequently converted into shares of Series C Preferred Stock and (ii) issued upon conversion of the Series C Preferred Stock. Interest accrued on the bridge notes at a rate of 8% per annum. The total accrued interest on the bridge notes, which were exchanged for shares of common stock at a price of \$2.09 per share, represented amounts accrued from the issuance of the bridge notes in the fourth quarter of 2013 until such bridge notes were exchanged for shares of the Series C Preferred Stock on February 6, 2013. All of the shares of Series C Preferred Stock and warrants were purchased by the selling stockholders in multiple closings from February to July 2013 pursuant to the same securities purchase agreement (the "Private Placement"), except for (i) the warrants issued to the holders of our Series C Preferred Stock in consideration of certain amendments made to the related securities purchase agreement and registration rights agreement and (ii) the warrants held by Laidlaw & Co. (UK) Ltd., which were issued as part of the compensation for serving as our placement agent in connection with the private placement of our Series C Preferred Stock and the related warrants. The selling stockholders that participated in the Private Placement paid \$1,000 for a unit consisting of one share of Series C Preferred Stock and a warrant to purchase up to a number of shares of our common stock equal to 100% of \$1,000 divided by \$2.09. The terms of the Series C Preferred Stock were amended on March 27, 2014 to provide for a decrease of the conversion price of the Series C Preferred Stock from \$2.09 per share to \$1.50 per share. As a result of the amendment, the full-ratchet anti-dilution protection provision of the related warrants decreased the exercise price of the warrants from \$2.61 per share to \$1.50 per share and increased the number of shares issuable under each warrant was increased such that the aggregate exercise price payable under such warrant, after taking into account the decrease in the exercise price, is equal to the aggregate exercise price prior to such adjustment. In addition, due to our failure to fulfill our obligations under the registration rights agreement entered into with the holders of our Series C Preferred Stock, we owe such holders liquidated damages in an amount equal to 0.25% of the aggregate purchase price paid by such holders per month for each month period in which we failed to fulfill such obligations, provided that the maximum aggregate liquidated damages due under the registration rights agreement shall be 3% of the aggregate purchase price paid by the purchasers. Because we have not paid such liquidated damages, we are also obligated to pay interest of 18% per annum, accruing daily, on such unpaid amounts to the holders of our Series C Preferred Stock.

The shares of common stock referred to above are being registered to permit public sales of the shares, and the selling stockholders may offer the shares for resale from time to time pursuant to this prospectus. The selling stockholders may also sell, transfer or otherwise dispose of all or a portion of their shares in transactions exempt from the registration requirements of the Securities Act of 1933, as amended, or pursuant to another effective registration statement covering those shares.

The table below sets forth certain information regarding the selling stockholders and the shares of our common stock offered by them in this prospectus. The selling stockholders have not had a material relationship with us within the past three years other than as described in the footnotes to the table below or as a result of their acquisition of our shares or other securities. To our knowledge, subject to community property laws where applicable, each person named in the table has sole voting and investment power with respect to the shares of common stock set forth opposite such person's name. None of the selling stockholders are broker-dealers or affiliates of broker-dealers, unless otherwise noted.

Beneficial ownership is determined in accordance with the rules of the Securities and Exchange Commission. With respect to the Series C Preferred Stock and warrants held by the selling stockholders, there exist contractual provisions limiting conversion and exercise to the extent such conversion or exercise would cause such selling stockholder, together with its affiliates or members of a "group," to beneficially own a number of shares of common stock which would exceed from 4.99% to 9.99% of our then outstanding shares of common stock following such conversion or exercise. The shares and percentage ownership of our outstanding shares indicated in the table below do not give effect to these limitations.

Selling Stockholder	Ownership Before Offering		Ownership After Offering	
	Number of shares of common stock beneficially owned (1)	Number of shares offered	Number of shares of common stock beneficially owned (1)	Percentage of common stock beneficially owned (1)
Michael N. Emmerman	541,057 (2)	345,686 (3)	195,371 (4)	*
Lau Family Fund LP (5)	105,693 (6)	86,284 (7)	19,409 (8)	*
Jonathan Steinhouse	261,765 (9)	43,068 (10)	218,697 (11)	*
Kenneth L. Londoner (12)	4,328,476 (13)	344,049 (14)	3,984,427 (15)	15.57%
R. Ian Chaplin	78,039 (16)	43,000 (17)	35,039 (18)	*
Kenneth Epstein	218,956 (19)	171,270 (20)	47,686 (21)	*
Jerome B. Zeldis (22)	652,584 (23)	85,371 (24)	567,213 (25)	2.21%
Brio Capital Master Fund Ltd. (26)	368,586 (27)	213,419 (28)	155,167 (29)	*
Alpha Capital Anstalt (30)	2,495,905 (31)	1,067,085 (32)	1,428,820 (33)	5.58%
Sterne Agee & Leach Inc C/F Maree Casatelli SEP IRA	52,782 (34)	42,685 (35)	10,097 (36)	*
Ron D Craig	223,192 (37)	157,331 (38)	65,861 (39)	*
Michael & Susan Engdall JTWROS	99,557 (40)	57,678 (41)	41,879 (42)	*
David W Frost	508,262 (43)	256,101 (44)	252,161 (45)	1.00%
Phillip Todd Herndon	132,599 (46)	85,369 (47)	47,230 (48)	*
Rex A Jones	280,975 (49)	170,735 (50)	110,240 (51)	*
Nabil M Yazgi	164,477 (52)	34,148 (53)	130,329 (54)	*
Portofino Ventures LP (55)	41,911 (56)	34,147 (57)	7,764 (58)	*
Thomas G Hoffman	60,736 (59)	42,685 (60)	18,051 (61)	*
James W Lees	104,246 (62)	50,183 (63)	54,063 (64)	*
Martin F Sauer	85,844 (65)	42,685 (66)	43,159 (67)	*
Ray Weber	95,785 (68)	74,750 (69)	21,035 (70)	*
Sterne Agee & Leach Inc C/F Raymond E Weber IRA	76,304 (71)	59,757 (72)	16,547 (73)	*
Fourfathom Capital, LLC (74)	218,012 (75)	170,735 (76)	47,277 (77)	*
Michael B & Sheila J Carroll JTWROS	394,323 (78)	256,101 (79)	138,222 (80)	*
Scott D. Gamble	216,841 (81)	170,735 (82)	46,106 (83)	*
Brian E. Jones & Peggy A. Jones JTWROS	236,246 (84)	85,369 (85)	150,877 (86)	*
David Patterson	43,370 (87)	34,148 (88)	9,222 (89)	*
Herschel E. Johnson (90)	41,625 (91)	29,026 (92)	12,599 (93)	*
George & Karin Alexa Elefther JTWROS	25,412 (94)	7,498 (95)	17,914 (96)	*
L. Dean Fox	55,412 (97)	7,498 (98)	47,914 (99)	*
Sterne Agee & Leach Inc C/F John L Sommer IRA	75,123(100)	14,993(101)	60,130(102)	*
Sterne Agee & Leach Inc C/F David W Frost IRA	49,548(103)	8,996(104)	40,552(105)	*
Allan D Carlson	19,481(106)	14,993(107)	4,488(108)	*
Ian H Murray	38,681(109)	14,993(110)	23,688(111)	*
Sterne Agee & Leach Inc C/F Randy Payne IRA	83,391(112)	14,993(113)	68,398(114)	*
Dr. Richard & Anita Matter JTWROS	39,004(115)	29,986(116)	9,018(117)	*
Robert J Gray	76,948(118)	37,481(119)	39,467(120)	*
Randal E Margo	47,185(121)	37,481(122)	9,704(123)	*
Eugene E Eubank	94,369(124)	74,962(125)	19,407(126)	*
Robert W Baird & Co Inc TTEE FBO Brian Mark Miller ROTH IRA	194,785(127)	149,921(128)	44,864(129)	*
Sterne Agee & Leach Inc C/F Dr Gary W Chmielewski IRA	19,481(130)	14,993(131)	4,488(132)	*
Laidlaw & Co (UK) Ltd. (133)	348,406(134)	308,079(134)	40,327(134)	*

\* Less than 1%

- In computing the percentage of our common stock beneficially owned by each selling stockholder after the offering, we have assumed the exercise by such selling stockholder of all warrants with respect to those shares being offered by such selling stockholder, and therefore the calculation is based on a number of shares of common stock outstanding comprised of (i) 25,215,052
- (1) shares of common stock outstanding as of May 18, 2017 plus (ii) the number of shares offered by the selling stockholder in this offering underlying the Series C Preferred Stock warrants held by such selling stockholder. The shares offered by one selling stockholder underlying warrants held by such selling stockholder are not deemed outstanding for the purpose of computing the percentage ownership of any other selling stockholder.
- Comprised of (i) 100,000 shares of common stock, (ii) 4,216 shares of common stock issued in lieu of cash payments on the interest accrued on his bridge notes, (iii) 187,077 shares of common stock issuable upon the conversion of shares of our Series C
- (2) Preferred Stock, (iv) 166,508 shares of common stock issuable upon the exercise of warrants purchased in a private placement transaction and (v) 83,256 shares of common stock issuable upon the exercise of warrants issued in consideration of certain amendments made to our Securities Purchase Agreement and Registration Rights Agreement.
- Comprised of (i) 4,216 shares of common stock issued in lieu of cash payments on the interest accrued on his bridge notes, (ii)
- (3) 133,334 shares of common stock issuable upon the conversion of shares of our Series C Preferred Stock and (iii) 208,136 shares of common stock issuable upon the exercise of warrants.
- Comprised of (i) 100,000 shares of common stock, (ii) 53,743 shares of common stock issuable upon the conversion of shares of our Series C Preferred Stock and (iii) 41,628 shares of common stock issuable upon the exercise of warrants.
- S7 Capital, the general partner of Lau Family Fund LP, has voting and dispositive power over the securities held for the account of this selling stockholder. S7 Capital is controlled by Steven Lau, its manager, and accordingly, Mr. Lau may be deemed to have sole voting and dispositive power over the securities owned by Lau Family Fund LP.
- Comprised of (i) 913 shares of common stock issued in lieu of cash payments on the interest accrued on his bridge notes, (ii) 42,334 shares of common stock issued upon the conversion of shares of our Series C Preferred Stock, (iii) 41,628 shares of common stock issuable upon the exercise of warrants purchased in a private placement transaction and (iv) 20,818 shares of common stock issuable upon the exercise of warrants issued in consideration of certain amendments made to our Securities Purchase Agreement and Registration Rights Agreement.
- Comprised of (i) 913 shares of common stock issued in lieu of cash payments on the interest accrued on his bridge notes, (ii)
- (7) 33,334 shares of common stock issued upon the conversion of shares of our Series C Preferred Stock and (iii) 52,037 shares of common stock issuable upon the exercise of warrants.
- Comprised of (i) 9,000 shares of common stock issued upon the conversion of shares of our Series C Preferred Stock and (ii) 10,409 shares of common stock issuable upon the exercise of warrants.
- Comprised of (i) 202,870 shares of common stock, (ii) 383 shares of common stock issued in lieu of cash payments on the interest accrued on his bridge notes, (iii) 21,167 shares of common stock issued upon the conversion of shares of our Series C Preferred Stock, (iv) 26,937 shares of common stock issuable upon the exercise of warrants purchased in two private placement transactions, (v) 10,408 shares of common stock issuable upon the exercise of warrants issued in consideration of certain amendments made to our Securities Purchase Agreement and Registration Rights Agreement. Mr. Steinhouse may also be deemed beneficial owner of shares held by Sterne Agee & Leach Inc C/F Jonathan Steinhouse R/O IRA.
- Comprised of (i) 383 shares of common stock issued in lieu of cash payments on the interest accrued on his bridge notes, (ii)
- (10) 16,667 shares of common stock issued upon the conversion of shares of our Series C Preferred Stock and (iii) 26,018 shares of common stock issuable upon the exercise of warrants.
- Comprised of (i) 202,870 shares of common stock, (ii) 4,500 shares of common stock issued upon the conversion of shares of our Series C Preferred Stock, (iii) 11,327 shares of common stock issuable upon the exercise of warrants.
- (12) Kenneth L Londoner is our executive chairman.

- Comprised of (i) 241,960 shares of common stock directly held by Mr. Londoner and 2,579 shares of common stock issued in lieu of cash payments on the interest accrued on his bridge notes, (ii) 3,334,974 shares of common stock held by Endicott Management Partners, LLC, an entity for which Mr. Londoner is deemed the beneficial owner, (iii) 169,334 shares of common stock issued upon the conversion of shares of our Series C Preferred Stock, (iv) 246,373 shares of common stock issuable upon the exercise of warrants purchased in three private placement transactions, (v) 83,256 shares of common stock issuable upon the exercise of warrants issued in consideration of certain amendments made to our Securities Purchase Agreement and Registration Rights Agreement and (vi) options to purchase 250,000 shares of common stock that are currently exercisable.
- (13) Comprised of (i) 2,579 shares of common stock issued in lieu of cash payments on the interest accrued on his bridge notes, (ii) 133,334 shares of common stock issued upon the conversion of shares of our Series C Preferred Stock and (iii) 208,136 shares of common stock issuable upon the exercise of warrants.
- (14) Comprised of (i) 241,960 shares of common stock directly held by Mr. Londoner, (ii) 3,334,974 shares of common stock held by Endicott Management Partners, LLC, an entity for which Mr. Londoner is deemed the beneficial owner, (iii) 36,000 shares of common stock issued upon the conversion of shares of our Series C Preferred Stock, (iv) 121,493 shares of common stock issuable upon the exercise of warrants and (v) options to purchase 250,000 shares of common stock that are currently exercisable.
- (15) Comprised of (i) 25,000 shares of common stock, (ii) 315 shares of common stock issued in lieu of cash payments on the interest accrued on the bridge notes, (iii) 21,502 shares of common stock issued upon the conversion of shares of our Series C Preferred Stock, (iv) 20,814 shares of common stock issuable upon the exercise of warrants purchased in a private placement transaction and (v) 10,408 shares of common stock issuable upon the exercise of warrants issued in consideration of certain amendments made to our Securities Purchase Agreement and Registration Rights Agreement.
- (16) Comprised of (i) 315 shares of common stock issued in lieu of cash payments on the interest accrued on the bridge notes, (ii) 16,667 shares of common stock issued upon the conversion of shares of our Series C Preferred Stock and (iii) 26,018 shares of common stock issuable upon the exercise of warrants.
- (17) Comprised of (i) 25,000 shares of common stock, (ii) 4,835 shares of common stock issued upon the conversion of shares of our Series C Preferred Stock and (iii) 5,204 shares of common stock issuable upon the exercise of warrants.
- (18) Comprised of (i) 535 shares of common stock issued in lieu of cash payments on the interest accrued on his bridge notes, (ii) 93,539 shares of common stock issuable upon the conversion of shares of our Series C Preferred Stock, (iii) 83,254 shares of common stock issuable upon the exercise of warrants purchased in a private placement transaction and (iv) 41,628 shares of common stock issuable upon the exercise of warrants issued in consideration of certain amendments made to our Securities Purchase Agreement and Registration Rights Agreement.
- (19) Comprised of (i) 535 shares of common stock issued in lieu of cash payments on the interest accrued on his bridge notes, (ii) 66,667 shares of common stock issuable upon the conversion of shares of our Series C Preferred Stock and (iii) 104,068 shares of common stock issuable upon the exercise of warrants.
- (20) Comprised of (i) 26,872 shares of common stock issuable upon the conversion of shares of our Series C Preferred Stock and (ii) 20,814 shares of common stock issuable upon the exercise of warrants.
- (21) Jerome B. Zeldis is a member of our board of directors.
- (22) Comprised of (i) 137,245 shares of common stock, (ii) 46,770 shares of common stock issuable upon the conversion of shares of our Series C Preferred Stock, (iii) 47,751 shares of common stock issuable upon the exercise of warrants purchased in two private placement transactions, (iv) 20,818 shares of common stock issuable upon the exercise of warrants issued in consideration of certain amendments made to our Securities Purchase Agreement and Registration Rights Agreement and (v) options to purchase 400,000 shares of common stock that are currently exercisable or exercisable within 60 days of May 18, 2017.

- (24) Comprised of (i) 33,334 shares of common stock issuable upon the conversion of shares of our Series C Preferred Stock and (ii) 52,037 shares of common stock issuable upon the exercise of warrants.
- (25) Comprised of (i) 137,245 shares of common stock, (ii) 10,902 shares of common stock issuable upon the conversion of shares of our Series C Preferred Stock, (iii) 13,436 shares of common stock issuable upon the exercise of warrants and (iv) options to purchase 400,000 shares of common stock that are currently exercisable.
- (26) Shaye Hirsch, director of Brio Capital Master Fund Ltd., has sole voting and dispositive power over the securities held for the account of this selling stockholder.
- (27) Comprised of (i) 15,519 shares of common stock, (ii) 160,541 shares of common stock issued upon the conversion of shares of our Series C Preferred Stock, and (iii) 166,508 shares of common stock issuable upon the exercise of warrants purchased in two private placement transactions. and (v) 26,018 shares of common stock issuable upon the exercise of warrants issued in consideration of certain amendments made to our Securities Purchase Agreement and Registration Rights Agreement.
- (28) Comprised of (i) 83,333 shares of common stock issued upon the conversion of shares of our Series C Preferred Stock, and (ii) 130,086 shares of common stock issuable upon the exercise of warrants.
- (29) Comprised of (i) 15,519 shares of common stock, (ii) 77,208 shares of common stock issued upon the conversion of shares of our Series C Preferred Stock, and (iii) 62,440 shares of common stock issuable upon the exercise of warrants.
- (30) Konrad Ackermann has sole voting and dispositive power over the securities held for the account of this selling stockholder.
- (31) Comprised of (i) 634,034 shares of common stock, (ii) 838,026 shares of common stock issued upon the conversion of shares of our Series C Preferred Stock, (iii) 893,761 shares of common stock issuable upon the exercise of warrants purchased in three private placement transactions and (iv) 130,084 shares of common stock issuable upon the exercise of warrants issued in consideration of certain amendments made to our Securities Purchase Agreement and Registration Rights Agreement.
- (32) Comprised of (i) 416,666 shares of common stock issued upon the conversion of shares of our Series C Preferred Stock, (ii) 650,419 shares of common stock issuable upon the exercise of warrants.
- (33) Comprised of (i) 634,034 shares of common stock, (ii) 421,360 shares of common stock issued upon the conversion of shares of our Series C Preferred Stock, (iii) 373,426 shares of common stock issuable upon the exercise of warrants.
- (34) Comprised of (i) 21,560 shares of common stock issued upon the conversion of shares of our Series C Preferred Stock, (ii) 20,814 shares of common stock issuable upon the exercise of warrants purchased in a private placement transaction and (iii) 10,408 shares of common stock issuable upon the exercise of warrants issued in consideration of certain amendments made to our Securities Purchase Agreement and Registration Rights Agreement.
- (35) Comprised of (i) 16,667 shares of common stock issued upon the conversion of shares of our Series C Preferred Stock and (ii) 26,018 shares of common stock issuable upon the exercise of warrants.
- (36) Comprised of (i) 4,893 shares of common stock issued upon the conversion of shares of our Series C Preferred Stock and (ii) 5,204 shares of common stock issuable upon the exercise of warrants.
- (37) Comprised of (i) 27,821 shares of common stock, (ii) 82,973 shares of common stock issued upon the conversion of shares of our Series C Preferred Stock, (iii) 81,589 shares of common stock issuable upon the exercise of warrants purchased in a private placement transaction and (iv) 30,809 shares of common stock issuable upon the exercise of warrants issued in consideration of certain amendments made to our Securities Purchase Agreement and Registration Rights Agreement.
- (38) Comprised of (i) 65,333 shares of common stock issued upon the conversion of shares of our Series C Preferred Stock and (ii) 91,998 shares of common stock issuable upon the exercise of warrants.

- (39) Comprised of (i) 27,821 shares of common stock (ii) 17,640 shares of common stock issued upon the conversion of shares of our Series C Preferred Stock and (iii) 20,400 shares of common stock issuable upon the exercise of warrants.
- Comprised of (i) 17,000 shares of common stock (ii) 32,426 shares of common stock issuable upon the conversion of shares of our Series C Preferred Stock, (iii) 34,140 shares of common stock issuable upon the exercise of warrants purchased in two private placement transactions and (iv) 15,991 shares of common stock issuable upon the exercise of warrants issued in consideration of certain amendments made to our Securities Purchase Agreement and Registration Rights Agreement.
- (40) Comprised of (i) 23,334 shares of common stock issuable upon the conversion of shares of our Series C Preferred Stock and (ii) 34,344 shares of common stock issuable upon the exercise of warrants.
- (41) Comprised of (i) 17,000 shares of common stock (ii) 9,092 shares of common stock issuable upon the conversion of shares of our Series C Preferred Stock and (iii) 15,787 shares of common stock issuable upon the exercise of warrants.
- Comprised of (i) 127,600 shares of common stock, (ii) 129,540 shares of common stock issued upon the conversion of shares of our Series C Preferred Stock, (iii) 188,680 shares of common stock issuable upon the exercise of warrants purchased in three private placement transactions and (iv) 62,442 shares of common stock issuable upon the exercise of warrants issued in consideration of certain amendments made to our Securities Purchase Agreement and Registration Rights Agreement. David W. Frost may also be deemed beneficial owner of shares held by Sterne Agee & Leach Inc C/F David W Frost IRA.
- (42) Comprised of (i) 100,000 shares of common stock issued upon the conversion of shares of our Series C Preferred Stock and (ii) 156,101 shares of common stock issuable upon the exercise of warrants.
- (43) Comprised of (i) 127,600 shares of common stock, (ii) 29,540 shares of common stock issued upon the conversion of shares of our Series C Preferred Stock and (iii) 95,021 shares of common stock issuable upon the exercise of warrants.
- Comprised of (i) 27,821 shares of common stock, (ii) 42,334 shares of common stock issued upon the conversion of shares of our Series C Preferred Stock, (iii) 41,626 shares of common stock issuable upon the exercise of warrants purchased in a private placement transaction and (iv) 20,818 shares of common stock issuable upon the exercise of warrants issued in consideration of certain amendments made to our Securities Purchase Agreement and Registration Rights Agreement.
- (44) Comprised of (i) 33,334 shares of common stock issued upon the conversion of shares of our Series C Preferred Stock and (ii) 52,035 shares of common stock issuable upon the exercise of warrants.
- (45) Comprised of (i) 27,821 shares of common stock, (ii) 9,000 shares of common stock issued upon the conversion of shares of our Series C Preferred Stock and (iii) 10,409 shares of common stock issuable upon the exercise of warrants.
- Comprised of (i) 62,679 shares of common stock, (ii) 93,414 shares of common stock issuable upon the conversion of shares of our Series C Preferred Stock, (iii) 83,254 shares of common stock issuable upon the exercise of warrants purchased in a private placement transaction and (iv) 41,628 shares of common stock issuable upon the exercise of warrants issued in consideration of certain amendments made to our Securities Purchase Agreement and Registration Rights Agreement.
- (46) Comprised of (i) 66,667 shares of common stock issuable upon the conversion of shares of our Series C Preferred Stock and (ii) 104,068 shares of common stock issuable upon the exercise of warrants.
- (47) Comprised of (i) 62,679 shares of common stock, (ii) 26,747 shares of common stock issuable upon the conversion of shares of our Series C Preferred Stock and (iii) 20,814 shares of common stock issuable upon the exercise of warrants.
- Comprised of (i) 120,816 shares of common stock, (ii) 18,683 shares of common stock issuable upon the conversion of shares of our Series C Preferred Stock, (iii) 16,650 shares of common stock issuable upon the exercise of warrants purchased in a private placement transaction and (iv) 8,328 shares of common stock issuable upon the exercise of warrants issued in consideration of certain amendments made to our Securities Purchase Agreement and Registration Rights Agreement.
- (48) Comprised of (i) 120,816 shares of common stock, (ii) 18,683 shares of common stock issuable upon the conversion of shares of our Series C Preferred Stock, (iii) 16,650 shares of common stock issuable upon the exercise of warrants purchased in a private placement transaction and (iv) 8,328 shares of common stock issuable upon the exercise of warrants issued in consideration of certain amendments made to our Securities Purchase Agreement and Registration Rights Agreement.

- (53) Comprised of (i) 13,334 shares of common stock issuable upon the conversion of shares of our Series C Preferred Stock and (ii) 20,814 shares of common stock issuable upon the exercise of warrants.
- (54) Comprised of (i) 120,816 shares of common stock, (ii) 5,349 shares of common stock issuable upon the conversion of shares of our Series C Preferred Stock and (iii) 4,164 shares of common stock issuable upon the exercise of warrants.
- Portofino Management, Inc., the general partner of Portofino Ventures LP, has voting and dispositive power over the securities held for the account of this selling stockholder. Portofino Management, Inc. is controlled by Michael Knudsen, its president, and accordingly, Mr. Knudsen may be deemed to have sole voting and dispositive power over the securities owned by Portofino Management, Inc.
- (55)
- (56) Comprised of (i) 16,933 shares of common stock issued upon the conversion of shares of our Series C Preferred Stock, (ii) 16,650 shares of common stock issuable upon the exercise of warrants purchased in a private placement transaction and (iii) 8,328 shares of common stock issuable upon the exercise of warrants issued in consideration of certain amendments made to our Securities Purchase Agreement and Registration Rights Agreement.
- (57) Comprised of (i) 13,333 shares of common stock issued upon the conversion of shares of our Series C Preferred Stock and (ii) 20,814 shares of common stock issuable upon the exercise of warrants.
- (58) Comprised of (i) 3,600 shares of common stock issued upon the conversion of shares of our Series C Preferred Stock and (ii) 4,164 shares of common stock issuable upon the exercise of warrants.
- (59) Comprised of (i) 8,347 shares of common stock, (ii) 21,167 shares of common stock issued upon the conversion of shares of our Series C Preferred Stock, (iii) 20,814 shares of common stock issuable upon the exercise of warrants purchased in a private placement transaction and (iv) 10,408 shares of common stock issuable upon the exercise of warrants issued in consideration of certain amendments made to our Securities Purchase Agreement and Registration Rights Agreement..
- (60) Comprised of (i) 16,667 shares of common stock issued upon the conversion of shares of our Series C Preferred Stock and (ii) 26,018 shares of common stock issuable upon the exercise of warrants.
- (61) Comprised of (i) 8,347 shares of common stock, (ii) 4,500 shares of common stock issued upon the conversion of shares of our Series C Preferred Stock and (iii) 5,204 shares of common stock issuable upon the exercise of warrants.
- (62) Comprised of (i) 26,666 shares of common stock, (ii) 27,819 shares of common stock issuable upon the conversion of shares of our Series C Preferred Stock, (iii) 38,311 shares of common stock issuable upon the exercise of warrants purchased in three private placement transactions and (iv) 11,450 shares of common stock issuable upon the exercise of warrants issued in consideration of certain amendments made to our Securities Purchase Agreement and Registration Rights Agreement.
- (63) Comprised of (i) 20,001 shares of common stock issuable upon the conversion of shares of our Series C Preferred Stock and (ii) 30,182 shares of common stock issuable upon the exercise of warrants.
- (64) Comprised of (i) 26,666 shares of common stock, (ii) 7,818 shares of common stock issuable upon the conversion of shares of our Series C Preferred Stock and (iii) 19,579 shares of common stock issuable upon the exercise of warrants.
- (65) Comprised of (i) 31,339 shares of common stock, (ii) 23,283 shares of common stock issuable upon the conversion of shares of our Series C Preferred Stock, (iii) 20,814 shares of common stock issuable upon the exercise of warrants purchased in a private placement transaction and (iv) 10,408 shares of common stock issuable upon the exercise of warrants issued in consideration of certain amendments made to our Securities Purchase Agreement and Registration Rights Agreement.
- (66) Comprised of (i) 16,667 shares of common stock issuable upon the conversion of shares of our Series C Preferred Stock and (ii) 26,018 shares of common stock issuable upon the exercise of warrants.
- (67) Comprised of (i) 31,339 shares of common stock, (ii) 6,616 shares of common stock issuable upon the conversion of shares of our Series C Preferred Stock and (iii) 5,204 shares of common stock issuable upon the exercise of warrants.



- (68) Comprised of (i) 41,668 shares of common stock issuable upon the conversion of shares of our Series C Preferred Stock, (ii) 37,464 shares of common stock issuable upon the exercise of warrants purchased in a private placement transaction and (iii) 16,653 shares of common stock issuable upon the exercise of warrants issued in consideration of certain amendments made to our Securities Purchase Agreement and Registration Rights Agreement. Ray Weber may also be deemed beneficial owner of shares held by Sterne Agee & Leach Inc C/F Raymond E Weber IRA.
- (69) Comprised of (i) 30,001 shares of common stock issuable upon the conversion of shares of our Series C Preferred Stock and (ii) 44,749 shares of common stock issuable upon the exercise of warrants.
- (70) Comprised of (i) 11,667 shares of common stock issuable upon the conversion of shares of our Series C Preferred Stock and (ii) 9,368 shares of common stock issuable upon the exercise of warrants.
- (71) Comprised of (i) 32,596 shares of common stock issuable upon the conversion of shares of our Series C Preferred Stock, (ii) 29,138 shares of common stock issuable upon the exercise of warrants purchased in a private placement transaction and (iii) 14,570 shares of common stock issuable upon the exercise of warrants issued in consideration of certain amendments made to our Securities Purchase Agreement and Registration Rights Agreement.
- (72) Comprised of (i) 23,334 shares of common stock issuable upon the conversion of shares of our Series C Preferred Stock and (ii) 36,423 shares of common stock issuable upon the exercise of warrants.
- (73) Comprised of (i) 9,262 shares of common stock issuable upon the conversion of shares of our Series C Preferred Stock and (ii) 7,285 shares of common stock issuable upon the exercise of warrants.
- (74) Brian Miller, manager of Fourfathom Capital, LLC, has sole voting and dispositive power over the securities held for the account of this selling stockholder.
- (75) Comprised of (i) 93,130 shares of common stock issuable upon the conversion of shares of our Series C Preferred Stock, (ii) 83,254 shares of common stock issuable upon the exercise of warrants purchased in a private placement transaction and (iii) 41,628 shares of common stock issuable upon the exercise of warrants issued in consideration of certain amendments made to our Securities Purchase Agreement and Registration Rights Agreement.
- (76) Comprised of (i) 66,667 shares of common stock issuable upon the conversion of shares of our Series C Preferred Stock and (ii) 104,068 shares of common stock issuable upon the exercise of warrants.
- (77) Comprised of (i) 26,463 shares of common stock issuable upon the conversion of shares of our Series C Preferred Stock and (ii) 20,814 shares of common stock issuable upon the exercise of warrants.
- (78) Comprised of (i) 53,334 shares of common stock, (ii) 127,000 shares of common stock issued upon the conversion of shares of our Series C Preferred Stock, (iii) 151,547 shares of common stock issuable upon the exercise of warrants purchased in two private placement transactions and (iv) 62,442 shares of common stock issuable upon the exercise of warrants issued in consideration of certain amendments made to our Securities Purchase Agreement and Registration Rights Agreement.
- (79) Comprised of (i) 100,000 shares of common stock issued upon the conversion of shares of our Series C Preferred Stock and (ii) 156,101 shares of common stock issuable upon the exercise of warrants.
- (80) Comprised of (i) 53,334 shares of common stock, (ii) 27,000 shares of common stock issued upon the conversion of shares of our Series C Preferred Stock and (iii) 57,888 shares of common stock issuable upon the exercise of warrants.
- (81) Comprised of (i) 91,959 shares of common stock issuable upon the conversion of shares of our Series C Preferred Stock, (ii) 83,254 shares of common stock issuable upon the exercise of warrants purchased in a private placement transaction and (iii) 41,628 shares of common stock issuable upon the exercise of warrants issued in consideration of certain amendments made to our Securities Purchase Agreement and Registration Rights Agreement.
- (82) Comprised of (i) 66,667 shares of common stock issuable upon the conversion of shares of our Series C Preferred Stock and (ii) 104,068 shares of common stock issuable upon the exercise of warrants.

- (83) Comprised of (i) 25,292 shares of common stock issuable upon the conversion of shares of our Series C Preferred Stock and (ii) 20,814 shares of common stock issuable upon the exercise of warrants.
- (84) Comprised of (i) 94,488 shares of common stock, (ii) 45,980 shares of common stock issuable upon the conversion of shares of our Series C Preferred Stock, (iii) 74,960 shares of common stock issuable upon the exercise of warrants purchased in two private placement transactions and (iv) 20,818 shares of common stock issuable upon the exercise of warrants issued in consideration of certain amendments made to our Securities Purchase Agreement and Registration Rights Agreement.
- (85) Comprised of (i) 33,334 shares of common stock issuable upon the conversion of shares of our Series C Preferred Stock and (ii) 52,035 shares of common stock issuable upon the exercise of warrants.
- (86) Comprised of (i) 94,488 shares of common stock, (ii) 12,646 shares of common stock issuable upon the conversion of shares of our Series C Preferred Stock and (iii) 43,743 shares of common stock issuable upon the exercise of warrants.
- (87) Comprised of (i) 18,392 shares of common stock issuable upon the conversion of shares of our Series C Preferred Stock, (ii) 16,650 shares of common stock issuable upon the exercise of warrants purchased in a private placement transaction and (iii) 8,328 shares of common stock issuable upon the exercise of warrants issued in consideration of certain amendments made to our Securities Purchase Agreement and Registration Rights Agreement.
- (88) Comprised of (i) 13,334 shares of common stock issuable upon the conversion of shares of our Series C Preferred Stock and (ii) 20,814 shares of common stock issuable upon the exercise of warrants.
- (89) Comprised of (i) 5,058 shares of common stock issuable upon the conversion of shares of our Series C Preferred Stock and (ii) 4,164 shares of common stock issuable upon the exercise of warrants.
- (90) Herschel E. Johnson is deceased. Johnson's converted Series C shares are now in the name of Raymond James & Associates, Inc. Johnson's warrants are now in the name of Janice C. Johnson & Garrett E. Johnson EXEC E/O Herschel E. Johnson.
- (91) Comprised of (i) 4,000 shares of common stock, (ii) 14,394 shares of common stock issued upon the conversion of shares of our Series C Preferred Stock, (iii) 16,153 shares of common stock issuable upon the exercise of warrants purchased in two private placement transactions and (iv) 7,078 shares of common stock issuable upon the exercise of warrants issued in consideration of certain amendments made to our Securities Purchase Agreement and Registration Rights Agreement.
- (92) Comprised of (i) 11,334 shares of common stock issued upon the conversion of shares of our Series C Preferred Stock and (ii) 17,692 shares of common stock issuable upon the exercise of warrants.
- (93) Comprised of (i) 4,000 shares of common stock, (ii) 3,060 shares of common stock issued upon the conversion of shares of our Series C Preferred Stock and (iii) 5,539 shares of common stock issuable upon the exercise of warrants.
- (94) Comprised of (i) 15,670 shares of common stock, (ii) 4,536 shares of common stock issuable upon the conversion of shares of our Series C Preferred Stock, (iii) 4,164 shares of common stock issuable upon the exercise of warrants purchased in a private placement transaction and (iv) 1,042 shares of common stock issuable upon the exercise of warrants issued in consideration of certain amendments made to our Securities Purchase Agreement and Registration Rights Agreement.
- (95) Comprised of (i) 3,334 shares of common stock issuable upon the conversion of shares of our Series C Preferred Stock and (ii) 4,164 shares of common stock issuable upon the exercise of warrants.
- (96) Comprised of (i) 15,670 shares of common stock, (ii) 1,202 shares of common stock issuable upon the conversion of shares of our Series C Preferred Stock and (iii) 1,042 shares of common stock issuable upon the exercise of warrants.
- (97) Comprised of (i) 35,670 shares of common stock, (ii) 4,536 shares of common stock issuable upon the conversion of shares of our Series C Preferred Stock, (iii) 14,164 shares of common stock issuable upon the exercise of warrants purchased in two private placement transactions and (iv) 1,042 shares of common stock issuable upon the exercise of warrants issued in consideration of certain amendments made to our Securities Purchase Agreement and Registration Rights Agreement.

- (98) Comprised of (i) 3,334 shares of common stock issuable upon the conversion of shares of our Series C Preferred Stock and (ii) 4,164 shares of common stock issuable upon the exercise of warrants.
- (99) Comprised of (i) 35,670 shares of common stock, (ii) 1,202 shares of common stock issuable upon the conversion of shares of our Series C Preferred Stock and (iii) 11,042 shares of common stock issuable upon the exercise of warrants.
- (100) Comprised of (i) 55,642 shares of common stock, (ii) 9,072 shares of common stock issuable upon the conversion of shares of our Series C Preferred Stock, (iii) 8,326 shares of common stock issuable upon the exercise of warrants purchased in a private placement transaction and (iv) 2,083 shares of common stock issuable upon the exercise of warrants issued in consideration of certain amendments made to our Securities Purchase Agreement and Registration Rights Agreement.
- (101) Comprised of (i) 6,667 shares of common stock issuable upon the conversion of shares of our Series C Preferred Stock and (ii) 8,326 shares of common stock issuable upon the exercise of warrants.
- (102) Comprised of (i) 55,642 shares of common stock, (ii) 2,405 shares of common stock issuable upon the conversion of shares of our Series C Preferred Stock and (iii) 2,083 shares of common stock issuable upon the exercise of warrants.
- (103) Comprised of (i) 25,600 shares of common stock, (ii) 4,903 shares of common stock issued upon the conversion of shares of our Series C Preferred Stock, (iii) 17,796 shares of common stock issuable upon the exercise of warrants purchased in two private placement transactions and (iv) 1,249 shares of common stock issuable upon the exercise of warrants issued in consideration of certain amendments made to our Securities Purchase Agreement and Registration Rights Agreement.
- (104) Comprised of (i) 4,000 shares of common stock issuable upon the conversion of shares of our Series C Preferred Stock and (ii) 4,996 shares of common stock issuable upon the exercise of warrants.
- (105) Comprised of (i) 25,600 shares of common stock, (ii) 903 shares of common stock issuable upon the conversion of shares of our Series C Preferred Stock and (iii) 14,049 shares of common stock issuable upon the exercise of warrants.
- (106) Comprised of (i) 9,072 shares of common stock issuable upon the conversion of shares of our Series C Preferred Stock, (ii) 8,326 shares of common stock issuable upon the exercise of warrants purchased in a private placement transaction and (iii) 2,083 shares of common stock issuable upon the exercise of warrants issued in consideration of certain amendments made to our Securities Purchase Agreement and Registration Rights Agreement.
- (107) Comprised of (i) 6,667 shares of common stock issuable upon the conversion of shares of our Series C Preferred Stock and (ii) 8,326 shares of common stock issuable upon the exercise of warrants.
- (108) Comprised of (i) 2,405 shares of common stock issuable upon the conversion of shares of our Series C Preferred Stock and (ii) 2,083 shares of common stock issuable upon the exercise of warrants.
- (109) Comprised of (i) 12,800 shares of common stock, (ii) 9,072 shares of common stock issuable upon the conversion of shares of our Series C Preferred Stock, (iii) 14,726 shares of common stock issuable upon the exercise of warrants purchased in two private placement transactions and (iv) 2,083 shares of common stock issuable upon the exercise of warrants issued in consideration of certain amendments made to our Securities Purchase Agreement and Registration Rights Agreement.
- (110) Comprised of (i) 6,667 shares of common stock issuable upon the conversion of shares of our Series C Preferred Stock and (ii) 8,326 shares of common stock issuable upon the exercise of warrants.
- (111) Comprised of (i) 12,800 shares of common stock, (ii) 2,405 shares of common stock issuable upon the conversion of shares of our Series C Preferred Stock and (iii) 8,483 shares of common stock issuable upon the exercise of warrants.
- (112) Comprised of (i) 47,243 shares of common stock, (ii) 9,072 shares of common stock issuable upon the conversion of shares of our Series C Preferred Stock, (iii) 24,993 shares of common stock issuable upon the exercise of warrants purchased in two private placement transactions and (iv) 2,083 shares of common stock issuable upon the exercise of warrants issued in consideration of certain amendments made to our Securities Purchase Agreement and Registration Rights Agreement.

- (113) Comprised of (i) 6,667 shares of common stock issuable upon the conversion of shares of our Series C Preferred Stock and (ii) 8,326 shares of common stock issuable upon the exercise of warrants.
- (114) Comprised of (i) 47,243 shares of common stock, (ii) 2,405 shares of common stock issuable upon the conversion of shares of our Series C Preferred Stock and (iii) 18,750 shares of common stock issuable upon the exercise of warrants
- Comprised of (i) 18,188 shares of common stock issued upon the conversion of shares of our Series C Preferred Stock, (ii) 16,652 shares of common stock issuable upon the exercise of warrants purchased in a private placement transaction and (iii) 4,164 shares of common stock issuable upon the exercise of warrants issued in consideration of certain amendments made to our Securities Purchase Agreement and Registration Rights Agreement.
- (115)
- (116) Comprised of (i) 13,334 shares of common stock issuable upon the conversion of shares of our Series C Preferred Stock and (ii) 16,652 shares of common stock issuable upon the exercise of warrants.
- (117) Comprised of (i) 4,854 shares of common stock issued upon the conversion of shares of our Series C Preferred Stock and (ii) 4,164 shares of common stock issuable upon the exercise of warrants.
- Comprised of (i) 25,670 shares of common stock, (ii) 20,260 shares of common stock issued upon the conversion of shares of our Series C Preferred Stock, (iii) 25,814 shares of common stock issuable upon the exercise of warrants purchased in two private placement transactions and (iv) 5,204 shares of common stock issuable upon the exercise of warrants issued in consideration of certain amendments made to our Securities Purchase Agreement and Registration Rights Agreement.
- (118)
- (119) Comprised of (i) 16,667 shares of common stock issued upon the conversion of shares of our Series C Preferred Stock and (ii) 20,814 shares of common stock issuable upon the exercise of warrants.
- (120) Comprised of (i) 25,670 shares of common stock, (ii) 3,593 shares of common stock issued upon the conversion of shares of our Series C Preferred Stock and (iii) 10,204 shares of common stock issuable upon the exercise of warrants.
- Comprised of (i) 21,167 shares of common stock issued upon the conversion of shares of our Series C Preferred Stock, (ii) 20,814 shares of common stock issuable upon the exercise of warrants purchased in a private placement transaction and (iii) 5,204 shares of common stock issuable upon the exercise of warrants issued in consideration of certain amendments made to our Securities Purchase Agreement and Registration Rights Agreement.
- (121)
- (122) Comprised of (i) 16,667 shares of common stock issued upon the conversion of shares of our Series C Preferred Stock and (ii) 20,814 shares of common stock issuable upon the exercise of warrants.
- (123) Comprised of (i) 4,500 shares of common stock issued upon the conversion of shares of our Series C Preferred Stock and (ii) 5,204 shares of common stock issuable upon the exercise of warrants.
- Comprised of (i) 42,334 shares of common stock issued upon the conversion of shares of our Series C Preferred Stock, (ii) 41,628 shares of common stock issuable upon the exercise of warrants purchased in a private placement transaction and (iii) 10,407 shares of common stock issuable upon the exercise of warrants issued in consideration of certain amendments made to our Securities Purchase Agreement and Registration Rights Agreement.
- (124)
- (125) Comprised of (i) 33,334 shares of common stock issued upon the conversion of shares of our Series C Preferred Stock and (ii) 41,628 shares of common stock issuable upon the exercise of warrants.
- (126) Comprised of (i) 9,000 shares of common stock issued upon the conversion of shares of our Series C Preferred Stock and (ii) 10,407 shares of common stock issuable upon the exercise of warrants.
- Comprised of (i) 90,717 shares of common stock issuable upon the conversion of shares of our Series C Preferred Stock, (ii) 83,254 shares of common stock issuable upon the exercise of warrants purchased in a private placement transaction and (iii) 20,814 shares of common stock issuable upon the exercise of warrants issued in consideration of certain amendments made to our Securities Purchase Agreement and Registration Rights Agreement.
- (127)

- (128) Comprised of (i) 66,667 shares of common stock issuable upon the conversion of shares of our Series C Preferred Stock and (ii) 83,254 shares of common stock issuable upon the exercise of warrants.
- (129) Comprised of (i) 24,050 shares of common stock issuable upon the conversion of shares of our Series C Preferred Stock and (ii) 20,814 shares of common stock issuable upon the exercise of warrants.
- (130) Comprised of (i) 9,072 shares of common stock issuable upon the conversion of shares of our Series C Preferred Stock, (ii) 8,326 shares of common stock issuable upon the exercise of warrants purchased in a private placement transaction and (iii) 2,083 shares of common stock issuable upon the exercise of warrants issued in consideration of certain amendments made to our Securities Purchase Agreement and Registration Rights Agreement.
- (131) Comprised of (i) 6,667 shares of common stock issuable upon the conversion of shares of our Series C Preferred Stock and (ii) 8,326 shares of common stock issuable upon the exercise of warrants.
- (132) Comprised of (i) 2,405 shares of common stock issuable upon the conversion of shares of our Series C Preferred Stock and (ii) 2,083 shares of common stock issuable upon the exercise of warrants.
- (133) Laidlaw & Co (UK) Ltd. is a registered broker-dealer. Matthew Eitner is the chief executive officer of Laidlaw & Co (UK) Ltd. and, in such capacity, he may be deemed to have voting and dispositive power over the securities held for the account of this selling stockholder.
- (134) Comprised of shares of common stock issuable upon the exercise of warrants.

### DESCRIPTION OF SECURITIES

We have authorized 201,000,000 shares of capital stock, par value \$0.001 per share, of which 200,000,000 are shares of common stock and 1,000,000 are shares of “blank check” preferred stock, of which 200 are authorized as Series A Preferred Stock, 600 are authorized as Series B Preferred Stock and 4,200 are authorized as Series C Preferred Stock. On May 18, 2017, there were 25,215,052 shares of common stock issued and outstanding, 1,070 shares of Series C Preferred Stock issued and outstanding and no shares of Series A Preferred Stock or Series B Preferred Stock issued and outstanding.

#### *Holders of Capital Stock*

As of May 18, 2017, we had 217 shareholders of record of our common stock, no holders of our Series A Preferred Stock or Series B Preferred Stock, and 22 holders of our Series C Preferred Stock.

#### **Common Stock**

The holders of common stock are entitled to one vote per share on all matters to be voted upon by stockholders. Holders of our common stock are entitled to receive ratably dividends as may be declared by the board of directors out of funds legally available for that purpose. The rights of the holders of our Series C Preferred Stock, as described below, prohibit us from paying cash dividends to our holders of common stock absent the approval of holders representing at least 67% of the outstanding shares of the Series C Preferred Stock, which holders must include Alpha Capital Anstalt, so long as Alpha Capital Anstalt holds not less than \$100,000 of the Series C Preferred Stock. We have not paid any dividends since our inception, and, subject to our obligations to pay dividends to the holders of the Series C Preferred Stock, as described below, we presently anticipate that all earnings, if any, will be retained for development of our business. Even if we are permitted to pay cash dividends in the future, any future disposition of dividends will be at the discretion of our board of directors and will depend upon, among other things, our future earnings, operating and financial condition, capital requirements, and other factors.

Each share of common stock entitles the holder to one vote, either in person or by proxy, at meetings of stockholders. The holders are not permitted to vote their shares cumulatively. Accordingly, the stockholders of our common stock who hold, in the aggregate, more than fifty percent of the total voting rights can elect all of our directors and, in such event, the holders of the remaining minority shares will not be able to elect any of such directors. The vote of the holders of a majority of the issued and outstanding shares of common stock entitled to vote thereon is sufficient to authorize, affirm, ratify or consent to such act or action, except as otherwise provided by law.

Holders of our common stock have no preemptive rights or other subscription rights, conversion rights, redemption or sinking fund provisions. Subject to the rights of the holders of our preferred stock, upon our liquidation, dissolution or winding up, the holders of our common stock will be entitled to share ratably in the net assets legally available for distribution to stockholders after the payment of all of our debts and other liabilities. There are no provisions in our Amended and Restated Certificate of Incorporation or our By-laws that would prevent or delay a change in our control.

### **Preferred Stock**

There are presently no issued and outstanding shares of Series A Preferred Stock or Series B Preferred Stock.

Each share of the Series C Preferred Stock is entitled to a nine percent (9%) annual dividend on the \$1,000 per share stated value. Unless the Series C Preferred Stock is converted into shares of common stock, the dividends shall accrue and be payable in cash or, subject to the satisfaction of certain conditions, in pay-in-kind shares. Such cumulative dividends are payable quarterly, commencing on September 30, 2013 and on each conversion date. The terms of the Series C Preferred Stock were amended on March 27, 2014 and August 15, 2014. The description herein reflects such amended terms.

In the event that

- (i) we fail to, or announce our intention not to, deliver common stock share certificates upon conversion of our Series C Preferred Stock prior to the seventh trading day after such shares are required to be delivered,
- (ii) we fail for any reason to pay in full the amount of cash due pursuant to our failure to deliver common stock share certificates upon conversion of our Series C Preferred Stock within five calendar days after notice therefor is delivered,
- (iii) we fail to have available a sufficient number of authorized and unreserved shares of common stock to issue upon a conversion of our Series C Preferred Stock,
- (iv) we fail to observe or perform any other covenant, agreement or warranty contained in, or otherwise commit any breach of our obligations under, the securities purchase agreement, the registration rights agreement, the certificate of designation or the warrants entered into pursuant to the private placement transaction for our Series C Preferred Stock, which failure or breach could have a material adverse effect, and such failure or breach is not cured within 30 calendar days after written notice was delivered,
- (v) we are party to a change of control transaction,
- (vi) we file for bankruptcy or a similar arrangement or are adjudicated insolvent,
- (vii) we are subject to a judgment, including an arbitration award against us, of greater than \$100,000, and such judgment remains unvacated, unbonded or unstayed for a period of 45 calendar days,

the holders of the Series C Preferred Stock are entitled, among other rights, to redeem their shares of Series C Preferred Stock at any time for greater than their stated value or increase the dividend rate on their shares of Series C Preferred Stock to 18%.

In the event of our liquidation or winding up of affairs, the holders of the Series C Preferred Stock will be entitled to a liquidation preference of the stated value plus any accrued but unpaid dividends or any other fees due the holder. The shares of the Series C Preferred Stock rank senior to the rights of the common stock and all other securities exercisable or convertible into shares of common stock.

Any holder of Series C Preferred Stock is entitled at any time to convert any whole or partial number of shares of Series C Preferred Stock into shares of our common stock at a price of \$1.50 per share, subject to the beneficial ownership limitation described below. The Series C Preferred Stock is subject to full ratchet anti-dilution price protection upon the issuance of equity or equity-linked securities at an effective common stock purchase price of less than \$1.50 per share as well as other customary anti-dilution protection.

In the event we issue any equity or equity-linked securities with terms more favorable than those of the Series C Preferred Stock, any holder of the Series C Preferred Stock may request to amend the terms of such holder's Series C Preferred Stock to be equivalent to the terms of such issued equity or equity-linked securities, subject to certain exempted issuances.

The holders of the Series C Preferred Stock vote together with the holders of our common stock on an as-converted basis, but may not vote the Series C Preferred Stock in excess of the beneficial ownership limitation of the Series C Preferred Stock. The beneficial ownership limitation is 4.99% of our then outstanding shares of common stock following such conversion or exercise, which may be increased to up to 9.99% of our then outstanding shares of common stock following such conversion or exercise upon the request of an individual holder. The beneficial ownership limitation is determined on an individual holder basis, such that the as-converted number of shares of one holder is not included in the shares outstanding when calculating the limitation for a different holder. In addition, absent the approval of holders representing at least 67% of the outstanding shares of the Series C Preferred Stock, which holders must include Alpha Capital Anstalt, so long as Alpha Capital Anstalt holds not less than \$100,000 of Series C Preferred Stock, we may not (i) increase the number of authorized shares of preferred stock, (ii) amend our charter documents, including the terms of the Series C Preferred Stock, in any manner adverse to the holders of the Series C Preferred Stock, including authorizing or creating any class of stock ranking senior to, or otherwise pari passu with, the shares of Series C Preferred Stock as to dividends, redemption or distribution of assets upon a liquidation, or (iii) perform certain covenants, including:

- incur additional indebtedness;
- permit liens on assets;
- repay, repurchase or otherwise acquire more than a de minimis number of shares of capital stock;
- pay cash dividends to our stockholders; and
- engage in transactions with affiliates.

## **Warrant**

### *Five-Year Warrants*

In connection with the private placement of our Series C Preferred Stock, on February through July 2013, we issued to the holders of our Series C Preferred Stock five-year warrants to purchase up to an aggregate of 1,330,629 shares of common stock at an exercise price of \$2.61 per share. The warrants contain full ratchet anti-dilution price protection upon the issuance of equity or equity-linked securities at an effective common stock purchase price of less than \$2.61 per share as well as other customary anti-dilution protection. The warrants are exercisable for cash; or if at any time after six months from the issuance date, there is no effective registration statement registering the resale, or no current prospectus available for the resale, of the shares of common stock underlying the warrants, the warrants may be exercised by means of a “cashless exercise”. As a result of the full-ratchet anti-dilution protection provision of the warrants, the exercise price of the warrants was subsequently decreased from \$2.61 per share to \$1.50 per share and the aggregate number of shares issuable under the warrants was increased to 2,315,301.

### *Five-Year Amendment Warrants*

As consideration for (i) extending the termination date of the securities purchase agreement and (ii) extending the filing and effectiveness dates for the filing of the registration statement pursuant to the registration rights agreement related to our Series C Preferred Stock, on July 15, 2013, we issued to the holders of our Series C Preferred Stock that purchased shares of our Series C Preferred Stock prior to the July 15, 2013 closing, five-year warrants to purchase up to an aggregate of 289,730 shares of common stock. The terms of these warrants are identical to the Five-Year Warrants described above. As a result of the full-ratchet anti-dilution protection provision of the warrants, the exercise price of the warrants subsequently decreased from \$2.61 per share to \$1.50 per share and the aggregate number of shares issuable under the warrants was increased to 504,130.

### *October 2013 Five-Year Amendment Warrants*

As consideration for amending the terms of the securities purchase agreement to permit our private placement of our common stock and warrants in December 2013, on October 14, 2013, we issued to the holders of our Series C Preferred Stock five-year warrants to purchase up to an aggregate of 332,684 shares of common stock. The terms of these warrants are identical to the Five-Year Warrants described above. As a result of the full-ratchet anti-dilution protection provision of the warrants, the exercise price of the warrants was subsequently decreased from \$2.61 per share to \$1.50 per share and the aggregate number of shares issuable under the warrants was increased to 578,870.

#### *December 2013 Five-Year Warrants*

In connection with the private placement of our common stock in December 2013 and January 2014, we issued to the investors participating in the private placement five-year warrants to purchase up to an aggregate of 177,947 shares of common stock at an exercise price of \$3.67 per share. The warrants contain customary anti-dilution protections. The warrants are exercisable for cash; or if at any time after six months from the issuance date, there is no effective registration statement registering the resale, or no current prospectus available for the resale, of the shares of common stock underlying the warrants, the warrants may be exercised by means of a “cashless exercise”.

#### *April 2014 Five-Year Warrants*

In connection with the private placement of our common stock in April 2014, we issued to the investors participating in the private placement five-year warrants to purchase up to an aggregate of 114,880 shares of common stock at an exercise price of \$3.75 per share. The warrants contain customary anti-dilution protections. The warrants are exercisable for cash; or if at any time after six months from the issuance date, there is no effective registration statement registering the resale, or no current prospectus available for the resale, of the shares of common stock underlying the warrants, the warrants may be exercised by means of a “cashless exercise”.

#### *August 2014 Five-Year Warrants*

In connection with the private placement of our common stock in August and September 2014, we issued to the investors participating in the private placement five-year warrants to purchase up to an aggregate of 190,600 shares of common stock at an exercise price of \$2.75 per share. The warrants contain customary anti-dilution protections. The warrants are exercisable for cash; or if at any time after six months from the issuance date, there is no effective registration statement registering the resale, or no current prospectus available for the resale, of the shares of common stock underlying the warrants, the warrants may be exercised by means of a “cashless exercise”.

#### *December 2014 Warrants*

In connection with the private placement of our common stock in December 2014 and January, February and March 2015, we issued to the investors participating in the private placement five-year warrants to purchase up to an aggregate of 801,800 shares of common stock. The warrants are exercisable at \$3.75 per share and expire March 31, 2020. The warrants contain customary anti-dilution protections. The warrants are exercisable for cash; or if at any time after six months from the issuance date, there is no effective registration statement registering the resale, or no current prospectus available for the resale, of the shares of common stock underlying the warrants, the warrants may be exercised by means of a “cashless exercise”.

#### *October 2015 Three-Year Warrants*

In connection with the private placement of our common stock in October, November and December 2015 and February, March and April 2016, we issued to the investors participating in the private placement three-year warrants to purchase up to an aggregate of 1,501,513 shares of common stock at an exercise price of \$1.95 per share. The warrants contain customary anti-dilution protections and are exercisable for cash.

#### *May 2016 Warrants*

In connection with the private placement of our common stock in June 2016, we issued to the investors participating in the private placement three-year warrants to purchase up to an aggregate of 38,572 shares of common stock at an exercise price of \$2.10 per share. The warrants contain customary anti-dilution protections and are exercisable for cash. In February 2017, we exchanged these warrants for warrants to purchase up to an aggregate of 45,001 shares of common stock at an exercise price of \$1.50, with all other terms and conditions the same.

#### *August 2016 Warrants*

In connection with the private placement of our common stock in August and September 2016, we issued to the investors participating in the private placement three-year warrants to purchase up to an aggregate of 187,513 shares of common stock at an exercise price of \$1.95 per share. The warrants contain customary anti-dilution protections and are exercisable for cash.



#### *October 2016 Warrants*

In connection with the private placement of our common stock in October, November and December 2016 and February and March 2017, we issued to the investors participating in the private placement three-year warrants to purchase up to an aggregate of 1,449,991 shares of common stock at an exercise price of \$1.50 per share. The warrants contain customary anti-dilution protections and are exercisable for cash.

#### *April 2017 Warrants*

In connection with the private placement of our common stock in April and May 2017, we issued to the investors participating in the private placement three-year warrants to purchase up to an aggregate of 294,967 shares of common stock at an exercise price of \$1.50 per share. The warrants contain customary anti-dilution protections and are exercisable for cash.

#### *Mayo Warrant*

In March 2017, we issued to Mayo Clinic Ventures three-year warrants to purchase up to an aggregate of 630,000 shares of common stock at an exercise price of \$1.50 per share in connection with a know-how licensing agreement with Mayo Foundation for Medical Education and Research. The warrants contain customary anti-dilution protections and are exercisable for cash.

#### *Series A Placement Agent Warrant*

As consideration for serving as our placement agent in connection with the private placement of Series A Preferred Stock, on January 18, 2013, we issued to Laidlaw & Company (UK) Ltd. a seven-year warrant to purchase up to 35,076 shares of common stock at an exercise price of \$1.84 per share. The terms of this warrant are otherwise identical to the Five-Year Warrants described above.

#### *Series B Placement Agent Warrant*

As consideration for serving as our placement agent in connection with the private placement of Series B Preferred Stock, on January 18, 2013, we issued to Laidlaw & Company (UK) Ltd. a seven-year warrant to purchase up to 30,755 shares of common stock at an exercise price of \$2.02 per share. The terms of this warrant are otherwise identical to the Five-Year Warrants described above.

#### *Series C Placement Agent Warrant*

As consideration for serving as our placement agent in connection with the private placement of Series C Preferred Stock, on July 15, 2013, we issued to Laidlaw & Company (UK) Ltd. a warrant to purchase up to 177,057 shares of common stock. The terms of this warrant are identical to the Five-Year Warrants described above. As a result of the full-ratchet anti-dilution protection provision of the warrants, the exercise price of the warrants subsequently decreased from \$2.61 per share to \$1.50 per share and the aggregate number of shares issuable under the warrants was increased to 308,079.

#### *Par Value Warrant*

As consideration for providing general financial advisory services, on January 7, 2013, we issued to Jamess Capital Group LLC a seven-year warrant to purchase up to 383,320 shares of common stock at an exercise price of \$0.001 per share. The terms of this warrant are otherwise identical to the Five-Year Warrants described above.

#### *Consultant Warrant*

As consideration for providing general financial advisory services, on August 17, 2015, we issued Alere Financial Partners, LLC a three-year warrant to purchase up to 100,000 shares of common stock each at an exercise price of \$2.00 per share and a three-year warrant to purchase up to 100,000 shares of common stock each at an exercise price of \$2.50 per share. The warrants contain customary anti-dilution protections and are exercisable for cash or may be exercised by means of a "cashless exercise".

### *Common Stock Placement Agent Warrants*

As consideration for serving as our placement agent in connection with a private placement of our common stock, on December 31, 2013 and January 31, 2014, we issued to Laidlaw & Company (UK) Ltd. warrants to purchase an aggregate of up to 40,327 shares of common stock. The terms of this warrant are identical to the December 2013 Five-Year Warrants described above.

As consideration for serving as our placement agent in connection with a private placement of our common stock, on April 4 and April 30, 2014, we issued to Laidlaw & Company (UK) Ltd. warrants to purchase an aggregate of up to 22,976 shares of common stock. The terms of this warrant are identical to the April 2014 Five-Year Warrants described above.

As consideration for serving as our placement agent in connection with a private placement of our common stock, on August 15 and September 12, 2014, we issued to Laidlaw & Company (UK) Ltd. warrants to purchase an aggregate of up to 38,120 shares of common stock. The terms of this warrant are identical to the August 2014 Five-Year Warrants described above.

As consideration for serving as our placement agent in connection with a private placement of our common stock, between December 2014 and March 2015, we issued to Laidlaw & Company (UK) Ltd. warrants to purchase an aggregate of up to 400,900 shares of common stock. The terms of this warrant are identical to the December 2014 Warrants described above.

As consideration for serving as our placement agent in connection with a private placement of our common stock, between October 2015 and April 2016, we issued to Laidlaw & Company (UK) Ltd. three-year warrants to purchase up to an aggregate of 232,960 shares of common stock at an exercise price of \$1.50 per share. The warrants contain customary anti-dilution protections and are exercisable for cash or may be exercised by means of a "cashless exercise".

As consideration for serving as our placement agent in connection with a private placement of our common stock, between October 2016 and March 2017, we issued to Laidlaw & Company (UK) Ltd. three-year warrants to purchase up to an aggregate of 186,957 shares of common stock. The warrants contain customary anti-dilution protections and are exercisable for cash or may be exercised by means of a "cashless exercise".

### **Registration Rights**

#### *2013 Series C Private Placement*

On February 6, 2013, in connection with our private placement of our Series C Preferred Stock and warrants, we entered into a registration rights agreement with the purchasers pursuant to which we agreed to provide certain registration rights with respect to the common stock issuable upon conversion of our Series C Preferred Stock and exercise of the warrants issued to holders of our Series C Preferred Stock. Specifically, we agreed to file a registration statement with the Securities and Exchange Commission covering the resale of the common stock issuable upon conversion of the Series C Preferred Stock and exercise of the warrants on or before July 22, 2013 and to cause such registration statement to be declared effective by the Securities and Exchange Commission, in the event that the registration statement is not reviewed by the Securities and Exchange Commission, within five trading days after we are notified that registration statement is not being reviewed by the Securities and Exchange Commission, and by November 22, 2013 in the event that the registration statement is reviewed by the Securities and Exchange Commission and the Securities and Exchange Commission issues comments.

If (i) the registration statement is not filed by July 22, 2013, (ii) the registration statement is not declared effective by the Securities and Exchange Commission within five trading days after we are notified that registration statement is not being reviewed by the Securities and Exchange Commission, in the case of a no review, (iii) the registration statement is not declared effective by the Securities and Exchange Commission by November 22, 2013 in the case of a review by the Securities and Exchange Commission pursuant to which the Securities and Exchange Commission issues comments or (iv) the registration statement ceases to remain continuously effective for more than 20 consecutive calendar days or more than an aggregate of 45 calendar days during any 12-month period after its first effective date, then we are subject to liquidated damage payments to the holders of the shares sold in the private placement in an amount equal to 0.25% of the aggregate purchase price paid by such purchasers per month of delinquency. Notwithstanding the foregoing, (i) the maximum aggregate liquidated damages due under the registration rights agreement shall be 3% of the aggregate purchase price paid by the purchasers, and (ii) if any partial amount of liquidated damages remains unpaid for more than seven days, we shall pay interest of 18% per annum, accruing daily, on such unpaid amount.

Pursuant to the registration rights agreement, we must maintain the effectiveness of the registration statement from the effective date until the date on which all securities registered under the registration statement have been sold, or are otherwise able to be sold pursuant to Rule 144 without volume or manner-of-sale restrictions, subject to the our right to suspend or defer the use of the registration statement in certain events.

We filed a registration statement on July 22, 2013, which was originally declared effective on June 23, 2014. We filed a post-effective amendment to the registration statement on June 30, 2015, which was declared effective on July 13, 2015, to update the registration statement to include audited financial statements for the 2014 fiscal year, and filed a post-effective amendment to the registration statement on May 27, 2016, which was declared effective on June 13, 2016, to update the registration statement to include audited financial statements for the 2015 fiscal year, to satisfy the requirements under the registration rights agreement with the purchasers of our Series C Preferred Stock and warrants.

#### *2014 Private Placement*

On each of December 31, 2013, April 4, 2014, August 15, 2014, and December 19, 2014, in connection with private placements of our common stock and warrants, we entered into registration rights agreements with the purchasers in such private placements pursuant to which we agreed to provide certain registration rights with respect to the common stock issued to the investors participating in such private placements and the common stock issuable upon exercise of the related warrants issued to such investors. Specifically, we agreed to file a registration statement with the Securities and Exchange Commission covering the resale of the shares of common stock issued pursuant to the private placements and issuable upon the exercise of the warrants within 45 days of the termination date of such private placements and to cause such registration statement to be declared effective by the Securities and Exchange Commission, in the event that the registration statement is not reviewed by the Securities and Exchange Commission, within 30 calendar days after we are notified that the registration statement is not being reviewed by the Securities and Exchange Commission, and within 180 calendar days of the initial filing date of the registration statement in the event that the registration statement is reviewed by the Securities and Exchange Commission and the Securities and Exchange Commission issues comments.

If (i) the registration statement is not filed within 45 days of the applicable termination date, (ii) the registration statement is not declared effective by the Securities and Exchange Commission within 30 calendar days after we are notified that the registration statement is not being reviewed by the Securities and Exchange Commission, in the case of a no review, (iii) the registration statement is not declared effective by the Securities and Exchange Commission within 180 calendar days of the initial filing date of the registration statement in the case of a review by the Securities and Exchange Commission pursuant to which the Securities and Exchange Commission issues comments or (iv) the registration statement ceases to remain continuously effective for more than 10 consecutive calendar days or more than an aggregate of 15 calendar days during any 12-month period after its first effective date, then we are subject to liquidated damage payments to the holders of the shares sold in the private placement in an amount equal to 1.0% of the aggregate purchase price paid by such purchasers per month of delinquency, provided, however, that we will not be required to make any payments if any of the foregoing events occurred at such time that all securities registered or to be registered in the registration statement are eligible for resale pursuant to Rule 144 (without volume restrictions or current public information requirements) promulgated by the Securities and Exchange Commission pursuant to the Securities Act of 1933, as amended and provided, further, that we will not be required to make any liquidated damage payments with respect to any securities registered or to be registered in the registration statement that we are unable to register due to limits imposed by the Securities and Exchange Commission's interpretation of Rule 415 under the Securities Act of 1933, as amended. Notwithstanding the foregoing, (i) the maximum aggregate liquidated damages due under the registration rights agreements dated December 31, 2013, April 4, 2014 and August 15, 2014 shall be 3% of the aggregate purchase price paid by the purchasers, (ii) the maximum aggregate liquidated damages due under the registration rights agreement dated December 19, 2014 shall be 6% of the aggregate purchase price paid by the purchasers and (iii) if any partial amount of liquidated damages remains unpaid for more than seven days, we shall pay interest of 18% per annum, accruing daily, on such unpaid amount.

Pursuant to the registration rights agreements, we must maintain the effectiveness of the registration statement from the effective date until the date on which all securities registered under the registration statement have been sold, or are otherwise able to be sold pursuant to Rule 144 without volume or manner-of-sale restrictions and without the requirement to be in compliance with the current public information requirement under Rule 144, subject to the our right to suspend or defer the use of the registration statement in certain events.

We filed a registration statement on May 20, 2015, which was originally declared effective on June 12, 2015. We filed a post-effective amendment to the registration statement on June 17, 2016, which was declared effective on July 1, 2016, to update the registration statement to include audited financial statements for the 2015 fiscal year, to satisfy the requirements under the registration rights agreement with the purchasers of our common stock and warrants.

### *2015 Private Placement*

On October 23, 2015, in connection concurrent and related private placements of our common stock and warrants, we entered into registration rights agreements with the purchasers in such private placements pursuant to which we agreed to provide certain registration rights with respect to the common stock issued to the investors participating in such private placements and the common stock issuable upon exercise of the related warrants issued such investors. Specifically, we agreed to file a registration statement with the Securities and Exchange Commission covering the resale of the shares of common stock issued pursuant to the private placement and issuable upon the exercise of the warrants within 45 days of the final termination date of such private placements and to cause such registration statement to be declared effective by the Securities and Exchange Commission, in the event that the registration statement is not reviewed by the Securities and Exchange Commission, within 10 calendar days after we are notified that the registration statement is not being reviewed by the Securities and Exchange Commission, and within 120 calendar days of the initial filing date of the registration statement in the event that the registration statement is reviewed by the Securities and Exchange Commission and the Securities and Exchange Commission issues comments.

If (i) the registration statement is not filed within 45 days of the applicable termination date, (ii) the registration statement is not declared effective by the Securities and Exchange Commission within 10 calendar days after we are notified that the registration statement is not being reviewed by the Securities and Exchange Commission, in the case of a no review, (iii) the registration statement is not declared effective by the Securities and Exchange Commission within 120 calendar days of the initial filing date of the registration statement in the case of a review by the Securities and Exchange Commission pursuant to which the Securities and Exchange Commission issues comments or (iv) the registration statement ceases to remain continuously effective for more than 10 consecutive calendar days or more than an aggregate of 15 calendar days during any 12-month period after its first effective date, then we are subject to liquidated damage payments to the holders of the shares sold in the private placement in an amount equal to 1.0% of the aggregate purchase price paid by such purchasers per month of delinquency, provided, however, that we will not be required to make any payments if any of the foregoing events occurred at such time that all securities registered or to be registered in the registration statement are eligible for resale pursuant to Rule 144 (without volume restrictions or current public information requirements) promulgated by the Securities and Exchange Commission pursuant to the Securities Act of 1933, as amended and provided, further, that we will not be required to make any liquidated damage payments with respect to any securities registered or to be registered in the registration statement that we are unable to register due to limits imposed by the Securities and Exchange Commission's interpretation of Rule 415 under the Securities Act of 1933, as amended. Notwithstanding the foregoing, (i) the maximum aggregate liquidated damages due under the registration rights agreement dated October 23, 2015 shall be 6% of the aggregate purchase price paid by the purchasers and (ii) if any partial amount of liquidated damages remains unpaid for more than seven days, we shall pay interest of 18% per annum, accruing daily, on such unpaid amount.

Pursuant to the registration rights agreements, we must maintain the effectiveness of the registration statement from the effective date until the first to occur of (i) the date that is one year from the date the registration statement is declared effective by the Securities and Exchange Commission and (ii) the date on which all securities registered under the registration statement have been sold, or are otherwise able to be sold pursuant to Rule 144 without volume or manner-of-sale restrictions and without the requirement to be in compliance with the current public information requirement under Rule 144, subject to the our right to suspend or defer the use of the registration statement in certain events.

We filed a registration statement on August 2, 2016, which was originally declared effective on August 9, 2016. The post-effective amendment to the registration statement of which this prospectus forms a part was filed to update the registration statement to include audited financial statements for the 2016 fiscal year, to satisfy the requirements under the registration rights agreement with the purchasers of our common stock and warrants.

### *2016 Private Placement*

On October 28, 2016 in connection concurrent and related private placements of our common stock and warrants, we entered into registration rights agreements with the purchasers in such private placements pursuant to which we agreed to provide certain registration rights with respect to the common stock issued to the investors participating in such private placements and the common stock issuable upon exercise of the related warrants issued to such investors. Specifically, we agreed to file a registration statement with the Securities and Exchange Commission covering the resale of the shares of common stock issued pursuant to the private placement and issuable upon the exercise of the warrants within 45 days of the final termination date of such private placements and to cause such registration statement to be declared effective by the Securities and Exchange Commission, in the event that the registration statement is not reviewed by the Securities and Exchange Commission, within 10 calendar days after we are notified that the registration statement is not being reviewed by the Securities and Exchange Commission, and within 120 calendar days of the initial filing date of the registration statement in the event that the registration statement is reviewed by the Securities and Exchange Commission and the Securities and Exchange Commission issues comments.

If (i) the registration statement is not filed within 45 days of the applicable termination date, (ii) the registration statement is not declared effective by the Securities and Exchange Commission within 10 calendar days after we are notified that the registration statement is not being reviewed by the Securities and Exchange Commission, in the case of a no review, (iii) the registration statement is not declared effective by the Securities and Exchange Commission within 120 calendar days of the initial filing date of the registration statement in the case of a review by the Securities and Exchange Commission pursuant to which the Securities and Exchange Commission issues comments or (iv) the registration statement ceases to remain continuously effective for more than 10 consecutive calendar days or more than an aggregate of 15 calendar days during any 12-month period after its first effective date, then we are subject to liquidated damage payments to the holders of the shares sold in the private placement in an amount equal to 1.0% of the aggregate purchase price paid by such purchasers per month of delinquency, provided, however, that we will not be required to make any payments if any of the foregoing events occurred at such time that all securities registered or to be registered in the registration statement are eligible for resale pursuant to Rule 144 (without volume restrictions or current public information requirements) promulgated by the Securities and Exchange Commission pursuant to the Securities Act of 1933, as amended and provided, further, that we will not be required to make any liquidated damage payments with respect to any securities registered or to be registered in the registration statement that we are unable to register due to limits imposed by the Securities and Exchange Commission's interpretation of Rule 415 under the Securities Act of 1933, as amended. Notwithstanding the foregoing, (i) the maximum aggregate liquidated damages due under the registration rights agreement dated October 28, 2016 shall be 6% of the aggregate purchase price paid by the purchasers and (ii) if any partial amount of liquidated damages remains unpaid for more than seven days, we shall pay interest of 18% per annum, accruing daily, on such unpaid amount.

Pursuant to the registration rights agreements, we must maintain the effectiveness of the registration statement from the effective date until the first to occur of (i) the date that is one year from the date the registration statement is declared effective by the Securities and Exchange Commission and (ii) the date on which all securities registered under the registration statement have been sold, or are otherwise able to be sold pursuant to Rule 144 without volume or manner-of-sale restrictions and without the requirement to be in compliance with the current public information requirement under Rule 144, subject to the our right to suspend or defer the use of the registration statement in certain events.

#### *2017 Private Placement*

On April 6, 2017, in connection concurrent and related private placements of our common stock and warrants, we entered into registration rights agreements with the purchasers in such private placements pursuant to which we agreed to provide certain registration rights with respect to the common stock issued to the investors participating in such private placements and the common stock issuable upon exercise of the related warrants issued to such investors. Specifically, we agreed to file a registration statement with the Securities and Exchange Commission covering the resale of the shares of common stock issued pursuant to the private placement and issuable upon the exercise of the warrants within 45 days of the final termination date of such private placements and to cause such registration statement to be declared effective by the Securities and Exchange Commission, in the event that the registration statement is not reviewed by the Securities and Exchange Commission, within 10 calendar days after we are notified that the registration statement is not being reviewed by the Securities and Exchange Commission, and within 120 calendar days of the initial filing date of the registration statement in the event that the registration statement is reviewed by the Securities and Exchange Commission and the Securities and Exchange Commission issues comments.

If (i) the registration statement is not filed within 45 days of the applicable termination date, (ii) the registration statement is not declared effective by the Securities and Exchange Commission within 10 calendar days after we are notified that registration statement is not being reviewed by the Securities and Exchange Commission, in the case of a no review, (iii) the registration statement is not declared effective by the Securities and Exchange Commission within 120 calendar days of the initial filing date of the registration statement in the case of a review by the Securities and Exchange Commission pursuant to which the Securities and Exchange Commission issues comments or (iv) the registration statement ceases to remain continuously effective for more than 10 consecutive calendar days or more than an aggregate of 15 calendar days during any 12-month period after its first effective date, then we are subject to liquidated damage payments to the holders of the shares sold in the private placement in an amount equal to 1.0% of the aggregate purchase price paid by such purchasers per month of delinquency, provided, however, that we will not be required to make any payments if any of the foregoing events occurred at such time that all securities registered or to be registered in the registration statement are eligible for resale pursuant to Rule 144 (without volume restrictions or current public information requirements) promulgated by the Securities and Exchange Commission pursuant to the Securities Act of 1933, as amended and provided, further, that we will not be required to make any liquidated damage payments with respect to any securities registered or to be registered in the registration statement that we are unable to register due to limits imposed by the Securities and Exchange Commission's interpretation of Rule 415 under the Securities Act of 1933, as amended. Notwithstanding the foregoing, (i) the maximum aggregate liquidated damages due under the registration rights agreement dated April 6, 2017 shall be 6% of the aggregate purchase price paid by the purchasers and (ii) if any partial amount of liquidated damages remains unpaid for more than seven days, we shall pay interest of 18% per annum, accruing daily, on such unpaid amount.

Pursuant to the registration rights agreements, we must maintain the effectiveness of the registration statement from the effective date until the first to occur of (i) the date that is one year from the date the registration statement is declared effective by the Securities and Exchange Commission and (ii) the date on which all securities registered under the registration statement have been sold, or are otherwise able to be sold pursuant to Rule 144 without volume or manner-of-sale restrictions and without the requirement to be in compliance with the current public information requirement under Rule 144, subject to the our right to suspend or defer the use of the registration statement in certain events.

#### **Delaware Anti-Takeover Law and Provisions of our Amended and Restated Certificate of Incorporation and By-laws**

Section 203 of the Delaware General Corporation Law, in general, prohibits a business combination between a corporation and an interested stockholder within three years of the time such stockholder became an interested stockholder, unless:

- prior to such time the board of directors of the corporation approved either the business combination or the transaction that resulted in the stockholder becoming an interested stockholder;
- upon consummation of the transaction that resulted in the stockholder becoming an interested stockholder, the interested stockholder owned at least 85% of the voting stock of the corporation outstanding at the time the transaction commenced, exclusive of shares owned by directors who are also officers and by certain employee stock plans; or
- at or subsequent to such time, the business combination is approved by the board of directors and authorized by the affirmative vote at a stockholders' meeting of at least 66 2/3% of the outstanding voting stock that is not owned by the interested stockholder.

The term "business combination" is defined to include, among other transactions between an interested stockholder and a corporation or any direct or indirect majority owned subsidiary thereof: a merger or consolidation; a sale, lease, exchange, mortgage, pledge, transfer or other disposition (including as part of a dissolution) of assets having an aggregate market value equal to 10% or more of either the aggregate market value of all assets of the corporation on a consolidated basis or the aggregate market value of all the outstanding stock of the corporation; certain transactions that would result in the issuance or transfer by the corporation of any of its stock to the interested stockholder; certain transactions that would increase the interested stockholder's proportionate share ownership of the stock of any class or series of the corporation or such subsidiary; and any receipt by the interested stockholder of the benefit of any loans, advances, guarantees, pledges or other financial benefits provided by or through the corporation or any such subsidiary.

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

The restrictions in Section 203 do not apply to corporations that have elected, in the manner provided in Section 203, not to be subject to Section 203 of the Delaware General Corporation Law or, with certain exceptions, which do not have a class of voting stock that is listed on a national securities exchange or held of record by more than 2,000 stockholders. Our Amended and Restated Certificate of Incorporation and By-laws do not opt out of Section 203.

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

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

- do not provide for cumulative voting rights (therefore allowing the holders of a majority of the shares of common stock entitled to vote in any election of directors to elect all of the directors standing for election, if they should so choose);

- provide that special meetings of our stockholders may be called only by our board of directors, chairman, chief executive officer, president or secretary; and
- provide advance notice provisions with which a stockholder who wishes to nominate a director or propose other business to be considered at a stockholder meeting must comply.

### **Indemnification of Directors and Officers**

Pursuant to Section 145 of the Delaware General Corporation Law, a corporation has the power to indemnify its directors and officers against expenses, judgments, fines and amounts paid in settlement actually and reasonably incurred in connection with a third-party action, other than a derivative action, and against expenses actually and reasonably incurred in the defense or settlement of a derivative action, provided that there is a determination that the individual acted in good faith and in a manner reasonably believed to be in or not opposed to the best interests of the corporation and, with respect to any criminal action or proceeding, had no reasonable cause to believe the individual's conduct was unlawful. Such determination will be made, in the case of an individual who is a director or officer at the time of such determination:

- by a majority of the disinterested directors, even though less than a quorum;
- by a committee of such directors designated by a majority vote of such directors, even though less than a quorum;
- if there are no disinterested directors, or if such directors so direct, by independent legal counsel; or
- by a majority vote of the stockholders, at a meeting at which a quorum is present.

Without court approval, however, no indemnification may be made in respect of any derivative action in which such individual is adjudged liable to the corporation.

The Delaware General Corporation Law requires indemnification of directors and officers for expenses relating to a successful defense on the merits or otherwise of a derivative or third-party action.

The Delaware General Corporation Law permits a corporation to advance expenses relating to the defense of any proceeding to directors and officers contingent upon such individuals' commitment to repay any advances unless it is determined ultimately that such individuals are entitled to be indemnified.

Under the Delaware General Corporation Law, the rights to indemnification and advancement of expenses provided in the law are non-exclusive, in that, subject to public policy issues, indemnification and advancement of expenses beyond that provided by statute may be provided by law, agreement, vote of stockholders, disinterested directors or otherwise.

### **Limitation of Personal Liability of Directors**

The Delaware General Corporation Law provides that a corporation's certificate of incorporation may include a provision limiting the personal liability of a director to the corporation or its stockholders for monetary damages for breach of fiduciary duty as a director. However, no such provision can eliminate or limit the liability of a director for:

Our Amended and Restated Certificate of Incorporation provides that our directors will not be personally liable to us or any of our stockholders for monetary damages for breach of fiduciary duty as a director to the fullest extent permitted by the Delaware General Corporation Law.

### **Disclosure of Commission Position on Indemnification for Securities Act Liabilities**

Insofar as indemnification for liabilities arising under the Securities Act of 1933, as amended, may be permitted to our directors, officers and persons controlling us, we have been advised that it is the Securities and Exchange Commission's opinion that such indemnification is against public policy as expressed in the Securities Act of 1933, as amended, and is, therefore, unenforceable.

## PLAN OF DISTRIBUTION

Each selling stockholder (the “Selling Stockholders”) of the securities and any of their pledgees, assignees and successors-in-interest may, from time to time, sell any or all of their securities covered hereby on the OTCQB or any other stock exchange, market or trading facility on which the securities are traded or in private transactions. These sales may be at fixed or negotiated prices. A Selling Stockholder may use any one or more of the following methods when selling securities:

- ordinary brokerage transactions and transactions in which the broker-dealer solicits purchasers;
- block trades in which the broker-dealer will attempt to sell the shares as agent but may position and resell a portion of the block as principal to facilitate the transaction;
- purchases by a broker-dealer as principal and resale by the broker-dealer for its account;
- an exchange distribution in accordance with the rules of the applicable exchange;
- privately negotiated transactions;
- 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 Stockholders 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.

The Selling Stockholders may also sell securities under Rule 144 under the Securities Act of 1933, as amended, if available, rather than under this prospectus.

Broker-dealers engaged by the Selling Stockholders may arrange for other brokers-dealers to participate in sales. Broker-dealers may receive commissions or discounts from the Selling Stockholders (or, if any broker-dealer acts as agent for the purchaser of securities, 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 securities or interests therein, the Selling Stockholders may enter into hedging transactions with broker-dealers or other financial institutions, which may in turn engage in short sales of the securities in the course of hedging the positions they assume. The Selling Stockholders may also sell securities short and deliver these securities to close out their short positions, or loan or pledge the securities to broker-dealers that in turn may sell these securities. The Selling Stockholders may also enter into option or other transactions with broker-dealers or other financial institutions or create one or more derivative securities which require the delivery to such broker-dealer or other financial institution of securities offered by this prospectus, which securities such broker-dealer or other financial institution may resell pursuant to this prospectus (as supplemented or amended to reflect such transaction).

The Selling Stockholders and any broker-dealers or agents that are involved in selling the securities 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 securities purchased by them may be deemed to be underwriting commissions or discounts under the Securities Act. Each Selling Stockholder has informed us that it does not have any written or oral agreement or understanding, directly or indirectly, with any person to distribute the securities. In no event shall any broker-dealer receive fees, commissions and markups which, in the aggregate, would exceed eight percent (8%).



We are required to pay certain fees and expenses incurred by us incident to the registration of the securities. We have agreed to indemnify the Selling Stockholders against certain losses, claims, damages and liabilities, including liabilities under the Securities Act.

Because Selling Stockholders 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. In addition, any securities covered by this prospectus which qualify for sale pursuant to Rule 144 under the Securities Act may be sold under Rule 144 rather than under this prospectus. The Selling Stockholders have advised us that there is no underwriter or coordinating broker acting in connection with the proposed sale of the resale securities by the Selling Stockholders.

We agreed to keep this prospectus effective until the earlier of (i) the date on which the securities may be resold by the Selling Stockholders without registration and without regard to any volume or manner-of-sale limitations by reason of Rule 144, without the requirement for us to be in compliance with the current public information under Rule 144 under the Securities Act or any other rule of similar effect or (ii) the date on which all of the securities have been sold pursuant to this prospectus or Rule 144 under the Securities Act or any other rule of similar effect. The resale securities 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 securities 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 securities 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, the Selling Stockholders 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 securities of the common stock by the Selling Stockholders or any other person. We will make copies of this prospectus available to the Selling Stockholders 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).

#### **LEGAL MATTERS**

Haynes and Boone, LLP, New York, New York, will pass upon the validity of the shares of our common stock offered by the selling stockholders under this prospectus.

#### **MATERIAL CHANGES**

There have been no material changes to us since December 31, 2016 that have not been described in a Form 10-Q, a Current Report on Form 8-K or in this prospectus that should be included.

#### **EXPERTS**

Our financial statements as of December 31, 2016 and 2015 and for the years then ended included in this prospectus have been audited by Liggett & Webb, P.A., an independent registered public accounting firm, as stated in its report appearing in the registration statement, and are included in reliance upon the report of such firm given upon its authority as experts in accounting and auditing.

#### **WHERE YOU CAN FIND ADDITIONAL INFORMATION**

We have filed with the Securities and Exchange Commission a registration statement on Form S-1, together with any amendments and related exhibits, under the Securities Act of 1933, as amended, with respect to our shares of common stock offered by this prospectus. The registration statement contains additional information about us and our shares of common stock that the selling stockholders are offering in this prospectus.

We are required to file annual, quarterly and current reports and other information with the Securities and Exchange Commission under the Securities Exchange Act of 1934, as amended. Our Securities and Exchange Commission filings are available to the public over the Internet at the Securities and Exchange Commission’s website at <http://www.sec.gov>. You may also read and copy any document we file at the Securities and Exchange Commission’s public reference room located at 100 F Street, N.E., Washington, D.C. 20549. Please call the Securities and Exchange Commission at 1-800-SEC-0330 for further information on the public reference rooms and their copy charges. Access to those electronic filings is available as soon as practicable after filing with the Securities and Exchange Commission. You may also request a copy of those filings, excluding exhibits, from us at no cost. Any such request should be addressed to us at: 8441 Wayzata Blvd., Suite 240, Minneapolis, Minnesota 55426, Attention: Kenneth L. Londoner, Executive Chairman.

## INCORPORATION OF CERTAIN INFORMATION BY REFERENCE

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

- Our Annual Report on Form 10-K for the fiscal year ended December 31, 2016, filed with the Securities and Exchange Commission on March 30, 2017, as amended on April 11, 2017;
- Our Quarterly Report on Form 10-Q for the three months ended March 31, 2017, filed with the Securities and Exchange Commission on May 9, 2017;
- Our Current Report on Form 8-K, filed with the Securities and Exchange Commission on February 14, 2017;
- Our Current Report on Form 8-K, filed with the Securities and Exchange Commission on February 22, 2017;
- Our Current Report on Form 8-K, filed with the Securities and Exchange Commission on March 16, 2017;
- Our Current Report on Form 8-K, filed with the Securities and Exchange Commission on March 17, 2017;
- Our Current Report on Form 8-K, filed with the Securities and Exchange Commission on March 21, 2017;
- Our Current Report on Form 8-K, filed with the Securities and Exchange Commission on April 6, 2017;
- Our Current Report on Form 8-K, filed with the Securities and Exchange Commission on April 24, 2017; and
- The description of our common stock contained in Form 8-A, filed with the Securities and Exchange Commission on July 20, 2015, and any amendment or report filed for the purpose of updating such description..

We also incorporate by reference any future filings, other than current reports furnished under Item 2.02 or Item 7.01 of Form 8-K and exhibits filed on such form that are related to such items, made with the Securities Exchange Commission pursuant to Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act, in each case, other than those documents or the portions of those documents deemed to be furnished and not filed in accordance with SEC rules, until the offering of the securities under the registration statement of which this prospectus forms a part is terminated or completed.

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

We will provide without charge to each person to whom a copy of this prospectus is delivered, upon written or oral request, a copy of any or all of the information that has been incorporated by reference in this prospectus but not delivered with this prospectus (other than an exhibit to these filings, unless we have specifically incorporated that exhibit by reference in this prospectus). Any such request should be addressed to us at:

BioSig Technologies, Inc.  
Attention: Kenneth L. Londoner, Executive Chairman  
8441 Wayzata Blvd., Suite 240  
Minneapolis, MN 55426  
Telephone: (763)-999-7330

You may also access the documents incorporated by reference in this prospectus through our website at [www.biosigtech.com](http://www.biosigtech.com). Except for the specific incorporated documents listed above, no information available on or through our website shall be deemed to be incorporated in this prospectus or the registration statement of which it forms a part.



**BioSig Technologies, Inc.**

**Up to 713,345 Shares of Common Stock Underlying Series C Preferred Stock and up to 3,127,510 Shares of Common Stock  
Underlying Warrants  
Up to 1,149,612 Shares of Common Stock**

**PROSPECTUS**

**, 2017**

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## PART II

### INFORMATION NOT REQUIRED IN PROSPECTUS

#### Item 13. Other Expenses of Issuance and Distribution.

We are paying all of the selling stockholders' expenses related to this offering, except that the selling stockholders will pay any applicable underwriting discounts and commissions. The fees and expenses payable by us in connection with this Registration Statement are estimated as follows:

Securities and Exchange Commission Registration Fee	\$ 894.28
Accounting Fees and Expenses	\$ 12,500.00
Legal Fees and Expenses	\$ 50,000.00
Printing Expenses	\$ 6,000.00
Miscellaneous Fees and Expenses	\$ 2605.72
Total	<u>\$ 72,000.00</u>

#### Item 14. Indemnification of Directors and Officers.

Section 145 of the General Corporation Law of the State of Delaware provides, in general, that a corporation incorporated under the laws of the State of Delaware, as we are, may indemnify any person who was or is a party or is threatened to be made a party to any threatened, pending or completed action, suit or proceeding (other than a derivative action by or in the right of the corporation) by reason of the fact that such person is or was a director, officer, employee or agent of the corporation, or is or was serving at the request of the corporation as a director, officer, employee or agent of another enterprise, against expenses (including attorneys' fees), judgments, fines and amounts paid in settlement actually and reasonably incurred by such person in connection with such action, suit or proceeding if such person acted in good faith and in a manner such person reasonably believed to be in or not opposed to the best interests of the corporation and, with respect to any criminal action or proceeding, had no reasonable cause to believe such person's conduct was unlawful. In the case of a derivative action, a Delaware corporation may indemnify any such person against expenses (including attorneys' fees) actually and reasonably incurred by such person in connection with the defense or settlement of such action or suit if such person acted in good faith and in a manner such person reasonably believed to be in or not opposed to the best interests of the corporation, except that no indemnification will be made in respect of any claim, issue or matter as to which such person will have been adjudged to be liable to the corporation unless and only to the extent that the Court of Chancery of the State of Delaware or any other court in which such action was brought determines such person is fairly and reasonably entitled to indemnity for such expenses.

We are also permitted to apply for, and currently maintain, insurance on behalf of any director, officer, employee or other agent for liability arising out of his actions, whether or not the General Corporation Law of the State of Delaware would permit indemnification.

#### Item 15. Recent Sales of Unregistered Securities.

On April 4, 2014 and April 30, 2014, in two separate closings, we entered into a securities purchase agreement with twenty-eight accredited investors (as defined by Rule 501 under the Securities Act of 1933, as amended), pursuant to which we issued 229,760 shares of our common stock and five-year warrants to purchase 114,880 shares of our common stock for aggregate cash proceeds of \$574,400. The securities sold in this offering were not registered under the Securities Act of 1933, as amended, or the securities laws of any state, and were offered and sold in reliance on the exemption from registration under the Securities Act of 1933, as amended, provided by Section 4(2) and Regulation D (Rule 506) under the Securities Act of 1933, as amended.

On April 30, 2014, in connection with the above described private placement, we issued a five-year warrant to purchase up to 22,976 shares of common stock upon the same terms as the warrants in the above described private placement to Laidlaw & Company (UK) Ltd., our placement agent in the private placement. The warrant was not registered under the Securities Act of 1933, as amended, or the securities laws of any state, and was offered and sold in reliance on the exemption from registration afforded by Section 4(2) and Regulation D (Rule 506) under the Securities Act of 1933, as amended, and corresponding provisions of state securities laws, which exempt transactions by an issuer not involving a public offering. Laidlaw & Company (UK) Ltd. was an accredited investor (as defined by Rule 501 under the Securities Act of 1933, as amended) at the time of the private placement.

On August 15, 2014 and September 12, 2014, in two separate closings, we entered into a securities purchase agreement with 23 accredited investors (as defined by Rule 501 under the Securities Act of 1933, as amended), pursuant to which we issued 381,200 shares of our common stock and five-year warrants to purchase 190,600 shares of our common stock for aggregate cash proceeds of \$953,000. The securities sold in this offering were not registered under the Securities Act of 1933, as amended, or the securities laws of any state, and were offered and sold in reliance on the exemption from registration under the Securities Act of 1933, as amended, provided by Section 4(2) and Regulation D (Rule 506) under the Securities Act of 1933, as amended.

On August 15, 2014 and September 12, 2014, in connection with the above described private placement, we issued a warrant to purchase up to an aggregate of 38,120 shares of common stock upon the same terms as the warrants in the above described private placement to Laidlaw & Company (UK) Ltd., our placement agent in the private placement. The warrant was not registered under the Securities Act of 1933, as amended, or the securities laws of any state, and was offered and sold in reliance on the exemption from registration afforded by Section 4(2) and Regulation D (Rule 506) under the Securities Act of 1933, as amended, and corresponding provisions of state securities laws, which exempt transactions by an issuer not involving a public offering. Laidlaw & Company (UK) Ltd. was an accredited investor (as defined by Rule 501 under the Securities Act of 1933, as amended) at the time of the private placement.

On December 19, 2014, December 30, 2014, January 23, 2015, February 10, 2015, February 27, 2015 and March 31, 2015, in six separate closings, we entered into a securities purchase agreement with 102 accredited investors (as defined by Rule 501 under the Securities Act of 1933, as amended), pursuant to which we issued 1,603,600 shares of our common stock, "A" warrants expiring July 31, 2015 to purchase 1,603,600 shares of our common stock and "B" warrants expiring March 21, 2020 to purchase 801,800 shares of our common stock for aggregate cash proceeds of \$4,009,000. The securities sold in this offering were not registered under the Securities Act of 1933, as amended, or the securities laws of any state, and were offered and sold in reliance on the exemption from registration under the Securities Act of 1933, as amended, provided by Section 4(2) and Regulation D (Rule 506) under the Securities Act of 1933, as amended.

On March 31, 2015, in connection with the above described private placement, we issued a warrant to purchase up to 400,900 shares of common stock upon the same terms as the "B" warrants in the above described private placement to Laidlaw & Company (UK) Ltd., our placement agent in the private placement. The warrant was not registered under the Securities Act of 1933, as amended, or the securities laws of any state, and was offered and sold in reliance on the exemption from registration afforded by Section 4(2) and Regulation D (Rule 506) under the Securities Act of 1933, as amended, and corresponding provisions of state securities laws, which exempt transactions by an issuer not involving a public offering. Laidlaw & Company (UK) Ltd. was an accredited investor (as defined by Rule 501 under the Securities Act of 1933, as amended) at the time of the private placement.

On May 11, 2015, we entered into a securities purchase agreement with Alpha Capital Anstalt and a securities purchase agreement with Brio Capital Master Fund Ltd., pursuant to which we issued 450 shares of our Series C Preferred Stock and five-year warrants to purchase 374,641 shares of our common stock for aggregate cash proceeds of \$450,000. The securities sold in this offering were not registered under the Securities Act of 1933, as amended, or the securities laws of any state, and were offered and sold in reliance on the exemption from registration under the Securities Act of 1933, as amended, provided by Section 4(2) and Regulation D (Rule 506) under the Securities Act of 1933, as amended.

On August 17, 2015, as consideration for providing general financial advisory services, we issued Alere Financial Partners, LLC a three-year warrant to purchase up to 100,000 shares of common stock each at an exercise price of \$2.00 and a three-year warrant to purchase up to 100,000 shares of common stock each at an exercise price of \$2.50 per share. The securities sold in this offering were not registered under the Securities Act of 1933, as amended, or the securities laws of any state, and were offered and sold in reliance on the exemption from registration under the Securities Act of 1933, as amended, provided by Section 4(2) and Regulation D (Rule 506) under the Securities Act of 1933, as amended.

On October 23, 2015, October 29, 2015, November 18, 2015, December 18, 2015, December 22, 2015, February 9, 2016, March 9, 2016, April 1, 2016, April 19, 2016 and April 29, 2016, in ten separate closings, we entered into a securities purchase agreement with 49 accredited investors (as defined by Rule 501 under the Securities Act of 1933, as amended), pursuant to which we issued 3,003,016 shares of our common stock and three-year warrants to purchase an aggregate of up to 1,501,513 shares of our common stock for aggregate cash proceeds of approximately \$4,504,516. The securities sold in this offering were not registered under the Securities Act of 1933, as amended, or the securities laws of any state, and were offered and sold in reliance on the exemption from registration under the Securities Act of 1933, as amended, provided by Section 4(2) and Regulation D (Rule 506) under the Securities Act of 1933, as amended.

On October 23, 2015, October 29, 2015, November 18, 2015, December 18, 2015, December 22, 2015, February 9, 2016, March 9, 2016, April 1, 2016, April 19, 2016 and April 29, 2016, in connection with the above described private placement, we issued warrants to purchase an aggregate of up to 232,960 shares of common stock exercisable for cash or by means of a cashless exercise at a price of \$1.50 per share, and the same other terms as the warrants in the above described private placement to Laidlaw & Company (UK) Ltd., our placement agent in the private placement. The warrant was not registered under the Securities Act of 1933, as amended, or the securities laws of any state, and was offered and sold in reliance on the exemption from registration afforded by Section 4(2) and Regulation D (Rule 506) under the Securities Act of 1933, as amended, and corresponding provisions of state securities laws, which exempt transactions by an issuer not involving a public offering. Laidlaw & Company (UK) Ltd. was an accredited investor (as defined by Rule 501 under the Securities Act of 1933, as amended) at the time of the private placement.

On June 1, 2016, we entered into a securities purchase agreement with 3 accredited investors (as defined by Rule 501 under the Securities Act of 1933, as amended), pursuant to which we issued 77,144 shares of our common stock and three-year warrants to purchase up to 38,572 shares of our common stock, exercisable at \$2.10 per share and expiring June 1, 2019, in exchange for aggregate cash proceeds of approximately \$135,000. The securities sold in this offering were not registered under the Securities Act of 1933, as amended, or the securities laws of any state, and were offered and sold in reliance on the exemption from registration under the Securities Act of 1933, as amended, provided by Section 4(2) and Regulation D (Rule 506) under the Securities Act of 1933, as amended.

On September 1, 2016, we entered into a securities purchase agreement with certain accredited investors (as defined by Rule 501 under the Securities Act of 1933, as amended), pursuant to which we issued 305,026 shares of our common stock and 152,513 warrants to purchase one share of our common stock, exercisable at a price of \$1.95 per share and expiring August 30, 2019, in exchange for aggregate consideration of \$431,549, net of \$25,990 in expenses. The securities sold in this offering were not registered under the Securities Act of 1933, as amended, or the securities laws of any state, and were offered and sold in reliance on the exemption from registration under the Securities Act of 1933, as amended, provided by Section 4(2) and Regulation D (Rule 506) under the Securities Act of 1933, as amended.

On September 19, 2016, we entered into a securities purchase agreement with certain accredited investors (as defined by Rule 501 under the Securities Act of 1933, as amended), pursuant to which we issued 70,000 shares of our common stock and 35,000 warrants to purchase one share of our common stock, exercisable at a price of \$1.95 per share and expiring September 19, 2019, in exchange for aggregate consideration of \$98,533, net of \$6,467 in expenses. The securities sold in this offering were not registered under the Securities Act of 1933, as amended, or the securities laws of any state, and were offered and sold in reliance on the exemption from registration under the Securities Act of 1933, as amended, provided by Section 4(2) and Regulation D (Rule 506) under the Securities Act of 1933, as amended.

On October 28, 2016, November 23, 2016, December 16, 2016, December 22, 2016, February 10, 2017, March 10, 2017 and March 31, 2017, in seven separate closings, we entered into a unit purchase agreement with certain accredited investors (as defined by Rule 501 under the Securities Act of 1933, as amended), pursuant to which we issued an aggregate of 2,899,974 units, which consisted of, in the aggregate, 2,899,974 shares of our common stock and warrants to purchase 1,449,987 shares of our common stock at an exercise price of \$1.50 per share, in exchange for aggregate gross proceeds of \$3,972,199, after financing costs of \$377,754. The securities sold in this offering were not registered under the Securities Act of 1933, as amended, or the securities laws of any state, and were offered and sold in reliance on the exemption from registration under the Securities Act of 1933, as amended, provided by Section 4(2) and Regulation D (Rule 506) under the Securities Act of 1933, as amended.

On October 28, 2016, November 23, 2016, December 16, 2016, December 22, 2016, February 10, 2017, March 10, 2017 and March 31, 2017, in connection with the above described private placement, we issued warrants to purchase an aggregate of up to 186,957 shares of common stock exercisable for cash or by means of a cashless exercise at a price of \$1.50 per share expiring January 13, 2020, and the same other terms as the warrants in the above described private placement to Laidlaw & Company (UK) Ltd., our placement agent in the private placement. The warrant was not registered under the Securities Act of 1933, as amended, or the securities laws of any state, and was offered and sold in reliance on the exemption from registration afforded by Section 4(2) and Regulation D (Rule 506) under the Securities Act of 1933, as amended, and corresponding provisions of state securities laws, which exempt transactions by an issuer not involving a public offering. Laidlaw & Company (UK) Ltd. was an accredited investor (as defined by Rule 501 under the Securities Act of 1933, as amended) at the time of the private placement.

In March 2017, we issued to Mayo Clinic Ventures three-year warrants to purchase up to an aggregate of 630,000 shares of common stock at an exercise price of \$1.50 per share in connection with a know-how licensing agreement with Mayo Foundation for Medical Education and Research. The securities were not registered under the Securities Act of 1933, as amended, or the securities laws of any state, and were offered and sold in reliance on the exemption from registration under the Securities Act of 1933, as amended, provided by Section 4(2) and Regulation D (Rule 506) under the Securities Act of 1933, as amended.

On April 6, 2017, we entered into a unit purchase agreement with certain accredited investors (as defined by Rule 501 under the Securities Act of 1933, as amended), pursuant to which we issued 376,667 shares of our common stock and 188,334 warrants to purchase one share of our common stock, exercisable at a price of \$1.50 per share and expiring April 6, 2020, in exchange for aggregate consideration of \$565,000. The securities sold in this offering were not registered under the Securities Act of 1933, as amended, or the securities laws of any state, and were offered and sold in reliance on the exemption from registration under the Securities Act of 1933, as amended, provided by Section 4(2) and Regulation D (Rule 506) under the Securities Act of 1933, as amended.

On April 17, 2017, we entered into a unit purchase agreement with certain accredited investors (as defined by Rule 501 under the Securities Act of 1933, as amended), pursuant to which we issued 199,932 shares of our common stock and 99,966 warrants to purchase one share of our common stock, exercisable at a price of \$1.50 per share and expiring April 6, 2020, in exchange for aggregate consideration of \$299,898. The securities sold in this offering were not registered under the Securities Act of 1933, as amended, or the securities laws of any state, and were offered and sold in reliance on the exemption from registration under the Securities Act of 1933, as amended, provided by Section 4(2) and Regulation D (Rule 506) under the Securities Act of 1933, as amended.

On May 5, 2017, we entered into a unit purchase agreement with certain accredited investors (as defined by Rule 501 under the Securities Act of 1933, as amended), pursuant to which we issued 13,334 shares of our common stock and 6,667 warrants to purchase one share of our common stock, exercisable at a price of \$1.50 per share and expiring May 5, 2020, in exchange for aggregate consideration of \$20,000. The securities sold in this offering were not registered under the Securities Act of 1933, as amended, or the securities laws of any state, and were offered and sold in reliance on the exemption from registration under the Securities Act of 1933, as amended, provided by Section 4(2) and Regulation D (Rule 506) under the Securities Act of 1933, as amended.

**Item 16. Exhibits and Financial Statement Schedules.**

<b>Exhibit No.</b>	<b>Description</b>
3.1	Amended and Restated Certificate of Incorporation of BioSig Technologies, Inc. (incorporated by reference to Exhibit 3.1 to the Form S-1 filed on July 22, 2013)
3.2	Certificate of Amendment to the Amended and Restated Certificate of Incorporation of BioSig Technologies, Inc. (incorporated by reference to Exhibit 3.2 to the Form S-1 filed on July 22, 2013)
3.3	Certificate of Second Amendment to the Amended and Restated Certificate of Incorporation of BioSig Technologies, Inc. (incorporated by reference to Exhibit 3.3 to the Form S-1 filed on July 22, 2013)
3.4	Certificate of Third Amendment to the Amended and Restated Certificate of Incorporation of BioSig Technologies, Inc. (incorporated by reference to Exhibit 3.5 to the Form S-1/A filed on January 21, 2014)
3.5	Certificate of Fourth Amendment to the Amended and Restated Certificate of Incorporation of BioSig Technologies, Inc. (incorporated by reference to Exhibit 3.6 to the Form S-1/A filed on March 28, 2014)
3.6	Certificate of Fifth Amendment to the Amended and Restated Certificate of Incorporation of BioSig Technologies, Inc. (incorporated by reference to Exhibit 3.1 to the Form 8-K filed on August 21, 2014)
3.7	Certificate of Sixth Amendment to the Amended and Restated Certificate of Incorporation of BioSig Technologies, Inc. (incorporated by reference to Exhibit 3.1 to the Form 8-K filed on November 25, 2016)
3.8	Bylaws of BioSig Technologies, Inc. (incorporated by reference to Exhibit 3.4 to the Form S-1 filed on July 22, 2013)
5.1	Opinion of Haynes and Boone, LLP (incorporated by reference to Exhibit 5.1 to the Form S-1/A filed on May 22, 2014)
10.1	BioSig Technologies, Inc. 2012 Equity Incentive Plan (incorporated by reference to Exhibit 10.1 to the Form S-1 filed on July 22, 2013)
10.2	Form of Stock Option Agreement under the 2012 Equity Incentive Plan (incorporated by reference to Exhibit 10.2 to the Form S-1 filed on July 22, 2013)
10.3	Securities Purchase Agreement, dated September 19, 2011, by and between BioSig Technologies, Inc. and certain purchasers set forth therein (incorporated by reference to Exhibit 10.3 to the Form S-1 filed on July 22, 2013)
10.4	Securities Purchase Agreement, dated December 27, 2011, by and between BioSig Technologies, Inc. and certain purchasers set forth therein (incorporated by reference to Exhibit 10.4 to the Form S-1 filed on July 22, 2013)

- 10.5 Securities Purchase Agreement, dated February 6, 2013, by and between BioSig Technologies, Inc. and certain purchasers set forth therein (incorporated by reference to Exhibit 10.5 to the Form S-1 filed on July 22, 2013)
- 10.6 Registration Rights Agreement, dated February 6, 2013, by and between BioSig Technologies, Inc. and certain purchasers set forth therein (incorporated by reference to Exhibit 10.6 to the Form S-1 filed on July 22, 2013)
- 10.7 Form of Warrant used in connection with February 6, 2013 private placement (incorporated by reference to Exhibit 10.7 to the Form S-1 filed on July 22, 2013)
- 10.8 Amendment Agreement No. 1 to Securities Purchase Agreement and Registration Rights Agreement, dated February 25, 2013, by and between BioSig Technologies, Inc. and certain purchasers set forth therein (incorporated by reference to Exhibit 10.8 to the Form S-1 filed on July 22, 2013)
- 10.9 Amendment Agreement No. 2 to Securities Purchase Agreement, dated April 12, 2013, by and between BioSig Technologies, Inc. and certain purchasers set forth therein (incorporated by reference to Exhibit 10.9 to the Form S-1 filed on July 22, 2013)
- 10.10 Amendment Agreement No. 3 to Securities Purchase Agreement and Registration Rights Agreement, dated June 25, 2013, by and between BioSig Technologies, Inc. and certain purchasers set forth therein (incorporated by reference to Exhibit 10.10 to the Form S-1 filed on July 22, 2013)
- 10.11 Office Lease Agreement, dated August 9, 2011, by and between BioSig Technologies, Inc. and Douglas Emmett 1993, LLC (incorporated by reference to Exhibit 10.11 to the Form S-1 filed on July 22, 2013)
- 10.12 Employment Agreement, dated March 1, 2013, by and between BioSig Technologies, Inc. and Kenneth Londoner (incorporated by reference to Exhibit 10.12 to the Form S-1 filed on July 22, 2013)
- 10.13 Indemnity Agreement, dated May 2, 2013 by and between BioSig Technologies, Inc. and Seth H. Z. Fischer (incorporated by reference to Exhibit 10.14 to the Form S-1 filed on July 22, 2013)
- 10.14 Consulting Agreement, dated August 1, 2012, by and between BioSig Technologies, Inc. and Asher Holzer (incorporated by reference to Exhibit 10.15 to the Form S-1 filed on July 22, 2013)
- 10.15 Unsecured Promissory Note made by BioSig Technologies, Inc. in favor of Kenneth Londoner, dated November 21, 2012 (incorporated by reference to Exhibit 10.19 to the Form S-1/A filed on September 11, 2013)
- 10.16 Form of 8% Senior Convertible Promissory Note issued pursuant to Bridge Loan Agreement, dated July 20, 2012 (incorporated by reference to Exhibit 10.20 to the Form S-1/A filed on September 11, 2013)
- 10.17 Promissory Note made by BioSig Technologies, Inc. in favor of Kenneth Londoner, dated December 6, 2012 (incorporated by reference to Exhibit 10.21 to the Form S-1/A filed on September 11, 2013)
- 10.18 Amendment Agreement No. 4 to Securities Purchase Agreement, dated October 14, 2013, by and between BioSig Technologies, Inc. and certain purchasers set forth therein (incorporated by reference to Exhibit 10.23 to the Form S-1/A filed on January 21, 2014)
- 10.19 Securities Purchase Agreement, dated December 31, 2013, by and between BioSig Technologies, Inc. and certain purchasers set forth therein (incorporated by reference to Exhibit 10.24 to the Form S-1/A filed on January 21, 2014)
- 10.20 Registration Rights Agreement, dated December 31, 2013, by and between BioSig Technologies, Inc. and certain purchasers set forth therein (incorporated by reference to Exhibit 10.25 to the Form S-1/A filed on January 21, 2014)
- 10.21 Form of Warrant used in connection with December 31, 2013 private placement (incorporated by reference to Exhibit 10.26 to the Form S-1/A filed on January 21, 2014)
- 10.22 Amendment No. 1 to the BioSig Technologies, Inc. 2012 Equity Incentive Plan (incorporated by reference to Exhibit 10.27 to the Form S-1/A filed on March 28, 2014)
- 10.23 Amendment Agreement No. 5 to Securities Purchase Agreement, dated March 24, 2014, by and between BioSig Technologies, Inc. and certain purchasers set forth therein (incorporated by reference to Exhibit 10.28 to the Form S-1/A filed on March 28, 2014)
- 10.24 Patent Assignment, dated March 17, 2014, by and among Budimir Drakulic, Thomas Foxall, Sina Fakhra and Branislav Vlainic and BioSig Technologies, Inc. (incorporated by reference to Exhibit 10.29 to the Form S-1/A filed on May 1, 2014)
- 10.25 Securities Purchase Agreement, dated April 4, 2014, by and between BioSig Technologies, Inc. and certain purchasers set forth therein (incorporated by reference to Exhibit 10.30 to the Form S-1/A filed on May 1, 2014)
- 10.26 Registration Rights Agreement, dated April 4, 2014, by and between BioSig Technologies, Inc. and certain purchasers set forth therein (incorporated by reference to Exhibit 10.31 to the Form S-1/A filed on May 1, 2014)
- 10.27 Form of Warrant used in connection with April 4, 2014 private placement (incorporated by reference to Exhibit 10.32 to the Form S-1/A filed on May 1, 2014)
- 10.28 Consulting Agreement, dated December 10, 2010, by and between BioSig Technologies, Inc. and Jonathan Steinhouse (incorporated by reference to Exhibit 10.33 to the Form S-1/A filed on May 22, 2014)
- 10.29 Executive Employment Agreement, dated July 15, 2014, by and between BioSig Technologies, Inc. and Gregory Cash (incorporated by reference to Exhibit 10.1 to the Form 8-K filed on July 21, 2014)



- 10.30 Incentive Stock Option Agreement, dated July 15, 2014, by and between BioSig Technologies, Inc. and Gregory Cash (incorporated by reference to Exhibit 10.2 to the Form 8-K filed on July 21, 2014)
- 10.31 Securities Purchase Agreement, dated as of August 15, 2014, by and between BioSig Technologies, Inc. and certain purchasers set forth therein (incorporated by reference to Exhibit 10.2 to the Form 8-K filed on August 21, 2014)
- 10.32 Registration Rights Agreement, dated as of August 15, 2014, by and between BioSig Technologies, Inc. and certain purchasers set forth therein (incorporated by reference to Exhibit 10.3 to the Form 8-K filed on August 21, 2014)
- 10.33 Form of Warrant used in connection with August 15, 2014 private placement (incorporated by reference to Exhibit 10.2 to the Form 8-K filed on August 21, 2014)
- 10.34 Letter Agreement and Release, dated as of September 1, 2014, by and between BioSig Technologies, Inc. and Asher Holzer, Ph.D (incorporated by reference to Exhibit 10.1 to the Form 8-K filed on September 5, 2014)
- 10.35 Form of Restricted Stock Award Agreement under the 2012 Equity Incentive Plan (incorporated by reference to Exhibit 10.2 to the Form 8-K filed on September 5, 2014)
- 10.36 Settlement and Mutual Release Agreement, dated November 3, 2014, by and between BioSig Technologies, Inc. and David Drachman (incorporated by reference to Exhibit 10.1 to the Form 8-K filed on November 5, 2014)
- 10.37 Composite of Unit Purchase Agreement, dated December 19, 2014, as amended by Supplement No. 1, dated December 17, 2014, by and between BioSig Technologies, Inc. and certain purchasers set forth therein (incorporated by reference to Exhibit 10.37 to the Form 10-K filed on February 20, 2015)
- 10.38 Registration Rights Agreement, dated December 19, 2014, by and between BioSig Technologies, Inc. and certain purchasers set forth therein (incorporated by reference to Exhibit 10.38 to the Form 10-K filed on February 20, 2015)
- 10.39 Form of “A” Warrant used in connection with December 19, 2014 private placement (incorporated by reference to Exhibit 10.39 to the Form 10-K filed on February 20, 2015)
- 10.40 Form of “B” Warrant used in connection with December 19, 2014 private placement (incorporated by reference to Exhibit 10.40 to the Form 10-K filed on February 20, 2015)
- 10.41 Amendment No. 2 to the BioSig Technologies, Inc. 2012 Equity Incentive Plan (incorporated by reference to Exhibit 99.3 to the Form S-8 filed on April 17, 2015)
- 10.42 Amendment No. 3 to the BioSig Technologies, Inc. 2012 Equity Incentive Plan (incorporated by reference to Exhibit 10.41 to the Form S-1 filed on May 20, 2015)
- 10.43 Securities Purchase Agreement, dated as of May 11, 2015, by and between BioSig Technologies, Inc. and Alpha Capital Anstalt (incorporated by reference to Exhibit 10.1 to the Form 8-K filed on May 15, 2015)
- 10.44 Securities Purchase Agreement, dated as of May 11, 2015, by and between BioSig Technologies, Inc. and Brio Capital Master Fund Ltd. (incorporated by reference to Exhibit 10.2 to the Form 8-K filed on May 15, 2015)
- 10.45 Amendment Agreement No. 6 to Securities Purchase Agreement, dated July 30, 2014, by and between BioSig Technologies, Inc. and certain purchasers (incorporated by reference to Exhibit 10.44 to the Form S-1/A filed on June 10, 2015)
- 10.46 Amendment No. 4 to the BioSig Technologies, Inc. 2012 Equity Incentive Plan (incorporated by reference to Exhibit 99.1 to the Form 8-K filed on May 29, 2015)
- 10.47 Form of Subscription Agreement (incorporated by reference to Exhibit 10.1 to the Form 8-K filed on October 29, 2015)
- 10.48 Unit Purchase Agreement, dated October 23, 2015, by and between BioSig Technologies, Inc. and certain purchasers set forth therein (incorporated by reference to Exhibit 10.2 to the Form 8-K filed on October 29, 2015)
- 10.49 Form of Warrant used in connection with October 23, 2015 private placement (incorporated by reference to Exhibit 10.3 to the Form 8-K filed on Form 8-K on October 29, 2015)
- 10.50 Registration Rights Agreement, dated October 23, 2015, by and between BioSig Technologies, Inc. and certain purchasers set forth therein (incorporated by reference to Exhibit 10.04 to the Form 8-K filed on October 29, 2015)
- 10.54 Form of Subscription Agreement (incorporated by reference to the Item 1.01 – Entry Into a Material Definitive Agreement to the Form 8-K filed on November 3, 2016)
- 10.55 Unit Purchase Agreement, dated October 28, 2016, by and between BioSig Technologies, Inc. and certain purchasers set forth therein (incorporated by reference to the Item 1.01 – Entry Into a Material Definitive Agreement to the Form 8-K filed on November 3, 2016)
- 10.56 Form of Warrant used in connection with October 28, 2016 private placement (incorporated by reference to the Item 1.01 – Entry Into a Material Definitive Agreement to the Form 8-K filed on November 3, 2016)
- 10.57 Registration Rights Agreement, dated October 28, 2016, by and between BioSig Technologies, Inc. and certain purchasers set forth therein (incorporated by reference to the Item 1.01 – Entry Into a Material Definitive Agreement to the Form 8-K filed on November 3, 2016)

- 10.58 Amendment No. 5 to the BioSig Technologies, Inc. 2012 Equity Incentive Plan (incorporated by reference to Exhibit 10.1 to the Form 8-K filed on November 25, 2016)
- 23.1 [Consent of Liggett & Webb, P.A. \(filed herewith\)](#)
- 23.2 Consent of Haynes and Boone, LLP (included in Exhibit 5.1)
- 24.1 Power of Attorney (incorporated by reference on signature page to the Post-Effective Amendment No. 2 to Form S-1 filed on May 27, 2016)

**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;

(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% change in the maximum aggregate offering price set forth in the "Calculation of Registration Fee" table in the effective registration statement.

(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.

*provided, however*, that subparagraphs (i), (ii) and (iii) above do not apply if the information required to be included in a post-effective amendment by those paragraphs is contained in reports filed with or furnished to the Securities and Exchange Commission by the registrant pursuant to Section 13 or Section 15(d) of the Securities Exchange Act of 1934 that are incorporated by reference 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 the 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 that remain unsold at the termination of the offering.

(4) That, for the purpose of determining liability under the Securities Act of 1933 to any purchaser, 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 (§230.430A of this chapter), 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) That, for the purpose of determining liability of the undersigned registrant under the Securities Act of 1933 to any purchaser in the initial distribution of the securities:

The undersigned registrant undertakes that in a primary offering of securities of the undersigned registrant pursuant to this registration statement, regardless of the underwriting method used to sell the securities to the purchaser, if the securities are offered or sold to such purchaser by means of any of the following communications, the undersigned registrant will be a seller to the purchaser and will be considered to offer or sell such securities to such purchaser:

(i) Any preliminary prospectus or prospectus of the undersigned registrant relating to the offering required to be filed pursuant to Rule 424;

(ii) Any free writing prospectus relating to the offering prepared by or on behalf of the undersigned registrant or used or referred to by the undersigned registrant;

(iii) The portion of any other free writing prospectus relating to the offering containing material information about the undersigned registrant or its securities provided by or on behalf of the undersigned registrant; and

(iv) Any other communication that is an offer in the offering made by the undersigned registrant to the purchaser.

(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.

Insofar as indemnification for liabilities arising under the Securities Act of 1933 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 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 Act and will be governed by the final adjudication of such issue.

**SIGNATURES**

Pursuant to the requirements of the Securities Act of 1933, as amended, the registrant has duly caused this registration statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Minneapolis, State of Minnesota on May 26, 2017.

**BIOSIG TECHNOLOGIES, INC.**

By: /s/ Kenneth L. Londoner  
Name: Kenneth L. Londoner  
Title: Executive Chairman

Pursuant to the requirements of the Securities Act of 1933, as amended, this registration statement has been signed by the following persons in the capacities and on the dates indicated.

<u>Signature</u>	<u>Title</u>	<u>Date</u>
<u>/s/ Kenneth L. Londoner</u> Kenneth L. Londoner	Executive Chairman and Director	May 26, 2017
* <u>Gregory D. Cash</u>	President and Chief Executive Officer, Director	May 26, 2017
* <u>Steve Chaussy</u>	Chief Financial Officer	May 26, 2017
* <u>Donald E. Foley</u>	Director	May 26, 2017
* <u>Roy T. Tanaka</u>	Director	May 26, 2017
* <u>Patrick J. Gallagher</u>	Director	May 26, 2017
* <u>Seth H.Z. Fischer</u>	Director	May 26, 2017
* <u>Jeffrey F. O'Donnell, Sr.</u>	Director	May 26, 2017
* <u>Jerome B. Zeldis</u>	Director	May 26, 2017
* <u>David Weild IV</u>	Director	May 26, 2017

\* By: /s/ Kenneth L. Londoner  
Kenneth L. Londoner  
Attorney-in-fact

**CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM**

We hereby consent to the incorporation by reference in this Post-Effective Amendment No. 3 to Form S-1 Registration Statement (File No. 333-190080) of our report dated March 30, 2017, relating to the financial statements of BioSig Technologies, Inc. appearing in the Annual Report on Form 10-K for the years ended December 31, 2016 and 2015. Our report includes an explanatory paragraph expressing substantial doubt regarding the Company's ability to continue as a going concern

We also consent to the references to us under the heading "Experts" in such Registration Statement and Prospectus.

*/s/Liggett & Webb, P.A*

New York, New York  
May 26, 2017