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

Form 10-K/A

Amendment No. 1

ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the Fiscal Year Ended December 31, 2017

OR

TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the Transition period from _____ to _____.

Commission file number: 001-37861

MABVAX THERAPEUTICS HOLDINGS, INC.

(Exact name of Registrant as specified in its charter)

Delaware
(State or other jurisdiction of
incorporation or organization)

93-0987903
(I.R.S. Employer
Identification No.)

11535 Sorrento Valley Rd., Suite 400, San Diego, CA
(Address of principal executive offices)

92121
(Zip Code)

Registrant's telephone number, including area code: (858) 259-9405

Securities registered pursuant to Section 12(b) of the Act:

Securities registered pursuant to Section 12(g) of the Act:

Title of Each Class
Common Stock, \$0.01 par value per share

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. YES NO

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act. YES NO

Indicate by check mark whether the Registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the Registrant was required to file such reports) and (2) has been subject to such filing requirements for the past 90 days. YES NO

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (Sec. 232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). YES NO

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K (Sec.229.405 of this Chapter) is not contained herein, and will not be contained to the best of Registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K.

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. See the definitions of "large accelerated filer," "accelerated filer" and "smaller reporting company" in Rule 12b-2 of the Exchange Act. (Check one):

Large accelerated filer

Accelerated filer

Non-accelerated filer

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 13(a) of the Exchange Act.

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Act.). YES NO

The aggregate market value of the voting common stock held by non-affiliates of the Registrant was approximately \$12,360,790 as of June 30, 2017, based upon the closing sale price on The Nasdaq Capital Market of \$4.17 per share reported on such date.

As of October 15, 2018, there were 9,253,081 shares of the registrant's common stock outstanding.

EXPLANATORY NOTE

As previously disclosed on a Current Report on Form 8-K filed with the Securities and Exchange Commission (the “SEC”) on May 20, 2018 by MabVax Therapeutics Holdings, Inc. (the “Company,” we,” “us,” “our”), the Company’s then independent registered public accounting firm, CohnReznick LLP (“CohnReznick”), withdrew its audit reports included in the Company’s Annual Reports on Form 10-K for the years 2014, 2015, 2016 and 2017 due in part to uncertainty related to the calculations of the Company’s issued and outstanding shares of capital stock and related per share figures previously included in the Company’s financial statements. See Item 9 of Part II of this Annual Report on Form 10-K/A (this “Amendment”). On September 20, 2018, the Court of Chancery of the State of Delaware ratified the relevant prior issuances of our capital stock resulting in no change to the previously reported numbers, enabling the Company’s prior reports with respect to the number of shares of common stock outstanding, and the weighted average number of shares used in calculating earnings per share and related per share figures in the Form 10-K as filed on April 2, 2018 (the “Form 10-K”), to be relied upon. We are filing this Amendment to the Form 10-K to include an audit report dated October 12, 2018 from CohnReznick for the consolidated financial statements for the years 2016 and 2017 and to amend and supplement the following items previously included in the Form 10-K:

Part I. Item 3. Legal Proceedings.

Part II. Item 5. Market for Registrant’s Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities.

Part II. Item 9. Changes in and Disagreements with Accountants on Accounting and Financial Disclosure.

Part III. Item 12. Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters.

Part IV. Item 15. Exhibits and Financial Statement Schedules.

No other changes have been made to the Form 10-K. Except as otherwise set forth within this filing, this Amendment does not reflect events that have occurred after April 2, 2018, the original filing date of the Form 10-K or modify or update the disclosures presented therein. You are encouraged to review our quarterly reports for the periods ended March 31, 2018 and June 30, 2018, each filed on Form 10-Q on October 15, 2018.

PART I

Item 3. Legal Proceedings.

SEC Complaint and SEC Action

As disclosed in a press release and a Current Report on Form 8-K filed with the SEC on January 30, 2018, the Company reported that it received notice on January 29, 2018, from the SEC of an investigation (along with the SEC Complaint, defined below, the “SEC Action”). We stated at that time that we believe the SEC is investigating (i) potential violations by the Company and its officers, directors and others of Section 10(b) of the Securities Exchange Act of 1934, as amended (the “Exchange Act”) and Section 17(a) of the Securities Act of 1933, as amended (as amended, the “Securities Act”); and (ii) potential violations by multiple holders of our preferred stock, who are among those included in the Aggregated Investors (as defined in Item 12 below), of the reporting and disclosure requirements imposed by Section 13(d) of the Exchange Act and pursuant to Schedules 13D and 13G. We further believe the SEC Action pertains to our relationships with certain of the Aggregated Investors, including (i) the circumstances under which those certain Aggregated Investors invested in the Company and whether certain Aggregated Investors have acted as an undisclosed group in connection with their investment; (ii) the manner with or in which those individuals and entities may have sought to control or influence the Company and its leadership since their respective investments (and the extent to which those efforts to control or influence have been successful); and (iii) our prior disclosures regarding the control of the Company and beneficial ownership of our common and preferred stock included in our registration statements filed in 2017 and 2018 and in our Exchange Act reports.

On September 7, 2018, the SEC filed a complaint (the “SEC Complaint”) in the U.S. District Court for the Southern District of New York against the following Aggregated Investors: Barry C. Honig, John Stetson, Michael Brauser, John R. O'Rourke III, Mark Groussman, Phillip Frost, Alpha Capital Anstalt, ATG Capital LLC, Frost Gamma Investments Trust, GRQ Consultants, Inc., Grandeur Holdings, Inc., Melechdavid, Inc., OPKO Health, Inc., HS Contrarian Investments, LLC, and Southern Biotech, Inc. (collectively, the “Investor Defendants”), and against others who we believe have not made any investment in the Company. *SEC v. Honig et al.*, No. 1:18-cv-01875 (S.D.N.Y. 2018). In the Complaint, the SEC alleges a variety of misconduct with respect to the Investor Defendants' transactions and/or relationships with three public issuers, including a public issuer identified as “Company C,” which we understand to be MabVax Therapeutics Holdings, Inc. With respect to “Company C” in particular, the SEC alleges certain of the Investor Defendants manipulated the price of the Company's securities by writing, or causing to be written, false or misleading promotional articles, and a variety of other manipulative trading practices. The SEC further alleges certain of the Investor Defendants filed false reports of their beneficial ownership or failed to file reports of their beneficial ownership when required to do so. The SEC claims that, by engaging in this and other alleged actions in the SEC Complaint, the Investor Defendants and other defendants violated the anti-fraud and many other provisions of the Exchange Act, the Securities Act, and SEC Rules promulgated thereunder. The SEC Complaint does not assert any claims against the Company or any of its directors or officers, nor otherwise allege that the Company or any of its directors or officers were culpable participants in the misconduct allegedly undertaken by the Investor Defendants.

We have cooperated with the SEC in connection with the SEC Action. Although the SEC has not asserted claims against the Company or any of its directors or officers, we cannot predict whether the SEC Action ultimately will conclude in a manner adverse to the Company or any of its directors and officers, or in a manner adverse to the Investor Defendants or other of the Company's current or former stockholders. We also cannot predict when the SEC Action or any related matters may conclude, or how any such matters or resolution may impact how the Company is perceived by the market, potential partners and potential investors in our securities. In the past, the SEC informed us that it would not declare effective any registration statements registering our securities effective during the pendency of the SEC Action.

Company Filed Complaint Against Sichenzia Ross FERENCE LLP

On September 10, 2018, the Company filed, in the Superior Court of California, County of San Diego, a complaint (the “Sichenzia Complaint”) against Sichenzia Ross FERENCE LLP, a law firm that previously represented the Company in certain corporate, securities, and SEC matters (“Sichenzia”), and eight current Sichenzia partners, and one former Sichenzia partner, Harvey Kesner, *MabVax Therapeutics Holdings, Inc. v. Sichenzia Ross FERENCE LLP et al.*, No. 37-2018-00045609-CU-PN-CTL. The Sichenzia Complaint asserts claims for negligent professional practice, breach of fiduciary duty, breach of contract, unjust enrichment, deceit, and fraud by the defendants. The Company is evaluating additional claims it may have against others in connection with the same or similar subject matter.

Delaware Order Granting Petition for Relief

On September 20, 2018, the Court of Chancery of the State of Delaware (the “Court”) entered an order validating (i) issuances of common stock upon conversions of the Company’s preferred stock occurring between June 30, 2014 and February 12, 2018, and (ii) stockholder approval of corporate actions presented to the Company’s stockholders from June 30, 2014 to February 12, 2018. In so doing, the Court granted the Company’s Verified Petition for Relief Under 8 Del. C. § 205 (the “Delaware Petition”) captioned *In re: MabVax Therapeutics Holdings, Inc.*, filed on July 27, 2018, in order to rectify the uncertainty regarding whether shares of our common stock were validly issued upon conversion of our preferred stock from June 30, 2014 to February 12, 2018.

Class Action and Derivative Complaints

***In re MabVax Therapeutics Securities Litigation*, Case No. 18-cv-1160-BAS-NLS.** On June 4, 2018, and August 3, 2018, two securities class action complaints were filed by purported stockholders of the Company in the United States District Court for the Southern District of California (the “U. S. District Court”) against the Company and certain of its current officers. On September 6, 2018, the U.S. District Court consolidated the two actions and appointed lead plaintiffs. On October 10, 2018, lead plaintiffs filed their consolidated complaint, which, in addition to naming the Company and certain current officers as defendants, also names certain investors as defendants. The consolidated complaint alleges, among other things, that the defendants violated Sections 10(b) and 20(a) of the Exchange Act, and Rule 10b-5 thereunder, by misleading investors about problems with the Company’s internal controls, improper calculation of its beneficial ownership, and improper influence by certain investors. The consolidated complaint also alleges that some of the investor defendants violated Section 9 of the Exchange Act by manipulating the Company’s stock price. The consolidated complaint seeks unspecified damages, interest, fees and costs. The current deadline to respond to the consolidated complaint is December 6, 2018.

***Liesman v. Hansen et al.*, Case No. 18-cv-2237-BTM-WVG.** On September 26, 2018, a shareholder derivative complaint was filed in the United States District Court for the Southern District of California. The complaint arises from similar allegations as *In re MabVax Therapeutics Securities Litigation* but asserts a state law breach of fiduciary duty claim against certain of the Company’s current and former directors and officers. In particular, the complaint alleges that the defendants breached their fiduciary duties by failing to implement the necessary controls to ensure that certain financial disclosures and disclosures concerning stock ownership were accurate. Plaintiff seeks, on behalf of the Company, damages, fees, costs, and equitable relief.

***Jackson v. Hansen et al.*, Case No. 18-cv-2302-BEN-BGS.** On October 4, 2018, a shareholder derivative complaint was filed in the United States District Court for the Southern District of California. The complaint arises from similar allegations as *In re MabVax Therapeutics Securities Litigation* and *Liesman v. Hansen et al.* but, in addition to a breach of fiduciary duty claim, also includes causes of action for unjust enrichment, abuse of control, gross mismanagement and waste of corporate assets. Plaintiff seeks, on behalf of the Company, damages, fees, costs, and equitable relief.

PART II

Item 5. Market for Registrant’s Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities.

On July 11, 2018, the Company’s common stock began trading on the OTC Pink marketplace under the symbol MBVX. The OTC Pink marketplace is a quotation service that displays real-time quotes, last-sale prices, and volume information in over-the-counter equity securities. The quotations reflect inter-dealer prices, without retail mark-up, mark-down or commissions, and may not represent actual transactions.

For information regarding the delisting of the Company’s securities by the Nasdaq Capital Market, see “Nasdaq De-listing and Intent to Apply for Listing on the OTCQB Marketplace” in Note 16 to the Consolidated Financial Statements included in Item 15 of Part IV of this Amendment.

Item 9. Changes in and Disagreements with Accountants on Accounting and Financial Disclosure.

As disclosed in our Current Report on Form 8-K filed with the SEC on May 21, 2018 (the “May Form 8-K”) and in part due to the uncertainty regarding the valid issuance of certain shares of our common stock on May 20, 2018, our Board of Directors, upon the recommendation of management, concluded our prior annual and interim period financial statements for the years 2014, 2015, 2016 and 2017 included in our Reports on Form 10-K and Form 10-Q for such years, and our registration statements filed during the years 2014, 2015, 2016, 2017 and to date for 2018 with respect to the number of shares of common stock outstanding, and the weighted average number of shares used in calculating earnings per share and related per share figures should not be relied upon. Accordingly, on May 20, 2018, our then independent registered public accounting firm, CohnReznick, withdrew its audit reports included in our Annual Reports on Form 10-K for the years 2014, 2015, 2016 and 2017. Our Board of Directors further determined the Company should not file its Quarterly Report on Form 10-Q for the quarter ended March 31, 2018 in compliance with applicable laws and regulations, until such time that more clarity can be obtained from the SEC Action and a solution on the uncertainty of the number of shares of common stock outstanding can be achieved.

As disclosed on August 8, 2018, effective August 3, 2018, CohnReznick resigned as the Company’s independent registered public accounting firm. During the Company’s two most recent fiscal years ended December 31, 2017 and December 31, 2016, and during the subsequent interim reporting periods through March 31, 2018, and the interim period through August 3, 2018, there were no disagreements with CohnReznick on any matter of accounting principles generally accepted in the United States of America (“GAAP”), financial statement disclosures, or auditing scope or procedures, which disagreements, if not resolved to the satisfaction of CohnReznick would have caused CohnReznick to make reference to the subject matter of the disagreements in connection with its reports. Additionally, there were no events of the type listed in paragraphs (A) through (D) of Item 304(a)(1)(v) of Regulation S-K.

Subsequent to the ratification of the shares by the Court on September 20, 2018, on October 12, 2018 CohnReznick issued their audit report on the consolidated financial statements for the years 2016 and 2017, included in our Annual Report on Form 10-K/A for 2017, and the auditor’s consent to the incorporation by reference of their report in our registration statements filed during the years 2016 and 2017.

On August 22, 2018, we entered into an engagement agreement pursuant to which we appointed our new independent accounting firm, Haskell & White LLP.

PART III

Item 12. Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters.

Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters

Historically, we calculated and reported beneficial ownership in reliance upon the accuracy of the beneficial ownership reporting of our stockholders and assuming their compliance with their own reporting obligations, including reports filed on Schedules 13D and 13G, and information provided by our stockholders directly to us. In the past, we also relied on the accuracy of stockholder-reported beneficial ownership when effecting conversions of shares of preferred stock. Since 2015, we also relied heavily on the advice of the Company's former outside counsel in calculating and reporting beneficial ownership, and in effecting conversions of preferred stock held by outside investors whose beneficial ownership we were advised should not be aggregated for purposes of SEC reporting.

As disclosed in the May Form 8-K, and in filings the Company made with the SEC thereafter, facts and circumstances reviewed in connection with the SEC Action raised substantial questions about the accuracy of our prior reports of beneficial ownership and other matters concerning our outside investors. We believe that significant facts and circumstances were known by our former outside counsel but were not disclosed to the Company. The Company has reason to believe that beneficial ownership and other information reported by certain outside investors, which includes the Company's former outside counsel, is not accurate and complete, and that the members of the Aggregated Investors have failed to properly report their beneficial ownership and other matters on SEC Schedules 13D or 13G, or otherwise. For this reason, the Company concluded voluntarily that it may no longer rely on the information reported by the Aggregated Investors, nor on the legal advice previously provided by its former counsel. Investors in our common stock are again cautioned not to rely on our prior disclosures regarding the beneficial ownership of our capital stock included in our prior registration statements, Exchange Act reports and other filings filed with the SEC for the Aggregated Investors on or after January 1, 2014; although our prior disclosures regarding the beneficial ownership of the officers and directors were correct as of their respective dates and may continue to be relied upon.

Beneficial ownership is determined in accordance with the rules of the SEC and includes voting or investment power with respect to the securities and a variety of facts and circumstances. We deem shares of common stock that may be acquired by an individual or group within 60 days of October 15, 2018, upon conversion of shares of our preferred stock and/or upon exercise of options or warrants to be outstanding for the purpose of computing the percentage ownership of such individual or group, but those shares are not deemed to be outstanding for the purpose of computing the percentage ownership of any other person or group shown in the table. Percentage of ownership is based on 9,253,081 shares of common stock outstanding on October 15, 2018.

The Company has determined that, based on the facts and circumstances now before it, the beneficial ownership interests of members of the Aggregated Investors should be aggregated in order for the Company to comply with its reporting obligations. As of October 15, 2018, and absent a change in the facts and circumstances known by the Company, the Company will presume the Aggregated Investors beneficially own their shares of our capital stock as a group when construing the blocker provisions of our certificates of designation for all series of our preferred stock and when effecting conversions. Regarding matters in which our preferred holders are entitled to vote their shares on an as converted basis, we will record their votes after taking into account any applicable blocker provisions per the terms of the certificates of designation, again aggregating the beneficial ownership of the Aggregated Investors based on the facts and circumstances known to the Company as of any applicable record date.

Based on the facts and circumstances as of October 15, 2018, the following investors and entities, including those named in the SEC Action, are being reported in the aggregate (the “Aggregated Investors”):

Barry Honig	Renee Honig
Alan Honig	Jonathan Honig
John Stetson	Roger H. Stetson
Michael Brauser	Ben Brauser
Joshua A. Brauser	Daniel A. Brauser
Gregory Aaron Brauser	John O’Rourke
Corey Patrick O’Rourke	Ryan O’Rourke
Mark Groussman	Phillip Frost
Steven Rubin	Harvey Kesner
Michael Ference	Robert Prag
Scott Wilfong	Darren Weingrow
Ronald Low	Vivian Zhang
David Moss	Donald Garlikov
Erick E. Richardson	Sandor Capital Master Fund
Nico P. Pronk	Alex Partners LLC
JSL Kids Partners	Paradox Capital Partners, LLC
Del Mar Consulting Group, Inc.	Sichenzia Ross Ference, LLP
Darwin Retirement, LLC	11 East Airy Street Partnership
Airy Properties	ATG Capital LLC
Alpha Capital Anstalt	GRQ Consultants, Inc. Roth 401K FBO Barry Honig
Frost Gamma Investments Trust	GRQ Consultants, Inc. Roth 401K FBO Renee Honig
GRQ Consultants, Inc. 401K	Four Kids Investment Fund, LLC
Barry & Renee Honig Charitable Foundation Inc.	Grander Holdings, Inc.
HS Contrarian Investments, LLC	OPKO Health, Inc.
Melechdavid, Inc.	MDM Worldwide
Southern Biotech, Inc.	Sylva International
IRTH Communications	TSX Ventures
Caribbean Consulting Partners	Shawn Milemore Titcomb and Jennifer Elizabeth Bove-Titcomb Living Trust
RedChip Companies, Inc.	Bebe LLC
Robert S. Colman Trust UDT 3/13/85	JSL Kids Partners
Merge Capital, LLC	John Lemak
Sargeant Capital Ventures, LLC	Edward W. Easton TTEE The Easton Group QRP PSP
Melechdavid, Inc. Retirement Plan	Grander Holdings Inc. 401K
Brauser Family Trust 2008	

The following table sets forth, based on our knowledge, certain information with respect to the beneficial ownership of our common stock as of October 15, 2018 for (a) our named executive officers, (b) each of our directors, (c) all of our current directors and executive officers as a group and (d) each stockholder known by us to own beneficially more than 5% of our common stock.

Name and Address of Beneficial Owner	Number of Shares of Common Stock **	Percentage of Common Stock
5% Stockholders including investors identified above as the Aggregated Investors (1):		
Phillip Frost, M.D., John Stetson, Barry Honig, and Mike Brauser based on filings of either a 13D/A, a 13G or a 13G/A in the last 12 months or based on preferred stock holdings (2) and all other individuals and entities included in the Aggregated Investors list (3) with 4.99% conversion blockers	Estimated to be at least 9,447,685	Estimated to be at least 53.95%
Directors and Executive Officers		
J. David Hansen (4)	572,548	5.94%
Philip O. Livingston, M.D. (5)	237,419	*%
Gregory P. Hanson CMA (6)	226,307	*%
Paul W. Maffuid, Ph.D. (7)	208,287	*%
All executive officers and directors as a group (4 persons)	<u>1,244,561</u>	<u>7.00%</u>

* Less than 1%

** For calculation of beneficial ownership, the number of shares of common stock for the Aggregated Investors, the Directors and the Executive Officers in each of the line items in the table below includes shares of common stock issuable upon conversion of all shares of preferred stock, exercise of warrants, and exercise of stock options within 60 days of October 12, 2018.

- (1) Includes in the aggregate those individuals and entities who comprise the list of Aggregated Investors described above.
- (2) Based on filings of Schedules 13D/A, 13G or 13G/A in the last 12 months and preferred stock holdings and warrants to purchase common stock for Phillip Frost, M.D., John Stetson, Barry Honig, and Mike Brauser and the other Aggregated Investors, we have assumed all preferred stock is converted into common stock to reflect the percentage ownership of the Company in the event of a change in control, regardless of the conversion blockers in each of the series of preferred stock.
- (3) Based on holdings of preferred stock, the following Aggregated Investors' ownership of preferred stock have been included with those who have filed Schedules 13D/A, 13G, or 13G/A: Mark Groussman, Melechdavid Inc, and Melechdavid, Inc. Retirement Plan; Edward W. Easton TTEE The Easton Group QRP PSP; Sargeant Capital Ventures, LLC; Robert B. Prag; David Moss; Paradox Capital Partners, LLC; Robert S. Colman Trust UDT 3/13/85; Donald E. Garlikov; Airy Properties; Ryan O'Rourke; Corey Patrick O'Rourke; Ben Brauser; Joshua A. Brauser; Gregory Aaron Brauser; Ronald B. Low; Erick E. Richardson; and including Roger Stetson; Steve Rubin; Robert Prag; Darren Weingrow; Airy Properties; Alpha Capital Anstalt; ATG Capital; Sylva International; and Caribbean Consulting Partners, for which shares appear to be held at Computershare, Inc, the Company's transfer agent.
- (4) Includes 381,721 shares subject to options exercisable within 60 days of October 12, 2018.
- (5) Consists of (i) 19,631 shares held by RTP Venture Fund, (ii) 8,651 shares held by Philip O. Livingston, (iii) 192 shares held by the Joan L. Tweedy 2011 Revocable Trust (the "Tweedy Trust"), and (iv) 44,138 shares subject to options exercisable within 60 days of October 12, 2018 held by Philip O. Livingston. Voting and dispositive decisions of RTP Venture Fund, LLC are made by Philip Livingston, and Philip O. Livingston is a trustee of the Tweedy Trust. The address for RTP Venture Fund, LLC is 156 E. 79th Street, Apt. 6C, New York, NY 10075.
- (6) Includes 112,000 shares subject to options exercisable within 60 days of October 12, 2018.
- (7) Includes 108,410 shares subject to options exercisable within 60 days of October 12, 2018.

PART IV

Item 15. Exhibits and Financial Statement Schedules.

The following includes the MabVax Therapeutics Holdings, Inc. Consolidated Financial Statements for the years ended December 31, 2017 and 2016.

MABVAX THERAPEUTICS HOLDINGS, INC.
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REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Stockholders and Board of Directors
MabVax Therapeutics Holdings, Inc.

Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheets of MabVax Therapeutics Holdings, Inc. (the “Company”) as of December 31, 2017 and 2016, and the related consolidated statements of operations, stockholders’ equity, and cash flows, for the years then ended, and the related notes (collectively referred to as the “consolidated financial statements”). In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2017 and 2016, and the results of its operations and its cash flows for the years then ended, in conformity with accounting principles generally accepted in the United States of America.

Substantial Doubt about the Company’s Ability to Continue as a Going Concern

The accompanying consolidated financial statements have been prepared assuming that the Company will continue as a going concern. As discussed in Note 2 to the consolidated financial statements, the Company has incurred recurring operating losses and is dependent on additional financing to fund operations. These conditions raise substantial doubt about the Company’s ability to continue as a going concern. Management’s plans in regard to these matters are described in Note 2 to the consolidated financial statements. The consolidated financial statements do not include any adjustments that might result from the outcome of this uncertainty.

Basis for Opinion

These consolidated financial statements are the responsibility of the Company’s management. Our responsibility is to express an opinion on the Company’s consolidated financial statements based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) (“PCAOB”) and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement, whether due to error or fraud. The Company is not required to have, nor were we engaged to perform, an audit of its internal control over financial reporting. As part of our audits we are required to obtain an understanding of internal control over financial reporting but not for the purpose of expressing an opinion on the effectiveness of the Company’s internal control over financial reporting. Accordingly, we express no such opinion.

Our audits included performing procedures to assess the risks of material misstatement of the consolidated financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements. We believe that our audits provide a reasonable basis for our opinion.

/s/ CohnReznick LLP

We have served as the Company’s auditor from 2014 to 2018.

San Diego, California
October 12, 2018

MABVAX THERAPEUTICS HOLDINGS, INC.
Consolidated Balance Sheets

	December 31,	
	2017	2016
Assets		
Current assets:		
Cash and cash equivalents	\$ 885,710	\$ 3,979,290
Prepaid expenses	150,462	281,858
Other current assets	171,346	32,830
Total current assets	<u>1,207,518</u>	<u>4,293,978</u>
Property and equipment, net	578,206	731,712
Goodwill	6,826,003	6,826,003
Other long-term assets	178,597	168,597
Total assets	<u>\$ 8,790,324</u>	<u>\$ 12,020,290</u>
Liabilities and Stockholders' Equity		
Current liabilities:		
Accounts payable	\$ 1,090,904	\$ 1,137,903
Accrued compensation	311,675	770,592
Accrued clinical operations and site costs	1,669,201	1,218,641
Accrued lease termination fee	590,504	590,504
Other accrued expenses	404,923	315,034
Interest payable	39,373	51,295
Current portion of notes payable	1,681,876	1,589,661
Current portion of capital lease payable	17,810	17,004
Total current liabilities	<u>5,806,266</u>	<u>5,690,634</u>
Long-term liabilities:		
Long-term portion of notes payable, net	1,621,483	2,774,627
Long-term portion of capital lease payable	45,857	68,113
Other long-term liabilities	186,278	144,394
Total long-term liabilities	<u>1,853,618</u>	<u>2,987,134</u>
Total liabilities	<u>7,659,884</u>	<u>8,677,768</u>
Commitments and contingencies		
Stockholders' equity:		
Series D convertible preferred stock, \$0.01 par value, 1,000,000 shares authorized, 44,104 and 132,489 shares issued and outstanding as of December 31, 2017 and 2016, respectively, with liquidation preference of \$441 and \$1,325 as of December 31, 2017 and 2016, respectively	441	1,325
Series E convertible preferred stock, \$0.01 par value, 100,000 shares authorized, 33,333 shares issued and outstanding as of December 31, 2017 and 2016, with a liquidation preference of \$333 as of December 31, 2017 and 2016	333	333
Series F convertible preferred stock, \$0.01 par value, 1,559,252 shares authorized, no shares and 665,281 shares issued and outstanding as of December 31, 2017 and 2016, respectively, with a liquidation preference of \$0 and \$6,653 as of December 31, 2017 and 2016, respectively	—	6,653
Series I convertible preferred stock, \$0.01 par value, 1,968,664 shares authorized, 798,460 and no shares issued and outstanding as of December 31, 2017 and 2016, respectively, with a liquidation preference of \$7,984 and \$0 as of December 31, 2017 and 2016, respectively	7,984	—
Series J convertible preferred stock, \$0.01 par value, 3,400 shares authorized, 773 and no shares issued and outstanding as of December 31, 2017 and 2016, respectively, with a liquidation preference of \$531,252 and \$0 as of December 31, 2017 and 2016, respectively	8	—
Series K convertible preferred stock, \$0.01 par value, 65,000 shares authorized, 63,150 and no shares issued and outstanding as of December 31, 2017 and 2016, respectively, with a liquidation preference of \$632 and \$0 as of December 31, 2017 and 2016, respectively	632	—
Series L convertible preferred stock, \$0.01 par value, 58,000 shares authorized, 58,000 and 0 shares issued and outstanding as of December 31, 2017 and 2016, respectively, with a liquidation preference of \$5,800,000 and \$0 as of December 31, 2017 and 2016, respectively	580	—
Common stock, \$0.01 par value, 150,000,000 shares authorized, 6,862,928 and 2,098,705 shares issued and outstanding as of December 31, 2017 and 2016, respectively	68,629	20,987
Additional paid-in capital	112,105,470	81,575,485
Accumulated deficit	(111,053,637)	(78,262,261)
Total stockholders' equity	<u>1,130,440</u>	<u>3,342,522</u>
Total liabilities and stockholders' equity	<u>\$ 8,790,324</u>	<u>\$ 12,020,290</u>

See Accompanying Notes to Consolidated Financial Statements.

MABVAX THERAPEUTICS HOLDINGS, INC.
Consolidated Statements of Operations

	For the Years Ended	
	December 31,	
	2017	2016
Revenues:		
Grants	\$ —	\$ 148,054
Total revenues	<u>—</u>	<u>148,054</u>
Operating costs and expenses:		
Research and development	7,544,122	7,800,723
General and administrative	10,526,340	9,010,450
Total operating costs and expenses	<u>18,070,462</u>	<u>16,811,173</u>
Loss from operations	(18,070,462)	(16,663,119)
Interest and other expenses, net of income	(950,217)	(997,364)
Net loss	(19,020,679)	(17,660,483)
Deemed dividend on May 2017 inducement shares	(5,220,000)	—
Deemed dividend on August 2017 inducement shares	(3,120,000)	—
Deemed dividend on warrant repricing	(19,413)	—
Deemed dividend on preferred stock exchange	(5,411,284)	—
Net loss allocable to common stockholders	<u>\$(32,791,376)</u>	<u>\$(17,660,483)</u>
Basic and diluted net loss per share	<u>\$ (8.56)</u>	<u>\$ (10.91)</u>
Shares used to calculate basic and diluted net loss per share	<u>3,830,162</u>	<u>1,619,251</u>

See Accompanying Notes to Consolidated Financial Statements.

MABVAX THERAPEUTICS HOLDINGS, INC.
Consolidated Statements of Stockholders' Equity

	Series D through L Convertible Preferred Stock		Common Stock		Additional Paid-in Capital	Accumulated Deficit	Total Stockholders' Equity
	Shares	Amount	Shares	Amount			
Balance at December 31, 2015	224,823	\$ 2,248	1,278,877	\$ 12,788	\$ 68,025,506	\$(60,601,778)	\$ 7,438,764
Issuance of warrants in connection with notes payable transaction in January 2016	—	—	—	—	607,338	—	607,338
Issuance of whole in lieu of fractional shares resulting from reverse split in August 2016	—	—	809	8	(8)	—	—
Issuance of Series F Preferred Stock, common stock and warrants in August public offering, net of costs	665,281	6,653	432,346	4,323	8,556,472	—	8,567,448
Issuance of additional common stock related to April 2015 financing	—	—	85,153	852	(852)	—	—
Common stock issued for services	—	—	11,882	119	163,881	—	164,000
Conversion of Series D Preferred Stock to common stock	(59,001)	(590)	265,771	2,658	(2,068)	—	—
Common stock issued upon vesting of restricted stock units in April, July and August of 2016, net of payroll taxes	—	—	23,867	239	(178,062)	—	(177,823)
Stock-based compensation	—	—	—	—	4,403,278	—	4,403,278
Net loss	—	—	—	—	—	(17,660,483)	(17,660,483)
Balance at December 31, 2016	831,103	8,311	2,098,705	20,987	81,575,485	(78,262,261)	3,342,522
Issuance of Series H Preferred Stock, net of costs, May 2017	850	9	—	—	820,562	—	820,571
Issuance of Series G Preferred Stock and common stock, net of costs, May 2017	1,000,000	10,000	447,620	4,476	3,669,307	—	3,683,783
Issuance of common stock, net of costs, August 2017	—	—	50,715	507	124,493	—	125,000
Issuance of Series J Preferred stock, net of costs, August 2017	2,386	24	—	—	1,189,393	—	1,189,417
Issuance of common stock, net of costs, September 2017	—	—	1,333,334	13,333	1,844,028	—	1,857,361
Issuance of common stock, net of costs, September 2017	—	—	672,043	6,720	1,229,280	—	1,236,000
Issuance of common stock, net of costs, October 2017	—	—	256,410	2,564	493,686	—	496,250
Issuance of inducement shares of common stock and Series I Preferred Stock, May 2017	1,968,664	19,687	310,446	3,105	(22,792)	—	—
Deemed dividends on inducement shares, May 2017	—	—	—	—	5,220,000	(5,220,000)	—
Deemed dividends on incentive shares of Series K Preferred Stock, August 2017	65,000	650	—	—	3,119,350	(3,120,000)	—
Deemed dividends on preferred stock exchange, October 2017	—	—	—	—	5,411,284	(5,411,284)	—
Repricing of warrants	—	—	—	—	19,413	(19,413)	—
Issuance of common stock for services	—	—	271,667	2,717	550,567	—	553,284
Issuance of common stock	—	—	—	—	—	—	—

upon conversion of Series D Preferred Stock	(88,384)	(884)	398,131	3,981	(3,097)	—	—
Issuance of common stock upon conversion of Series I Preferred Stock	(1,170,204)	(11,702)	390,068	3,901	7,801	—	—
Issuance of common stock upon conversion of Series J Preferred Stock	(1,614)	(16)	537,874	5,379	(5,363)	—	—
Issuance of common stock upon conversion of Series K Preferred Stock	(1,850)	(19)	61,667	617	(598)	—	—
Preferred Stock exchange – Series F	(665,281)	(6,653)	—	—	—	—	(6,653)
Preferred Stock exchange – Series G	(1,000,000)	(10,000)	—	—	—	—	(10,000)
Preferred Stock exchange – Series H	(850)	(9)	—	—	—	—	(9)
Preferred Stock exchange – Series L	58,000	580	—	—	16,082	—	16,662
Common stock issued upon vesting of RSUs	—	—	34,248	342	(342)	—	—
Stock-based compensation	—	—	—	—	6,846,931	—	6,846,931
Net loss	—	—	—	—	—	(19,020,679)	(19,020,679)
Balance at December 31, 2017	<u>997,820</u>	<u>\$ 9,978</u>	<u>6,862,928</u>	<u>\$ 68,629</u>	<u>\$12,105,470</u>	<u>\$111,053,637</u>	<u>\$ 1,130,440</u>

See Accompanying Notes to Consolidated Financial Statements.

MABVAX THERAPEUTICS HOLDINGS, INC.
Consolidated Statements of Cash Flows

	For the Years Ended December 31,	
	2017	2016
Operating activities		
Net loss	\$(19,020,679)	\$(17,660,483)
Adjustments to reconcile net loss to net cash used in operating activities:		
Depreciation and amortization	159,842	96,553
Stock-based compensation	6,846,931	4,403,278
Issuance of restricted common stock for services	553,284	164,000
Amortization and accretion related to notes payable	393,829	413,676
Increase (decrease) in operating assets and liabilities:		
Grants receivable	—	757,562
Prepaid expenses and other	25,980	340,187
Accounts payable	(46,999)	(1,898,520)
Accrued clinical operations and site costs	450,560	827,600
Accrued compensation	(458,917)	207,837
Other accrued expenses	100,658	(15,101)
Net cash used in operating activities	(10,995,511)	(12,363,411)
Investing activities		
Purchases of property and equipment	(21,072)	(563,196)
Net cash used in investing activities	(21,072)	(563,196)
Financing activities		
Principal payments on financed insurance policies	(80,087)	(167,597)
Principal payments on capital lease	(16,403)	(10,540)
Principal payments on bank loan	(1,388,889)	—
Purchase of vested employee stock in connection with tax withholding obligation	—	(177,823)
Cash receipts from bank loan, net of financing costs	—	4,610,324
Proceeds from issuance of common stock and Series F Preferred Stock, net of costs, August 2016	—	8,567,448
Proceeds from issuance of Series H Preferred Stock, net of costs, May 2017	820,571	—
Proceeds from issuance of common stock and Series G Preferred Stock, net of costs, May 2017	3,683,783	—
Proceeds from issuance of common stock, net of costs, August 2017	125,000	—
Proceeds from issuance of Series J Preferred Stock, net of costs, August 2017	1,189,417	—
Proceeds from issuance of common stock, net of costs, September 2017	1,857,361	—
Proceeds from issuance of common stock, net of costs, September 2017	1,236,000	—
Proceeds from issuance of common stock, net of costs, October 2017	496,250	—
Net cash provided by financing activities	7,923,003	12,821,812
Net change in cash and cash equivalents	(3,093,580)	(104,795)
Cash and cash equivalents at beginning of year	3,979,290	4,084,085
Cash and cash equivalents at end of year	\$ 885,710	\$ 3,979,290
Supplemental disclosures of cash flow information:		
Cash paid during the year for income taxes	\$ 1,600	\$ 1,600
Cash Paid during the year for interest on term note	\$ 568,852	\$ 532,436
Supplemental disclosures of non-cash investing and financing information:		
Purchase of equipment accrued in accounts payable	\$ —	\$ 33,934
Fair value of warrants issued	\$ —	\$ 607,338
Fair value of repricing of warrants issued in previous financing	\$ 19,413	\$ —
Conversion of Series D preferred stock to common stock	\$ 3,981	\$ 2,658
Conversion of Series I preferred stock to common stock	\$ 3,901	\$ —
Conversion of Series J preferred stock to common stock	\$ 5,379	\$ —
Conversion of Series K preferred stock to common stock	\$ 617	\$ —
Exchange preferred stock Series F for Series L	\$ 6,653	\$ —
Exchange preferred stock Series G for Series L	\$ 10,000	\$ —
Exchange preferred stock Series H for Series L	\$ 9	\$ —
Exchange preferred stock Series L for Series F, Series G and Series H	\$ 580	\$ —
Deemed dividends on May 2017 inducement shares	\$ 5,220,000	\$ —
Deemed dividends on August 2017 inducement shares	\$ 3,120,000	\$ —
Deemed dividends on preferred stock exchange	\$ 5,411,284	\$ —
	\$ —	\$ 95,657

Capital lease in connection with purchase of equipment

See Accompanying Notes to Consolidated Financial Statements.

MABVAX THERAPEUTICS HOLDINGS, INC.
Notes to Consolidated Financial Statements

1. Nature of Operations and Basis of Presentation

MabVax Therapeutics Holdings, Inc. (f.k.a. Telik, Inc. and referred to herein as “MabVax Therapeutics Holdings” or the “Company”) was originally incorporated in 1988 under the name “Terrapin Diagnostics, Inc.” in the State of Delaware. In 1998, we changed our corporate name to “Telik, Inc.” and changed our name again to “MabVax Therapeutics Holdings, Inc.” in 2014. Unless the context otherwise requires, references to “we,” “our,” “us,” “MabVax,” or the “Company” in this Annual Report mean MabVax Therapeutics Holdings, Inc. on a consolidated financial statement basis with our wholly owned subsidiary, MabVax Therapeutics, Inc., as applicable.

Nature of Business

MabVax is a clinical stage biopharmaceutical company engaged in the discovery, development and commercialization of proprietary human monoclonal antibody products for the treatment of a variety of cancers and other disease states. We have discovered a pipeline of human monoclonal antibody product candidates based on the protective immune responses generated by patients who have been immunized against targeted cancers with our proprietary vaccines. We have the exclusive license to these vaccines and blood samples from vaccinated patients as antibody discovery materials from Memorial Sloan Kettering Cancer Center (“MSK”). We operate in only one business segment.

We have incurred net losses since inception and expect to incur substantial losses for the foreseeable future as we continue our research, development and clinical activities. To date, we have funded operations primarily through revenues earned from asset sale and license agreements, proceeds from the sale of common and preferred stock, government grants, the issuance of debt, the issuance of common stock in lieu of cash for services, payments from collaborators, and interest income. The process of developing products will require significant additional research and development, preclinical testing and clinical trials, as well as regulatory approvals. We expect these activities, together with general and administrative expenses, to result in substantial operating losses for the foreseeable future. We will not receive substantial revenue unless we or our collaborative partners complete clinical trials, obtain regulatory approvals and successfully commercialize one or more product candidates; or we license our technology after achieving one or more milestones of interest to a potential partner..

Reverse Stock Splits

On August 16, 2016, we filed a certificate of amendment to our Amended and Restated Certificate of Incorporation with the Secretary of State of the State of Delaware to effectuate a reverse stock split of our issued and outstanding common stock on a 1 for 7.4 basis, effective on August 16, 2016 (the “2016 Reverse Stock Split”). On February 14, 2018, we filed a certificate of amendment to our Amended and Restated Certificate of Incorporation with the Secretary of State of the State of Delaware to effectuate another reverse stock split of our issued and outstanding common stock on a 1-for-3 basis, effective on February 16, 2018, (the “2018 Reverse Stock Split”; collectively with the 2016 Reverse Stock Split, the “Reverse Stock Splits”). All share and per share amounts, and number of shares of common stock into which each share of preferred stock will convert, in the financial statements and notes thereto have been retroactively adjusted for all periods presented to give effect to the Reverse Stock Splits, including rounding for fractional shares and reclassifying any amount equal to the reduction in par value of common stock to additional paid-in capital.

Delaware Order Granting Petition for Relief

On September 20, 2018, the Court of Chancery of the State of Delaware (the “Court”) entered an order validating (i) issuances of common stock upon conversions of the Company’s preferred stock occurring between June 30, 2014 and February 12, 2018, and (ii) stockholder approval of corporate actions presented to the Company’s stockholders from June 30, 2014 to February 12, 2018. In so doing, the Court granted the Company’s Verified Petition for Relief Under *8 Del. C. § 205* (the “Delaware Petition”) captioned *In re: MabVax Therapeutics Holdings, Inc.*, filed on July 27, 2018, in order to rectify the uncertainty regarding whether shares of our common stock were validly issued upon conversion of our preferred stock from June 30, 2014 to February 12, 2018.

Basis of Presentation

The preparation of consolidated financial statements in conformity with accounting principles generally accepted in the United States of America (“GAAP”) requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the consolidated financial statements and the reported amounts of expenses during the reporting period. Management believes that these estimates are reasonable; however, actual results may differ from these estimates.

2. Liquidity and Going Concern

The accompanying consolidated financial statements have been prepared on the going concern basis, which assumes that the Company will continue to operate as a going concern and which contemplates the realization of assets and the satisfaction of liabilities and commitments in the normal course of business. As reflected in the accompanying consolidated financial statements, the Company had a net loss of \$19,020,679, net cash used in operating activities of \$10,995,511 and net cash used in investing activities of \$21,072 for the year ended December 31, 2017. As of December 31, 2017, the Company had \$885,710 in cash and cash equivalents and an accumulated deficit of \$111,053,637.

The Company has been able to achieve several financing transactions that in the aggregate have been able to sustain the Company's operations for periods not exceeding one year for any one financing during the last few years, resulting in the consolidated financial statements being prepared on the going concern basis. Terms of financing from investors have caused substantial dilution in the Company, which could continue to be dilutive in the future without other forms of non-dilutive financing transactions such as through licensing our technology and other strategic transactions. Since July 8, 2014, we have been subject to restrictions on financing and other material transactions of the Company that require the consent of either a holder of preferred stock or HS Contrarian Investments, LLC ("HS Contrarian"). Additionally, we granted HS Contrarian in the May 2017 Public Offering (defined below) the right to approve future (i) issuances of our securities, (ii) equity or debt financings and (iii) sales of any development product assets currently held by us, subject to certain exceptions, if such securities are sold at a price below \$7.50 per share and for as long as HS Contrarian in the offering holds 50% or more of the shares of Series G Preferred Stock purchased by HS Contrarian in the May 2017 Public Offering (the "May 2017 Consent Right"). On October 18, 2017, HS Contrarian exchanged the Series G Preferred Stock for Series L Preferred Stock. As of December 31, 2017, none of the shares of Series G Preferred Stock is outstanding. Thus, HS Contrarian no longer holds the May 2017 Consent Rights. All other prior consent rights of HS Contrarian were superseded by the May 2017 Consent Right. The financings in 2016 and 2017 are summarized below and described in more detail along with details of letter agreements with HS Contrarian in Note 8, "Convertible Preferred Stock, Common Stock and Warrants."

On January 15, 2016, the Company and Oxford Finance LLC ("Oxford Finance"), as collateral agent and lender, entered into a loan and security agreement (the "Loan Agreement") providing for senior secured term loans to the Company in an aggregate principal amount of up to \$10,000,000, subject to the terms and conditions set forth in the Loan Agreement. On January 15, 2016, the Company received an initial loan of \$5,000,000 under the Loan Agreement, before fees and issuance costs of approximately \$390,000. On March 31, 2017, we and Oxford Finance signed a First Amendment to the Loan Agreement, providing that the payment of principal of \$138,889 that otherwise would have been due on the Amortization Date of April 1, 2017, will be due and payable on May 1, 2017 along with any other payment of principal due on May 1, 2017. We were obligated to pay a fully earned and non-refundable amendment fee of \$15,000 to Oxford Finance. On May 1, 2017, we paid the principal that was due on May 1, 2017, along with the \$15,000 amendment fee.

On August 22, 2016, we closed a public offering of 432,346 shares of common stock and 665,281 shares of Series F Preferred Stock, and warrants to purchase 654,107 shares of common stock at \$16.65 per share and warrants to purchase 654,107 shares of common stock at \$18.87 per share, at an offering price of \$14.43 per share (the "August 2016 Public Offering"). For every one-third share of common stock or Series F Preferred Stock sold, we issued one warrant to purchase one share of common stock at \$16.65 per share and one warrant to purchase one share of common stock at \$18.87 per share. We received \$9,438,753 in gross proceeds, before underwriting discounts and commissions and offering expenses totaling \$871,305. The gross proceeds include the underwriters' over-allotment option, which they exercised on the closing date.

On May 3, 2017, we sold 850 shares of Series H Preferred Stock, at a stated value of \$1,000 per share, representing an aggregate of \$850,000 before offering costs of \$29,429 in a private placement (the "May 2017 Private Placement"), to certain existing investors. The shares of Series H Preferred Stock are convertible into shares of common stock based on a conversion calculation equal to the stated value of the Series H Preferred Stock, plus all accrued and unpaid dividends, if any, on such Series H Preferred Stock, as of such date of determination, divided by the conversion price. The stated value of each share of Series H Preferred Stock is \$1,000 and the conversion price is \$5.25 per share, after adjusting for the 2018 Reverse Stock Split, and subject to further adjustment for stock splits, stock dividends, recapitalizations, combinations, subdivisions or other similar events.

On May 19, 2017, we closed a public offering of 447,620 shares of common stock and 1,000,000 shares of newly designated Series G Preferred Stock, at \$5.25 per share of common stock and \$1.75 per share of Series G Preferred Stock (the "May 2017 Public Offering"). The Series G Preferred Stock is initially convertible into 333,334 shares of common stock, subject to adjustment for stock splits, stock dividends, recapitalizations, combinations, subdivisions or other similar events, to certain existing investors in the offering who, as a result of their purchases of common stock, would hold in excess of 4.99% of our issued and outstanding common stock, and elect to receive shares of our Series G Preferred Stock. We received \$4,100,000 in gross proceeds, before underwriting discounts and commissions and offering expenses of \$416,217. This Offering is described in more detail in Note 8, Convertible Preferred Stock, Common Stock and Warrants of the Notes to Consolidated Financial Statements.

On July 27, 2017, we entered into a subscription agreement with an accredited investor pursuant to which we agreed to sell 50,715 restricted shares of common stock for \$125,000 (the “July 2017 Private Placement”). As part of the July 2017 Private Placement, the Company agreed to reprice the investor’s warrant to purchase 75,075 shares of common stock from \$33.30 to \$6.00 per warrant share and remove the cashless exercise feature. The transaction closed on August 2, 2017. The impact of repricing the warrants to \$6.00 a share, which took effect on August 2, 2017, was immaterial, as the stock price on the date of the closing of the transaction was \$2.10 and the warrants at \$6.00 a share, and expired on October 10, 2017, unexercised.

On August 11, 2017, we entered into securities purchase agreements to sell 2,386.36 shares of Series J Preferred Stock with a stated value of \$550 per share. The Series J Preferred Stock is convertible into common stock at \$1.65 per share, subject to adjustment for stock splits, stock dividends, recapitalizations, combinations, subdivisions or other similar events. The total amount of the securities purchase agreements amounted to approximately \$1,312,500, before offering expenses of \$123,083. The Certificate of Designation for the Series J Preferred Stock includes a 4.99% beneficial ownership conversion blocker, a 19.99% blocker provision to comply with The Nasdaq Capital Market rules until stockholders have approved any or all shares of common stock issuable upon conversion of the Series J Preferred Stock, which was approved at the October 2017 Special Meeting, and a 125% liquidation preference. All shares of the Company’s capital stock will be junior in rank to the Series J Preferred Stock at the time of creation, with respect to the preferences as to dividends, distributions and payments upon the liquidation, dissolution and winding-up of the Company, except for the Company’s Series D Preferred Stock, Series E Preferred Stock, Series F Preferred Stock, Series G Preferred Stock, Series H Preferred Stock, and Series I Preferred Stock.

On September 11, 2017, we entered into an agreement to sell 1,333,334 shares of common stock at \$1.50 a share for gross proceeds of approximately \$2.0 million, before offering expenses of \$142,639. The shares were offered and sold to certain accredited investors in a registered direct offering. Laidlaw & Company (UK) Ltd. (“Laidlaw”) acted as placement agent for the offering.

On September 22, 2017, we entered into a subscription agreement with select accredited investors relating to the Company’s registered direct offering, issuance and sale of 672,043 shares of the Company’s common stock, \$0.01 par value per share. The purchase price per share was \$1.86. The total amount of the subscription agreements amounted to \$1,250,000, before estimated expenses of \$14,000.

On October 10, 2017, the Company entered into additional subscription agreements with select accredited investors relating to the Company’s registered direct offering, issuance and sale of 256,410 shares of the Company’s common stock. The purchase price per share was \$1.95. We received \$500,000 in gross proceeds, before offering expenses totaling approximately \$3,750. The offering closed on October 11, 2017.

We plan to continue to fund the Company’s losses from operations and capital funding needs through equity or debt financings, strategic collaborations, licensing arrangements, government grants or other arrangements. Further, to extend availability of existing cash available for our programs for achieving milestones or a strategic transaction, in mid-2017 we cut personnel from 25 full time people to 11, and reduced other operating expenses following the completion of two Phase Ia clinical trials of our lead antibody HuMab 5B1, which has enabled us to reduce our expenditures on clinical trials. We plan to continue spending on Phase I clinical trials of MVT-5873 in combination with a chemotherapy agent and MVT-1075 as a radioimmunotherapy agent for the treatment of various cancers, preclinical testing of follow-on antibody candidates, investor and public relations, SEC compliance efforts, and the general and administrative expenses associated with each of these activities. There can be no assurance that we will be able to achieve a license and earn revenues large enough to offset our operating expenses, as discussed further in Management’s Discussion and Analysis of Financial Condition and Results of Operations. We cannot be sure that licensing agreements can be signed in a timely manner, if any, or that capital funding will be available on reasonable terms, or at all. If we are unable to secure significant licensing agreements and adequate additional funding, we may be forced to make additional reductions in spending, incur further cutbacks in personnel, extend payment terms with suppliers, liquidate assets where possible, and/or suspend or curtail planned programs. In addition, if the Company does not meet its payment obligations to third parties as they come due, it may be subject to litigation claims. Even if we are successful in defending against these claims, litigation could result in substantial costs and be a distraction to management.

We anticipate that the Company will continue to incur net losses into the foreseeable future as we: (i) continue our clinical trial for the development of MVT1075 as a radioimmunotherapy, (ii) continue our clinical trial of MVT-5873 in combination with gemcitabine and nab-paclitaxal in first line therapy for the treatment of patients newly diagnosed with pancreatic cancer, and (iii) continue operations as a public company. Based on receipt of \$9.4 million net of transaction costs in 2017, \$2.7 million net of transaction costs in February 2018, and including other transactions as disclosed in Note 16, and without any other additional funding or receipt of payments from potential licensing agreements, we expect we will have sufficient funds to meet our obligations through December 2018. These conditions give rise to substantial doubt as to the Company’s ability to continue as a going concern. Any of these actions could materially harm the Company’s business, results of operations, and prospects. These conditions give rise to substantial doubt as to the Company’s ability to continue as a going concern. The accompanying consolidated financial statements do not include any adjustments that might result from the outcome of this uncertainty.

If the Company raises additional funds by issuing equity securities, substantial dilution to existing stockholders would result. If the Company raises additional funds by incurring debt financing, the terms of the debt may involve significant cash payment obligations as well as covenants and specific financial ratios that may restrict the Company's ability to operate its business.

3. Summary of Significant Accounting Policies

Basis of Presentation

The accompanying consolidated financial statements reflect all of our activities, including those of our wholly owned subsidiaries. All material intercompany accounts and transactions have been eliminated in consolidation.

Use of Estimates

The preparation of financial statements in conformity with GAAP, requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the consolidated financial statements and the reported amounts of expenses during the reporting period. Management believes that these estimates are reasonable; however, actual results may differ from these estimates.

Cash and Cash Equivalents

We consider all highly liquid investments purchased with original maturities of three months or less to be cash equivalents. The Company minimizes its credit risk associated with cash and cash equivalents by periodically evaluating the credit quality of its primary financial institution. The balance at times may exceed federally insured limits. As of December 31, 2017, cash and cash equivalents exceeded federally insured limits by approximately \$0.6 million. The Company has not experienced any losses on such accounts.

Fair Value of Financial Instruments

The Company's financial instruments consist of cash and cash equivalents, grants receivable, other receivable, accounts payable, all of which are generally considered to be representative of their respective fair values because of the short-term nature of those instruments.

Property and Equipment

Property and equipment are carried at cost less accumulated depreciation. Depreciation of property and equipment is computed using the straight-line method over the estimated useful lives of the assets, which are generally three to seven years. Leasehold improvements are amortized over the lesser of the life of the lease or the life of the asset.

Impairment of Long-lived Assets

We evaluate the Company's long-lived assets with definite lives, such as property and equipment, for impairment. We record impairment losses on long-lived assets used for operations when indicators of impairment are present and the undiscounted cash flows estimated to be generated by those assets are less than the carrying value of the assets. There have not been any impairment losses of long-lived assets for the years ended December 31, 2017 and 2016.

Impairment of Goodwill

The Company applies the GAAP principles related to Intangibles – Goodwill and Other related to performing a test for goodwill impairment annually. For the years ended December 31, 2017 and 2016, the Company performed a step 1 analysis and assessed the market value of the Company to determine whether an impairment had taken place. Based upon the analysis performed, no impairment was noted; therefore, performing step 2 was not required. The Company has concluded that no impairment of goodwill has taken place for the years ended December 31, 2017 and 2016. Further, in performing a qualitative assessment, the Company concluded no events and circumstances have taken place that would have indicated that an impairment had taken place.

Revenue Recognition

Revenue from grants is based upon internal and subcontractor costs incurred that are specifically covered by the grant, including a facilities and administrative rate that provides funding for overhead expenses. National Institute of Health (“NIH”) Grants are recognized when the Company incurs internal expenses that are specifically related to each grant, in clinical trials at the clinical trial sites, by subcontractors who manage the clinical trials, and provided the grant has been approved for payment. The Company records revenue associated with the NIH Grants as the related costs and expenses are incurred. Any amounts received by the Company pursuant to the NIH Grants prior to satisfying the Company’s revenue recognition criteria are recorded as deferred revenue.

Research and Development Costs

Research and development expenses, which consist primarily of salaries and other personnel costs, clinical trial costs and preclinical study fees, manufacturing costs for non-commercial products, and the development of earlier-stage programs and technologies, are expensed as incurred when these expenditures have no alternative future uses. A significant portion of the development activities are outsourced to third parties, including contract research organizations. In such cases, the Company may be required to estimate related service fees incurred.

Stock-based Compensation

The Company’s stock-based compensation programs include grants of common stock and stock options to employees, non-employee directors and non-employee consultants. Stock-based compensation cost is measured at the grant date, based on the calculated fair value of the award, and is recognized as an expense, under the straight-line method, over the employee’s requisite service period (generally the vesting period of the equity grant).

The Company accounts for equity instruments, including common stock and stock options, issued to non-employees in accordance with authoritative guidance for equity based payments to non-employees. Stock options issued to non-employees are accounted for at their estimated fair value determined using the Black-Scholes-Merton option-pricing model. The fair value of options granted to non-employees is re-measured as they vest, and the resulting increase in value, if any, is recognized as expense during the period the related services are rendered.

Income Taxes

The Company uses the asset and liability method of accounting for income taxes. Deferred tax assets and liabilities are recognized for the estimated future tax consequences attributable to basis differences between the financial statement carrying amounts of existing assets and liabilities and their respective tax bases. Deferred tax assets and liabilities are measured using enacted tax rates expected to apply to taxable income in the years in which those temporary differences are expected to be recovered or settled. Valuation allowances are established when necessary to reduce deferred tax assets to the amount expected to be realized. As of December 31, 2017, and 2016, all deferred tax assets were fully offset by a valuation allowance.

The Company accrues interest and penalties, if any, on underpayment of income taxes related to unrecognized tax benefits as a component of income tax expense in its consolidated statements of operations.

Fair Value Measurements

Level 1 fair value inputs are quoted prices for identical items in active, liquid and visible markets such as stock exchanges. Level 2 fair value inputs are observable information for similar items in active or inactive markets, and appropriately consider counterparty creditworthiness in the valuations. Level 3 fair value inputs reflect our best estimate of inputs and assumptions market participants would use in pricing an asset or liability at the measurement date. The inputs are unobservable in the market and significant to the valuation estimate.

4. Recent Accounting Pronouncements

In May 2014, the Financial Accounting Standards Board (“FASB”) issued ASU 2014-09, “Revenue from Contracts with Customers (Topic 606)”, which contains new accounting literature relating to how and when a company recognizes revenue. Under ASU 2014-09, a company will recognize revenue when it transfers promised goods or services to customers in an amount that reflects the consideration to which the company expects to be entitled in exchange for those goods and services. ASU 2014-09 is effective for the Company’s fiscal year beginning January 1, 2018, which reflects a one-year deferral approved by the FASB in July 2015, and will be adopted by the Company beginning January 1, 2018. The adoption of this new standard did not have a material impact on our consolidated financial statements.

In February 2016, the FASB issued ASU 2016-2, “Leases (Topic 842).” This update will increase transparency and comparability by recognizing lease assets and lease liabilities on the balance sheet and disclosing key information about leasing arrangements. Under the new guidance, lessees will be required to recognize the following for all leases (with the exception of short-term leases) at the commencement date: (i) a lease liability, which is a lessee’s obligation to make lease payments arising from a lease, measured on a discounted basis, and (ii) a right-of-use asset, which is an asset that represents the lessee’s right to use, or control the use of, a specified asset for the lease term. Under the new guidance, lessor accounting is largely unchanged, and it simplified the accounting for sale and leaseback transactions. Lessees will no longer be provided with a source of off-balance sheet financing. Lessees (for capital and operating leases) and lessors (for sales-type, direct financing, and operating leases) must apply a modified retrospective transition approach for leases existing at, or entered into after, the beginning of the earliest comparative period presented in the financial statements. The modified retrospective approach would not require any transition accounting for leases that expired before the earliest comparative period presented. Lessees and lessors may not apply a full retrospective transition approach. The standard is effective for fiscal years beginning after December 15, 2018, including interim periods within those fiscal years. We are currently in the process of assessing what impact this new standard may have on our consolidated financial statements.

In March 2016, the FASB issued ASU 2016-09, “Compensation—Stock Compensation (Topic 718): Improvements to Employee Share-Based Payment Accounting.” This update includes multiple provisions intended to simplify various aspects of the accounting for share-based payment transactions including accounting for excess tax benefits and tax deficiencies, classification of excess tax benefits in the statement of cash flows and accounting for award forfeitures. This update is effective for annual and interim reporting periods of public entities beginning after December 15, 2016, with early adoption permitted. The adoption of this new standard did not have a material impact on our consolidated financial statements.

In June 2016, the FASB issued ASU No. 2016-13, “Financial Instruments—Credit Losses (Topic 326): Measurement of Credit Losses on Financial Instruments.” This ASU requires instruments measured at amortized cost to be presented at the net amount expected to be collected. Entities are also required to record allowances for available-for-sale debt securities rather than reduce the carrying amount. This ASU is effective for fiscal years beginning after December 15, 2019, including interim periods within those fiscal years. We expect the adoption of this new standard will not have a material impact on our consolidated financial statements.

In August 2016, the FASB issued ASU No. 2016-15 (“ASU 2016-15”), “Statement of Cash Flows (Topic 230): Classification of Certain Cash Receipts and Cash Payments.” The standard provides guidance on eight (8) cash flow issues: (1) debt prepayment or debt extinguishment costs; (2) settlement of zero-coupon bonds; (3) contingent consideration payments after a business combination; (4) proceeds from the settlement of insurance claims; (5) proceeds from the settlement of corporate-owned life insurance policies; (6) distributions received from equity method investees; (7) beneficial interests in securitization transactions; and (8) separately identifiable cash flows and application of the predominance principle. ASU 2016-15 addresses how certain cash receipts and cash payments are presented and classified in the statement of cash flows. ASU 2016-15 is effective for fiscal years, and interim periods within those years, beginning after December 15, 2017 with early adoption permitted. We expect the adoption of this new standard will not have a material impact on our consolidated financial statements.

In August 2016, the FASB issued ASU No. 2016-16, “Income Taxes (Topic 740): Intra-Entity Transfers of Assets Other Than Inventory.” This ASU requires the recognition of the income tax consequences of an intra-entity transfer of an asset other than inventory when the transfer occurs. The amendments in this ASU should be applied on a modified retrospective basis through a cumulative-effect adjustment directly to retained earnings as of the beginning of the period of adoption. The adoption of this new standard did have a material impact on our consolidated financial statements.

In January 2017, the FASB issued ASU No. 2017-03, “Accounting Changes and Error Corrections (Topic 250) and Investments—Equity Method and Joint Ventures (Topic 323).” This ASU amends the disclosure requirements for ASU No. 2014-09, Revenue from Contracts with Customers (Topic 606); ASU No. 2016-02, Leases (Topic 842); and ASU No. 2016-13, Financial Instruments—Credit Losses (Topic 326): Measurement of Credit Losses on Financial Instruments. This ASU states that if a registrant does not know or cannot reasonably estimate the impact that the adoption of the above ASUs is expected to have on the financial statements, then in addition to making a statement to that effect, the registrant should consider additional qualitative financial statement disclosures to assist the reader in assessing the significance of the impact that the standard will have on the financial statements of the registrant when adopted. This ASU was effective upon issuance. The adoption of this new standard did not have a material impact on our consolidated financial statements.

In January 2017, the FASB issued ASU No. 2017-04, “Intangibles—Goodwill and Other (Topic 350): Simplifying the Test for Goodwill Impairment.” This ASU eliminates Step 2 from the goodwill impairment test. Instead, an entity should recognize an impairment charge for the amount by which the carrying value exceeds the reporting unit’s fair value, not to exceed the total amount of goodwill allocated to that reporting unit. This ASU is effective for annual or any interim goodwill impairment tests in fiscal years beginning after December 15, 2019. We expect the adoption of this new standard will not have a material impact on our consolidated financial statements.

In January 2017, the FASB issued ASU No. 2017-01, “Business Combinations (Topic 805): Clarifying the Definition of a Business.” This ASU clarifies the definition of a business with the objective of adding guidance to assist entities with evaluating whether transactions should be accounted for as acquisitions (or disposals) of assets or businesses. This ASU is effective for annual periods beginning after December 15, 2017, including interim periods within those periods. We expect the adoption of this new standard will not have a material impact on our consolidated financial statements.

Management believes that any other recently issued, but not yet effective, accounting standards if currently adopted would not have a material effect on the accompanying consolidated financial statements.

5. Property and Equipment, Net

Property and equipment consisted of the following as of December 31, 2017 and 2016:

	December 31,	
	2017	2016
Furniture and fixtures	\$ 51,909	\$ 51,909
Office equipment	52,547	52,547
Lab equipment	909,589	894,942
Capital lease equipment	90,952	95,657
Leasehold improvement	55,949	59,555
	<u>1,160,946</u>	<u>1,154,610</u>
Less accumulated depreciation and amortization	<u>(582,740)</u>	<u>(422,898)</u>
Totals	<u>\$ 578,206</u>	<u>\$ 731,712</u>

Depreciation expense for the years ended December 31, 2017 and 2016 was \$159,842 and \$96,553, respectively.

6. Reverse Stock Splits

On August 16, 2016, we filed a certificate of amendment to our Amended and Restated Certificate of Incorporation with the Secretary of State of the State of Delaware to effectuate the 2016 Reverse Stock Split, which was on a 1-for-7.4 basis, effective on August 16, 2016. On February 14, 2018, we filed a certificate of amendment to our Amended and Restated Certificate of Incorporation with the Secretary of State of the State of Delaware to effectuate the 2018 Reverse Stock Split, which was on a 1-for-3 basis, effective on February 16, 2018. All share and per share amounts, and number of shares of common stock into which each share of preferred stock will convert, in the financial statements and notes thereto have been retroactively adjusted for all periods presented to give effect to the Reverse Stock Splits, including rounding for fractional shares and reclassifying any amount equal to the reduction in par value of common stock to additional paid-in capital.

7. Notes Payable, Net

On January 15, 2016, we entered into the Loan Agreement with Oxford Finance pursuant to which we had the option to borrow \$10,000,000 in two equal tranches of \$5,000,000 each. The first tranche of \$5,000,000 was funded at close on January 15, 2016 (the "Term A Loan"). The option to fund the second tranche of \$5,000,000 (the "Term B Loan") was upon the Company achieving positive interim data on the Phase 1 HuMab-5B1 antibody trial in pancreatic cancer and successfully uplisting to either The Nasdaq Capital Market or NYSE MKT on or before September 30, 2016. The option for the Term B Loan expired on September 30, 2016. The Company is not pursuing completion of any additional debt financing with Oxford Finance at the present time. The interest rate for the Term A Loan is set on a monthly basis at a rate equal to the greater of the index rate plus 11.29%, where the index rate is the 30-day LIBOR rate, or 11.5%. Interest is due on the first day of each month, in arrears, calculated based on a 360-day year. The loan is interest only for the first year after funding, and the principal amount of the loan is amortized in equal principal payments, plus period interest, over the next 36 months. A facility fee of 1.0% or \$100,000 was due at closing of the transaction, and was incurred and paid by the Company on January 15, 2016. The Company is obligated to pay a \$150,000 final payment upon completion of the term of the loan, and this amount is being accreted using the effective interest rate method over the term of the loan. The amount being accreted is included in the long-term portion of notes payable, net, on the balance sheet. Each of the term loans can be prepaid subject to a graduated prepayment fee, depending on the timing of the prepayment.

Concurrent with the closing of the transaction, the Company issued a warrant to purchase 75,076 shares of common stock to Oxford Finance with an exercise price of \$16.65 per share. The warrants are exercisable for five years and may be exercised on a cashless basis, and expire on January 15, 2021. The Company recorded \$607,338 for the fair value of the warrants as a debt discount within notes payable and an increase to additional paid-in capital on the Company's balance sheet. We used the Black-Scholes-Merton valuation method to calculate the value of the warrants. The debt discount is being amortized as interest expense over the term of the loan using the effective interest method.

We granted Oxford Finance a perfected first priority lien on all of the Company's assets with a negative pledge on intellectual property. The Company paid Oxford Finance a good faith deposit of \$50,000, which was applied towards the facility fee at closing. The Company agreed to pay all costs, fees and expenses incurred by Oxford Finance in the initiation and administration of the facilities including the cost of loan documentation.

At the initial funding, the Company received net proceeds of approximately \$4,610,000 after fees and expenses. These fees and expenses are being accounted for as a debt discount and classified within notes payable on the Company's consolidated balance sheet as a direct deduction from the carrying amount of the notes payable, consistent with debt discounts. Debt discounts, issuance costs and the final payment are being amortized or accreted as interest expense over the term of the loan using the effective interest method.

The Loan Agreement also contains customary indemnification obligations and customary events of default, including, among other things, our failure to fulfill certain of the Company's obligations under the Loan Agreement, the occurrence of a material adverse change, which is defined as a material adverse change in the Company's business, operations, or condition (financial or otherwise), a material impairment of the prospect of repayment of any portion of the loan, or a material impairment in the perfection or priority of the Lenders' lien in the collateral or in the value of such collateral. In the event of default by the Company under the Loan Agreement, the Lenders would be entitled to exercise their remedies thereunder, including the right to accelerate payment of the debt, upon which we may be required to repay all amounts then outstanding under the Loan Agreement, which could harm the Company's financial condition.

The Company was in compliance with all applicable covenants set forth in the Loan Agreement as of December 31, 2017.

The Company recorded interest expense related to the term loan of \$929,106 for the year ended December 31, 2017. The annual effective interest rate on the note payable, including the amortization of the debt discounts and accretion of the final payment, but excluding the warrant amortization, is approximately 12.8%.

As of December 31, 2017, the Company had one insurance premium note outstanding with a balance totaling \$15,210, which matured in April 2018. This note bears interest at a rate of 6.7% per annum, and the monthly payments are \$3,855.

Future principal payments under the Loan Agreement and insurance premium note as of December 31, 2017 are as follows:

Years ending December 31:	
2018	\$ 1,681,888
2019	1,666,667
2020	<u>277,778</u>
Notes payable, balance as of December 31, 2017	3,626,333
Unamortized discount on notes payable	<u>(322,974)</u>
Notes payable, net, balance as of December 31, 2017	3,303,359
Current portion of notes payable, net	<u>(1,681,876)</u>
Long-term portion of notes payable, net	<u>\$ 1,621,483</u>

8. Convertible Preferred Stock, Common Stock and Warrants

At December 31, 2017 and 2016, there were no financial instruments requiring fair value measurement.

Dividends on Preferred Stock

Since the Company's inception, no dividends were ever declared or paid by the Company's Board of Directors.

Conversion of Preferred Stock into Common Stock

During 2017 holders of Series D Preferred Stock converted 88,384 shares into 398,131 shares of common stock, holders of Series I Preferred Stock converted 1,170,204 shares into 390,068 shares of common stock, holders of Series J Preferred Stock converted 1,614 shares into 537,874 shares of common stock and holders of Series K Preferred Stock converted 1,850 shares into 61,667 shares of common stock.

Exchange of Series F Preferred Stock, Series G Preferred Stock and Series H Preferred Stock into Series L Preferred Stock

On October 18, 2017, we entered into exchange agreements (each, an “Exchange Agreement” and collectively, the “Exchange Agreements”) with the holders of all of the Company’s outstanding shares of Series F Preferred Stock, Series G Preferred Stock and Series H Preferred Stock, pursuant to which 665,281 shares of Series F Preferred Stock, 1,000,000 shares of Series G Preferred Stock and 850 shares of Series H Preferred Stock were exchanged for 58,000 newly authorized shares of Series L Preferred Stock convertible into 3,222,223 shares of common stock. In connection with the Exchange Agreement the Company became obligated to schedule and hold a special meeting of the stockholders of the Company within 60 days of the date of signing the Exchange Agreement, at which time the Company shall present to its stockholders a proposal for approval of the potential issuance of up to an aggregate of 3,222,223 shares of common stock, in excess of 19.99% of the number of shares of common stock that were issued and outstanding on October 17, 2017, upon the conversion of 58,000 shares of the Series L Preferred Stock issued to the holders pursuant to the Exchange Agreements. On December 1, 2017, the stockholders approved the number of shares underlying the Series L Preferred Stock upon conversion.

On December 21, 2017, following the completion of the exchange of Series L Preferred Stock for all outstanding Series F Preferred Stock, Series G Preferred Stock and Series H Preferred Stock and related documentation, the Company filed with the Secretary of State of the State of Delaware a Certificate of Elimination eliminating from its Amended and Restated Certificate of Incorporation the designation of shares of its preferred stock as Series F Preferred Stock, Series G Preferred Stock and Series H Preferred Stock. As a result, all shares of preferred stock previously designated as Series F, Series G and Series H Preferred Stock were eliminated and returned to the status of authorized but unissued shares of preferred stock, without designation.

Series D Preferred Stock

As of December 31, 2017 and 2016, there were 44,104 and 132,489 shares of Series D Preferred Stock issued and outstanding, respectively. Shares outstanding as of December 31, 2017 and 2016 were convertible into 198,667 and 596,798 shares of common stock, respectively.

As contemplated by the exchange agreements and as approved by the Company’s Board of Directors, the Company filed with the Secretary of State of the State of Delaware a Certificate of Designation of Preferences, Rights and Limitations of Series D Convertible Preferred Stock (the “Series D Certificate of Designations”), on March 25, 2015. Pursuant to the Series D Certificate of Designations, the Company designated 1,000,000 shares of its blank check preferred stock as Series D Preferred Stock. Each share of Series D Preferred Stock has a stated value of \$0.01 per share. In the event of a liquidation, dissolution or winding up of the Company, each share of Series D Preferred Stock will be entitled to a per share preferential payment equal to the par value. Each share of Series D Preferred Stock is convertible into 4.5045 shares of common stock. The conversion ratio is subject to adjustment in the event of stock splits, stock dividends, combination of shares and similar recapitalization transactions. The Company is prohibited from effecting the conversion of the Series D Preferred Stock to the extent that, as a result of such conversion, the holder beneficially would own more than 4.99% (provided that certain investors elected to block their beneficial ownership initially at 2.49% in the exchange agreements), in the aggregate, of the issued and outstanding shares of the Company’s common stock calculated immediately after giving effect to the issuance of shares of common stock upon the conversion of the Series D Preferred Stock. Each share of Series D Preferred Stock entitles the holder to vote on all matters voted on by holders of common stock. With respect to any such vote, each share of Series D Preferred Stock entitles the holder to cast such number of votes equal to the number of shares of common stock such shares of Series D Preferred Stock are convertible into at such time, but not in excess of the beneficial ownership limitations.

Series E Preferred Stock

As of December 31, 2017, and 2016, there were 33,333 shares of Series E Preferred Stock issued and outstanding, convertible into 173,251 shares of common stock.

On March 30, 2015, the Company filed with the Secretary of State of the State of Delaware a Certificate of Designation of Preferences, Rights and Limitations of Series E Convertible Preferred Stock (the “Series E Certificate of Designations”) to designate 100,000 shares of its blank check preferred stock as Series E Preferred Stock.

The shares of Series E Preferred Stock are convertible into shares of common stock based on a conversion calculation equal to the stated value of such preferred share, plus all accrued and unpaid dividends, if any, on such share of Series E Preferred Stock, as of such date of determination, divided by the conversion price. The stated value of each share of Series E Preferred Stock is \$75 and the initial conversion price is \$16.65 per share, each subject to adjustment for stock splits, stock dividends, recapitalizations, combinations, subdivisions or other similar events. In addition, during the period proscribed for in the Series E Certificate of Designations, in the event the Company issues or sells, or is deemed to issue or sell, shares of common stock at a per share price that is less than the conversion price then in effect, the conversion price shall be reduced to such lower price, subject to certain exceptions. The Company is prohibited from effecting a conversion of the share of Series E Preferred Stock to the extent that, as a result of such conversion, such holder would beneficially own more than 4.99% of the number of shares of common stock outstanding immediately after giving effect to the issuance of shares of common stock upon conversion of the Series E Preferred Stock, which beneficial ownership limitation may be increased by the holder up to, but not exceeding, 9.99%. Each holder is entitled to vote on all matters submitted to stockholders of the Company and shall have the number of votes equal to the number of shares of common stock issuable upon conversion of such holder's share of Series E Preferred Stock, but not in excess of beneficial ownership limitations. The shares of Series E Preferred Stock bear no interest.

On August 22, 2016, when the Company closed on the August 2016 Public Offering, the current Series E Preferred Stock conversion price of \$16.65 per share was reduced to \$14.43 per share under the terms of the Series E Certificate of Designations, resulting in an increase in the number of shares of common stock to 173,251 that the Series E Preferred Stock may be converted into. In the event of a liquidation, dissolution or winding up of the Company, each share of Series E preferred stock will be entitled to a per share preferential payment equal to the stated value. There is no further adjustment required by the Series E Certificate of Designations in the event of an offering of shares below \$14.43 per share by the Company.

Series F Preferred Stock

As of December 31, 2017, and 2016, there were no shares and 665,281 shares, respectively, of Series F Preferred Stock issued and outstanding. Shares outstanding as of December 31, 2016 were convertible into 221,761 shares of common stock. These shares were exchanged for Series L Preferred Stock in connection with the Exchange Agreement.

On August 16, 2016, we filed a Certificate of Designations, Preferences and Rights of the 0% Series F Convertible Preferred Stock with the Delaware Secretary of State, designating 1,559,252 shares of preferred stock as 0% Series F Preferred Stock. The shares of Series F Preferred Stock were convertible into shares of common stock based on a conversion calculation equal to the stated value of such Series F Preferred Stock, plus all accrued and unpaid dividends, if any, on such Series F Preferred Stock, as of such date of determination, divided by the conversion price. The stated value of each share of Series F Preferred Stock is \$4.81 and the initial conversion price is \$14.43 per share, each subject to adjustment for stock splits, stock dividends, recapitalizations, combinations, subdivisions or other similar events. In the event of a liquidation, dissolution or winding up of the Company, each share of Series F Preferred Stock was entitled to a per share preferential payment equal to the par value. All shares of the Company's capital stock were junior in rank to Series F Preferred Stock with respect to the preferences as to dividends, distributions and payments upon the liquidation, dissolution and winding-up of the Company, except for the Company's Series D Preferred Stock and Series E Preferred Stock.

The holders of Series F Preferred Stock were entitled to receive dividends if and when declared by our Board of Directors. The Series F Preferred Stock had the ability to participate on an "as converted" basis, with all dividends declared on the Company's common stock. In addition, if we had granted, issued or sold any rights to purchase our securities pro rata to all our record holders of our common stock, each holder was entitled to acquire such securities applicable to the granted purchase rights as if the holder had held the number of shares of common stock acquirable upon complete conversion of all Series F Preferred Stock then held.

We were prohibited from effecting a conversion of the Series F Preferred Stock to the extent that, as a result of such conversion, the holder would beneficially own more than 4.99% of the number of shares of common stock outstanding immediately after giving effect to the issuance of shares of common stock upon conversion of the Series F Preferred Stock, which beneficial ownership limitation may be increased by the holder up to, but not exceeding, 9.99%. Each holder was entitled to vote on all matters submitted to stockholders of the Company and would have had the number of votes equal to the number of shares of common stock issuable upon conversion of such holder's Series F Preferred Stock, but not in excess of the beneficial ownership limitations.

Series G Preferred Stock

As of December 31, 2017, and 2016, there were no shares of our Series G Preferred Stock issued and outstanding. On May 19, 2017, we closed a public offering of 1,000,000 shares of newly designated 0% Series G Convertible Preferred stock; however, on October 17, 2017, these shares were exchanged for our Series L Preferred Stock in connection with the Exchange Agreement.

Pursuant to a Series G Preferred Stock Certificate of Designations, on May 15, 2017, we designated 5,000,000 shares of our blank check preferred stock as Series G Preferred Stock, par value of \$0.01 per share. The shares of Series G Preferred Stock were convertible into shares of common stock based on a conversion calculation equal to the stated value of the of such Series G Preferred Stock, plus all accrued and unpaid dividends, if any, on such Series G Preferred Stock, as of such date of determination, divided by the conversion price. The stated value of each share of Series G Preferred Stock is \$1.75 and the initial conversion price is \$5.25 per share, each subject to adjustment for stock splits, stock dividends, recapitalizations, combinations, subdivisions or other similar events. The holder of a majority of the Series G Preferred Stock had the right to nominate a candidate for the Company's Board of Directors, such right to expire on December 31, 2017.

In the event of a liquidation, dissolution or winding up of the Company, each share of Series G Preferred Stock was entitled to a per share preferential payment equal to the par value. All shares of our capital stock were junior in rank to Series G Preferred Stock with respect to the preferences as to dividends, distributions and payments upon the liquidation, dissolution and winding-up of the Company, except for the Company's Series D Preferred Stock, Series E Preferred Stock and Series F Preferred Stock. The holders of Series G Preferred Stock were entitled to receive dividends if and when declared by our Board of Directors. The Series G Preferred Stock were entitled to participate on an "as converted" basis, with all dividends declared on our common stock. In addition, if we had granted, issued or sold any rights to purchase our securities pro rata to all our record holders of our common stock, each holder was entitled to acquire such securities applicable to the granted purchase rights as if the holder had held the number of shares of common stock acquirable upon complete conversion of all Series G Preferred Stock then held.

We were prohibited from effecting a conversion of the Series G Preferred Stock to the extent that, as a result of such conversion, the holder would beneficially own more than 4.99% of the number of shares of common stock outstanding immediately after giving effect to the issuance of shares of common stock upon conversion of the Series G Preferred Stock, which beneficial ownership limitation may be increased by the holder up to, but not exceeding, 9.99%. Each holder was entitled to vote on all matters submitted to stockholders of the Company and would have had the number of votes equal to the number of shares of common stock issuable upon conversion of such holder's Series G Preferred Stock, but not in excess of the beneficial ownership limitations.

Series H Preferred Stock

As of December 31, 2017 and 2016, there were no shares of our Series H Preferred Stock issued and outstanding. On May 3, 2017 we closed a private placement of 850 shares; however, these shares were exchanged for our Series L Preferred Stock in connection with the Exchange Agreement.

Pursuant to a Series H Preferred Stock Certificate of Designations, on May 3, 2017, we designated 2,000 shares of our blank check preferred stock as Series H Preferred Stock, par value of \$0.01 per share. The shares of Series H Preferred Stock were convertible into shares of common stock based on a conversion calculation equal to the stated value of the Series H Preferred Stock, plus the base amount, if any, on such Series H Preferred Stock, as of such date of determination, divided by the conversion price. The stated value of each share of Series H Preferred Stock was \$1,000 and the initial conversion price was \$5.25 per share, each subject to adjustment for stock splits, stock dividends, recapitalizations, combinations, subdivisions or other similar events.

In the event of a liquidation, dissolution or winding up of the Company, each share of Series H Preferred Stock was entitled to a per share preferential payment equal to the base amount. All shares of our capital stock were junior in rank to Series H Preferred Stock with respect to the preferences as to dividends, distributions and payments upon the liquidation, dissolution and winding-up of the Company other than Series A through G Preferred Stock. The holders of Series H Preferred Stock were entitled to receive dividends if and when declared by our Board of Directors. The Series H Preferred Stock holders were entitled to participate on an "as converted" basis, with all dividends declared on our common stock. In addition, if we granted, issued or sold any rights to purchase our securities pro rata to all our record holders of our common stock, each holder was entitled to acquire such securities applicable to the granted purchase rights as if the holder had held the number of shares of common stock acquirable upon complete conversion of all Series H Preferred Stock then held.

We were prohibited from effecting a conversion of the Series H Preferred Stock to the extent that, as a result of such conversion, the holder would beneficially own more than 4.99% of the number of shares of common stock outstanding immediately after giving effect to the issuance of shares of common stock upon conversion of the Series H Preferred Stock, which beneficial ownership limitation may be increased by the holder up to, but not exceeding, 9.99%. Each holder was entitled to vote on all matters submitted to stockholders of the Company, and would have had the number of votes equal to the number of shares of common stock issuable upon conversion of such holder's Series H Preferred Stock, but not in excess of the beneficial ownership limitations.

Series I Preferred Stock

As of December 31, 2017 and 2016, there were 798,460 and no shares of our Series I convertible preferred stock (the "Series I Preferred Stock") issued and outstanding and convertible into 266,154 and no shares of our common stock, respectively.

Pursuant to a Series I Preferred Stock Certificate of Designations, on May 26, 2017, we designated 1,968,664 shares of our blank check preferred stock as Series I Preferred Stock, par value of \$0.01 per share.

Each share of Series I Preferred Stock has a stated value of \$0.01 per share. In the event of a liquidation, dissolution or winding up of the Company, each share of Series I Preferred Stock will be entitled to a per share preferential payment equal to the stated value. Each share of Series I Preferred Stock is convertible into one-third share of common stock. The conversion ratio is subject to adjustment in the event of stock splits, stock dividends, combination of shares and similar recapitalization transactions. The Company is prohibited from effecting the conversion of the Series I Preferred Stock to the extent that, as a result of such conversion, the holder beneficially owns more than 4.99%, in the aggregate, of the issued and outstanding shares of the Company's common stock calculated immediately after giving effect to the issuance of shares of common stock upon the conversion of the Series I Preferred Stock, which beneficial ownership limitation may be increased by the holder up to, but not exceeding, 9.99%. Each share of Series I Preferred Stock entitles the holder to vote on all matters voted on by holders of common stock. With respect to any such vote, each share of Series I Preferred Stock entitles the holder to cast such number of votes equal to the number of shares of common stock such shares of Series I Preferred Stock are convertible into at such time, but not in excess of the above beneficial ownership limitation.

Series J Preferred Stock

As of December 31, 2017, and December 31, 2016, there were 773 and no shares of our Series J Preferred Stock issued and outstanding and convertible into 257,577 and no shares of our common stock, respectively.

On August 14, 2017, the Company filed a Certificate of Designations, Preferences and Rights of the 0% Series J Convertible Preferred Stock with the Delaware Secretary of State, designating 3,400 shares of preferred stock as Series J Preferred Stock. The shares of Series J Preferred Stock are convertible into shares of common stock based on a conversion calculation equal to the stated value of the Series J Preferred Stock, plus all accrued and unpaid dividends, if any, on such Series J Preferred Stock, as of such date of determination, divided by the conversion price. The stated value of each share of Series J Preferred Stock is \$550 and the initial conversion price is \$1.65 per share, each subject to adjustment for stock splits, stock dividends, recapitalizations, combinations, subdivisions or other similar events.

For so long as the holder has Series J Preferred Stock, if the Company sells, or is deemed to have sold, common stock, or common equivalent shares, for consideration per share less than the conversion price in effect immediately prior to the issuance (the "Lower Issuance Price"), then the conversion price in effect immediately prior to such issuance will be adjusted to the Lower Issuance Price, provided however the Lower Issuance Price shall not be less than \$0.03.

The holders of Series J Preferred Stock will be entitled to receive dividends if and when declared by our Board of Directors. The Series J Preferred Stock shall participate on an "as converted" basis, with all dividends declared on our common stock. In addition, if we grant, issue or sell any rights to purchase our securities pro rata to all our record holders of our common stock, each holder will be entitled to acquire such securities applicable to the granted purchase rights as if the holder had held the number of shares of common stock acquirable upon complete conversion of all Series J Preferred Stock then held.

We are prohibited from effecting a conversion of the Series J Preferred Stock to the extent that, as a result of such conversion, the holder would beneficially own more than 4.99% of the number of shares of common stock outstanding immediately after giving effect to the issuance of shares of common stock upon conversion of the Series J Preferred Stock, which beneficial ownership limitation may be increased by the holder up to, but not exceeding, 9.99%. Each holder is entitled to vote on all matters submitted to stockholders of the Company, and shall have the number of votes equal to the number of shares of common stock issuable upon conversion of such holder's Series J Preferred Stock, substituting the consolidated closing bid price of the common stock on August 10, 2017 for the then-applicable conversion price, and not in excess of the beneficial ownership limitations.

The Company shall not be obligated to issue any shares of common stock upon conversion of the Series J Preferred Stock, and the holder of any shares of Series J Preferred Stock shall not have the right to receive upon conversion of any shares of the Series J Preferred Stock if the issuance of such shares of common stock would exceed the aggregate number of shares of common stock which the Company may issue upon conversion of the Series J Preferred Stock without breaching the Company's obligations under the rules or regulations of The Nasdaq Capital Market, which aggregate number equals 19.99% of the number of shares outstanding on the closing date, except that such limitation shall not apply in the event that the Company obtains the approval of its stockholders as required by the applicable rules of The Nasdaq Capital Market for issuances of common stock in excess of such amount. Such approval was obtained in October 2017.

Holders of Series J Preferred Stock will be entitled to a preferential payment of cash per share equal to the greater of 125% of the base amount on the date of payment or the amount per share had the holders converted such preferred shares immediately prior to the date of payment upon the liquidation, dissolution or winding up of the affairs of the Company, or a consolidation or merger of the Company with or into any other corporation or corporations, or a sale of all or substantially all of the assets of the Company, or the effectuation by the Company of a transaction or series of transactions in which more than 50% of the voting shares of the Company is disposed of or conveyed.

Series K Preferred Stock

As of December 31, 2017 and 2016, there were 63,150 and no shares, respectively, of our Series K convertible preferred stock ("Series K Preferred Stock") issued and outstanding and convertible into 2,105,000 and no shares of our common stock, respectively.

On August 14, 2017, the Company filed a Certificate of Designations, Preferences and Rights of the Series K Convertible Preferred Stock with the Delaware Secretary of State, designating 65,000 shares of preferred stock as Series K Preferred Stock. The shares of Series K Preferred Stock are convertible into shares of common stock based on a conversion calculation equal to the stated value of the Series K Preferred Stock divided by the conversion price. The stated value of each share of Series K Preferred Stock is \$0.01 and the initial conversion price is \$0.0003 per share, each subject to adjustment for stock splits, stock dividends, recapitalizations, combinations, subdivisions or other similar events.

The holders of Series K Preferred Stock will be entitled to receive dividends if and when declared by our Board of Directors. The Series K Preferred Stock shall participate on an "as converted" basis, with all dividends declared on our common stock. In addition, if we grant, issue or sell any rights to purchase our securities pro rata to all our record holders of our common stock, each holder will be entitled to acquire such securities applicable to the granted purchase rights as if the holder had held the number of shares of common stock acquirable upon complete conversion of all Series K Preferred Stock then held.

We are prohibited from effecting any conversion of the Series K Preferred Stock if the Company has not obtained shareholder approval for the full conversion of the Series J Preferred Stock and Series K Preferred Stock in accordance with the rules of The Nasdaq Capital Market or to the extent that, as a result of such conversion, the holder would beneficially own more than 4.99% of the number of shares of common stock outstanding immediately after giving effect to the issuance of shares of common stock upon conversion of the Series K Preferred Stock, which beneficial ownership limitation may be increased by the holder up to, but not exceeding, 9.99%. Each holder is entitled to vote on all matters submitted to stockholders of the Company, and shall have the number of votes equal to the number of shares of common stock issuable upon conversion of such holder's Series K Preferred Stock, substituting the consolidated closing bid price of the common stock on August 10, 2017 for the then-applicable conversion price, and not in excess of the beneficial ownership limitations. Such approval was obtained in October 2017.

Series L Preferred Stock

As of December 31, 2017 and 2016, there were 58,000 and no shares of our Series L Preferred Stock issued and outstanding and convertible into 3,222,223 and no shares of our common stock, respectively.

On October 16, 2017, we filed a Certificate of Designations, Preferences and Rights of the 0% Series L Convertible Preferred Stock (the "Series L Certificate of Designation") with the Delaware Secretary of State, designating 58,000 shares of preferred stock as Series L Preferred Stock. On October 18, 2017, we filed a Certificate of Correction to the Series L Certificate of Designation to include a sentence that was inadvertently omitted.

The shares of Series L Preferred Stock are convertible into shares of common stock based on a conversion calculation equal to the stated value of the Series L Preferred Stock, plus all accrued and unpaid dividends, if any, on such Series L Preferred Stock, as of such date of determination, divided by the conversion price. The stated value of each share of Series L Preferred Stock is \$100 and the initial conversion price is \$1.80 per share, each subject to adjustment for stock splits, stock dividends, recapitalizations, combinations, subdivisions or other similar events.

The holders of Series L Preferred Stock will be entitled to receive dividends if and when declared by our Board of Directors. The Series L Preferred Stock shall participate on an "as converted" basis, with all dividends declared on our common stock. In addition, if the Company grants, issues or sells any rights to purchase its securities pro rata to all record holders of common stock, each holder will be entitled to acquire such securities applicable to the granted purchase rights as if the holder had held the number of shares of common stock acquirable upon complete conversion of all Series L Preferred Stock then held.

We are prohibited from effecting a conversion of the Series L Preferred Stock if the Company has not obtained stockholder approval for the full conversion of the Series L Preferred Stock in accordance with the rules of The Nasdaq Capital Market or to the extent that, as a result of such conversion, the holder would beneficially own more than 4.99% of the number of shares of common stock outstanding immediately after giving effect to the issuance of shares of common stock upon conversion of the Series L Preferred Stock, which beneficial ownership limitation may be increased by the holder up to, but not exceeding, 9.99%. Each holder is entitled to vote on all matters submitted to stockholders of the Company, and shall have the number of votes equal to the number of shares of common stock issuable upon conversion of such holder's Series L Preferred Stock, substituting the consolidated closing bid price of the common stock on October 13, 2017, for the then-applicable conversion price, and not in excess of the beneficial ownership limitations or limitations required by the rules and regulations of The Nasdaq Capital Market.

Holders of Series L Preferred Stock will be entitled to a preferential payment of cash per share equal to the greater of 100% of the base amount representing the sum of the stated value and any unpaid dividends (the “Base Amount”) on the date of payment or the amount per share had the holders converted such preferred shares immediately prior to the date of payment upon the liquidation, dissolution or winding up of the affairs of the Company, or a consolidation or merger of the Company with or into any other corporation or corporations, or a sale of all or substantially all of the assets of the Company, or the effectuation by the Company of a transaction or series of transactions in which more than 50% of the voting shares of the Company is disposed of or conveyed.

Warrants Issued in Connection with April 2015 Private Placement

As of December 31, 2017, there were no warrants outstanding in connection with the April 2015 Private Placement as all of the warrants expired on October 10, 2017. As of December 31, 2016, there were warrants outstanding to purchase 268,454 shares of common stock at \$33.30 per share.

The warrants priced at \$33.30 and \$6.00 per share were remaining from our private offering in March and April 2015 (the “April 2015 Private Placement”) in which we sold \$8,546,348 worth of units (the “Units”), net of \$668,150 in issuance costs, of which \$2,500,000 of the Units consisted of Series E Preferred Stock and the balance consisted of 553,424 shares of common stock, together with warrants to all investors to purchase 351,787 shares of common stock at \$33.30 per share. Each Unit was sold at a purchase price of \$16.65 per Unit. OPKO Health, Inc., the lead investor in the April 2015 Private Placement, purchased \$2,500,000 worth of Units consisting all the shares of the Series E Preferred Stock.

In connection with the May 2017 Public Offering, the Company had agreed to amend the terms of a portion of the outstanding warrants, or warrants to purchase 108,108 shares of common stock that had an exercise price of \$33.30 per share, such that the amended warrants shall have an exercise price of \$6.00 per share and no cashless exercise feature, for those investors who made a certain minimum required investment to qualify for repricing. After the repricing, the stock price never reached above \$6.00 in order for the warrants to be exercised prior to the expiration date of October 10, 2017.

Warrants Issued in Connection with October 2015 Public Offering

As of December 31, 2017 and 2016, there were warrants outstanding to purchase 56,307 shares of common stock at \$29.31 per share in connection with a public offering on October 5, 2015.

The warrants were issued in connection with our public offering on October 5, 2015, which consisted of the sale of 112,613 shares of common stock at a price of \$24.42 per share and warrants to purchase 56,307 shares of common stock at an exercise price of \$29.31 per share. For every two shares of common stock sold, the Company issued one warrant to purchase one share of common stock. We received \$2,750,000 in gross proceeds, before underwriting discounts and commissions and offering expenses totaling approximately \$586,608. The shares and warrants were separately issued and sold in equal proportions. The warrants expired unexercised on September 30, 2018.

Warrants Issued in Connection with August 2016 Public Offering

As of December 31, 2017, there were warrants outstanding to purchase 145,444 shares of common stock at \$16.65 per share and 145,444 shares of common stock at \$18.87 per share. As of December 31, 2016, there were warrants outstanding to purchase 654,107 shares of common stock at \$16.65 per share and 654,107 shares of common stock at \$18.87 per share.

The warrants were issued on August 22, 2016, in connection with a public offering of 432,346 shares of common stock and 665,281 shares of Series F preferred stock, and warrants to purchase 654,107 shares of common stock at \$16.65 per share and warrants to purchase 654,107 shares of common stock at \$18.87 per share, at an offering price of \$14.43 per share. For every share of common stock or Series F preferred stock sold, we issued one warrant to purchase one-third share of common stock at \$16.65 per share and one warrant to purchase one-third share of common stock at \$18.87 per share. We received \$9,438,753 in gross proceeds, before underwriting discounts and commissions and offering expenses totaling \$871,305. The gross proceeds include the underwriter’s over-allotment option, which it exercised on the closing date.

August 22, 2016 Public Offering

On August 22, 2016, we closed a public offering of 432,346 shares of common stock and 665,281 shares of Series F Preferred Stock convertible into 221,761 shares of common stock, and warrants to purchase 654,107 shares of common stock at \$16.65 per share and warrants to purchase 654,107 shares of common stock at \$18.87 per share, at an offering price of \$14.43 per share. For every one-third share of common stock or Series F Preferred Stock sold, we issued one warrant to purchase one-third share of common stock at \$16.65 per share and one warrant to purchase one-third share of common stock at \$18.87 per share. We received \$9,438,753 in gross proceeds, before underwriting discounts and commissions and offering expenses totaling \$871,305. The gross proceeds include the underwriter’s over-allotment option, which they exercised on the closing date.

May 3, 2017 Private Placement

On May 3, 2017, we entered into separate subscription agreements with accredited investors pursuant to which we sold an aggregate of \$850,000, or 850 shares, of Series H Preferred Stock, at a stated value of \$1,000 per share, before offering costs of \$29,429, in the May 2017 Private Placement. The shares of Series H Preferred Stock are convertible into shares of common stock based on a conversion calculation equal to the stated value of the Series H Preferred Stock, plus the base amount, if any, on such Series H Preferred Stock, as of such date of determination, divided by the conversion price. The conversion price is \$5.25 per share, after adjusting for the 2018 Reverse Stock Split, and subject to further adjustment for stock splits, stock dividends, recapitalizations, combinations, subdivisions or other similar events.

In the event of a liquidation, dissolution or winding up of the Company, each share of Series H Preferred Stock will be entitled to a per share preferential payment equal to the base amount. All shares of our capital stock will be junior in rank to Series H Preferred Stock with respect to the preferences as to dividends, distributions and payments upon the liquidation, dissolution and winding-up of the Company other than Series A through G Preferred Stock. The holders of Series H Preferred Stock will be entitled to receive dividends if and when declared by our Board of Directors. The Series H Preferred Stock shall participate on an "as converted" basis, with all dividends declared on our common stock. In addition, if we grant, issue or sell any rights to purchase our securities pro rata to all our record holders of our common stock, each holder will be entitled to acquire such securities applicable to the granted purchase rights as if the holder had held the number of shares of common stock acquirable upon complete conversion of all Series H Preferred Stock then held.

We are prohibited from effecting a conversion of the Series H Preferred Stock to the extent that, as a result of such conversion, the holder would beneficially own more than 4.99% of the number of shares of common stock outstanding immediately after giving effect to the issuance of shares of common stock upon conversion of the Series H Preferred Stock, which beneficial ownership limitation may be increased by the holder up to, but not exceeding, 9.99%. Each holder is entitled to vote on all matters submitted to stockholders of the Company, and shall have the number of votes equal to the number of shares of common stock issuable upon conversion of such holder's Series H Preferred Stock, but not in excess of the beneficial ownership limitations.

The shares were offered and sold solely to "accredited investors" in reliance on the exemption from registration afforded by Rule 506 of Regulation D and Section 4(a)(2) of the Securities Act. On the closing date, we entered into registration rights agreements with each of the investors, pursuant to which we agreed to undertake to file a registration statement to register the resale of the shares within thirty (30) days following the closing date, to cause such registration statement to be declared effective by the Securities and Exchange Commission ("SEC") within sixty (60) days of the closing date and to maintain the effectiveness of the registration statement until all of such shares have been sold or are otherwise able to be sold pursuant to Rule 144 under the Securities Act, without any restrictions.

On May 10, 2017, we entered into exchange agreements with each of the holders of our Series H Preferred Stock representing an aggregate of \$850,000 of our Series H Preferred Stock with such exchange to be effective on the closing of our May 2017 Public Offering. Prior to the closing of the May 2017 Public Offering, we and the holders rescinded and cancelled the exchange agreements and they have no force and effect and no transaction contemplated by the Exchange Agreements was consummated.

May 19, 2017 Public Offering

On May 19, 2017, we closed the May 2017 Public Offering. The Series G Preferred Stock is initially convertible into 333,334 shares of common stock, subject to adjustment for stock splits, stock dividends, recapitalizations, combinations, subdivisions or other similar events and was purchased by certain existing investors of the Company who, as a result of their purchases of common stock, would hold in excess of 4.99% of our issued and outstanding common stock. We received \$4,100,000 in gross proceeds, before estimated underwriting discounts, commissions and offering expenses of \$416,217.

The May 2017 Public Offering was consummated pursuant to an underwriting agreement that we signed on May 15, 2017, with Laidlaw, as underwriter (the "Underwriter") pursuant to which, among other things, we agreed to issue and sell to the Underwriter, and the Underwriter agreed to purchase from us, in an underwritten public offering, an aggregate of 447,620 shares of common stock and 1,000,000 shares of Series G Preferred Stock. We granted the Underwriters an option for a period of up to 45 days from the date of our prospectus to purchase up to an aggregate of 67,143 additional shares of our common stock at the public offering price of \$5.25 per share, less the underwriting discount, solely to cover overallocments, which was not exercised.

In connection with the May 2017 Public Offering, we agreed with HS Contrarian, the lead investor of the August 2016 Public Offering pursuant to a Letter Agreement, dated May 18, 2017, to issue inducement shares (the “May 2017 Inducement Shares”) to the investors in the August 2016 Public Offering (the “August 2016 Investors”), as incentive shares to those investors to make a minimum required investment in this public offering of at least 50% of their investment in the \$9,400,000 August 2016 Public Offering (the “Minimum Required Investment”), and who still hold 100% of the shares of common stock previously acquired. Such August 2016 Investors shall be entitled to receive their pro rata share of 966,667 shares, after HS Contrarian in this offering receives the first 10%. For the August 2016 Investors who purchased Series F Preferred Stock and made the Minimum Required Investment and who still held 100% of the shares of Series F Preferred Stock at the closing of the May 2017 Public Offering, they may, instead of receiving a pro rata share of the 870,000 shares remaining after HS Contrarian receives the first 96,667 shares, elect to receive their May 2017 Inducement Shares in the form of a new Series I Preferred Stock to be created with similar rights as currently exist in the Series G Preferred Stock. The stated value of each share of Series I Preferred Stock will be \$0.01 and the conversion rate shall be one-third share of common stock for one share of Series I Preferred Stock, each subject to adjustment for stock splits, stock dividends, recapitalizations, combinations, subdivisions or other similar events. In the event of a liquidation, dissolution or winding up of the Company, each share of Series I Preferred Stock will be entitled to a per share preferential payment equal to the par value, or \$0.01 per share. All shares of the Company’s capital stock will be junior in rank to the Series I Preferred Stock at the time of creation, with respect to the preferences as to dividends, distributions and payments upon the liquidation, dissolution and winding-up of the Company, except for the Company’s Series D Preferred Stock, Series E Preferred Stock, Series F Preferred Stock, Series G Preferred Stock, and Series H Preferred Stock.

Also in connection with the May 2017 Public Offering, for these August 2016 Investors to receive the May 2017 Inducement Shares, each of them must also agree to the cancellation of the warrants issued to them in the August 2016 Public Offering. Investors in the Company’s 2015 private offering that invest at least 25% of their original investment from such private financing in the May 2017 Public Offering and still hold 100% of their common stock or Series E preferred stock from the private 2015 financing also must agree to amend the terms of their outstanding warrants that currently have an exercise price of \$33.30 per share, such that the amended warrants shall have an exercise price of \$6.00 per share and no cashless exercise feature (as amended, the “Inducement Amended Warrants”). The Company agreed with HS Contrarian to register for resale on a registration statement all the May 2017 Inducement Shares and shares of common stock underlying the Inducement Amended Warrants, and to issue the May 2017 Inducement Shares to each investor meeting the investment and ownership terms described above.

Based on the closing of the May 2017 Public Offering, and election of certain prior investors who made the Minimum Required Investment and elected to take Series I Preferred Stock upon its creation, 310,446 May 2017 Inducement Shares of common stock were issued and 1,968,664 May 2017 Inducement Shares were issued in the form of Series I Preferred Stock convertible into 656,222 shares of common stock that was created following the closing of the May 2017 Public Offering and issued following verification with each investor that the terms of the May 2017 Inducement Shares have been met. The Company recorded a deemed dividend of \$5,220,000 in June 2017 in connection with issuing the May 2017 Inducement Shares.

Additionally, in connection with participation by the April 2015 investors in the May 2017 Public Offering, the Company revised the exercise price for warrants to purchase 30,033 shares of common stock from \$33.30 to \$6.00 per warrant share and recorded a deemed dividend of \$19,413 also in June 2017. In August 2017, the Company revised the exercise price for warrants to purchase an additional 75,075 warrants from \$33.30 to \$6.00 per warrant share for the July 2017 Private Placement. The impact of the repricing of the additional warrants was immaterial as the stock price on the date of repricing was \$2.10, with a volatility index in the neighborhood of 85%, and were expiring in 69 days. The warrants expired on October 10, 2017, unexercised.

May 2017 Letter Agreement

On May 15, 2017, as a condition to the participation of HS Contrarian in the May 2017 Public Offering, the Company entered into a Letter Agreement with HS Contrarian (the “May 2017 Letter Agreement”) where the Company agreed to offer incentive shares (the “May 2017 Inducement Shares”) to investors who (i) participated in both the Company’s August 2016 public offering and the Company’s April 2015 private offering, (ii) purchased securities in the May 2017 Public Offering equal to at least 50% of their original investment in the August 2016 public offering or 25% of their original investment in the April 2015 private offering, and (iii) still hold 100% of their common stock or preferred stock purchased in those investments.

Further, the Company agreed to the following in the May 2017 Letter Agreement:

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| Board Nomination: | To nominate one (1) candidate to the Board of Directors acceptable to the holder of a majority of the Series G Preferred Stock by December 31, 2017, and that (2) two current members of the Board of Directors would resign. |
| Executive Hire: | To hire a new C-level executive in a leadership role by July 15, 2017. |
| Board Compensation: | To issue an aggregate of 350,000 options to certain employees and members of the Board of Directors, at a price not less than \$6.00 per share, and 16,667 options to each other member of the Board of Directors at the current market price in connection with this offering. The options were issued pursuant to the Company’s option plan, subject to the requisite approvals and availability under the plan. The company was responsible for obtaining the approval of the Board of Directors and stockholders of the Company to the extent the company needed their approval to increase the number of shares available under the plan. All Board of Director fees were waived for 2017. |
| Funds Held in Escrow: | \$500,000 of the funds from the May 2017 Public Offering were to be held in escrow and released to one or more investor relations services acceptable to the Company following the closing of this offering. |

Additionally, we granted HS Contrarian consent rights: the right to approve future (i) issuances of our securities, (ii) equity or debt financings and (iii) sales of any development product assets currently held by us, subject to certain exceptions, if such securities are sold at a price below \$7.50 per share and for as long as HS Contrarian in the offering holds 50% or more of the shares of Series G Preferred Stock purchased by HS Contrarian in the May 2017 Public Offering (the “Consent Rights”). All other prior consent rights of HS Contrarian were superseded by these consent rights. As of March 31, 2018, none of the shares of Series G Preferred Stock is outstanding. Thus, HS Contrarian no longer holds the Consent Rights.

For the period from the May 2017 Public Offering to December 31, 2017, the Company exceeded the minimum \$500,000 in expenses related to outside investor relations services fulfilling the Company’s obligation for spending on investor relations. HS Contrarian elected not to hold the funds in escrow. Further, the Company issued the May 2017 Inducement Shares and adjusted the Board of Directors compensation per the May 2017 Letter Agreement. Also, two members of the Board of Directors resigned during 2017, achieving one of the conditions of HS Contrarian . The Company did not nominate a new member to the Board of Directors, nor did it hire a new C-level executive in light of limited amount of cash available to the Company.

July 27, 2017 Private Placement

On July 27, 2017, we entered into a subscription agreement with an accredited investor pursuant to which we agreed to sell 50,715 restricted shares of common stock for \$125,000 (the “July 2017 Private Placement”). As part of the transaction, the Company agreed to reprice the investor’s warrant to purchase 75,075 shares of common stock from \$33.30 to \$6.00 per warrant share and remove the cashless exercise feature. The transaction closed on August 2, 2017. The impact of repricing the warrants to \$6.00 a share, which took effect on August 2, 2017, was immaterial, as the stock price on the date of the closing of the transaction was \$2.10 and the warrants at \$6.00 a share, and expired on October 10, 2017, unexercised.

Letter Agreement Regarding Future Financing Transactions

In connection with an offering of the Company’s Series J. Preferred Stock that took place in August 2017 (the “August 2017 Offering”), we agreed with HS Contrarian pursuant to a letter agreement dated August 9, 2017 (the “August 2017 Letter Agreement”), whereby HS Contrarian together with certain other investors would invest an aggregate of \$2,350,000 in a financing, and the Company would issue incentive shares in the form of newly designated shares of Series K Preferred Stock convertible into an aggregate of 2,166,667 shares of common stock (the “August 2017 Inducement Shares”) to be distributed to certain existing investors of the Company as directed by HS Contrarian, as an incentive to invest in the August 2017 Offering.

In addition, the Company agreed to the following in the August 2017 Letter Agreement:

- To file a proxy statement for a special meeting of stockholders within 10 days of closing the August 2017 Offering. Proposals were to include (i) an amendment to the Company's Certificate of Incorporation to effect a reverse stock split of its issued and outstanding common stock by a ratio of not less than one-for-two and not more than one-for-twenty at any time prior to one year from the date of the special meeting, with the exact ratio to be set at a whole number within this range as determined by the Board of Directors, (ii) the issuance of securities in one or more non-public offerings where the maximum discount at which securities will be offered will be equivalent to a discount of 30% below the market price of the common stock, as required by and in accordance with Nasdaq Marketplace Rule 5635(d), (iii) the issuance of securities in one or more non-public offerings where the maximum discount at which securities will be offered will be equivalent to a discount of 20% below the market price of the common stock, as required by and in accordance with Nasdaq Marketplace Rule 5635(d), (iv) the issuance of common stock upon the conversion of Series J Preferred Stock and (v) the issuance of incentive shares in the form of shares of Series K Preferred Stock convertible into an aggregate of 2,166,667 shares of common stock.
- Subject to agreement on terms and conditions of the investment, HS Contrarian committed to a \$1,000,000 lead order in an offering amount of \$8,000,000 (the "\$8,000,000 Financing"). The \$8,000,000 Financing was subject to the Company obtaining approval of a reverse stock split, issuance of the Series J Preferred Stock, and filing a proxy statement for stockholder approval of the Inducement Shares as identified in the August 2017 Letter Agreement.
- That the employment terms of all management be reduced to two years from three years and that management defer portions of their salary for the remainder of the year, which would be paid upon the earlier of completion of the \$8,000,000 Financing or a business transaction that represents, or transactions in the aggregate that represent, in excess of \$10,000,000.

In connection with HS Contrarian's and the Company's obligations under the August 2017 Letter Agreement, neither the \$8,000,000 Financing nor the change in employment terms from three years to two years were completed as of October 15, 2018.

In order to meet The Nasdaq Capital Market rules in the August 2017 Offering, we were not obligated to issue any shares of common stock upon conversion of the Series J Preferred Stock which would cause the Company to breach our obligations under the rules and regulations of The Nasdaq Capital Market, which limit the aggregate number of shares issued at a discount to market at 19.99% of the number of shares outstanding on the closing date of the August 2017 Offering, except that such limitation shall not apply in the event that we obtain the approval of our stockholders as required by the applicable rules of The Nasdaq Capital Market for issuances of common stock in excess of such amount. Similarly, none of the Series K Preferred Stock could be converted into common stock until we obtain the approval of our stockholders. At the October 2017 Special Meeting, we obtained approval to issue shares of common stock underlying all of the Series J Preferred Stock and the Series K Preferred Stock upon conversion.

September 11, 2017 Registered Direct Offerings

On September 11, 2017, we entered into an agreement to sell 1,333,334 shares of common stock at \$1.50 a share for gross proceeds of approximately \$2.0 million, before offering expenses of \$142,639. The shares were offered and sold to certain accredited investors in a registered direct offering. Laidlaw acted as placement agent for the offering.

On September 22, 2017, we entered into a subscription agreement with select accredited investors relating to the Company's registered direct offering, issuance and sale of 672,043 shares of the Company's common stock, \$0.01 par value per share. The purchase price per share was \$1.86. The total amount of the subscription agreements amounted to \$1,250,000, before expenses of \$14,000.

October 10, 2017 Registered Direct Offering

On October 10, 2017, we entered into a subscription agreement with select accredited investors relating to the Company's registered direct offering, issuance and sale of 256,410 shares of the Company's common stock, \$0.01 par value per share. The purchase price per share was \$1.95. The total amount of the subscription agreements amounted to \$500,000, before expenses of \$3,750.

Grant of Restricted Shares

Ravetch Grant

On April 4, 2015, the Board of Directors approved the issuance of an additional restricted stock award of 5,924 shares to Jeffrey Ravetch, M.D., Ph. D, who is one of the members of the Company's Board of Directors. This award is for future services covering at least a one-year period. The award was granted in addition to the prior award to Dr. Ravetch on April 2, 2015 of (i) 1,543 restricted shares and (ii) options to purchase 1,543 shares of common stock with an exercise price of \$51.06 per share, for a total grant of 9,010 restricted shares and options. As the 5,924 shares granted were fully vested upon grant and the Company has no legal recourse to recover the shares in the event of nonperformance, the Company recognized the grant date fair value of the shares as consulting expense upon grant during the second quarter of 2015.

Consultant Grants

On April 5, 2015, the Company entered into consulting agreements with two investor relations consultants to provide relations services to the Company in consideration for an immediate grant of 13,514 shares of the Company's restricted common stock and a monthly cash retainer of \$12,000 a month for ongoing services for a period of one year. The consultants also received an additional 9,009 shares of the Company's restricted common stock upon the Company's achieving a milestone based on its fully-diluted market capitalization. As the shares granted were fully vested upon grant and the Company has no legal recourse to recover the shares in the event of nonperformance, the Company recognized the grant date fair value of the 13,514 shares or \$690,000, as investor relations expense upon grant during the second quarter of 2015. The performance condition for the 9,009 shares became probable and the market capitalization metric was met during the second quarter; therefore, the Company recognized an additional \$460,000 of expense during the second quarter of 2015.

Also during 2015, the Board of Directors approved the issuance of restricted stock awards to two other consultants totaling 5,406 shares with vesting terms ranging from one to three years, valued from \$39.30 to \$47.28 per share. The Company is expensing each of the grant date fair value of the awards over the performance period for the award, which will be re-measured at the end of each quarter until the performance is complete. As of December 31, 2016, the Company expensed \$32,569 related to these grants. As of December 31, 2016, the expected future compensation expense related to these grants is \$24,571 based upon the Company's stock price on December 31, 2016.

On January 13, 2016, the Board of Directors approved the issuance of 4,505 shares of restricted stock valued at \$64,000 to a consultant for advisory services to the Company that was fully recognized upon issuance.

On September 1, 2016, the Board of Directors approved the issuance of 7,377 shares of common stock with a date of issuance fair value of \$100,000 to an investor relations consulting firm. In exchange for the shares granted and a monthly retainer, the consulting firm will perform investor relations services on behalf of the Company. As the shares granted were fully vested upon grant and the Company has no legal recourse to recover the shares in the event of nonperformance, the Company recognized the grant date fair value of the 7,377 shares of \$100,000 as investor relations expense upon grant during the third quarter of 2016.

On February 10, 2017, we entered into a consulting agreement with MDM Worldwide, pursuant to which MDM Worldwide began providing investor relations services to the Company in consideration for an immediate grant of 6,667 shares of the Company's common stock and a monthly cash retainer of \$10,000 a month for ongoing services for a period of one year. As the shares granted were fully vested upon grant and the Company has no legal recourse to recover the shares in the event of nonperformance, the Company recognized the grant date fair value of the 6,667 shares, or \$56,600, as investor relations expense upon grant during the first quarter of 2017. The consulting agreement with MDM Worldwide was amended on October 15, 2017 to increase their monthly retainer to \$12,500 a month for ongoing services payable immediately upon signing the agreement and an immediate grant of 13,334 shares. As the shares granted were fully vested upon grant and the Company has no legal recourse to recover the shares in the event of nonperformance, the Company recognized the grant date fair value of the 13,334 shares, or \$30,400, as investor relations expense upon grant during the last quarter of 2017.

On March 7, 2017, we entered into a consulting agreement with Jenene Thomas Communications, pursuant to which Jenene Thomas Communications began providing investor relations services to the Company on April 1, 2017. In consideration for the services, we began paying a monthly cash retainer of \$12,500. Additionally, we issued 6,667 restricted shares of common stock on April 1, 2017, to be vested at 1,667 per quarter over the four quarters of services under the agreement beginning April 1, 2017. The shares granted vest over a one-year period over which the services are performed and, as such, will be amortized over the same period beginning in April 1, 2017. For the year ended December 31, 2017, we have recognized \$13,700, in general and administrative expenses related to this arrangement in common stock for services.

On May 24, 2017, we issued 15,525 restricted shares of common stock for legal services in connection with the May 2017 Private Offering, on August 21, 2017 we issued 32,961 restricted shares of common stock for legal services in connection with the May 2017 Public Offering, on September 14, 2017, we issued 33,334 restricted shares of common stock for legal services and 33,334 restricted shares of common stock for due diligence services in connection with the September 11, 2017 registered direct offering and also on September 22, 2017 we issued 4,849 restricted shares of common stock for legal services in connection with the September 22, 2017 Registered Direct Offering. The total common stock value for these shares issued were \$201,470.

During the month of October 2017, we issued an aggregate of 138,334 shares of restricted common stock valued at \$306,650 based on the closing market prices ranging from \$1.89 to \$2.34, depending on the date of issuance, to different investor relations services firms or individuals in connection with providing investor relations services to the Company. All of the shares were fully vested on the date of issuance.

9. Related Party Transactions

On April 1, 2016, the Company entered into a two-year consulting agreement with Jeffrey Ravetch, M.D., Ph.D., a member of the Company's Board of Directors at the time, for work beginning January 1, 2016 through December 31, 2017, at a rate of \$100,000 a year, in support of scientific and technical advice on the discovery and development of technology and products for the Company primarily related to monoclonal antibodies, corporate development, and corporate partnering efforts. In April 2016, the Company paid Dr. Ravetch \$100,000 for services to be performed in 2016, and paid quarterly thereafter beginning January 1, 2017. On November 3, 2016, the Company granted 5,834 stock options at an exercise price of \$11.25 to Jeffrey Ravetch, M.D., Ph.D., a member of the Company's Board of Directors, for his ongoing consulting services to the Company. The option award vests over a three-year period. Dr. Ravetch resigned from the Company's Board of Directors on August 3, 2017, although he continued under the consulting agreement subsequent to his resignation.

On May 19, 2017, the Company granted each director, other than J. David Hansen, Jeffrey Ravetch, a member of the Company's Board of Directors at the time, and Philip Livingston, 16,667 options at market price, \$5.40 on May 19, 2017, with immediate vesting for their continuing service to the Company, in exchange for giving up their Board of Director fees for the remainder of the year. J. David Hansen and Jeffrey Ravetch were each granted 166,667 options and Philip Livingston was granted 16,667 options each at \$6.00 exercise price per share with immediate vesting and no performance obligations. Options granted to J. David Hansen, CEO and Philip Livingston were granted as a condition of the May 2017 financing transaction. The 150,000 options granted to Dr. Ravetch in addition to the 16,667 options granted to other non-employee members of the Company's Board of Directors were in recognition of the additional value provided by Dr. Ravetch as a scientific expert. During the year ended December 31, 2017, the Company recorded \$1,480,089 in stock-based compensation expense in general and administration expenses, related to these grants.

10. Stock-based Compensation

Stock Incentive Plan

In September 2008, the Company's stockholders approved the 2008 Stock Incentive Plan (the "2008 Plan") which became effective in September 2008 and under which 2,951 shares of the Company's common stock were initially reserved for issuance to employees, non-employee directors and consultants of the Company. In November 2012, the Company increased the authorized shares under the plan to 7,023. On February 14, 2013, the 2008 Plan terminated and no further grants of equity may be made thereunder.

In June 2014, MabVax Therapeutics Inc.'s stockholders approved the amended 2014 Stock Incentive Plan (the "2014 Plan") which became effective and was adopted by the Company in the Merger in July 2014. The 2014 Plan authorized the issuance of up to 15,831 shares, 6,847 of which are contingent upon the forfeiture, expiration or cancellation of the 2008 Reserved Shares.

The 2014 Plan provided for the grant of incentive stock options, non-incentive stock options, stock appreciation rights, restricted stock awards, and restricted stock unit awards to eligible recipients. The maximum term of options granted under the Stock Plan is ten years.

Employee option grants generally vest 25% on the first anniversary of the original vesting date, and the balance vests monthly over the following three years. The vesting schedules for grants to non-employee directors and consultants is determined by the Company's Compensation Committee. Stock options are generally not exercisable prior to the applicable vesting date, unless otherwise accelerated under the terms of the applicable stock plan agreement.

Amendment of Equity Incentive Plan

On March 31, 2015, the Company approved a Second Amended and Restated 2014 Employee, Director and Consultant Equity Incentive Plan (the "Plan"), effective as of and contingent upon the consummation of the initial closing of the April Private Placement, to increase the number of shares reserved for issuance under the Plan from 7,121 to 376,613 shares of common stock. Additional changes to the Plan include:

- An "evergreen" provision to reserve additional shares for issuance under the Plan on an annual basis commencing on the first day of fiscal 2016 and ending on the second day of fiscal 2024, such that the number of shares that may be issued under the Plan shall be increased by an amount equal to the lesser of: (i) 360,361 or the equivalent of such number of shares after the administrator, in its sole discretion, has interpreted the effect of any stock split, stock dividend, combination, recapitalization or similar transaction in accordance with the Plan; (ii) the number of shares necessary such that the total shares reserved under the Plan equals (x) 15% of the number of outstanding shares of common stock on such date (assuming the conversion of all outstanding shares of Preferred Stock (as defined in the Plan) and other outstanding convertible securities and exercise of all outstanding warrants to purchase common stock) plus (y) 10,316; and (iii) an amount determined by the Board.
- Provision that no more than 135,136 shares may be granted to any participant in any fiscal year.
- Provisions to allow for performance based equity awards to be issued by the Company in accordance with Section 162(m) of the Internal Revenue Code.
- On September 22, 2016, the Board of Directors ratified an automatic increase in the number of shares reserved for issuance under the Plan, increasing the total shares reserved from 376,613 to 402,769 shares of common stock, under the annual evergreen provision for the Plan.

On January 1, 2017, the Board of Directors ratified an automatic increase in the number of shares reserved for issuance under the Plan, effective January 1, 2017, increasing the total shares reserved from 402,769 to 719,784 shares of common stock, under the annual evergreen provision for the Plan, plus a fixed amount of 10,315.

On June 12, 2017, the Company's stockholders at its annual meeting approved a proposal to increase the number of shares reserved for issuance under the Plan, increasing the total shares reserved under the Plan from 709,469 (including the fixed amount of 10,315) to 1,376,136, and increasing the number of shares that may be granted to any participant in any fiscal year to 300,000, from 135,136.

On October 2, 2017, in a special meeting of stockholders, the Company received approval of the Fifth Amended and Restated MabVax Therapeutics Holdings, Inc. 2014 Employee, Director and Consultant Equity Incentive Plan (the "Plan"), including an increase in the shares of common stock reserved for issuance under the Plan from 1,376,136 to 2,042,802 shares.

On December 1, 2017, in a special meeting of stockholders, the Company received approval to increase the number of shares reserved for issuance under the Plan, increasing the total shares reserved under the Plan from 2,042,802 to 3,376,136.

Stock-based Compensation

Total estimated stock-based compensation expense, related the Company's stock-based payment awards recognized under ASC 718, "Compensation—Stock Compensation" and ASC 505, "Equity," was comprised of the following:

	Years Ended December 31,	
	2017	2016
Research and development	\$ 1,570,809	\$ 1,192,126
General and administrative	5,276,122	3,211,152
Total stock-based compensation expense	<u>\$ 6,846,931</u>	<u>\$ 4,403,278</u>

Stock-based Award Activity

The following table summarizes the Company's stock option activity for the years ended December 31, 2017 and 2016:

	Options Outstanding	Weighted Average Exercise Price
Outstanding at December 31, 2015	141,910	\$ 51.90
Granted	149,871	15.39
Exercised	—	—
Forfeited/cancelled/expired	(7,936)	44.15
Outstanding and expected to vest at December 31, 2016	<u>283,845</u>	<u>\$ 32.84</u>
Granted	715,588	7.00
Exercised	—	—
Forfeited/cancelled/expired	(45,496)	22.02
Outstanding and expected to vest at December 31, 2017	<u>953,937</u>	<u>\$ 13.97</u>
Vested and exercisable at December 31, 2017	<u>605,822</u>	<u>\$ 13.37</u>

Stock options granted to employees generally vest over a three-year period with one third of the grants vesting at each one-year anniversary of the grant date. During 2016, the Company granted 149,871 options to its directors, officers, employees with a weighted average exercise price of \$15.39 and vesting over a three-year period with vesting starting at the one-year anniversary of the grant date. During 2017, the Company granted 715,588 options to its directors, officers, employees with a weighted average exercise price of \$7.00 and vesting over a three-year period with vesting starting at the one-year anniversary of the grant date except for the 433,334 options issued to the Company's directors and officers in May 2017 which were fully vested upon issuance.

The total unrecognized compensation cost related to unvested stock option grants as of December 31, 2017 was \$1,932,026 and the weighted average period over which these grants are expected to vest is 1.6 years. The Company has elected to account for forfeitures as they occur and reverse compensation cost as forfeitures occur. The weighted average remaining contractual life of stock options outstanding at December 31, 2017 and 2016 is 8.90 years and 8.82 years, respectively.

A summary of activity related to restricted stock grants under the Plan for the years December 31, 2017 and 2016 is presented below:

	Shares	Weighted Average Grant-Date Fair Value
Non-vested at December 31, 2015	103,646	\$ 50.54
Granted	—	—
Vested	(35,155)	50.54
Forfeited	—	—
Non-vested at December 31, 2016	68,491	50.54
Granted	840,222	1.89
Vested	(34,252)	48.65
Forfeited	(42,235)	2.10
Non-vested at December 31, 2017	<u>832,226</u>	<u>\$ 3.88</u>

There were no shares of restricted stock issued during the year ended 2016; however, 35,155 restricted stock units have vested relating to restricted stock units granted in 2015 to directors, officers, employees and consultants. During 2017, 34,252 shares of restricted stock units vested upon the one-year anniversary of restricted stock units granted to the Company's directors and officers. Accordingly, 21,464 shares were issued and the Company withheld 11,283 shares for the employee portion of taxes and remitted \$177,823 to the tax authorities in order to satisfy tax liabilities related to this issuance on behalf of the officers. In July and August of 2016, 2,403 shares were issued to outside consultants upon vesting of previously issued restricted stock units. As of December 31, 2016, there were 68,491 non-vested restricted stock units remaining outstanding.

During the year ended December 31, 2017, 840,222 shares of restricted stock units were issued to directors, officers, employees and consultants which will vest in January 2018 and 34,252 restricted share units have vested relating to restricted stock units granted in 2015 to directors, officers, employees and consultants. As of December 31, 2017, there were 832,226 non-vested restricted stock units remaining outstanding.

During the year ended December 31, 2017, the Company has recognized \$1,381,969 in stock based compensation expense related to restricted stock units. As of December 31, 2017, and 2016, unamortized compensation expense related to restricted stock grants amounted to \$530,232 and \$2,214,859, which is expected to be recognized over a weighted average period of .02 and 2.27 years, respectively.

Valuation Assumptions

The Company used the Black-Scholes-Merton option valuation model to determine the stock-based compensation expense for stock options recognized under ASC 718 and ASC 505. The Company's expected stock-price volatility assumption was based solely on the weighted average of the historical and implied volatility of comparable companies whose share prices are publicly available. The expected term of stock options granted was based on the simplified method in accordance with Staff Accounting Bulletin No. 110, or SAB 110, as the Company's historical share option exercise experience did not provide a reasonable basis for estimation. The risk-free interest rate was based on the U.S. Treasury yield for a period consistent with the expected term of the stock award in effect at the time of the grant.

	Years Ended December 31,	
	2017	2016
Risk-free interest rate	1.5 to 2.0 %	0.9 to 1.4 %
Dividend yield	0%	0%
Expected volatility	73 to 85%	71 to 86%
Expected life of options, in years	1.61 to 6.0	1.61 and 6.0
Weighted average grant date fair value	\$ 1.53	\$ 3.16

Because the Company had a net operating loss carryforward as of December 31, 2017 and 2016, no tax benefits for the tax deductions related to stock-based compensation expense were recognized in the Company's consolidated statements of operations. Additionally, there were no stock option exercises in the corresponding period of 2017.

Management Bonus Plan and Compensation for Non-Employee Directors

On February 16, 2016, our Compensation Committee approved a new management bonus plan outlining maximum target bonuses of the base salaries of certain of our executive officers. Under the terms of this 2016 management bonus plan, the Company's Chief Executive Officer shall receive a maximum target bonus of up to 50% of his annual base salary, and the Chief Financial Officer and each of the Company's Vice Presidents shall receive a maximum target bonus of up to 30% of their annual base salary.

On February 16, 2016, the Compensation Committee of the Board of Directors of the Company approved the following amendments to Company's policy for compensating non-employee members of the Board:

- The initial equity grant upon first appointment (or election) of future non-employee directors to the Board shall be a 10-year option to purchase 2,253 shares of the Company's common stock, under the Company's Second Amended and Restated 2014 Equity Incentive Plan with 3-year annual vesting and a strike price equal the closing price of the Company's common stock on the effective date of the appointment (or election);
- The annual cash retainer for each non-employee director, paid quarterly, is increased by \$1,000 per calendar quarter to a total of \$7,000 per quarter, effective April 1, 2016; and
- The additional annual cash retainer for the chairperson of each of the Audit, Compensation, and Nominating and Governance Committees, paid quarterly, is increased by \$1,000 per calendar year, such that each chairperson retainer shall be as follows, effective April 1, 2016: Audit Committee: \$13,000; Compensation Committee: \$9,000; Nominating and Governance Committee: \$6,000.

On August 25, 2016, the Compensation Committee of the Board of Directors of the Company approved the following amendments to Company's policy for compensating non-employee members of the Board:

- The initial equity grant upon first appointment (or election) of future non-employee directors to the Board shall be a 10-year option to purchase 8,334 shares of the Company's common stock, under the Company's Second Amended and Restated 2014 Equity Incentive Plan with 3-year annual vesting and a strike price equal to the closing price of the Company's common stock on the effective date of the appointment (or election); and
- The additional automatic annual option grant to each non-employee director on the date of the Company's annual meeting shall be a 10-year option to purchase 5,834 shares of the Company's common stock, under the Company's Second Amended and Restated 2014 Equity Incentive Plan with 1-year vesting and a strike price equal to the closing price of the Company's common stock on the date of the annual meeting.

On February 6, 2017, the Compensation Committee of the Board of Directors of the Company approved the following amendments to Company's policy for compensating non-employee members of the Board:

- the initial equity grant upon first appointment (or election) of future non-employee directors to the Board shall be a 10-year option to purchase 10,000 shares of the Company's common stock, under the Plan with 3-year annual vesting and a strike price equal to the closing price of the Company's common stock on the effective date of the appointment (or election); and
- the additional automatic annual option grant to each non-employee director on the date of the Company's annual meeting shall be a 10-year option to purchase 6,667 shares of the Company's common stock, under the Plan with 1-year vesting and a strike price equal the closing price of the Company's common stock on the date of the annual meeting.

Effective with the Company's pay period ending August 10, 2017, and without changing their employment agreements dated July 1, 2017, several members of management volunteered to defer receiving portions of their salaries for the remainder of 2017. The voluntary deferral of cash payments was intended to help with the Company's cash flow for the remainder of the year, with voluntary reductions by the management team committed to remain in effect until the earlier of completing a successful financing of at least \$8.0 million, a business transaction that represents, or business transactions in the aggregate that represent, an amount of \$10.0 million or greater, or the end of the year, whichever occurs first.

On August 14, 2017, the Chairman of the Compensation Committee, acting on behalf of the Board of Directors sent a letter to each executive of the Company stating that the Board deems it in the best interests of the Company to request that the executive voluntarily defer a portion of his regular salary to help with cash flow of the Company, and that the employment agreements between the Company and each executive were being modified to reduce the terms of their employment agreements from three years to two years from the effective date of each applicable agreement. On August 16 and August 21, 2017, Paul Resnick, M.D. and Paul Maffuid, Ph.D., respectively, gave notice of good reason (as that term is defined in their employment agreements or "Good Reason") for termination of their employment, primarily because of concerns of a potential permanent loss of salary and that nothing in writing had been provided as possible equity compensation. The Company cured each executive's concerns within the 30-day cure period provided under their employment agreements, by reinstating the deferred salary for Dr. Resnick in one instance, and in granting restricted stock to all executives with vesting over time, as disclosed in the filings of Form 4s following approvals by the Board of Directors. Both executives rescinded their notices of good reason for termination on September 7, 2017, and the employment agreements with the Company remain unchanged.

Common Stock Reserved for Future Issuance

Common stock reserved for future issuance consists of the following at December 31, 2017:

Common stock reserved for conversion of preferred stock and warrants	6,645,559
Common stock options outstanding	953,937
Authorized for future grant or issuance under the Stock Plan	1,521,481
Unvested restricted stock	832,224
Total	<u>9,953,201</u>

11. Net Loss per Share

The Company calculates basic and diluted net loss per share using the weighted average number of shares of common stock outstanding during the period. When the Company is in a net loss position, it excludes from the calculation of diluted net loss per share all potentially dilutive stock options, preferred stock and warrants, and the diluted net loss per share is the same as the basic net loss per share for such periods. If the Company was to be in a net income position, the weighted average number of shares used to calculate the diluted net income per share would include the potential dilutive effect of in-the-money securities, as determined using the treasury stock method.

The table below presents the potentially dilutive securities that would have been included in the calculation of diluted net loss per share if they were not antidilutive for the periods presented. The securities were antidilutive because the Company incurred a loss in both 2017 and 2016. Including the securities in the diluted net loss per share would have resulted in the loss per share being less than it would without including the securities.

	Years Ended December 31,	
	2017	2016
Stock options	953,937	283,845
Preferred stock	6,222,872	991,808
Unvested restricted stock	832,224	68,493
Warrants to purchase common stock	422,687	1,708,048
Total	<u>8,431,720</u>	<u>3,052,194</u>

12. Contracts and Agreements

Memorial Sloan Kettering

We have licensed from MSK the exclusive world-wide developmental and commercial rights to receive biological materials from vaccinated clinical trial participants enrolled in any of the clinical trials involving the vaccines licensed to us, allowing us to discover human monoclonal antibody-based therapeutics. MSK has issued patents or has pending patent applications on the vaccine antigen conjugates, mixtures of vaccine antigen conjugates and methods of use. This patent portfolio includes 12 issued patents in the U.S. We own all monoclonal antibodies produced by the antibody discovery program and we generally file patent applications directed to these antibodies once their potential therapeutic utility has been sufficiently demonstrated in animal models. United States and an foreign patent applications for each of the anti-sLea antibodies and the anti-GD2 antibodies described in this document have been filed. Within these filings, one U.S. patent has issued for each of the anti-sLea antibodies and the anti-GD2 antibodies.

Life Technologies Licensing Agreement

On September 24, 2015, we entered into a licensing agreement with Life Technologies Corporation, a subsidiary of ThermoFisher Scientific (“Life Technologies”). Under the agreement we agreed to license certain cell lines from Life Technologies to be used in the production of recombinant proteins for our clinical trials. The amount of the contract is for \$450,000 and was fully expensed during 2015. We paid \$225,000 during 2015 related to this contract with the remaining amount paid in 2016.

Rockefeller University Collaboration

In July 2015, we entered into a research collaboration agreement with Rockefeller University's Laboratory of Molecular Genetics and Immunology (“Rockefeller”). We provided antibody material to Rockefeller, which is exploring the mechanism of action of constant region (Fc) variants of the HuMab 5B1 in the role of tumor clearance. The agreement allowed researchers at Rockefeller to conduct research on antibodies discovered by us with the objective of improving their ability to kill cancer cells. If a viable drug candidate emerges from this collaboration, we have the right to enter into negotiations with Rockefeller for the right to exclusively license the technology used to improve our antibody for clinical and commercial development. If we and Rockefeller fail to reach agreement on terms for a license to the drug candidate that contains the combined technologies, Rockefeller does not have the right to license the drug candidate to a third party without our consent because the drug candidate contains our intellectual property embodied in the antibody. The research collaboration agreement expired in July of 2017 but the provisions of confidentiality and right to enter negotiations for certain technology remain in place.

Patheon Biologics LLC Agreement

On April 14, 2014, the Company entered into a development and manufacturing services agreement (the “Services Agreement”) with Patheon (f.k.a. Gallus Biopharmaceuticals) to provide a full range of manufacturing and bioprocessing services, including cell line development, process development, protein production, cell culture, protein purification, bio-analytical chemistry and quality control, or QC, testing. Total amount of the contract is estimated at approximately \$3.0 million. For the years ended December 31, 2017 and 2016, the Company recorded \$55,845 and \$0 of expense, respectively, associated with the Services Agreement. During 2016, the Company negotiated a reduction in the amount previously recorded and owed to Patheon related to manufacturing batches that have failed, resulting in the reduction in R&D expenses of approximately \$363,000 during the third quarter of 2016.

Juno Therapeutics Option Agreement

On August 29, 2014, the Company entered into an option agreement (the “Option Agreement”) with Juno Therapeutics, Inc. (“Juno”) in exchange for a one-time up-front option fee in the low five figures. Pursuant to the Option Agreement, the Company granted Juno the option to obtain an exclusive, world-wide, royalty-bearing license authorizing Juno to develop, make, have made, use, import, have imported, sell, have sold, offer for sale and otherwise exploit certain patents the Company developed with respect to fully human antibodies with binding specificity against human GD2 or sialyl-Lewis A antigens and certain Company controlled biologic materials. As of June 30, 2016, the Option Agreement expired and Juno no longer has a contractual right for use of the Company's binding domains for use in the construction of CAR T-cells.

During the years ended December 31, 2017 and 2016, no revenues had been earned under the Option Agreement.

13. Commitments and Contingencies

Capital Leases

On March 21, 2016, the Company entered into a lease agreement with ThermoFisher Scientific (“Lessor”). Under the terms of the agreement, the Company agreed to lease two pieces of equipment from the Lessor, a liquid chromatography system and an incubator, totaling in cost of \$91,941. The term of the lease is five years (60 months), and the monthly lease payment is \$1,867. In addition, there is a \$1.00 buyout option at the end of the lease term.

Minimum future annual capital lease obligations are as follows as of December 31, 2017:

2018	\$ 22,402
2019	22,402
2020	22,402
2021	5,601
Less interest	(9,140)
Principal	63,667
Less current portion	(17,810)
Noncurrent portion	<u>\$ 45,857</u>

Operating Leases

In connection with the Merger, the Company recorded a \$590,504 contingent lease termination fee, related to the termination of the master lease and sublease of the Porter Drive Facility by MabVax Therapeutics Holdings (f.k.a. Telik, Inc.), which is payable to ARE-San Francisco No. 24 (“ARE”) if the Company receives \$15 million or more in additional financing in the aggregate. The additional financing was achieved in 2015 and the termination fee is reflected on the balance sheet as an accrued lease contingency fee.

On September 2, 2015, the Company entered into a lease (the “Lease”) with AGP Sorrento Business Complex, L.P., for certain premises of office and laboratory space in buildings located at 11535 Sorrento Valley Rd., San Diego, California, to serve as the Company’s corporate offices and laboratories (the “New Premises”). Due to the fact that certain tenant improvements needed to be made to the New Premises before the Company could take occupancy, the term of the Lease did not commence until the New Premises were ready for occupancy, on February 4, 2016. The Lease terminates six years after such term commencement date, unless earlier terminated in accordance with the Lease. Pursuant to the terms of the Lease, the monthly base rent will be \$35,631, subject to annual increases as set forth in the Lease.

The Company has an option to extend the Lease term for a single, five-year period. If the Lease term is extended for the optional five-year period, the monthly base rent will be adjusted based on fair market rental value. In addition to rent, the Company agreed to pay a portion of the taxes and utility, maintenance and other operating costs paid or accrued in connection with the ownership and operation of the property.

The Company previously leased its corporate office and laboratory space under an operating lease that, as amended on August 1, 2010, expired on July 31, 2015.

We recognize rent expense on a straight-line basis over the term the lease. Rent expense of \$460,952 and \$433,397 was recognized in the years ended December 31, 2017 and 2016, respectively.

Minimum future annual operating lease obligations are as follows as of December 31, 2017:

2018	\$ 451,409
2019	464,951
2020	478,900
2021	493,267
Thereafter	82,612
Total	<u>\$ 1,971,139</u>

14. Employee Benefit Plans

401(k) Plan

Effective January 1, 2017, the Company initiated a safe harbor contribution program for the benefit of the Company’s Contribution Benefit plan (the “Plan”) whereby, for all employees who were eligible to participate in the Plan in compliance with Section 401(k) of the Internal Revenue Code, the Company contributed 3% of each participant’s salary to the Plan which vested immediately. For the year ended December 31, 2017, the Company paid \$116,888 to the Plan.

15. Income Taxes

The components of the provision for income taxes for the years ended December 31, 2017 and 2016 is as follows:

	<u>2017</u>	<u>2016</u>
Deferred:		
Federal	\$ 3,451,500	\$ (5,745,300)
State	(2,869,600)	(990,400)
	<u>581,900</u>	<u>(6,735,700)</u>
Less valuation allowance	(581,900)	6,735,700
Income tax expense	<u>\$ —</u>	<u>\$ —</u>

Deferred income taxes reflect the net tax effects of temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and the amounts used for income tax purposes. Significant components of the Company's net deferred tax assets are as follows as of December 31, 2017 and 2016:

	<u>2017</u>	<u>2016</u>
Deferred tax assets:		
Net operating loss carryforwards	\$ 17,638,000	\$ 20,169,000
Tax credits	6,222,000	5,065,000
Accrued expenses and other	<u>3,460,000</u>	<u>2,667,900</u>
Total deferred tax assets	27,320,000	27,901,900
Less valuation allowance	<u>(27,320,000)</u>	<u>(27,901,900)</u>
Net deferred tax assets	<u>\$ —</u>	<u>\$ —</u>

The Company has evaluated the available evidence supporting the realization of its gross deferred tax assets, including the amount and timing of future taxable income, and has determined that it is more likely than not that the deferred tax assets will not be realized. Due to such uncertainties surrounding the realization of the Company's deferred tax assets, the Company maintains a valuation allowance of \$27,320,000 against its deferred tax assets as of December 31, 2017. Realization of the deferred tax assets will be primarily dependent upon the Company's ability to generate sufficient taxable income prior to the expiration of its net operating losses.

During the year ended December 31, 2017, the Company had a net decrease in deferred tax asset of \$581,900. This change is a result of current year activity as well as a change in the federal tax rates. The change as a result of current year increase in deferred tax assets is \$7,425,100 offset by a \$8,007,000 decrease due to a remeasurement of the deferred tax asset based on new tax rates established through the Tax Cuts and Jobs Act passed December 22, 2017. The remeasurement is a provisional estimate under SAB 118 that could be revised based on any additional guidance issued by the U.S. Treasury Department, the U.S. Internal Revenue Service, and other standard-setting bodies. On December 22, 2017, H.R.1, known as the Tax Cuts and Jobs Act, was enacted. This new law did not have a significant impact on the Company's consolidated financial statements for the year ended December 31, 2017 because the company maintains a valuation allowance on the entirety of its deferred tax assets. However, the reduction of the U.S. federal corporate tax rate from 35% to 21% resulted in a remeasurement of the deferred tax asset reflected in the tax rate reconciliation below as well as the deferred tax asset listed above.

Given the significant impact of the Tax Cuts and Jobs Act, the SEC staff issued Staff Accounting Bulletin ("SAB") 118 which provides guidance on accounting for uncertainties of the effects of the Tax Act. Specifically, SAB 118 allows companies to record a provisional estimate of the impact of the Tax Act during a one year "measurement period". The company has recognized the provisional tax impact related to the revaluation of deferred tax assets and liabilities and included these amounts in its consolidated financial statements for the year ended December 31, 2017. The ultimate impact may differ from these provisional amounts, due to, among other things, additional analysis, changes in interpretations and assumptions the Company has made, and additional regulatory guidance that may be issued.

During the year ended December 31, 2014, MabVax Therapeutics, Inc. merged with Telik, Inc. in a tax-free reorganization. As a result of the merger, all components of Telik's deferred tax assets are now included as deferred tax assets of MabVax Therapeutics, Inc. These pre-merger deferred tax assets are net operating loss carryforwards of \$1,588,000, research and development credit carryforwards of \$4,457,000, in total equaling \$6,045,000. The current year change in these assets have been reflected in the provision for income taxes.

As of December 31, 2017, the Company had net operating loss carryforwards of approximately \$62,885,000 and \$63,463,000 for federal and state income tax purposes, respectively. These may be used to offset future taxable income and will begin to expire in varying amounts in 2028 to 2037. The Company also has research and development credits of approximately \$744,500 and \$6,934,000 for federal and state income tax purposes, respectively. The federal credits may be used to offset future taxable income and will begin to expire at various dates beginning in 2030 through 2037. The state credits may be used to offset future taxable income, such credits carryforward indefinitely.

For all years through December 31, 2017, the Company generated research and development credits but has not completed a study to document the qualified activities. This study may result in an adjustment to the Company's research and development credit carryforwards; however, until a study is complete and any adjustment is known, no amounts are being presented as an uncertain tax position. A full valuation allowance has been provided against the Company's research and development credits, and if an adjustment is required this adjustment would be offset by an adjustment to the valuation allowance. Thus, there would be no impact to the balance sheets or statements of operations and comprehensive loss if an adjustment were required.

The Company is subject to taxation in the U.S. and California jurisdictions. Currently, no historical years are under examination. The Company's tax years ended December 31, 2017 and 2016 are subject to examination by the U.S. and state taxing authorities due to the carryforward of unutilized net operating losses and research and development credits.

Utilization of the Company's net operating loss carryforwards and research and development credit carryforwards may be subject to a substantial annual limitation due to an "ownership change" that may have occurred, or that could occur in the future, as defined and required by Section 382 of the Internal Revenue Code of 1986, as amended (the "Code"), as well as similar state provisions. These ownership changes may limit the amount of net operating loss carryforwards and research and development credit carryforwards, and other tax attributes that can be utilized annually to offset future taxable income and tax, respectively. Any limitation may result in the expiration of a portion of the net operating loss carryforwards or research and development credit carryforwards before utilization. The net operating loss carryforwards and research and development credit carryforwards inherited as a result of the merger with Telik, Inc. have been severely limited under these rules and will likely not be realized.

In general, an "ownership change" results from a transaction or series of transactions over a three-year period resulting in an ownership change of more than 50% of the outstanding stock of a company by certain stockholders or public groups. The Company intends to complete a study in the future to assess whether an ownership change has occurred or whether there have been multiple ownership changes since the Company's formation, and will complete such study before the use of any of the aforementioned attributes.

The provision for income taxes differs from the amount computed by applying the U.S. federal statutory tax rate (34% in 2017 and 2016) to income taxes as follows:

	<u>2017</u>	<u>2016</u>
Tax benefit computed at 34%	\$ (6,466,500)	\$ (6,004,000)
State tax provision, net of federal tax benefit	(1,092,444)	(989,344)
Change in valuation allowance	(581,900)	6,735,600
Change in valuation allowance due to overall Federal rate change	8,007,000	-
Other	133,844	257,744
Tax provision (benefit)	<u>\$ —</u>	<u>—</u>

The Company has adopted ASC 740-10-25. This interpretation clarifies the criteria for recognizing income tax benefits under ASC 740, "Accounting for Income Taxes", and requires additional disclosures about uncertain tax positions. Under ASC 740-10-25 the financial statement recognition of the benefit for a tax position is dependent upon the benefit being more likely than not to be sustainable upon audit by the applicable taxing authority. If this threshold is met, the tax benefit is then measured and recognized at the largest amount that is greater than 50 percent likely of being realized upon ultimate settlement.

16. Subsequent Events

Overview of 2018 Private Placements

Between February 2 and February 10, 2018, the Company entered into separate purchase agreements with investors pursuant to which the Company sold (i) shares of its common stock, (ii) shares of its convertible preferred stock, and (iii) warrants to purchase shares of common stock (the “February 2018 Private Placements”). From April 30 to May 2, 2018, the Company entered into separate purchase agreements with investors pursuant to which the Company agreed to sell shares of its common stock and convertible preferred stock (the “May 2018 Private Placements”). No financial advisor was used in connection with the February 2018 Private Placements nor the May 2018 Private Placements.

The securities issued in connection with the February 2018 Private Placements and the May 2018 Private Placements were offered and sold solely to accredited investors in reliance on the exemption from registration afforded by Rule 506 of Regulation D and Section 4(a)(2) of the Securities Act. The Company entered into separate registration rights agreements with each of the investors in the February 2018 Private Placements and the May 2018 Private Placements, pursuant to which the Company agreed to undertake to file a registration statement to register the resale of the shares of common stock and the shares of common stock underlying the warrants and preferred stock. The Company also agreed to use reasonable best efforts to cause such registration statement to be declared effective and to maintain the effectiveness of the registration statement until all of such shares of common stock have been sold or are otherwise able to be sold pursuant to Rule 144 under the Securities Act, without any restrictions.

February 2018 Private Placements

In connection with the February 2018 Private Placements, the Company sold (i) an aggregate of 555,562 shares of its common stock for an aggregate purchase price of \$1,250,000, or \$2.25 per share, (ii) 5,000 shares of its newly designated 0% Series M Convertible Preferred Stock (the “Series M Preferred Stock”) for an aggregate purchase price of \$1,500,000, or \$300.00 per share, and (iii) warrants to purchase up to an aggregate of 855,561 shares of common stock each with an exercise price of \$2.70 per share. The net proceeds of the February 2018 Private Placements were \$2,700,000 after transaction costs of \$50,000.

May 2018 Private Placements

In connection with the May 2018 Private Placements, the Company agreed to sell (i) 218,182 shares of common stock at an aggregate purchase price of \$240,000, or \$1.10 per share, and (ii) 5,363.64 shares of newly designated 0% Series N Convertible Preferred Stock (the “Series N Preferred Stock”) at an aggregate purchase price of \$590,000, or \$110.00 per share.

Under the terms of the May 2018 Private Placements, the Company was required to offer an aggregate of 12,777.77 shares (the “May 2018 Inducement Shares”) of newly designated 0% Series O Preferred Stock (the “Series O Preferred Stock”) to investors who previously purchased securities in the February 2018 Private Placements and who also purchased securities in the May 2018 Private Placements with an aggregate purchase price of at least 40% of their investment amounts in the February 2018 Private Placements. Based on the closing of the offering, and participation of certain prior investors who invested an aggregate of \$830,000 (the “May 2018 Inducement Investors”), the Company issued an aggregate of 10,605.56 May 2018 Inducement Shares in the form of Series O Preferred Stock convertible into an aggregate of 1,060,556 shares of common stock. The May 2018 Private Placements closed on May 15, 2018, with the Company receiving gross proceeds totaling \$830,000.

Series L Convertible Preferred Stock Conversions

Between January 16 and January 26, 2018, an aggregate of 12,500 shares of Series L Preferred Stock were converted into 694,445 shares of common stock.

Series I Convertible Preferred Stock Conversions

On February 12, 2018, Grander Holdings, Inc. 401K, a holder of Series I Convertible Preferred Stock (“Series I Preferred Stock”), converted 152,820 shares of Series I Preferred Stock into 50,940 shares of common stock.

Reverse Stock Split

On February 14, 2018, the Company filed a certificate of amendment to its Amended and Restated Certificate of Incorporation with the Secretary of State of the State of Delaware to effectuate another reverse stock split of the Company's issued and outstanding common stock on a 1-for-3 basis, effective on February 16, 2018. All share and per share amounts, and number of shares of common stock into which each share of preferred stock will convert, in the financial statements and notes thereto have been retroactively adjusted for all periods presented to give effect to the reverse stock split, including rounding for fractional shares and reclassifying any amount equal to the reduction in par value of common stock to additional paid-in capital.

Compensation Committee Decisions

On February 21, 2018, the Compensation Committee of the Company made the following decisions.

Review of Management Compensation – The Compensation Committee determined that no bonus payments would be made for 2017 performance. Further, the Compensation Committee determined that in order to continue to conserve cash resources, management’s base salaries would remain unchanged from current levels.

The Compensation Committee granted stock options with an exercise price based on the closing price of the shares of common stock on February 21, 2018, or \$2.04, to the following officers of the Company:

J. David Hansen	President and Chief Executive Officer	290,000 stock options
Paul W. Maffuid	Executive Vice President of Research and Development	195,000 stock options
Gregory P. Hanson	Chief Financial Officer	195,000 stock options
Paul F. Resnick	Vice President and Chief Business Officer	80,000 stock options

The stock options will vest at 25% of the total number granted at the six-month anniversary of the commencement date, with the balance in equal monthly installments of 4.167% of the number of shares for 18 months, such that 100% of the options will be vested after two years from the grant date.

Review of Board of Directors Compensation – The Compensation Committee granted 35,000 stock options to each non-executive member of the Board of Directors, with vesting on a monthly basis until the options are fully vested at one year from the grant date, in lieu of cash compensation for 2018. The Compensation Committee increased the automatic annual grant on the next annual meeting date from 16,667 shares to 20,000 shares with the same monthly vesting.

On July 9, 2018, the Compensation Committee of the Company made the following decision.

Review of Board of Directors Compensation – The Compensation Committee authorized the re-instatement of fees to each non-executive member of the Board of Directors of \$3,000 per month, effective July 1, 2018.

Amendments to Articles of Incorporation or Bylaws

Amendment to Amended and Restated Certificate of Incorporation – On February 14, 2018, the Company filed a certificate of amendment to its amended and restated certificate of incorporation to effect a 1-for-3 reverse stock split effective as of 9:00 a.m. Eastern Standard Time on February 16, 2018 (the “Effective Date”). On the Effective Date, every three shares of MabVax common stock issued and outstanding immediately prior to the Effective Date automatically converted into one share of MabVax common stock.

Certificate of Designations, Preferences and Rights of the 0% Series N Convertible Preferred Stock – On April 30, 2018, the Company filed a Certificate of Designations, Preferences and Rights of the 0% Series N Convertible Preferred Stock (the “Series N Certificate of Designations”) with the Secretary of State of the State of Delaware, designating 20,000 shares of preferred stock as Series N Preferred Stock.

The shares of Series N Preferred Stock are convertible into shares of common stock based on a conversion calculation equal to the stated value of the Series N Preferred Stock, plus all accrued and unpaid dividends, if any, on such Series N Preferred Stock, as of such date of determination, divided by the conversion price. The stated value of each share of Series N Preferred Stock is \$110 and the initial conversion price is \$1.10 per share, each subject to adjustment for stock splits, stock dividends, recapitalizations, combinations, subdivisions or other similar events.

The Series N Certificate of Designations includes a 4.9% beneficial ownership conversion blocker, a 19.99% blocker provision until stockholders have approved any or all shares of common stock issuable upon conversion of the Series N Preferred Stock, and price protection for so long as the holder owns the Series N Preferred Stock. All shares of the Company's capital stock will be junior in rank to the Series N Preferred Stock, with respect to the preferences as to dividends, distributions and payments upon the liquidation, dissolution and winding-up of the Company, except for the Company's Series D Preferred Stock, Series E Preferred Stock, Series I Preferred Stock, Series J Preferred Stock, Series K Preferred Stock, Series L Preferred Stock and Series M Preferred Stock.

In the event of liquidation, the holders of Series N Preferred Stock shall be entitled to receive in cash out of the assets of the Company, whether from capital or from earnings available for distribution to its shareholders (the "Liquidation Funds"), before any amount shall be paid to the holders of any of shares of capital stock, an amount per Series N Preferred Share equal to the greater of (a) the par value thereof on the date of such payment, and (b) the amount per share such holder would receive if such holder converted such Series N Preferred Stock into common stock immediately prior to the date of such payment; provided, however, that, if the Liquidation Funds are insufficient to pay the full amount due to the holders and holders of shares of parity stock (stock ranking equal to the Series N Preferred Shares), then each holder of Series N Preferred Stock and each holder of parity stock shall receive a percentage of the Liquidation Funds equal to the full amount of Liquidation Funds payable to such holder and such holder of parity stock as a liquidation preference, in accordance with their respective certificate of designation (or equivalent), as a percentage of the full amount of Liquidation Funds payable to all holders of Series N Preferred Stock and all holders of shares of parity stock. All the preferential amounts to be paid to the holders of Series N Preferred Stock shall be paid or set apart for payment before the payment or setting apart for payment of any amount for, or the distribution of any Liquidation Funds of the Company to the holders of shares of junior stock in connection with the liquidation, dissolution or winding up of the affairs of the Company, whether voluntary or involuntary, or a consolidation or merger of the Company with or into any other corporation or corporations, or a sale of all or substantially all of the assets of the Company, or the effectuation by the Company of a transaction or series of transactions in which more than 50% of the voting shares of the Company is disposed of or conveyed.

The Company is prohibited from effecting a conversion of the Series N Preferred Stock to the extent that, as a result of such conversion, the holder would beneficially own more than 4.99% of the number of shares of common stock outstanding immediately after giving effect to the issuance of shares of common stock upon conversion of the Series N Preferred Stock, which beneficial ownership limitation may be increased by the holder up to, but not exceeding, 9.99%. Each holder is entitled to vote on all matters submitted to stockholders of the Company, and shall have the number of votes equal to the number of shares of common stock issuable upon conversion of such holder's Series N Preferred Stock, but not in excess of the beneficial ownership limitations, and except that the holder may not vote for approval of shares of common stock issuable upon conversion of Series N Preferred Stock at any meeting of the Company's stockholders.

Correction to Certificate of Designations, Preferences and Rights of the 0% Series N Convertible Preferred Stock – On May 2, 2018, the Company filed a correction to the Series N Certificate of Designations. The inaccuracy or defect in the Series N Certificate of Designation was that the Series N Certificate of Designation inadvertently stated a specific number of shares in Section 4(f) "19.99% Conversion Blocker." The Series N Certificate of Designation was corrected by amending and restating Section 4(f) in its entirety to remove such inadvertent inclusion.

Certificate of Designations, Preferences and Rights of the 0% Series O Convertible Preferred Stock – On April 30, 2018, the Company filed a Certificate of Designations, Preferences and Rights of the 0% Series O Convertible Preferred Stock with the Secretary of State of the State of Delaware, designating 20,000 shares of preferred stock as Series O Preferred Stock.

The shares of Series O Preferred Stock are convertible into shares of common stock based on a conversion calculation equal to the stated value of the Series O Preferred Stock, plus all accrued and unpaid dividends, if any, on such Series O Preferred Stock, as of such date of determination, divided by the conversion price. The stated value of each share of Series O Preferred Stock is \$0.01 and the initial conversion price is \$0.0001 per share, each subject to adjustment for stock splits, stock dividends, recapitalizations, combinations, subdivisions or other similar events. The Company is not permitted to issue any shares of common stock upon conversion of the Series O Preferred Stock until the Company obtains the approval of its stockholders.

In the event of a liquidation, dissolution or winding up of the Company, each share of Series O Preferred Stock will be entitled to a per share preferential payment equal to the stated value on the date of such payment. All shares of capital stock will be junior in rank to Series O Preferred Stock with respect to the preferences as to dividends, distributions and payments upon the liquidation, dissolution and winding-up of the Company, except for the Company's Series D Preferred Stock, Series E Preferred Stock, Series I Preferred Stock, Series J Preferred Stock, Series K Preferred Stock, Series L Preferred Stock, Series M Preferred Stock and Series N Preferred Stock. The holders of Series O Preferred Stock will be entitled to receive dividends if and when declared by the Company's board of directors. The Series O Preferred Stock shall participate on an "as converted" basis, with all dividends declared on the Company's common stock. In addition, if the Company grants, issues or sells any rights to purchase its securities pro rata to all record holders of the Company's common stock, each holder will be entitled to acquire such securities applicable to the granted purchase rights as if the holder had held the number of shares of common stock acquirable upon complete conversion of all Series O Preferred Stock then held.

The Company is prohibited from effecting a conversion of the Series O Preferred Stock to the extent that, as a result of such conversion, the holder would beneficially own more than 4.99% of the number of shares of common stock outstanding immediately after giving effect to the issuance of shares of common stock upon conversion of the Series O Preferred Stock, which beneficial ownership limitation may be increased by the holder up to, but not exceeding, 9.99%. Each holder is entitled to vote on all matters submitted to stockholders of the Company, and shall have the number of votes equal to the number of shares of common stock issuable upon conversion of such holder's Series O Preferred Stock, but not in excess of the beneficial ownership limitations, and except that the holder may not vote for approval of shares of common stock issuable upon conversion of Series O Preferred Stock at any meeting of the Company's stockholders.

Sublicense Grant to Y-mAbs Therapeutics, Inc.

On June 27, 2018, the Company granted an exclusive sublicense to Y-mAbs Therapeutics, Inc., a privately held clinical stage biopharmaceutical company ("Y-mAbs"), for a bi-valent ganglioside-based vaccine intended to treat neuroblastoma, a rare pediatric cancer (the "Y-mAbs Sublicense"). Total value of the transaction to MabVax is \$1.3 million plus a share of a Priority Review Voucher (as defined in the sublicense agreement) if granted by the FDA to Y-mAbs on approval of the vaccine and the Priority Review Voucher is subsequently sold. Additionally, Y-mAbs will be responsible for all further development of the product as well as any downstream payment obligations related to this specific vaccine to Memorial Sloan Kettering Cancer Center ("MSK") that were specified in the original MabVax-MSK license agreement dated April 30, 2008. If Y-mAbs successfully develops and receives FDA approval for the neuroblastoma vaccine, it is obligated to file with the FDA for a Priority Review Voucher. If the voucher is granted to Y-mAbs and subsequently sold, then MabVax will receive a percentage of the proceeds from the sale of the voucher by Y-mAbs. Upon entering the Y-mAbs Sublicense, the Company received an upfront payment of \$700,000 and will receive an additional \$600,000 upon the one-year anniversary of entering into the agreement (assuming the agreement is still in effect). The Y-mAbs Sublicense contains termination provisions allowing for the termination of the agreement (i) upon material breach if the breaching party fails to cure the breach within 60 days of notice by the non-breaching party, (ii) by Y-mAbs at any time upon 90 days' advance notice to MabVax, or (iii) the expiration or termination of the underlying license from MSK to MabVax, provided that MSK will assume the agreement if Y-mAbs is in material compliance with the agreement upon the termination of the MSK-MabVax license. There were no continuing obligations on the part of the Company in connection with the agreement other than one-time administrative matters that were completed within thirty (30) days of signing the agreement.

Letter Agreement with MSK

On June 27, 2018, the Company entered into a letter agreement with MSK (the "MSK Letter") in connection with obtaining the consent from MSK for the Company to enter into the Y-mAbs Sublicense and allow Y-mAbs to "step into the shoes" of the obligations that the Company would have had to pay MSK if the Company had continued development of the neuroblastoma vaccine, including future payment obligations of the Company regarding future milestones. As part of the agreement, the Company and MSK agreed that MabVax would receive 100% of both the \$700,000 upfront payment and \$600,000 upon the one-year anniversary of the Y-mAbs Sublicense, and the Company would pay an aggregate of \$398,534 to MSK in connection with prior expenses incurred by MSK in relation to MSK's longstanding relationship and collaboration with the Company.

Amendments and Notices Related to Oxford Finance Loan Agreement

On July 3, 2018, the Company and Oxford Finance signed the Second Amendment to Loan and Security Agreement whereby Oxford Finance has (i) consented to the Company's license and sale to Boehringer Ingelheim (defined below) of the Acquired Assets and release of any encumbrances under the Loan Agreement that relate to the Acquired Assets, (ii) payments of advisory fees to Greenhill & Company of \$385,000 over the course of six months in equal monthly payments, and (iii) deferred principal payments under the Loan Agreement for six months starting with the July 2018 payment, in exchange for the Company granting such additional collateral that was not pledged previously or in which security interest was not granted prior to the Second Amendment. The Company is obligated to pay a fully earned and non-refundable amendment fee of \$5,000 to Oxford Finance, which shall become due and payable upon the earlier of: (i) the maturity date of the term loans, (ii) the acceleration of any term loan, or (iii) the prepayment of the term loans pursuant to the Loan and Security Agreement.

As a result of the deferred principal payments under the Loan Agreement, the future principal payments under notes payable for the Loan Agreement as of July 1, 2018 are as follows:

Years ending December 31:	
2018 (remaining)	\$ -
2019	2,380,952
2020	396,826
Notes payable, balance as of July 1, 2018	2,777,778
Unamortized discount on notes payable	(235,560)
Notes payable, net, balance as of July 1, 2018	2,542,218
Current portion of notes payable as of July 1, 2018, net	(1,190,476)
Non-current portion of notes payable as of July 1, 2018, net	<u>\$ 1,351,742</u>

On August 14, 2018, the Company received a letter from Oxford Finance (the “Notice”) asserting certain events of default under the Loan Agreement had occurred as a result of certain events the Company reported as having occurred, including, without limitation, (i) the resignation of the Company’s external auditor, effective August 3, 2018, and its withdrawal of its audit reports for the years 2014 through 2017, (ii) the resignation of four members of the Board of Directors, effective as of July 31, 2018, and (iii) the delisting of the Company’s common stock from The Nasdaq Stock Market LLC on July 11, 2018 (collectively, the “Alleged Default Events”). The Company has informed Oxford Finance that it disputes the Alleged Default Events individually or collectively constitute a “Material Adverse Change” or other event of default under the Loan Agreement. In addition, the Company has already engaged a new auditor, Haskell & White LLP, effective August 22, 2018, and on September 20, 2018, the Court ratified the Delaware Petition. The Company also intends to apply for listing on the OTCQB Venture Marketplace (the “OTCQB Marketplace”) once it meets the requisite eligibility requirements, which are subject to appointing at least one independent member to the Board of Directors, with the second independent member to be placed on the Board of Directors within 30 days of uplisting to the OTCQB Marketplace.

Asset Purchase and License Agreement with Boehringer Ingelheim

On July 6, 2018, the Company entered into an Asset Purchase Agreement and License Agreement (the “Asset Purchase Agreement”) with Boehringer Ingelheim International GmbH (“Boehringer Ingelheim”) centered on MabVax's program targeting a glycan commonly overexpressed on multiple solid tumor cancers. Boehringer Ingelheim has acquired all rights in and to the program. MabVax received \$4 million upon signing the agreement and will receive an additional \$7 million in connection with near-term milestones and downstream regulatory milestone payments plus further earn-out payments. The asset acquisition is separate and distinct from other programs under development at MabVax, enabling MabVax to retain all rights to its lead HuMab-5B1 antibody program which is in Phase 1 clinical trials as a therapeutic product candidate and as a diagnostic product candidate, as well as other antibody discovery programs from the Company's antibody discovery portfolio targeting other cancer antigens.

Cold Spring Harbor Laboratory License Agreement

On September 8, 2018, the Company entered into an agreement with Cold Spring Harbor Laboratory (“CSHL”), a nonprofit New York State education corporation, whereby the Company licensed the exclusive worldwide rights to certain technology including interest in certain patent applications by the Company for a new indication for MVT-5873. The Company paid \$20,000 as an upfront license fee and will pay to CSHL a nonrefundable annual license maintenance fee of the same amount beginning on January 1, 2020 and continuing each year thereafter during the term of the agreement and will increase to \$50,000 a year upon issuance of the first patent in connection with the technology. The annual license fee will be reduced for any patent prosecution and maintenance costs and will be fully creditable against any royalties or milestone payments earned during the year. Future milestone payments are in the aggregate less than \$2.5 million, with royalties that range from 0.25% if no valid claim to patents, to 2.5% if there is a valid claim of the patent in the territory of sales.

Legal Proceedings

SEC Complaint and SEC Action

On January 29, 2018, the Company received notice from the SEC of the SEC Action (as defined in Part I, Item 3). The Company believes the SEC is investigating (i) potential violations by the Company and its officers, directors and others of Section 10(b) of the Exchange Act and Section 17(a) of the Securities Act; and (ii) potential violations by multiple holders of the Company’s preferred stock who are among those included in the Aggregated Investors (as defined in Part I, Item 12) of the reporting and disclosure requirements imposed by Section 13(d) of the Exchange Act and pursuant to Schedules 13D and 13G. The Company further believes the SEC Action pertains to the Company’s relationships with certain of the Aggregated Investors, including (i) the circumstances under which those certain Aggregated Investors invested in the Company and whether certain Aggregated Investors have acted as an undisclosed group in connection with their investment; (ii) the manner with or in which those individuals and entities may have sought to control or influence the Company and its leadership since their respective investments (and the extent to which those efforts to control or influence have been successful); and (iii) the Company’s prior disclosures regarding the control of the Company and beneficial ownership of the Company’s common and preferred stock included in its registration statements filed in 2017 and 2018 and in the Company’s Exchange Act reports.

On September 7, 2018, the SEC filed the SEC Complaint in the U.S. District Court for the Southern District of New York against the following Aggregated Investors: Barry C. Honig, John Stetson, Michael Brauser, John R. O'Rourke III, Mark Groussman, Phillip Frost, Alpha Capital Anstalt, ATG Capital LLC, Frost Gamma Investments Trust, GRQ Consultants, Inc., Grander Holdings, Inc., Melechdavid, Inc., OPKO Health, Inc., HS Contrarian Investments, LLC, and Southern Biotech, Inc. (collectively, the "Investor Defendants"), and against others who the Company believes have not made any investment in the Company, *SEC v. Honig et al.*, No. 1:18-cv-01875 (S.D.N.Y. 2018). In the Complaint, the SEC alleges a variety of misconduct with respect to the Investor Defendants' transactions and/or relationships with three public issuers, including a public issuer identified as "Company C," which the Company understands to be MabVax Therapeutics Holdings, Inc. With respect to "Company C" in particular, the SEC alleges certain of the Investor Defendants manipulated the price of the Company's securities by writing, or causing to be written, false or misleading promotional articles, and a variety of other manipulative trading practices. The SEC further alleges certain of the Investor Defendants filed false reports of their beneficial ownership or failed to file reports of their beneficial ownership when required to do so. The SEC claims that, by engaging in this and other alleged actions in the SEC Complaint, the Investor Defendants and other defendants violated the anti-fraud and many other provisions of the Exchange Act, the Securities Act, and SEC Rules promulgated thereunder. The SEC Complaint does not assert any claims against the Company or any of its directors or officers, nor otherwise allege that the Company or any of its directors or officers were culpable participants in the misconduct allegedly undertaken by the Investor Defendants.

The Company has cooperated with the SEC in connection with the SEC Action. Although the SEC has not asserted claims against the Company or any of its directors or officers, the Company cannot predict whether the SEC Action ultimately will conclude in a manner adverse to the Company or any of its directors and officers, or in a manner adverse to the Investor Defendants or other of the Company's current or former stockholders. The Company also cannot predict when the SEC Action or any related matters may conclude, or how any such matters or resolution may impact how the Company is perceived by the market, potential partners and potential investors in the Company's securities. In the past, the SEC informed us it would not declare effective any registration statements registering the Company's securities effective during the pendency of the SEC Action.

Company Filed Complaint Against Sichenzia Ross Ference LLP

On September 10, 2018, the Company filed, in the Superior Court of California, County of San Diego, a complaint (the "Sichenzia Complaint") against Sichenzia Ross Ference LLP, a law firm that previously represented the Company in certain corporate, securities, and SEC matters ("Sichenzia"), and eight current Sichenzia partners, and one former Sichenzia partner, Harvey Kesner, *MabVax Therapeutics Holdings, Inc. v. Sichenzia Ross Ference LLP et al.*, No. 37-2018-00045609-CU-PN-CTL. The Sichenzia Complaint asserts claims for negligent professional practice, breach of fiduciary duty, breach of contract, unjust enrichment, deceit, and fraud by the defendants. The Company is evaluating additional claims it may have against others in connection with the same or similar subject matter.

Delaware Order Granting Petition for Relief

On September 20, 2018, the Court entered an order validating (i) issuances of common stock upon conversions of the Company's preferred stock occurring between June 30, 2014 and February 12, 2018, and (ii) stockholder approval of corporate actions presented to the Company's stockholders from June 30, 2014 to February 12, 2018. In so doing, the Court granted the Delaware Petition, filed on July 27, 2018, in order to rectify the uncertainty regarding whether shares of the Company's common stock were validly issued upon conversion of the Company's preferred stock from June 30, 2014 to February 12, 2018.

Class Action and Derivative Complaints

In re MabVax Therapeutics Securities Litigation, Case No. 18-cv-1160-BAS-NLS. On June 4, 2018, and August 3, 2018, two securities class action complaints were filed by purported stockholders of the Company in the United States District Court for the Southern District of California (the "U. S. District Court") against the Company and certain of its current officers. On September 6, 2018, the U.S. District Court consolidated the two actions and appointed lead plaintiffs. On October 10, 2018, lead plaintiffs filed their consolidated complaint, which, in addition to naming the Company and certain current officers as defendants, also names certain investors as defendants. The consolidated complaint alleges, among other things, that the defendants violated Sections 10(b) and 20(a) of the Exchange Act, and Rule 10b-5 thereunder, by misleading investors about problems with the Company's internal controls, improper calculation of its beneficial ownership, and improper influence by certain investors. The consolidated complaint also alleges that some of the investor defendants violated Section 9 of the Exchange Act by manipulating the Company's stock price. The consolidated complaint seeks unspecified damages, interest, fees and costs. The current deadline to respond to the consolidated complaint is December 6, 2018.

Liesman v. Hansen et al., Case No. 18-cv-2237-BTM-WVG. On September 26, 2018, a shareholder derivative complaint was filed in the United States District Court for the Southern District of California. The complaint arises from similar allegations as *In re MabVax Therapeutics Securities Litigation* but asserts a state law breach of fiduciary duty claim against certain of the Company's current and former directors and officers. In particular, the complaint alleges that the defendants breached their fiduciary duties by failing to implement the necessary controls to ensure that certain financial disclosures and disclosures concerning stock ownership were accurate. Plaintiff seeks, on behalf of the Company, damages, fees, costs, and equitable relief.

Jackson v. Hansen et al., Case No. 18-cv-2302-BEN-BGS. On October 4, 2018, a shareholder derivative complaint was filed in the United States District Court for the Southern District of California. The complaint arises from similar allegations as *In re MabVax Therapeutics Securities Litigation* and *Liesman v. Hansen et al.* but, in addition to a breach of fiduciary duty claim, also includes causes of action for unjust enrichment, abuse of control, gross mismanagement and waste of corporate assets. Plaintiff seeks, on behalf of the Company, damages, fees, costs, and equitable relief.

Nasdaq De-listing and Intent to Apply for Listing on the OTCQB Marketplace

On July 2, 2018, the Listing Qualifications Department of the Nasdaq Stock Market (the "Staff") notified the Company of its determination to delist the Company's securities. In this notice, the Staff indicated their determination was based upon the Company's failure to timely file all required reports with the SEC per Nasdaq listing rule 5250(c)(1), and for the Company's non-compliance with the \$2.5 million stockholders' equity requirement per Nasdaq listing rule 5550(b)(1). The Company elected not to appeal the Staff's decision and, as a result, on July 2, 2018, the Company received a letter from the Staff indicating trading of the Company's common stock would be suspended on Nasdaq Capital Market at the open of business on Wednesday, July 11, 2018. On July 11, 2018, the Company's common stock began trading on the OTC Pink, continuing under the symbol MBVX. The Hearing Department of the Nasdaq Stock Market notified us on September 24, 2018, that it would announce the delisting of our common stock. On September 26, 2018, the Nasdaq Stock Market issued a press release and posted a notice to its website announcing it would delist our common stock and file a Form 25 with the SEC to complete the delisting. The delisting becomes effective ten (10) days after the Form 25 is filed with the SEC.

The Company currently intends to apply for listing on the OTCQB Marketplace once the Company meets the requisite eligibility requirements for the OTCQB Marketplace.

Resignation and Appointment of Members of the Board of Directors

Effective July 31, 2018, Paul Maier, Jeffrey E. Eisenberg, Thomas C. Varvaro and Kenneth Cohen, resigned as members of the Company's Board of Directors. There were no disagreements between the resigning members of the Board of Directors and management.

Following the resignations, in a separate action, the Company's Board of Directors appointed the Company's Chief Financial Officer, Gregory Hanson, as a member of the Board of Directors. Mr. Hanson has served as the Company's Chief Financial Officer since July 2014, and of its subsidiary, MabVax Therapeutics, Inc., since February 2014. Mr. Hanson has over 30 years' experience serving as the CFO, financial executive and director of public and private life sciences and hi-tech companies. Since October 2016, he has served as a member of the board of directors of a private pharmaceutical contract research organization.

EXHIBIT INDEX

The following exhibits are included herein as part of this Amendment on Form 10-K/A.

Exhibit No.	Exhibit Name
<u>23.1*</u>	Consent of Independent Registered Public Accounting Firm
<u>31.1**</u>	Certification of Chief Executive Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002
<u>31.2**</u>	Certification of Chief Financial Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002
<u>32.1**</u>	Certification of Chief Executive Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002
<u>32.2**</u>	Certification of Chief Financial Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002
101*	Interactive data file

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* Filed herewith

**Furnished herewith

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

Date: October 15, 2018

MABVAX THERAPEUTICS HOLDINGS, INC

By: /s/ J. David Hansen
J. David Hansen
President and Chief Executive Officer (Principal executive officer)

By: /s/ Gregory P. Hanson
Gregory P. Hanson
Chief Financial Officer (Principal financial and accounting officer)

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the registrant and in the capacities and on the dates indicated.

<u>Signature</u>	<u>Title</u>	<u>Date</u>
<u>/s/ J. David Hansen</u> J. David Hansen	Chairman of the Board, President and Chief Executive Officer (Principal executive officer)	October 15, 2018
<u>/s/ Gregory P. Hanson</u> Gregory P. Hanson	Director, Chief Financial Officer (Principal financial and accounting officer)	October 15, 2018
<u>/s/ Philip O. Livingston</u> Philip O. Livingston, M.D.	Director	October 15, 2018

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the incorporation by reference in the registration statements (No. 333-222204) on Form S-8, and (Nos. 333-221114, 333-221026, 333-219291, and 333-218473) on Form S-3 of MabVax Therapeutics Holdings, Inc., of our report dated October 12, 2018, related to our audits of the consolidated financial statements of MabVax Therapeutics Holdings, Inc., as of December 31, 2017 and 2016 and for the years then ended, which report includes an explanatory paragraph relating to MabVax Therapeutics Holdings, Inc.'s ability to continue as a going concern, included in this 2017 Annual Report on form 10K/A of MabVax Therapeutics Holdings, Inc.

/s/ CohnReznick LLP

San Diego, California
October 12, 2018

**CERTIFICATION OF CHIEF EXECUTIVE OFFICER
PURSUANT TO SECTION 302 OF
THE SARBANES-OXLEY ACT OF 2002**

I, J. David Hansen, certify that:

- 1) I have reviewed this Annual Report on Form 10-K of MabVax Therapeutics Holdings, Inc.;
- 2) Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
- 3) Based on my knowledge, the consolidated financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
- 4) The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - a) designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - b) designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of consolidated financial statements for external purposes in accordance with generally accepted accounting principles;
 - c) evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - d) disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
- 5) The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

October 15, 2018

/s/ J. David Hansen

J. David Hansen

President and Chief Executive Officer

**CERTIFICATION OF CHIEF FINANCIAL OFFICER
PURSUANT TO SECTION 302 OF
THE SARBANES-OXLEY ACT OF 2002**

I, Gregory P. Hanson, certify that:

- 1) I have reviewed this Annual Report on Form 10-K of MabVax Therapeutics Holdings, Inc.;
- 2) Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
- 3) Based on my knowledge, the consolidated financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
- 4) The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - a) designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - b) designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of consolidated financial statements for external purposes in accordance with generally accepted accounting principles;
 - c) evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - d) disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
- 5) The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

October 15, 2018

/s/ Gregory P. Hanson

Gregory P. Hanson
Chief Financial Officer
(Principal Financial Officer)

**CERTIFICATION OF CHIEF EXECUTIVE OFFICER
PURSUANT TO 18 U.S.C. Sec.1350,
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002**

In connection with the Annual Report of MabVax Therapeutics Holdings, Inc. (the Company) on Form 10-K for the year ended December 31, 2017, as filed with the Securities and Exchange Commission on the date hereof (the Report), I, J. David Hansen, President and Chief Executive Officer of the Company, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that to my knowledge:

- 1) The Report fully complies with the requirements of Section 13(a) or 15 (d) of the Securities Exchange Act of 1934; and
- 2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

October 15, 2018

/s/ J. David Hansen

J. David Hansen

President and Chief Executive Officer

(Principal Executive Officer)

A signed original of this written statement required by Section 906 of the Sarbanes-Oxley Act of 2002 has been provided to MabVax Therapeutics Holdings, Inc. and will be furnished to the Securities and Exchange Commission or its staff upon request.

**CERTIFICATION OF CHIEF FINANCIAL OFFICER
PURSUANT TO 18 U.S.C. Sec.1350,
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002**

In connection with the Annual Report of MabVax Therapeutics Holdings, Inc. (the Company) on Form 10-K for the year ended December 31, 2017, as filed with the Securities and Exchange Commission on the date hereof (the Report), I, Gregory P. Hanson, Chief Financial Officer of the Company, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that to my knowledge:

- 1) The Report fully complies with the requirements of Section 13(a) or 15 (d) of the Securities Exchange Act of 1934; and
- 2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

October 15, 2018

/s/ Gregory P. Hanson

Gregory P. Hanson
Chief Financial Officer
(Principal Financial Officer)

A signed original of this written statement required by Section 906 of the Sarbanes-Oxley Act of 2002 has been provided to MabVax Therapeutics Holdings, Inc. and will be furnished to the Securities and Exchange Commission or its staff upon request.
