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

FORM 10-Q

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

FOR THE QUARTERLY PERIOD ENDED MARCH 31, 2018

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	**93-0987903**
(STATE OR OTHER JURISDICTION OF INCORPORATION OR ORGANIZATION)	**(I.R.S. EMPLOYER IDENTIFICATION NO.)**

11535 Sorrento Valley Road, Suite 400, San Diego, CA 92121
(ADDRESS OF PRINCIPAL EXECUTIVE OFFICES INCLUDING ZIP CODE)

(858) 259-9405
(REGISTRANT'S TELEPHONE NUMBER, INCLUDING AREA CODE)

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 every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). Yes ☒ No ☐

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

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 Exchange Act). Yes ☐ No ☒

The number of shares of the registrant's common stock outstanding as of October 15, 2018 was 9,253,081.

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NOTE ABOUT FORWARD-LOOKING STATEMENTS

This quarterly report on Form 10-Q ("Quarterly Report") contains forward-looking statements that involve substantial risks and uncertainties. All statements, other than statements of historical facts, contained in this Quarterly Report are, or may be deemed to be, forward-looking statements. Words such as, but not limited to, "anticipate," "intend," "indicate," "plan," "continue" "goal," "seek," "believe," "project," "estimate," "expect," "potential," "future," "likely," "may," "should," "could," "will," and similar expressions or phrases, or the negative of those expressions or phrases, are intended to identify forward-looking statements, although not all forward-looking statements contain these identifying words. Although we believe we have a reasonable basis for each forward-looking statement contained in this Quarterly Report, we caution you that these statements are based on our projections of the future that are subject to known and unknown risks and uncertainties and other factors that may cause our actual results, level of activity, performance or achievements expressed or implied by these forward-looking statements, to differ. These forward-looking statements are subject to a number of risks, uncertainties and assumptions, including, among other things:

- Our ability to raise additional funds to finance our operations and remain a going concern;
- Whether the Securities and Exchange Commission ("SEC") Action (as defined in Item 1 of Part II of this Quarterly Report) could be concluded in a manner adverse to the Company and members of its leadership team;
- Our past inability to have certain of our previously filed registration statements declared effective and whether any future registration statements we may in the future file will be reviewed or declared effective, generally or during the pendency of the SEC Action;
- Our limited number of employees to manage and operate our business and the necessity for these employees to devote substantial time to matters relating to the SEC Action, which could materially harm our business;
- Our ability to calculate beneficial ownership of our common stock held by our investors;
- Our ability to conduct clinical trials or to meet any regulatory conditions placed on our clinical trials;
- Our ability to obtain desirable results from clinical trials of our product candidates; and
- Our ability to obtain regulatory approval for the commercialization of any of our product candidates.

This list is not an exhaustive list of the factors that may affect any of our forward-looking statements. These and other factors should be considered carefully, and readers should not place undue reliance on our forward-looking statements.

You should also carefully read the risk factors described under Item 1A of Part II of this Quarterly Report and under Item 1A of our Annual Report on Form 10-K for the year ended December 31, 2017 as originally filed with the SEC on April 2, 2018 and amended on Form 10-K/A as filed with the SEC on October 15, 2018. You are advised to consult any further disclosures we make on related subjects in our subsequent Quarterly Reports on Form 10-Q, Current Reports on Form 8-K, press releases and our website. It is not possible for our management to predict all risks, nor can we assess the impact of all factors on our business or the extent to which any factor, or combination of factors, may cause actual results to differ materially from those contained in any forward-looking statements we may make. The forward-looking statements contained in this Quarterly Report are made as of the date of this Quarterly Report, and we do not assume any obligation to update any forward-looking statements, whether as a result of new information, future events or otherwise, except as required by applicable law.

Our current product candidates are undergoing clinical development and have not been approved by the United States Food and Drug Administration ("FDA") or any comparable foreign regulatory authority. These product candidates have not been, nor may they ever be, approved by any regulatory agency nor marketed anywhere in the world.

PART I. FINANCIAL INFORMATION

Item 1. Financial Statements

MABVAX THERAPEUTICS HOLDINGS, INC.
Condensed Consolidated Balance Sheets

	March 31, 2018 (Unaudited)	December 31, 2017 Note 1
Assets		
Current assets:		
Cash and cash equivalents	$ 1,056,203	$ 885,710
Prepaid expenses	138,517	150,462
Other current assets	153,135	171,346
Total current assets	1,347,855	1,207,518
Property and equipment, net	537,979	578,206
Goodwill	6,826,003	6,826,003
Other long-term assets	178,597	178,597
Total assets	$ 8,890,434	$ 8,790,324
Liabilities and Stockholders' Equity		
Current liabilities:		
Accounts payable	$ 1,101,582	$ 1,090,904
Accrued compensation	392,682	311,675
Accrued clinical operations and site costs	2,403,611	1,669,201
Accrued lease termination fee	590,504	590,504
Other accrued expenses	331,911	404,923
Interest payable	35,650	39,373
Current portion of notes payable	1,670,501	1,681,876
Current portion of capital lease payable	18,180	17,810
Total current liabilities	6,544,621	5,806,266
Long-term liabilities:		
Long-term portion of notes payable, net	1,276,364	1,621,483
Long-term portion of capital lease payable	41,171	45,857
Other long-term liabilities	193,982	186,278
Total long-term liabilities	1,511,517	1,853,618
Total liabilities	8,056,138	7,659,884
Commitments and contingencies		
Stockholders' equity:		
Series D convertible preferred stock, $0.01 par value, 1,000,000 shares authorized, 44,104 shares issued and outstanding as of March 31, 2018 and December 31, 2017, with a liquidation preference of $441	441	441
Series E convertible preferred stock, $0.01 par value, 100,000 shares authorized, 33,333 shares issued and outstanding as of March 31, 2018 and December 31, 2017, with a liquidation preference of $333	333	333
Series I convertible preferred stock, $0.01 par value, 1,968,664 shares authorized, 645,640 and 798,460 shares issued and outstanding as of March 31, 2018 and December 31, 2017, respectively, with a liquidation preference of $6,456 and $7,984 as of March 31, 2018 and December 31, 2017, respectively	6,456	7,984
Series J convertible preferred stock, $0.01 par value, 3,400 shares authorized, 773 shares issued and outstanding as of March 31, 2018 and December 31, 2017, with a liquidation preference of $531,252	8	8
Series K convertible preferred stock, $0.01 par value, 65,000 shares authorized, 63,150 shares issued and outstanding as of March 31, 2018 and December 31, 2017, with a liquidation preference of $632	632	632
Series L convertible preferred stock, $0.01 par value, 58,000 shares authorized, 45,500 and 58,000 shares issued and outstanding as of March 31, 2018, and December 31, 2017, respectively, with a liquidation preference of $4,550,000 and $5,800,000 as of March 31, 2018 and December 31, 2017, respectively	455	580
Series M convertible preferred stock, $0.01 par value, 10,000 shares authorized, 5,000 and no shares issued and outstanding as of March 31, 2018 and December 31, 2017, respectively, with a liquidation preference of $1,500,000 and $0 as of March 31, 2018 and December 31, 2017, respectively	50	0
Common stock, $0.01 par value, 150,000,000 shares authorized, 9,012,838 and 6,862,928 shares issued and outstanding as of March 31, 2018 and December 31, 2017, respectively	90,128	68,629
Additional paid-in capital	115,410,181	112,105,470
Accumulated deficit	(114,674,388)	(111,053,637)

Total stockholders' equity	834,296	1,130,440
Total liabilities and stockholders' equity	$ 8,890,434	$ 8,790,524

See Accompanying Notes to Unaudited Condensed Consolidated Financial Statements

MABVAX THERAPEUTICS HOLDINGS, INC.
Condensed Consolidated Statements of Operations
(Unaudited)

	Three Months Ended March 31,	
	2018	**2017**
Revenues:		
Revenues	$ -	$ -
Total revenues	$ -	$ -
Operating costs and expenses:		
Research and development	1,629,855	2,818,363
General and administrative	1,804,981	2,273,951
Total operating costs and expenses	3,434,836	5,092,314
Loss from operations	(3,434,836)	(5,092,314)
Interest and other expenses, net of income	(185,915)	(262,540)
Net loss	$ (3,620,751)	$ (5,354,854)
Basic and diluted net loss per share	$ (0.42)	$ (2.55)
Shares used to calculate basic and diluted net loss per share	8,535,336	2,100,556

See Accompanying Notes to Unaudited Condensed Consolidated Financial Statements

MABVAX THERAPEUTICS HOLDINGS, INC.
Condensed Consolidated Statement of Stockholders' Equity
For the Three Months Ended March 31, 2018
(Unaudited)

	Series D through M Convertible Preferred Stock		Common Stock		Additional Paid-in	Accumulated	Total Stockholders'
	Shares	Amount	Shares	Amount	Capital	Deficit	Equity
Balance at December 31, 2017	**997,820**	**$ 9,978**	**6,862,928**	**$ 68,629**	**$112,105,470**	**$(111,053,637)**	**$1,130,440**
Issuance of common stock, Series M Convertible Preferred Stock and warrants in connection with February 2018 financing	5,000	50	555,557	5,556	2,694,394	—	2,700,000
Conversion of Series I Preferred Stock to common stock	(152,820)	(1,528)	50,940	509	1,019	—	—
Conversion of Series L Preferred Stock to common stock	(12,500)	(125)	694,445	6,944	(6,819)	—	—
Issuance of whole in lieu of fractional shares resulting from reverse split in February 2018	—	—	50,991	510	(510)	—	—
Common stock issued upon vesting of restricted stock units in January 2018, net of payroll taxes	—	—	797,977	7,980	(7,980)	—	—
Stock-based compensation	—	—	—	—	624,607	—	624,607
Net loss	—	—	—	—	—	(3,620,751)	(3,620,751)
Balance at March 31, 2018	**837,500**	**$ 8,375**	**9,012,838**	**$ 90,128**	**$115,410,181**	**$(114,674,388)**	**$ 834,296**

See Accompanying Notes to Unaudited Condensed Consolidated Financial Statements

MABVAX THERAPEUTICS HOLDINGS, INC.
Condensed Consolidated Statements of Cash Flows
(Unaudited)

	Three Months Ended March 31,	
	2018	**2017**
Operating activities		
Net loss	$ (3,620,751)	$ (5,354,854)
Adjustments to reconcile net loss to net cash used in operating activities:		
Depreciation and amortization	40,227	41,823
Stock-based compensation	624,607	1,032,811
Issuance of restricted stock for services	—	56,600
Amortization and accretion related to notes payable	75,214	111,775
Increase (decrease) in operating assets and liabilities:		
Other receivables	18,211	22,831
Prepaid expenses and other	12,315	(810)
Accounts payable	10,678	540,413
Accrued clinical operations and site costs	734,410	378,195
Accrued compensation	81,007	(66,270)
Other accrued expenses	(72,697)	59,849
Net cash used in operating activities	(2,096,779)	(3,177,637)
Investing activities		
Purchases of property and equipment	—	—
Net cash used in investing activities	—	—
Financing activities		
Private placement, net of issuance costs	2,700,000	—
Principal payments on notes payable	(428,042)	(200,772)
Principal payments on capital lease	(4,686)	(4,120)
Net cash provided by (used in) financing activities	2,267,272	(204,892)
Net change in cash and cash equivalents	170,493	(3,382,529)
Cash and cash equivalents at beginning of period	885,710	3,979,290
Cash and cash equivalents at end of period	$ 1,056,203	$ 596,761
Supplemental disclosures:		
Cash paid during the period for interest on notes payable and the capital lease	$ 114,650	$ —
Supplemental disclosures of non-cash investing and financing information:		
Conversion of preferred stock to common stock – Series I	$ 1,528	$ —
Conversion of preferred stock to common stock – Series L	$ 125	$ —
Common stock issued upon vesting of RSUs	$ 7,980	$ —

See Accompanying Notes to Unaudited Condensed Consolidated Financial Statements

MABVAX THERAPEUTICS HOLDINGS, INC.
Notes to Unaudited Condensed Consolidated Financial Statements

1. Nature of Business and Basis of Presentation.

We are a Delaware corporation, 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 requires otherwise, references to "we," "our," "us," "MabVax" or the "Company" in this Quarterly Report on Form 10-Q for the quarter ended March 31, 2018 (this "Quarterly Report") mean MabVax Therapeutics Holdings, Inc. on a condensed consolidated financial statement basis with our wholly-owned subsidiary, MabVax Therapeutics, Inc.

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 vaccinated 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. A copy of the Court's order granting the petition is filed herewith. The Delaware Petition and the Court's order granting the Delaware Petition are discussed further in the Section below titled, "Court Validation of Previously Issued Shares of Common Stock upon Conversion of Preferred Stock."

Basis of Presentation

The balance sheet data at December 31, 2017, was derived from audited financial statements at that date. It does not include, however, all the information and notes required by accounting principles generally accepted in the United States of America ("GAAP") for complete financial statements.

The accompanying unaudited condensed consolidated financial statements were prepared using GAAP for interim financial information and the instructions to Regulation S-X. While these statements reflect all normal recurring adjustments, which are, in the opinion of management, necessary for a fair presentation of the results of the interim period, they do not include all information or notes required by GAAP for annual financial statements and should be read in conjunction with the audited financial statements of MabVax Therapeutics Holdings, Inc. for the year ended December 31, 2017, included in our Annual Report on Form 10-K filed with the SEC on April 2, 2018, and amended on Form 10-K/A as filed with the SEC on October 15, 2018. These quarterly results are not necessarily indicative of future results.

The preparation of condensed consolidated 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 condensed 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.

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 was adopted by the Company on January 1, 2018. The adoption of this new standard did not have a material impact on our condensed consolidated financial statements.

The Company adopted the FASB Accounting Standards Codification ("ASC") Topic 606 - Revenue from Contracts with Customers ("ASC 606") at the time of its first license agreement in the second quarter of 2018. The Company had no revenue from license agreements prior to the first quarter of 2018.

Under ASC 606, the Company recognizes licensing revenue when our customer obtains control of the intellectual property ("IP") transferred, which occurs on delivery of specific items outlined in the agreement. Revenue is recognized in an amount that reflects the consideration that the Company expects to receive in exchange for the IP delivered. To determine revenue recognition for IP with customers within the scope of ASC 606, the Company determines which of the different types of licenses exists and divides the IP into two categories: Functional IP or Symbolic IP. Functional IP has significant stand-alone functionality and derives a substantial portion of its ability to provide benefit or value from its significant stand-alone functionality. Symbolic IP does not have significant stand-alone functionality, and therefore substantially all the utility of Symbolic IP is derived from its association with the licensor's past or ongoing activities.

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 (except for 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 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 condensed 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 condensed 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 condensed 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. The adoption of this new standard did not have a material impact on our condensed 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 condensed 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 condensed 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 condensed 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. The adoption of this new standard did not have a material impact on our condensed 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 condensed consolidated financial statements.

2. Liquidity and Going Concern.

The accompanying condensed 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 condensed consolidated financial statements, the Company had a net loss of $3,620,751, net cash used in operating activities of $2,096,779, net cash used in investing activities of $0, and net cash provided by financing activities of $2,267,272 for the three months ended March 31, 2018. As of March 31, 2018, the Company had $1,056,203 in cash and cash equivalents, a working capital deficit of $5,196,766, an accumulated deficit of $114,674,388, and stockholders' equity of $834,296.

Series L Convertible Preferred Stock Conversions

Between January 16 and January 26, 2018, holders of Series L Convertible Preferred Stock ("Series L Preferred Stock") converted 12,500 shares of Series L Preferred Stock 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.

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 (the "February 2018 Private Placements"). From April 30 to May 2, 2018, the Company entered into separate purchase agreements with investors pursuant to which it 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 555,557 shares of its common stock for an aggregate purchase price of $1,250,000, or $2.25 per share, (ii) 5,000 shares of our 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. The following investors in the May 2018 Private Placements also invested in the February 2018 Private Placements (the "Prior Investors"): GRQ Consultants Inc., Roth 401K FBO Renee Honig; GRQ Consultants Inc., Roth 401K FBO Barry Honig; Melechdavid, Inc.; Grander Holdings Inc. 401K; Robert S. Colman Trust UDT 3/13/85; Ben Brauser; Joshua A. Brauser; Daniel A. Brauser; Gregory Aaron Brauser; Erick E. Richardson; and Ronald B. Low.

Under the terms of the May 2018 Private Placements, we were 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 the 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.

Plans for Continuing to Fund the Company's Losses from Operations

We plan to continue to fund the Company's losses from operations and capital funding needs through equity financings in the form of common stock and preferred stock, licensing agreements, asset sales, strategic collaborations, government grants, issuance of common stock in lieu of cash for services, debt financings 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 began reducing personnel from twenty-five (25) full time employees to six (6) as of October 15, 2018, and reduced other operating expenses following the completion of two (2) Phase 1a clinical trials of our lead antibody product candidate, HuMab 5B1, which has enabled us to reduce our expenditures on clinical trials. We plan to continue funding Phase 1 clinical trials of our product candidate MVT-5873 in cancer patients, MVT-2163 as a diagnostic agent in pancreatic cancer patients, 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, and prepare for a Phase 1 clinical trial of MVT-5873 in a potential new indication. We will also support research efforts and continued Phase 1 clinical development by MSK of our Positron-emission tomography ("PET") imaging agent MVT-2163 under an R01 Research Grant provided by the National Institutes of Health ("NIH") to MSK in April 2018, with the bulk of the costs of the research and clinical development being borne by the NIH. Although we achieved two strategic transactions in late June 2018 and early July 2018, there can be no assurance that we will be able to achieve additional license and or sales agreements and earn revenues large enough to offset our operating expenses in the future, as discussed further in Management's Discussion and Analysis of Financial Condition and Results of Operations of our Quarterly Report. We cannot be sure that asset sales or 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 asset sales or 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, suspend or curtail planned programs and/or cease our operations entirely. 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 the Company will continue to incur net losses into the foreseeable future as we: (i) continue our clinical trial of MVT-5873 in cancer patients, (ii) continue our clinical trial for the development of MVT-1075 as a radioimmunotherapy, (iii) prepare for a Phase 1 clinical trial of MVT-5873 for a new indication, to be initiated in early 2019, and (iv) continue operations as a public company. Based on receipt of $2.7 million net of transaction costs in February 2018, an additional $830,000 from a financing in May 2018, and receipt of $700,000 from an upfront payment under a sublicense agreement with Y-mAbs Therapeutics, Inc. ("Y-mAbs") during the first six months of 2018; and receipt of $4.0 million in gross proceeds from an asset purchase and license agreement with Boehringer Ingelheim International GmbH ("Boehringer Ingelheim") in July 2018, as further discussed in Note 12, Subsequent Events, and without any other additional funding or receipt of payments from potential asset sales or licensing agreements, we expect we will have sufficient funds to meet our obligations until 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. 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 could 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. 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 limits its exposure to credit loss by holding cash in U.S. dollars or, from time to time, placing cash and investments in U.S. government, agency and government-sponsored enterprise obligations.

4. Fair Value of Financial Instruments.

Our financial instruments consist of cash and cash equivalents and 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.

5. Convertible Preferred Stock, Common Stock and Warrants.

Dividends on Preferred Stock

We immediately recognize the changes in the redemption value on preferred stock as they occur and the carrying value of the security is adjusted to equal what the redemption amount would be as if redemption were to occur at the end of the reporting date based on the conditions that exist as of that date.

No dividends have ever been declared by the Board of Directors of the Company (the "Board of Directors") since our inception on any series of convertible preferred stock.

Overview of Preferred Stock & Beneficial Ownership Blockers

All issued and outstanding shares of the Company's preferred stock have a par value of $0.01 per share and rank prior to any class or series of the Company's common stock as to the distribution of assets upon liquidation, dissolution or winding up of the Company or as to the payment of dividends. The Company must obtain the consent of a majority of the holders of each series of preferred stock before taking any action that materially and adversely affects the rights, preferences, or privileges of the applicable series of preferred stock. Also, the holders of each series of preferred stock are entitled to vote on any matter on which the holders of common stock are entitled to vote. Additionally, the Company must obtain the consent of the holders of the Series E Preferred Stock, Series J Preferred Stock, Series L Preferred Stock, and Series N Preferred Stock (as each of those terms are defined below) prior to increasing or decreasing (other than by conversion) the authorized number of the applicable series of preferred stock or issuing any additional shares of the applicable series of preferred stock.

Generally, the same investors participated in each of the Company's preferred stock offerings such that the same investors own most of the shares of each series of the Company's issued and outstanding preferred stock. Pursuant to terms negotiated in connection with the Company's sales of preferred stock, the certificates of designation for the Company's preferred stock each include a 4.99% and/or 9.99% beneficial ownership conversion blocker. These conversion blockers may be decreased or increased, at the option of each holder, to a percentage not to exceed 9.99% upon written notice to the Company, as further specified in the applicable certificate of designation. The certificate of designation for our Series N Preferred Stock includes a 19.99% blocker provision applicable until stockholders approve issuances of common stock in excess of such amount. The stated values, as applicable, and conversion prices of our preferred stock are subject to adjustment in the event of stock splits, stock dividends, combination of shares and similar recapitalization transactions. The Company's ability to administer the blockers according to their terms depends on group determinations and accurate reporting by outside investors with respect to their own beneficial ownership.

Series D Preferred Stock

As of March 31, 2018 and December 31, 2017, there were 44,104 shares of Series D Convertible Preferred Stock ("Series D Preferred Stock") issued and outstanding, and convertible into an aggregate of 198,667 shares of common stock. As of March 31, 2018, each one share of Series D Preferred Stock is convertible into 4.5045 shares of Common Stock.

Series E Preferred Stock

As of March 31, 2018 and December 31, 2017, there were 33,333 shares of Series E Convertible Preferred Stock ("Series E Preferred Stock") issued and outstanding, and convertible into 173,249 shares of common 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 ($75 per 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 $14.43 per share.

Series I Preferred Stock

As of March 31, 2018 and December 31, 2017, there were 645,640 and 798,460 shares of our Series I Preferred Stock issued and outstanding, and convertible into 215,214 and 266,154 shares of our common stock, respectively. During the three months ended March 31, 2018, 152,820 shares of Series I Preferred Stock were converted by Grander Holdings, Inc. 401K into 50,940 shares of common stock.

The Series I Preferred Stock has a stated value of $0.01 per share. Each one share of Series I Preferred Stock is convertible into one-third share of common stock.

Series J Preferred Stock

As of March 31, 2018 and December 31, 2017, there were 772.73 shares of our Series J Convertible Preferred Stock ("Series J Preferred Stock") issued and outstanding and convertible into 386,365 shares of our common 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 ($550), 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 ($1.10). If we issue or sell common stock, or common equivalent shares, for consideration per share that is less than the conversion price in effect immediately prior to the issuance, then the conversion price in effect immediately prior to such issuance will be adjusted to the lower issuance price, but not be less than $0.10.

Series K Preferred Stock

As of March 31, 2018 and December 31, 2017, there were 63,150 shares of our Series K convertible preferred stock ("Series K Preferred Stock") issued and outstanding, and convertible into 2,105,000 of our common 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 ($0.01) divided by the conversion price ($0.0003).

Series L Preferred Stock

As of March 31, 2018, and December 31, 2017, there were 45,500 and 58,000 shares of our Series L Preferred Stock issued and outstanding, and convertible into 2,527,778 and 3,222,223 shares of our common stock, respectively. During the three months ended March 31, 2018, 12,500 shares of Series L Preferred Stock were converted into 694,445 shares of common stock by GRQ Consultants, Inc. Roth 401K FBO Renee Honig Trustee, and HS Contrarian Investments, LLC.

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 ($100), 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 ($1.80).

Series M Preferred Stock

As of March 31, 2018 and December 31, 2017, there were 5,000 and no shares of our Series M Preferred Stock issued and outstanding, and convertible into 666,667 and no shares of our common stock, respectively.

The shares of Series M Preferred Stock are convertible into shares of common stock based on a conversion calculation equal to the stated value of the Series M Preferred Stock ($300), plus all accrued and unpaid dividends, if any, on such Series M Preferred Stock, as of such date of determination, divided by the conversion price ($2.25).

Warrants Issued in Connection with February 2018 Private Placements

The warrants issued in the February 2018 Private Placements (the "February 2018 Warrants") are exercisable, at any time on or after the sixth month anniversary of the closing date, at a price of $2.70 per share, subject to adjustment, and expire three years from the initial exercise date. The holders of the February 2018 Warrants may, subject to certain limitations, exercise the February 2018 Warrants on a cashless basis if the shares of common stock issuable upon exercise of the February 2018 Warrants are not registered for resale under the Securities Act within four (4) months of issuance, or between June 2 and June 10, 2018. The Company is prohibited from effecting an exercise of any February 2018 Warrants to the extent that, as a result of any such exercise, the holder would beneficially own more than 9.99% of the number of shares of common stock outstanding immediately after giving effect to the issuance of shares of common stock upon exercise of such February 2018 Warrants. The February 2018 Warrants are not listed or quoted on any securities exchange or other trading market.

Warrants Issued in Connection with October 2015 Public Offering

As of March 31, 2018, and December 31, 2017, warrants to purchase 56,306 shares of common stock previously issued in connection with our public offering closing on October 5, 2015 (the "October 2015 Warrants") were outstanding. The October 2015 Warrants, which had an exercise price of $29.31 per share, expired on September 30, 2018**.**

Consultant Grants

On February 10, 2017, the Company entered into a consulting agreement with MDM Worldwide, pursuant to which MDM Worldwide agreed to provide 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. The shares granted were fully vested upon grant and the Company recognized the grant date fair value of the shares of $56,600 as investor relations expense upon grant during the first quarter of 2017. The services with MDM Worldwide, which the Company was required to purchase by some investors in connection with prior financings of the Company, were terminated effective June 1, 2018.

On March 7, 2017, the Company entered into a consulting agreement with Jenene Thomas Communications, pursuant to which Jenene Thomas Communications agreed to provide investor relations services to the Company. In consideration for these services, which began on April 1, 2017, we paid 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 were vested over a one-year period over which the services were performed and, as such, were amortized over the same period beginning in April 1, 2017. The services with Jenene Thomas Communications terminated effective June 1, 2018.

6. Notes Payable.

Loan and Security Agreement with Oxford Finance, LLC

On January 15, 2016, we entered into a loan and security agreement with Oxford Finance, LLC ("Oxford Finance") pursuant to which we had the option to borrow $10,000,000 in two equal tranches of $5,000,000 each (the "Loan Agreement"). The first tranche of $5,000,000 was funded at close on January 15, 2016 (the "Term A Loans"). The option to fund the second tranche of $5,000,000 (the "Term B Loans") was exercisable 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 Stock Market or NYSE MKT on or before September 30, 2016. The option for the Term B Loans expired unexercised on September 30, 2016. The interest rate for the Term A Loans is set on a monthly basis at the index rate plus 11.29%, where the index rate is the greater of the 30-day LIBOR rate or 0.21%. Interest is due on the first day of each month, in arrears, calculated based on a 360-day year. The Term A Loans were 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 earned 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 Term A Loans, and this amount is being accreted using the effective interest rate method over the term of the loans. The Term A Loans can be prepaid subject to a graduated prepayment fee, depending on the timing of the prepayment.

Concurrent with the execution of the Loan Agreement, the Company issued warrants to purchase up to 75,075 shares of common stock to Oxford Finance with an exercise price of $16.65 per share. The warrants were immediately exercisable, 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 IP. 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 on January 15, 2016, the Company received net proceeds from the Term A Loans 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 condensed consolidated balance sheet. The Company's transaction costs of approximately $390,000 are presented in the condensed 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 Oxford Finance's lien in the collateral or in the value of such collateral. In the event of default by the Company under the Loan Agreement, Oxford Finance 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.

First Amendment to Loan and Security Agreement

On March 31, 2017, we and Oxford Finance signed the First Amendment to Loan and Security Agreement providing that the payment of principal on the Term A Loans that otherwise would have been due on the March 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 the Collateral Agent (as defined in the Loan Agreement). On May 1, 2017, we paid the principal due on May 1, 2017, along with the $15,000 amendment fee.

Second Amendment to Loan and Security Agreement

On July 3, 2018, we 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 of certain preclinical assets (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. We are 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 Agreement.

Notice of Events of Default under Loan and Security Agreement

The Company was in compliance with all applicable covenants set forth in the Loan Agreement as of March 31, 2018. However, 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, CohnReznick LLP ("CohnReznick"), effective August 3, 2018, and its withdrawal of its audit reports for the years 2014 through 2017, (ii) the resignation of four (4) 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 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 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 appointed to the Board of Directors within 30 days of uplisting to the OTCQB Marketplace.

The Company recorded interest expense related to the Loan Agreement of $114,593 and $156,657 for the three months ended March 31, 2018 and March 31, 2017, respectively. 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, was approximately 10.4% and 13.5% as of March 31, 2018 and 2017, respectively.

Future principal payments under notes payable for the Loan Agreement as of March 31, 2018 are as follows:

Years ending December 31:	
2018 (remaining)	$ 1,253,832
2019	1,666,668
2020	277,778
Notes payable, balance as of March 31, 2018	3,198,278
Unamortized discount on notes payable	(251,413)
Notes payable, net, balance as of March 31, 2018	2,946,865
Current portion of notes payable, net	(1,670,501)
Long-term portion of notes payable, net	$ 1,276,364

7. 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 Board of Directors at that 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 made quarterly payments thereafter beginning January 1, 2017. On February 16, 2018, the Company extended Dr. Ravetch's consulting agreement until February 16, 2019, with services to be provided, as may be needed by the Company. During the three months ended March 31, 2018, Dr. Ravetch provided no consulting services related to this agreement and no payments were made. During the three months ended March 31, 2017, the Company recorded $25,000 in consulting expenses as part of general and administration expenses related to this agreement.

On November 3, 2016, the Company granted 5,833 stock options to Jeffrey Ravetch, M.D., Ph.D., for his ongoing consulting services to the Company. The option award vests over a three-year period. During the three months ended March 31, 2018 and 2017, the Company recognized $3,816 and $3,826, respectively, of stock-based compensation expense, as part of general and administration expenses, related to this option grant.

On May 19, 2017, the Company granted each director, other than J. David Hansen, Jeffrey Ravetch (a member of the Board of Directors at the time) and Philip Livingston, 16,667 options at a market price of $5.40, with immediate vesting for their continuing service to the Company, in exchange for giving up their 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 an exercise price of $6.00 per share with immediate vesting and no performance obligations. Options granted to J. David Hansen 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. Because of the immediate vesting and all of the expenses recorded in 2017, no expenses are being recorded for these grants in 2018.

8. Stock-based Activity

Stock-based Compensation

We measure stock-based compensation expense for equity-classified awards, principally related to stock options and restricted stock units ("RSUs") based on the estimated fair value of the award on the date of grant. We recognize the value of the portion of the award that we ultimately expect to vest as stock-based compensation expense over the requisite service period in our condensed consolidated statements of operations.

We use the Black-Scholes model to estimate the fair value of stock options granted. The expected term of stock options granted represents the period of time that we expect them to be outstanding. For the three months ended March 31, 2018 and 2017, the following valuation assumptions were used:

	Three Months Ended March 31,	
	2018	2017
Risk-free interest rate	2.38%	1.5 to 2.0%
Dividend yield	0%	0%
Expected volatility	87%	85 to 73%
Expected life of options, in years	1.72 to 5.5	1.4 to 6.0
Weighted average grant date fair value	$ 1.46	$ 2.20

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

	Three Months Ended March 31,	
	2018	2017
Research and development	$ 171,160	$ 320,675
General and administrative	453,447	712,136
Total stock-based compensation expense	$ 624,607	$ 1,032,811

Stock-based Award Activity

The following table summarizes the Company's stock option activity during the three months ended March 31, 2018:

	Options Outstanding	Weighted-Average Exercise Price
Outstanding at December 31, 2017	953,937	$ 13.97
Granted	1,126,000	2.04
Exercised	—	—
Forfeited/cancelled/expired	(2,736)	32.28
Outstanding and expected to vest at March 31, 2018	2,077,201	$ 7.48
Vested and exercisable at March 31, 2018	713,336	$ 12.75

The total unrecognized compensation cost related to unvested stock option grants as of March 31, 2018, was $1,411,061 and the weighted average period over which these grants are expected to vest is 1.72 years. The weighted average remaining contractual life of stock options outstanding at March 31, 2018 and 2017 is 9.33 and 9.15 years, respectively.

During the first three months of 2018, the Company granted 1,126,000 options to officers and employees with a weighted average exercise price of $2.04 and vesting over a three-year period with a vesting starting at the one- year anniversary date of the grant date. During the first three months of 2017, the Company granted 746,690 options to officers and employees with a weighted average exercise price of $3.09 and vesting over a three-year period with vesting starting at the one-year anniversary of the grant date.

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.

Because the Company had a net operating loss carryforward as of March 31, 2018, no tax benefits for the tax deductions related to stock-based compensation expense were recognized in the Company's condensed consolidated statements of operations. Additionally, no stock options were exercised in the three months ended March 31, 2018 and 2017.

A summary of activity related to restricted stock grants under the Fifth Amended and Restated MabVax Therapeutics Holdings, Inc. 2014 Employee, Director and Consultant Equity Incentive Plan for the quarter ended March 31, 2018 is presented below:

	Shares	Weighted Average Grant-Date Fair Value
Non-vested at December 31, 2017	832,226	$ 3.88
Granted	—	—
Vested	(797,987)	1.87
Forfeited	—	—
Non-vested at March 31, 2018	34,239	$ 50.54

As of March 31, 2018, there were 34,329 non-vested RSUs remaining outstanding.

As of March 31, 2018, unamortized compensation expense related to RSUs granted in 2016 amounted to $9,903, which is expected to be recognized over a weighted average period of 0.04 of a year.

Management Bonus Plan

On February 21, 2018, the compensation committee of the Board of Directors reviewed 2017 results and concluded that the year's performance, relative to the objectives set at the beginning of the year, did not merit any bonus payment. The compensation committee also determined that management base salaries would currently remain unchanged from 2017 levels.

Common stock reserved for future issuance

Common stock reserved for future issuance consists of the following at March 31, 2018:

Common stock reserved for conversion of preferred stock	6,144,154
Warrants to purchase common stock	1,278,243
Common stock options outstanding	398,259
Authorized for future grant or issuance under the Stock Plan	398,217
Unvested restricted stock	34,239
Total	8,253,112

9. 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.

	Three Months Ended March 31,	
	2018	2017
Common stock reserved for conversion of preferred stock	6,144,154	991,808
Warrants to purchase common stock	1,278,243	1,708,048
Common stock options outstanding	398,259	532,689
Unvested restricted stock	34,239	68,493
Total	7,854,895	3,301,038

10. Contracts and Agreements

May 2017 Letter Agreement

On May 15, 2017, as a condition to the participation of HS Contrarian Investments, LLC ("HS Contrarian") in the public offering of the Company's common stock and Series G Preferred Stock in May 2017 (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:

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 Board members 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.

Letter Agreement Regarding Future Financing Transactions

On August 9, 2017, in connection with an offering in the aggregate amount of $1,312,500 in which the Company sold shares of its Series J Preferred Stock (the "August 2017 Offering"), we entered into a Letter Agreement with HS Contrarian (the "August 2017 Letter Agreement"), whereby HS Contrarian consented to and agreed that, the Company may sell securities to the investors set forth below, of an aggregate amount of up to $2,350,000, 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 to be distributed to the following individuals or entities, as directed by HS Contrarian, as an incentive (the "Inducement Shares") for HS Contrarian and these entities and individuals to invest in the August 2017 Offering.

HS Contrarian Investments, LLC
GRQ Consultants, Inc. Roth 401K FBO Barry Honig Trustee
GRQ Consultants, Inc. Roth 401K FBO Renee Honig Trustee
Grander Holdings, Inc. 401K
Robert B. Prag
David Moss
Paradox Capital Partners, LLC
Melechdavid, Inc.
Melechdavid, Inc. Retirement Plan
Robert S. Colman Trust UDT 3/13/85
Sargeant Capital Ventures, LLC
Edward W. Easton TTEE The Easton Group ORP PSP U/A DTD 02/09/2000
Donald E. Garlikov
Airy Properties
Ryan O'Rourke
Corey Patrick O'Rourke

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.

Memorial Sloan Kettering Cancer Center

Since 2008 the Company has engaged in various research agreements and collaborations with MSK including licensed rights to cancer vaccines and the blood samples from patients who have been vaccinated with MSK's cancer vaccines. Total sponsored research contracts outstanding in 2016 amounting to approximately $800,000 in 2016 were 100% complete as of the year ended December 31, 2016. Such sponsored research agreements provide support for preclinical work on the Company's product development programs. The work includes preparing radioimmunoconjugates of the Company's antibodies and performing *in vitro* and *in vivo* pharmacology studies for our therapeutic antibody product candidate, imaging agent product candidate and radioimmunotherapy product candidate programs. For the three months ended March 31, 2018, there were no expenses incurred related to these contracts.

Patheon Biologics LLC Agreement

On April 14, 2014, the Company entered into a development and manufacturing services agreement with Patheon Biologics LLC (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 QC testing. Total amount of the contract is estimated at approximately $3.0 million. For the three months ended March 31, 2018 and 2017, the Company recorded no expenses associated with the agreement, as no manufacturing was completed during either period.

11. 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 $95,656. The term of the lease is five years (60 months), and the monthly lease payment is $1,942. 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 March 31, 2018:

2018 (remaining)	$ 14,935
2019	22,402
2020	22,402
2021	7,468
Less interest	(7,856)
Principal	59,351
Less current portion	(18,180)
Noncurrent portion	$ 41,171

Operating Leases

In 2015, the Company recorded a $590,504 contingent lease termination fee of the master lease and sublease of 3165 Porter Drive in Palo Alto, California, which was payable to ARE-San Francisco No. 24 ("ARE"), if the Company received $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 condensed consolidated 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"). Because 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, which was on February 4, 2016. The Lease terminates on February 28, 2022, unless earlier terminated in accordance with the Lease. Pursuant to the terms of the Lease, the monthly base rent is $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 recognized rent expense on a straight-line basis over the term of the lease. Rent expense was $111,201 and $115,238 during the quarters ended March 31, 2018 and 2017, respectively.

Minimum future annual operating lease obligations are as follows as of March 31, 2018:

2018 (remaining)	$ 340,208
2019	466,085
2020	480,068
2021	494,470
2022	41,306
Total	$ 1,822,137

12. Subsequent Events

May 2018 Private Placements

In connection with the May 2018 Private Placements, the Company entered into separate purchase agreements with accredited investors between April 30 and May 2, 2018, pursuant to which we 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 Series N Preferred Stock at an aggregate purchase price of $590,000, or $110.00 per share. The offering closed on May 15, 2018, with the Company receiving gross proceeds totaling $830,000. No financial advisor was used in connection with the May 2018 Private Placements.

Under the terms of the May 2018 Private Placements, we were required to offer an aggregate of 12,777.77 May 2018 Inducement Shares 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 the May 2018 Inducement Investors that in the aggregate amounted to $830,000, 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.

Amendments to Articles of Incorporation or Bylaws

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 Designation") 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 Designation 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.

We are 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 Designation. 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. We are not permitted to issue any shares of common stock upon conversion of the Series O Preferred Stock until we obtain the approval of our 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 our board of directors. The Series O 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 O Preferred Stock then held.

We are 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, we granted an exclusive sublicense to Y-mAbs, a privately held clinical stage biopharmaceutical company, 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 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 Sublicense Agreement 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, we 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, we 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 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. We are 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 3, 2018 are as follows:

Years ending December 31:	
2018 (remaining)	$ 0
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	$ 1,351,742

The Company was in compliance with all applicable covenants set forth in the Loan Agreement as of March 31, 2018. However, on August 14, 2018, the Company received the Notice from Oxford Finance 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, the following Alleged Default Events: (i) the resignation of the Company's external auditor, CohnReznick, effective August 3, 2018, and its withdrawal of its audit reports for the years 2014 through 2017, (ii) the resignation of four (4) 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. The Company 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 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 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 appointed to 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 with Boehringer Ingelheim (the "Asset Purchase Agreement") 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

On January 29, 2018, the Company received notice from the SEC of an investigation (along with the SEC Complaint, defined below, the "SEC Action"). 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 and Exchange Act of 1934, as amended (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 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 the Investor Defendants (defined below), including (i) the circumstances under which the Investor Defendants invested in the Company and whether they have acted as an undisclosed group in connection with their investment; (ii) the manner with or in which the Investor Defendants 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 individuals and entities who have purchased securities of the Company: 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 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. With respect to "Company C" in particular, the SEC alleges that some 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 that some 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 the other alleged actions in the 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 they 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 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 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 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 seek 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.

Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations

We are a clinical stage biopharmaceutical company engaged in the discovery and development of proprietary human monoclonal antibody products for the diagnosis and treatment of a variety of cancers. We discovered a pipeline of human monoclonal antibody product candidates based on the protective immune responses generated by patients who have been vaccinated against targeted cancers. Our therapeutic vaccine product candidates under development were discovered at MSK and are exclusively licensed to us as well as blood samples from patients who were vaccinated with the same licensed vaccines. We operate in only one business segment. We have incurred substantial losses since inception, and we expect to incur additional substantial losses for the foreseeable future as we continue our research and development activities. To date, we have funded our operations primarily through equity financings in the form of common stock and preferred stock, licensing agreements, asset sales, strategic collaborations, issuance of common stock in lieu of cash for services, government grants, debt financings or other arrangements. The process of developing our product candidates will require significant additional research and development, preclinical testing and clinical trials, as well as regulatory approval. We expect these activities, together with general and administrative expenses, to result in substantial operating losses for the foreseeable future. We will not receive product revenue unless we, or our collaborative partners, complete clinical trials, obtain regulatory approval and successfully commercialize one or more of our product candidates. We cannot provide assurance that we will ever generate revenues or achieve and sustain profitability in the future or obtain the necessary working capital for our operations.

During the three months ended March 31, 2018, our loss from operations was $3,434,836 and our net loss was $3,620,751. Net cash used in operating activities for the three months ended March 31, 2018 was $2,096,779, cash and cash equivalents and working capital deficit as of March 31, 2018 were $1,056,203 and $5,196,767 respectively. As of March 31, 2018, we had an accumulated deficit of $114,674,388 and a stockholders' equity of $834,296.

We are subject to risks common to biopharmaceutical companies, including the need for capital, risks inherent in our research, development and commercialization efforts, preclinical testing, clinical trials, uncertainty of regulatory and marketing approvals, enforcement of patent and proprietary rights, potential competition and retention of key employees. For a product candidate to be commercialized, it is necessary for us to conduct preclinical tests and clinical trials, demonstrate efficacy and safety of our product candidates to the satisfaction of regulatory authorities, obtain marketing approval, enter into manufacturing, distribution and marketing arrangements, obtain market acceptance and, in many cases, obtain adequate reimbursement from government and private insurers. We cannot provide assurance that we will ever generate revenues or achieve and sustain profitability in the future or obtain the necessary working capital for our operations.

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 included in Item 1 of Part I of this Quarterly Report and elsewhere in this Quarterly Report have been retroactively adjusted for all periods presented to give effect to the Reverse Stock Splits, including reclassifying an amount equal to the reduction in par value of common stock to additional paid-in capital.

Court Validation of Previously Issued Shares of Common Stock upon Conversion of Preferred Stock

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. A copy of the Court's order granting the petition is filed herewith.

As disclosed in our Current Report on Form 8-K filed with the SEC on May 21, 2018 (the "May Form 8-K"), facts previously came to our attention indicating that certain shares of our common stock issued upon conversion of shares of our preferred stock may not have been validly issued in compliance with the 4.99% blocker provisions set forth in the applicable certificates of designation for conversions occurring between June 30, 2014 and February 12, 2018.

Withdrawal and Reinstatement of Auditor Reports; Auditor Resignation and Appointment of New Auditor

As disclosed in the May Form 8-K and in part due to the uncertainty regarding the valid issuance of certain shares of our common stock addressed in the Delaware Petition, 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-engaged independent accounting firm, CohnReznick, withdrew their 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 could not file its Quarterly Report on Form 10-Q for the quarter ended March 31, 2018 in compliance with applicable laws and regulations.

As disclosed on August 8, 2018, effective August 3, 2018, CohnReznick resigned as the Company's independent auditor. 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 GAAP or practices, 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 for the consolidated financial statements for the years 2016 and 2017, included in our Form 10-K/A filed with the SEC on October 15, 2018, and the auditors' consent to including their reports 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.

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

We currently intend to apply for listing on the OTCQB Marketplace once we meet the requisite eligibility requirements for 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 our securities. In this notice, the Staff indicated their determination was based upon the Company's non-compliance with the Rule as well as the Company's non-compliance with the $2.5 million stockholders' equity requirement for continued listing on The Nasdaq Capital Market 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, we 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, our common stock began trading on the OTC Pink, continuing under the symbol MBVX. On May 21, 2018, we notified the Staff that we would not be filing our Quarterly Report on Form 10-Q for the quarter ended March 31, 2018, by the required deadline as required for continued listing on the Nasdaq Capital Market per Nasdaq listing rule 5250(c)(1) (the "Rule"). Further, on June 29, 2018, the Company's Board of Directors determined not to submit a plan to the Staff to regain compliance with the Rule, and we announced this decision in a press release on July 2, 2018. On September 26, 2018, the Nasdaq Stock Market announced that it will delist the common stock of MabVax by filing a Form 25 with the SEC to complete the delisting process. The delisting becomes effective ten days after the Form 25 is filed.

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 Board members and management.

Following the resignations, in a separate action, the Board of Directors appointed our Chief Financial Officer, Gregory Hanson, as a member of the Board. Mr. Hanson has served as our 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.

Our Clinical Development Programs

MVT-5873 – for the Treatment of Pancreatic Cancer

MVT-5873 as a Monotherapy in Late Stage Cancer Patients – We reported results from our Phase 1a clinical trial of 32 patients treated with our therapeutic antibody product candidate, MVT-5873, as a monotherapy in a poster presentation at the American Society of Clinical Oncology ("ASCO") Annual Meeting on June 3, 2017. MVT-5873 has been evaluated for safety and tolerability in patients with advanced pancreatic cancer and other CA19-9 positive cancers. In this poster presentation, the Company highlighted that the single agent MVT-5837 appeared safe and well tolerated in patients at biologically active doses based on the results of the Phase 1a trial. Furthermore, all patients in the Phase 1a trial were evaluated by RECIST 1.1 for tumor response, and the Company reported 11 patients achieved stable disease in this dose escalation safety trial of 32 patients.

The results of the Phase 1a trial with MVT-5873 support that this fully-human antibody targeting CA19-9 cancers can be administered at doses with acceptable safety and have a potentially positive impact on disease. The cancer antigen CA19-9 is broadly expressed in various cancers including pancreatic, colon, and small cell lung cancer making this antibody potentially useful for a larger patient population. Clinical signals from an identifiable subset of subjects enabled us to understand those patients most likely to respond to a MVT-5873 based therapy. We plan to continue to evaluate MVT-5873 at higher doses.

MVT-5873 in Combination with a Standard of Care Chemotherapy – Based upon observations from the first two cohorts of patients treated, we are evaluating further clinical development of MVT-5873 in combination with gemcitabine and nab-paclitaxel as a first line therapy for the treatment of patients newly diagnosed with pancreatic cancer. MabVax has treated seventeen patients as of August 24, 2018, with the objective of obtaining additional safety and tumor response (RECIST 1.1) data for this treatment regimen. Dr. Eileen O'Reilly, Associate Director of the David M. Rubenstein Center for Pancreatic Cancer Research, attending physician, member at MSK and Professor of Medicine at Weill Cornell Medical College, is the lead investigator in the MVT-5873 Phase 1 clinical trial.

On February 12, 2018, we reported on interim results of the current cohort of the Phase 1 study, in which MVT-5873 was given in combination with nab-paclitaxel and gemcitabine to patients newly diagnosed with CA19-9 positive pancreatic cancer. MVT-5873 at a dose of 0.125 mg/kg when added to first-line chemotherapy was generally well tolerated by all subjects. At that time, all six patients in the current cohort demonstrated measurable tumor reductions, with four patients meeting the criteria for partial response (PR) and two patients meeting the criteria for stable disease (SD). We believe these results further confirm results reported on a portion of the cohort in late 2017. Patient CA19-9 levels, which are a prognostic indicator of the disease state, were markedly reduced in all subjects with this combination therapy. Due to adverse events potentially related to the combination of nab-paclitaxel, gemcitabine and MVT-5873, not seen in the monotherapy clinical study, the Company has suspended patient enrollment at the current dose. We are evaluating plans to enroll additional patients at a lower dose to further explore safety and response in a larger population.

MVT-2163 – as an Imaging Agent for Pancreatic Cancer

We reported results from our Phase 1a clinical trial of ImmunoPET imaging agent product candidate, MVT-2163, in 12 patients with locally advanced or metastatic adenocarcinoma of the pancreas ("PDAC") or other CA19-9 positive malignancies in a poster presentation and podium talk at the Society of Nuclear Medicine and Molecular Imaging ("SNMMI") Annual Meeting held in Denver, Colorado on June 10-14, 2017.

The Phase 1a clinical trial of MVT-2163 Phase I trial was intended to evaluate our next generation diagnostic PET imaging agent in patients with PDAC or other CA19-9 positive malignancies. MVT-2163 (89Zr-HuMab-5B1) combines the well-established PET imaging radiolabel Zirconium-89, a positron emitting isotope typically labeled as 89Zr, with the targeting specificity of MVT-5873. We designed the trial to establish safety, pharmacokinetics, biodistribution, optimal time to obtain the PET image, and the amount of MVT-5873 to be administered as a blocking dose prior to administration of MVT-2163 to obtain optimized PET scan images.

As of July 2017, twelve (12) patients were treated in this first-in-human trial evaluating the safety and feasibility of MVT-2163 to image pancreatic tumors and other CA19-9 positive malignancies. MVT-2163 was administered alone and in combination with MVT-5873 and was well tolerated in all cohorts. The only toxicities were infusion reactions that resolved on the day of the injection, with some patients requiring standard supportive medication. We reported that administering MVT-5873 prior to dosing MVT-2163 reduces liver uptake facilitating detection of liver metastases. In addition, we determined that the MVT-5873 cold antibody pre-dose did not interfere with the uptake of MVT-2163 on cancer lesions.

Uptake of MVT-2163 was observed in primary tumors and metastases as early as day two and continuously through day seven. Standard Uptake Values ("SUVs"), a measurement of activity in PET imaging, reached as high as 101 in the study. The investigators reported that the SUVs are amongst the highest lesion uptake values they have ever seen for a radiolabeled antibody. Bone and soft tissue disease were readily visualized, and lesion uptake of the radiotracer was higher than typically seen with PET imaging agents. The correlation with Computerized Tomography ("CT") scans was high.

In summary, the MVT-2163 product candidate demonstrated acceptable safety tolerability, pharmacokinetics and biodistribution in this trial. MVT-2163 also produced high quality PET images identifying both primary tumor and metastatic sites. We believe there was a promising correlation with diagnostic CT that warrants further studies correlating these findings with histopathology to assess the accuracy of MVT-2163 in identifying smaller metastatic nodes below the detection level of standard CT scans. We believe the continual increase in high SUVs on cancer lesions in this study supports the use of the Company's MVT-1075 radioimmunotherapy product candidate, which utilizes the same antibody to deliver a radiation dose for the treatment of patients with pancreatic, lung and colon cancers.

In April 2018 the NIH awarded an R01 Research Grant to MSK for continued Phase 1b development of MVT-2163 as a PET diagnostic imaging agent. The R01 grant extends the Phase 1 work already completed by MabVax by evaluating MVT-2163 visual images and biopsies of targeted tissues illuminated with the PET agent. This information will then be used to determine if the new PET imaging agent can improve pre-surgical staging of patients with pancreatic ductal adenocarcinoma. Since surgery is currently the only cure for pancreatic cancer and the success rate of surgical intervention is low, having a new diagnostic tool to more accurately assess the location and extent of the dissemination of the cancer has the potential to improve surgical outcomes. Additionally, these data can be used to support the dose and dose distribution determinations for the Company's HuMab-5B1 antibody based radioimmunotherapy agent, MVT-1075, currently being evaluated in a Phase 1 trial. MabVax will support MSK in its research efforts and allow the clinical study to be conducted under a MabVax IND; however, the bulk of the costs will be borne by the NIH.

MVT-1075 – as a Radioimmunotherapy for Pancreatic Cancer

On February 28, 2018, we announced positive interim results from the initial three-patient cohort of the Phase 1 clinical trial for MVT-1075, which combines the demonstrated targeting specificity of the MVT-5873 antibody with the proven clinical success of a low-energy radiation emitter, 177Lutetium, often referred to as 177Lu. Results from the first three patients dosed in the initial cohort of this dose escalation Phase 1 safety trial demonstrated that MVT-1075 was reasonably well tolerated and accumulated on tumor as evidenced by dosimetry measurements performed after the first dose. At this initial dose, two subjects met the criteria for stable disease (SD) and one met the criteria of progressive disease (PD) as measured using RECIST 1.1 criteria. Hematologic toxicities were manageable, and the Company is enrolling the first patient in the second cohort.

This Phase 1 first-in human dose escalation clinical trial, which began in June 2017, is an open-label, multi-center study evaluating the safety and efficacy of MVT-1075 in up to 22 patients for patients with PDAC or other CA19-9 positive malignancies including colon and lung cancers. The primary endpoint of this trial is to determine the maximum tolerated dose and safety profile in late stage patients with recurring disease who have failed prior therapies. Secondary endpoints include evaluating tumor response rate and duration of response by RECIST 1.1 and determining dosimetry and pharmacokinetics. This dose-escalation study utilizes a traditional 3+3 design and is based on experience we gained through prior clinical studies that treated 50 patients with either MVT-5873, or our imaging agent MVT-2163. The investigative sites are Honor Health in Scottsdale, Arizona, and MSK in New York City.

In April 2017, we reported preclinical results for MVT-1075 at the American Association of Clinical Research (AACR) Annual Meeting, demonstrating suppression, and in some instances, regression, of tumor growth in xenograft animal models of pancreatic cancer, potentially making this product candidate an important new therapeutic agent in the treatment of pancreatic, colon and lung cancers. Supporting the MVT-1075 RIT clinical investigation are the Company's successful MVT-5873 and MVT-2163 Phase 1a safety and target specificity data which were reported earlier this year at the annual meetings of the ASCO and the SSNMMI, respectively. The combined results from 50 patients in the Phase 1 MVT-5873 and MVT-2163 studies established safety and provided significant insight into drug biodistribution and an optimal dosing strategy, which the Company has incorporated into the MVT-1075 program.

Asset Sales and License Agreements

License Grant to Y-mAbs Therapeutics, Inc.

On June 27, 2018, we entered into a Sublicense Agreement with Y-mAbs, pursuant to which we granted Y-mAbs an exclusive sublicense to a bi-valent ganglioside-based vaccine product candidate intended to treat neuroblastoma, a rare pediatric cancer.

Neuroblastoma is a rare solid tumor in childhood with only about 650 cases diagnosed each year in North America. The incidence is about 10.54 cases per 1 million per year in children younger than 15 years. About 37% are diagnosed as infants, and 90% are younger than 5 years at diagnosis, with a median age at diagnosis of 19 months. Neuroblastoma is responsible for 12% of all cancer deaths in children less than 15 years of age.

Total value of the transaction to MabVax is $1.3 million , $700,000 of which was paid upon execution of the agreement and $600,000 of which is to be paid within five (5) days of the first anniversary of the execution date, plus a share of a Priority Review Voucher 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 candidate as well as any downstream payment obligations related to this specific vaccine to MSK that were specified in the original MabVax-MSK license agreement. If Y-mAbs successfully develops and receives FDA approval for the Neuroblastoma vaccine product candidate, it is obligated to file with the FDA for a Priority Review Voucher. If this 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.

The neuroblastoma vaccine product candidate was originally developed by Dr. Philip Livingston and colleagues at MSK and licensed as part of a broader portfolio of anti-cancer vaccines licensed to MabVax. MabVax filed for and was granted an Orphan Drug Designation for the neuroblastoma vaccine and has manufactured Phase II clinical supplies for a planned but not initiated clinical trial to be conducted with the consortium New Advances in Neuroblastoma Therapy (“NANT”). NANT is the only consortium of academic medical centers in the world solely dedicated to developing novel treatments and biomarkers for children with Neuroblastoma. Over the last several years, MabVax has shifted its focus and resources to the Company’s human antibody discovery and development programs that are currently in early stage clinical trials and have attracted partner interest.

Sale of Asset to Boehringer Ingelheim and Related Agreements

On July 6, 2018, we entered into the Asset Purchase Agreement with Boehringer Ingelheim, pursuant to which Boehringer Ingelheim purchased all of our rights to assets owned or controlled by us that related to a specific human antibody research and development program to identify and characterize antibodies that bind to an undisclosed glycan antigen. The transaction closed on July 6, 2018.

Pursuant to the Asset Purchase Agreement, MabVax may receive a total of $11 million, $4 million of which was paid upfront and the remainder upon the achievement by Boehringer Ingelheim of various specified milestone events, plus further earn-out payments through the later of the expiration of the last to expire valid claim of the licensed program patent covering a Boehringer Ingelheim product, or ten (10) years from the date of first commercial sale of such Boehringer Ingelheim product on a country-by-country and product-by-product basis. 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.

MabVax discovered the antibody series at the center of this transaction from biological samples, originally from patients who were vaccinated against their solid tumors with a glycan antigen-containing vaccine. We believe our methods of discovery of fully human antibodies directly from vaccinated cancer patients has potential advantages, which include greater specificity and reduced toxicities.

Plan for Remainder of 2018

Based on the experience with recent asset sales and license agreements, and continuing inquiries from third parties regarding their interest in other MabVax assets and clinical progress to date related to MVT-5873, MVT-1075, and MVT-2163, we intend on continuing to explore additional licensing and/or collaboration opportunities for certain fields of use of our technology. However, there can be no assurance that any such transaction will occur.

If we are able to secure additional funds, we intend to, among other things:

- continue enrollment in our clinical study of MVT-5873 in combination with gemcitabine and nab-paclitaxel in first line therapy for the treatment of patients newly diagnosed with pancreatic cancer with the objective of confirming early observations seen to date, to enable discussions with potential strategic partners and investors.

- enroll additional patients into the MVT-5873 monotherapy trial with the aim of establishing a higher maximum tolerated dose. We have submitted our Investigational New Drug Application ("IND"), to the FDA, for a revised protocol to enable continuation of the trial at higher doses.

- support the continued development of the MVT-2163 imaging agent under the R01 grant made to MSK for the Phase 1b portion of this clinical program.

- continue clinical development of MVT-1075 for the treatment of locally advanced or metastatic pancreatic cancer patients, by completing additional cohorts of patients in a dose escalation safety trial to continue to assess the safety and potential efficacy of this treatment; also, to enable discussions with potential strategic partners and investors.

RESULTS OF OPERATIONS

We are providing the following information about our revenues, expenses, and cash and liquidity.

Comparison of the Three-Month Periods Ended March 31, 2018 and 2017

Revenues:

	Three Months Ended March 31,		% Increase/ (Decrease)
	2018	2017	
Revenues	$ -	$ -	- %

For the three months ended March 31, 2018 and 2017, we recognized no revenues.

Research and development expenses:

	Three Months Ended March 31,		% Increase/ (Decrease)
	2018	2017	
Research and development	$ 1,629,855	$ 2,818,363	(42) %

For the three months ended March 31, 2018, the Company incurred research and development expenses of $1,629,855, as compared to $2,818,363 for the same period a year ago. Decreased expenses in the three months ended March 31, 2018 compared to the same period in the prior year are primarily due to decreased in salaries of and employee benefits of $714,482 as a result of the mid-2017 reduction in force and a decrease of $407,277 in clinical costs.

Stock-based compensation expense included in research and development expenses for the three months ended March 31, 2018 and 2017 was $171,160 and $320,675, respectively.

General and administrative expenses:

	Three Months Ended March 31,		% Increase/ (Decrease)
	2018	2017	
General and administrative	$ 1,804,981	$ 2,273,951	(21) %

For the three months ended March 31, 2018, the Company incurred general and administrative expenses of $1,804,981 as compared to $2,273,951 for the same period a year ago. The decrease in general and administrative expenses was primarily due to decreases in salaries and employee benefits of $407,297, taxes of $71,500, consulting expenses of $47,354 and a decrease in travel and travel related expenses of $36,223 offset by an increase of $105,879 in legal fees related primarily to gathering and providing information to the SEC as part of the SEC Investigation, as defined and described in Item 1, Legal Proceedings, in Part II of this Quarterly Report.

Stock-based compensation expense included in general and administrative expense for the three months ended March 31, 2018 and 2017 was $453,447 and $712,136, respectively. Restricted stock expense for services for the three months ended March 31, 2018 and 2017, was -0- and $56,600.

Interest and other expense:

	Three Months Ended March 31,		% Increase/
	2018	2017	(Decrease)
Interest and other expense, net	$ 185,915	$ 262,540	(29) %

Interest and other expense, net was $185,915 and $262,540 for the three months ended March 31, 2018 and 2017, respectively. The amount for the three months ended March 31, 2018, consisted primarily of $114,593, interest expense related to interest on the Company's term loan from Oxford Finance LLC ("Oxford Finance"), $31,723 of financing cost amortization, and $39,825 related to warrant amortization, partially offset by other income of $226. The amount for the three months ended March 31, 2017, consisted primarily of $156,658 interest expense related to interest on the Company's term loan from Oxford Finance, $47,144 of financing cost amortization, and $59,185 warrant amortization partially offset by interest income of $447. The fair value of the warrants issued to Oxford Finance related to the term loan was recorded as a discount to the value of the note payable and is being amortized over the term of the loan. Financing costs incurred related to the term loan are also amortized over the term of the loan.

Critical Accounting Policies and Significant Judgments and Estimates

Our management's discussion and analysis of our financial condition and results of operations are based on our consolidated financial statements, which have been prepared in accordance with GAAP. The preparation of these consolidated financial statements requires us to make estimates and assumptions that affect the reported amounts of assets and liabilities and the disclosure of contingent assets and liabilities at the date of the consolidated financial statements as well as the reported revenues and expenses during the reporting periods. On an on-going basis, we evaluate our estimates and judgments related to our operating costs. We base our estimates on historical experience and on various other factors that we believe are reasonable under the circumstances, the results of which form the basis for making judgments about the carrying value of assets and liabilities that are not readily apparent from other sources. Actual results may differ significantly from these estimates under different assumptions or conditions.

Our critical accounting policies include:

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. NIH grants are recognized when we incur 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. U.S. grant awards are based upon internal research and development costs incurred that are specifically covered by the grant, and revenues are recognized when we incur internal expenses that are related to the approved grant. Any amounts received by us pursuant to the NIH grants prior to satisfying our revenue recognition criteria are recorded as deferred revenue.

Clinical trial expenses

We accrue clinical trial expenses based on work performed. In determining the amount to accrue, we rely on estimates of total costs incurred based on the enrollment of subjects, the completion of trials and other events defined in contracts. We follow this method because we believe reasonably dependable estimates of the costs applicable to various stages of a clinical trial can be made. However, the actual costs and timing of clinical trials are highly uncertain, subject to risks, and may change depending on several factors. Differences between the actual clinical trial costs and the estimated clinical trial costs that we have accrued in any prior period are recognized in the subsequent period in which the actual costs become known. Historically, these differences have not been material; however, material differences could occur in the future.

Stock-based compensation

Our stock-based compensation programs include grants of stock options and restricted stock 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, non-employee director or non-employee consultant's requisite service period (generally the vesting period of the equity grant).

We account for equity instruments, including stock options and restricted stock, issued to employees and non-employees in accordance with authoritative guidance for equity-based payments. Stock options issued are accounted for at their estimated fair value determined using the Black-Scholes-Merton option-pricing model, and restricted stock is accounted for using the grant date fair value of our common stock granted. The fair value of options and restricted stock 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

Significant judgment is required by management to determine our provision for income taxes, our deferred tax assets and liabilities, and the valuation allowance to record against our net deferred tax assets, which are based on complex and evolving tax regulations. Our tax calculation is impacted by tax rates in the jurisdictions in which we are subject to tax and the relative amount of income earned in each jurisdiction. Our deferred tax assets and liabilities are determined using the enacted tax rates expected to be in effect for the years in which those tax assets are expected to be realized.

The effect of an uncertain income tax position is recognized as the largest amount that is "more-likely-than-not" to be sustained under audit by the taxing authority. An uncertain income tax position will not be recognized if it has less than a 50% likelihood of being sustained.

The realization of our deferred tax assets is dependent upon our ability to generate sufficient future taxable income. We establish a valuation allowance when it is more-likely-than-not that the future realization of all or some of the deferred tax assets will not be achieved. The evaluation of the need for a valuation allowance is performed on a jurisdiction-by-jurisdiction basis, and includes a review of all available evidence, both positive and negative. As of March 31, 2018, the Company concluded that it was more-likely-than-not that its deferred tax assets would not be realized, and a full valuation allowance has been recorded.

The above listing is not intended to be a comprehensive list of all our accounting policies. In many cases, the accounting treatment of a transaction is specifically dictated by GAAP. See our audited consolidated financial statements and notes thereto included in our 2017 Annual Report on Form 10-K, which contain additional accounting policies and other disclosures required by GAAP.

LIQUIDITY AND CAPITAL RESOURCES

To date, we have funded our operations primarily through upfront payments from asset sales and license agreements, government grants, proceeds from the sale of common and preferred stock, the issuance of debt, the issuance of common stock in lieu of cash for services, payments from collaborators and interest income. We have experienced negative cash flow from operations each year since our inception. As of March 31, 2018, we had an accumulated deficit of $114,674,389. We expect to continue to incur increased expenses, resulting in losses, over the next several years due to, among other factors, our continuing and planned clinical trials and anticipated research and development activities, unless we can achieve additional licenses or asset sales of our product candidates that are under development, or revenues from research collaborations or services. There can be no assurance that we will be able to achieve additional license and sales revenue, or that such revenues would be large enough to offset our operating expenses. We had cash of $1,056,203 and a working capital deficit of $5,196,767 as of March 31, 2018.

	Three Months Ended March 31,	
	2018	**2017**
Cash provided by (used in):		
Operating activities	$ (2,096,779)	$ (3,177,637)
Investing activities	$ —	$ —
Financing activities	$ 2,267,272	$ (204,892)

Net cash used in operating activities was $2,096,779 for the three months ended March 31, 2018, compared to $3,177,637 for the same period a year ago. The net cash used in both periods was primarily attributable to the net losses, adjusted to exclude certain non-cash items, primarily stock-based compensation and amortization of finance costs related to the term loan. Net cash used in operating activities for the three months ended March 31, 2018 was also impacted by an increase of $734,410 in accrued clinical operations and site costs and an increase of $10,678 in accounts payable related primarily to research contract services.

The net cash used in investing activities for the three months ended March 31, 2018 and 2017, amounted to $0 and $0, respectively.

Net cash provided by financing activities for the three months ended March 31, 2018 was $2,267,272. Net cash used in financing activities was $204,892 for the three months ended March 31, 2017. Net cash provided by financing activities for the three months ended March 31, 2018 was attributable to the fundraising from the private placements in February 2018. Net cash used by financing activities for the three-month period ended March 31, 2017 related to principal payments on a note payable, financing arrangements for insurance policies, and a capital lease.

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 (the "February 2018 Private Placements"). From April 30 to May 2, 2018, the Company entered into separate purchase agreements with investors pursuant to which we 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 our 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. The following investors in the May 2018 Private Placements also invested in the February 2018 Private Placements (the "Prior Investors"): GRQ Consultants Inc., Roth 401K FBO Renee Honig; GRQ Consultants Inc., Roth 401K FBO Barry Honig; Melechdavid, Inc.; Grander Holdings Inc. 401K; Robert S. Colman Trust UDT 3/13/85; Ben Brauser; Joshua A. Brauser; Daniel A. Brauser; Gregory Aaron Brauser; Erick E. Richardson; and Ronald B. Low.

Under the terms of the May 2018 Private Placements, we were 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 the 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.

We plan to continue to fund our research and development and operating activities through public or private equity financings, debt financings, strategic partnerships or other arrangements with organizations that have capabilities and/or products that are complementary to our own capabilities and/or product candidates, licensing arrangements, government grants, or other arrangements. However, we cannot be sure that such additional funds will be available on reasonable terms, or at all. If we are unable to secure adequate additional funding, we may be forced to reduce spending, extend payment terms with suppliers, liquidate assets where possible, suspend or curtail planned programs and/or cease our operations entirely. In addition, if we do not meet our payment obligations to third parties as they come due, we 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 our management. Any of these actions could materially harm our business, results of operations, and prospects.

If we raise additional funds by issuing equity securities, substantial dilution to our existing stockholders would result. If we raise 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 our ability to operate our business.

Working Capital

Our working capital deficit was $5,196,767 at March 31, 2018, as compared to a working capital deficit of $4,598,748 at December 31, 2017. The decrease in working capital was primarily due to increased capital usage during the first three months of 2018 primarily related to the Company's clinical development programs.

Going Concern

We believe our cash and cash equivalents as of March 31, 2018, together with $860,000 in a private placement with accredited investors, net of approximately $10,000 in transaction costs in May 2018, $700,000 received in connection with the upfront payment under the sublicense agreement with Y-mAbs, and $4.0 million in revenue generated from an asset purchase agreement signed in July 2018, will be sufficient to fund our projected operating requirements into December 2018. In order to continue our current and future operations and continue our clinical product development programs beyond December 2018, we will depend substantially on our ability to obtain upfront and milestone payments from potential additional license and/or partnering agreements for use of our technologies in certain fields of use and on raising capital through other financing transactions in a timely manner, of which we can make no assurances that any such transaction will occur. As discussed in Item 1 of Part II of this Quarterly Report, we cannot conclude that any future registration statements that we may file with the SEC will be declared effective during the pendency of the SEC Action (as defined in Item 1 of Part II of this Quarterly Report). As a result, our ability to raise capital is and will likely remain severely impaired during the pendency of the SEC Action, and certain capital raising structures involving the registration of our securities with the SEC upon which we have heavily relied in the past to fund our operations may not be available to us for the immediate future. We are uncertain about our ability to raise sufficient funds to continue our existing operations after December 2018 without additional licensing and/or collaborating transactions and without financing structures that do not involve the use of or reliance upon our ability to register securities with the SEC. We have been exploring potential additional licensing and/or partnering transactions and other arrangements through which the value of our Company could be enhanced. We may raise funds through such potential arrangements with collaborators or others that may require us to sell product candidates that we might otherwise seek to develop or commercialize independently. Our failure to enter into licensing and/or partnering transactions or raise capital when needed could materially harm our business, financial condition and results of operations.

We anticipate we will continue to incur substantial net losses into the foreseeable future as we: (i) continue our Phase I clinical trials of MVT-5873 in combination with chemotherapy and our Phase I clinical trial of our radioimmunotherapy product candidate MVT-1075 for the treatment of various cancers, (ii) continue preclinical development activities related to developing other product candidates in our library, (iii) monitor patients in clinical trials that have already completed their treatment regimens, and (iv) incur legal expenses related to the SEC Action. Based on management's assumptions for continuing to develop its existing pipeline of product candidates without additional funding or licensing portions of our technology for particular uses, we expect we will have sufficient funds to meet our obligations into December 2018. We may also incur costs and expenses in connection with liabilities under our organizational documents and indemnification agreements that we have with our officers and directors who may individually incur expenses in relation to the SEC Action.

We plan to continue to fund our research and development and operating activities through additional strategic partnerships or other arrangements with organizations that have capabilities and/or products that are complementary to our own capabilities and/or product candidates, licensing arrangements, and through public or private equity financings and debt financings or other arrangements if the strategic transactions are not timely, if at all. However, we cannot be sure that such strategic transactions or additional funds will be available on reasonable terms, or at all. If we are unable to secure strategic transactions or adequate additional funding, we may be forced to reduce spending, extend payment terms with suppliers, liquidate assets where possible, suspend or curtail planned programs and/or cease our operations entirely. In addition, if we do not meet our payment obligations to third parties as they come due, including any payment we owe to Oxford Finance, we 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 our management. Any of these actions could materially harm our business and results of operations.

If we raise additional funds by issuing equity securities, substantial dilution to our existing stockholders would result. If we raise 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 our ability to operate our business.

Our future capital uses and requirements depend on numerous factors, including the following:

- our ability to establish license agreements with third parties and reliance on receipt of payments from milestones;
- the costs associated with conducting Phase I and II clinical trials;
- the costs and timing of obtaining regulatory approvals;
- our ability to establish, and the scope of, any new research collaborations;
- our ability to raise capital on attractive terms, if at all, during the pendency of the SEC Action;
- the costs and timing of obtaining, enforcing and defending our patent and IP rights; and
- competing technological and market developments.

Future Contractual Obligations

On September 2, 2015, the Company entered into the Lease with AGP Sorrento Business Complex, L.P., for certain premises consisting of office and laboratory space in buildings located at 11535 Sorrento Valley Rd., San Diego, California, to serve as the Company's New Premises. Because 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, which was on February 4, 2016. The Lease terminates on February 28, 2022, unless earlier terminated in accordance with the Lease. Pursuant to the terms of the Lease, the current monthly base rent paid by the Company is $37,801, 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 relating to the ownership and operation of the property.

Our master lease and sublease of our facility located at 3165 Porter Drive in Palo Alto, California were terminated on February 28, 2013, and we entered into a termination agreement with ARE on February 19, 2013 to voluntarily surrender its premises. Because of the termination agreement, we were relieved of further obligations under the master lease and further rights to rental income under the sublease and paid a termination fee of approximately $700,000. In addition to the termination fee, if we receive $15 million or more in additional financing, in the aggregate, an additional termination fee of $590,504 will be due to ARE. The additional financing was achieved in 2015 and the termination fee is reflected on the condensed consolidated balance sheet as an accrued lease contingency fee.

Recent Accounting Pronouncements

In May 2014, the 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 was 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 was adopted by the Company on January 1, 2018. The adoption of this new standard did not have a material impact on our condensed consolidated financial statements.

The Company adopted the FASB ASC Topic 606 - Revenue from Contracts with Customers (ASC 606) at the time of its first license agreement in the second quarter of 2018. The Company had no revenue from license agreements prior to the first quarter of 2018.

Under ASC 606, the Company recognizes licensing revenue when our customer obtains control of the IP transferred, which occurs on delivery of specific items outlined in the agreement. Revenue is recognized in an amount that reflects the consideration that the Company expects to receive in exchange for the IP delivered. To determine revenue recognition for IP with customers within the scope of ASC 606, the Company determines which of the different types of licenses exists and divides the IP into two categories: Functional IP or Symbolic IP. Functional IP has significant stand-alone functionality and derives a substantial portion of its ability to provide benefit or value from its significant stand-alone functionality. Symbolic IP does not have significant stand-alone functionality, and therefore substantially all the utility of Symbolic IP is derived from its association with the licensor’s past or ongoing activities.

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 (except for 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 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 condensed 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 condensed 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 condensed 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. The adoption of this new standard did not have a material impact on our condensed 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 condensed 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 condensed 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 condensed 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. The adoption of this new standard did not have a material impact on our condensed 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 condensed consolidated financial statements.

Off-Balance Sheet Arrangements

We have no material off-balance sheet arrangements.

Item 3. Quantitative and Qualitative Disclosures About Market Risk.

Interest Rate Sensitivity

Our cash and cash equivalents of $1,056,203 at March 31, 2018 consisted of cash and money market funds, all of which will be used for working capital purposes. We do not enter into investments for trading or speculative purposes. Our primary exposure to market risk is related to the variability of interest rates under the Loan Agreement (as defined in Note 6 to the Unaudited Condensed Consolidated Financial Statements included in Item 1 of Part 1 of this Quarterly Report) we entered into with Oxford Finance in January 2016. Under the Loan Agreement the interest rate for the term loan is set monthly at an Index Rate plus 11.29%, where the Index Rate is the greater of the 30-day LIBOR rate or 0.21%. Interest is due on the first day of each month, in arrears, calculated based on a 360-day year. In addition, interest income on our deposits is affected by changes in the general level of interest rates in the United States. Because of the short-term nature of our cash and cash equivalents, we do not believe that we have any material exposure to changes in their fair values as a result of changes in interest rates. The continuation of historically low interest rates in the United States will limit our earnings on investments held in U.S. dollars.

We do not hold any derivative financial instruments or commodity-based instruments.

Item 4. Controls and Procedures.

Disclosure Controls and Procedures

As required by Rules 13a-15 and 15d-15 of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), the Company has evaluated, with the participation of management, including the Chief Executive Officer and the Chief Financial Officer, the effectiveness of its disclosure controls and procedures (as defined in such rules) as of the end of the period covered by this report. The Chief Executive Officer and Chief Financial Officer concluded that the Company's disclosure controls and procedures are effective as of March 31, 2018.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. For example, until June 30, 3018, the Company relied upon filings by investors who are required to file their ownership positions on Schedules 13D and 13G. In light of previously unavailable information that the Company learned in connection with the SEC Action, the Company believes it can no longer rely upon such filings by any of the Aggregated Investors (as defined in Item 12 of Part III of the Company's Amendment to Annual Report on Form 10-K/A filed with the SEC on October 15, 2018) on a going forward basis. In order to continue to ensure internal control is maintained on a going forward basis, which is likely to continue until such SEC Action is closed, the Company will not rely on the Schedules 13D and 13G filed by any Aggregated Investor, but will aggregate the beneficial ownership of all Aggregated Investors for reporting purposes and when applying any applicable conversion blockers. The Company will continue to aggregate the holdings of all the Aggregated Investors until the Company is confident, based on facts and information received from an individual or entity or through the Company's own investigation and verification of facts reasonably attainable, that the individual or entity should no longer be included as an Aggregated Investor. Projections of any evaluation of effectiveness to future periods, including assessment of beneficial ownership by the Aggregated Investors, are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate. Management recognizes that any controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving their objectives and management necessarily applies its judgment in evaluating the cost-benefit relationship of possible controls and procedures.

Changes in Internal Control over Financial Reporting

As required by Rule 13a-15(d) of the Exchange Act, our management, including our principal executive officer and our principal financial officer, conducted an evaluation of the internal control over financial reporting to determine whether any changes occurred during the period covered by this Quarterly Report on Form 10-Q that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting. Based on that evaluation, our principal executive officer and principal financial officer concluded there were no changes in our internal controls over financial reporting (as defined in Rule 13a-15(f) under the Exchange Act) that could significantly affect internal controls over financial reporting as of March 31, 2018.

PART II. OTHER INFORMATION

Item 1. Legal Proceedings

On January 29, 2018, the Company received notice from the SEC of an investigation (along with the SEC Complaint, defined below, the "SEC Action"). We believe 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 of 1933, as amended (as amended, the "Securities Act"); and (ii) potential violations by multiple holders of our preferred stock 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 the Investor Defendants (as defined in "Legal Proceedings" in Note 12 to the Unaudited Condensed Consolidated Financial Statements included in Item 1 of Part I of this Quarterly Report), including (i) the circumstances under which the Investor Defendants invested in the Company and whether they have acted as an undisclosed group in connection with their investment; (ii) the manner with or in which the Investor Defendants 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 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. With respect to "Company C" in particular, the SEC alleges that some 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 that some 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 the other alleged in the 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 they 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 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 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 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 seek 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.

Item 1A. Risk Factors.

RISK FACTORS

We will be required to raise additional funds to finance our operations and remain a going concern; we may not be able to do so when necessary, and/or the terms of any financings may not be advantageous to us, requiring cutbacks in personnel or sale of assets below their potential value.

Our operations to date have consumed substantial amounts of cash. Negative cash flows from our operations are expected to continue over at least the next several years. Our ongoing capital requirements will depend on numerous factors, including: the progress and results of preclinical testing and clinical trials of our product candidates under development; the costs of complying with the FDA and other domestic and foreign regulatory agency requirements, the progress of our research and development programs and those of our partners; the time and costs expended and required to obtain any necessary or desired regulatory approvals; the resources that we devote to manufacturing expenditures; our ability to enter into licensing arrangements, including any unanticipated licensing arrangements that may be necessary to enable us to continue our development and clinical trial programs; the costs and expenses of filing, prosecuting and, if necessary, enforcing our patent claims, or defending against possible claims of infringement by third-party patent or other technology rights; the cost of commercialization activities and arrangements, if any, that we undertake; and, if and when approved, the demand for our products, which demand depends in turn on circumstances and uncertainties that cannot be fully known, understood or quantified unless and until the time of approval, including the range of indications for which any product is granted approval, and legal costs associated with the SEC Action and other litigation matters. If we are unable to enter into additional asset sales and license agreements or raise additional capital, then we may have to substantially curtail our clinical trials which could slow the progress in the development of our product candidates. In addition, the further development of our product candidates and ongoing clinical trials will depend on upcoming analysis and results of those trials and our financial resources at the time of these results.

Although we have raised approximately $8.2 million since the beginning of 2018, including $3.5 million, net of offering costs, during the first six months of 2018 in the form of private placements, and $4.7 million in gross revenues from two asset sales and license agreements in late June and early July 2018, we will require future additional capital infusions including public or private financing, strategic partnerships or other arrangements with organizations that have capabilities and/or products that are complementary to our own capabilities and/or products, in order to continue the development of our product candidates. As of October 15, 2018, we have sufficient cash to fund our planned operations into December 2018 assuming we do not complete any additional strategic or financing transactions or partnering collaborations before December 2018.

The SEC Action may negatively harm our business and negatively affect the price of our common stock. Further, we have been unable to have certain of our previously filed registration statements declared effective. This substantially impairs our ability to raise capital and our business may be materially and adversely affected. Our ability to continue as a going concern may be substantially impaired. Further, the SEC Action could be concluded in a manner adverse to the Company and members of its leadership team, which could negatively affect the perception of the Company, the price of our common stock, and our ability to raise capital on attractive terms, if at all.

On January 29, 2018, the Company received notice that the SEC was conducting the SEC Action and on September 7, 2018, the SEC filed the Complaint against the Investor Defendants for misconduct in connection with their investment in the Company, as described in detail above in Part II, Item 1 of this Quarterly Report. Although the SEC has not and may never bring claims against the Company or its director and officers, our prospects and performance may be substantially impaired if, in the future, one or more claims are asserted and resolved in a manner adverse to the Company and/or one or more of its officer and directors, or if the matters under investigation give rise to other proceedings or claims against or related to the Company. Even if the SEC Action concludes in a manner that is not adverse to the Company and its directors and officers, the pendency of the SEC Action and the Complaint, any future resolution of these matters, or any related proceedings that in the future may arise out of the matters related to the SEC Action or Complaint, present a variety of risks, including, but not limited to, the risk that the existence of the SEC Action and Complaint may negatively affect the price of our common stock, our ability to raise capital on attractive terms, if at all, and our ability to attract and retain personnel and outside professionals.

In addition to the potential material impact on our ability to raise capital, the expense of responding to matters relating to the SEC Action, and on behalf of those individuals whom we may be obligated to indemnify and defend in connection with the SEC Action, may exceed our available resources. Further, these expenses may not be covered by our existing insurance, and even where coverage exists, may require exhaustion of self-insured retentions or deductibles that could exceed the cash currently available to the Company. At this time, we cannot predict how the SEC Action, Complaint or any related matters may impact the market for our common stock or the perceptions of potential partners and investors considering a transaction with the Company. To the extent the market, potential investors or potential partners have a negative perception of us during the pendency of the SEC Action, the price of our common stock may be negatively affected, and potential partners and investors may be less likely to transact business with us.

The SEC has informed the Company that it will not declare certain registration statements previously filed effective during the pendency of the SEC Action. The SEC may refuse to declare any future registration statements we may file effective. Without an ability to have our registration statements declared effective, our capital raising options are limited to private investments and capital raising structures that do not require the use of registration statements. These offerings, should they ever occur, could be more dilutive to our stockholders than a registered offering. We have historically been heavily reliant on our ability to raise funds in the public market and heavily reliant on our ability to raise funds from the Aggregated Investors, several of whom have been sued in a complaint filed by the SEC on September 7, 2018, for alleged fraud and other offenses in connection with the purchase or sale of the Company's securities. Without the ability to raise capital from other sources on attractive terms privately or through the public markets, we may be forced to make additional reductions in spending and personnel, extend payment terms with suppliers, liquidate assets where possible, suspend or curtail planned programs or make concessions to financial terms in out-licensing IP and/or sale of assets, or cease our operations entirely. Any or all of these actions or conditions could jeopardize the value of our existing assets and operations and our ability to continue as a going concern.

We only have a limited number of employees to manage and operate our business and it may be necessary for these employees to devote substantial time to matters relating to the SEC Action, which could materially harm our business.

As of October 15, 2018, we had a total of six (6) full-time employees. Our focus on limiting cash utilization requires us to manage and operate our business in a highly efficient manner. Due in part to our limited staff, we may be unable to retain adequate staffing levels to run our operations and/or to accomplish all the objectives that we otherwise would seek to accomplish. In addition, the SEC Action has already required, and likely will continue to require, substantial management and Board attention, thus reducing our limited personnel's ability to attend to other matters.

Information we have learned in connection with the SEC Action has placed doubt on the reporting of beneficial ownership by several of our stockholders, creating uncertainty of whether we will ever be able to rely on such reports, or be able to calculate beneficial ownership of such outside investors.

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, that 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.

Other than set forth above, there have been no material changes to the Risk Factors set forth in our Annual Report on Form 10-K for the year ended December 31, 2017.

Item 2. Unregistered Sales of Equity Securities and Use of Proceeds.

None.

Item 3. Defaults Upon Senior Securities.

Oxford Finance Assertion of Events of Default under the Loan Agreement – On August 14, 2018, Oxford Finance gave Notice asserting that certain "Events of Default" have occurred and are continuing under Sections 8.3 and 8.11 the Loan Agreement. Specifically, Oxford Finance makes general reference to the Alleged Default Events. In the Notice, Oxford Finance does not specify which provisions of the Loan Agreement are allegedly implicated by each of the Alleged Default Events, stating only generally its position that Events of Default have occurred under Sections 8.3 and 8.11 of the Loan Agreement and other Events of Default "may" have occurred. The Company 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 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 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 appointed to the Board of Directors within 30 days of uplisting to the OTCQB Marketplace. For additional information, see Note 6 to Unaudited Condensed Consolidated Financial Statements included in Item 1 of Part I of this Quarterly Report.

Item 4. Mine Safety Disclosures.

None.

Item 5. Other Information.

Sublicense Grant to Y-mAbs – On June 27, 2018, we entered into a Sublicense Agreement with Y-mAbs (the "Sublicense Agreement") pursuant to which we granted to Y-mAbs an exclusive sublicense to a bi-valent ganglioside-based vaccine intended to treat neuroblastoma, a rare pediatric cancer. See "Sublicense Grant to Y-mAbs Therapeutics, Inc." in Note 12 to the Unaudited Condensed Consolidated Financial Statements included in Item 1 of Part I of this Quarterly Report, which contains additional information about the Y-mAbs Sublicense. The Sublicense Agreement contains representations, warranties, covenants and indemnification provisions customary for transactions of this type.

Letter Agreement with MSK – on June 27, 2018, we entered into the MSK Letter. See "Letter Agreement with MSK" in Note 12 to the Unaudited Condensed Consolidated Financial Statements included in Item 1 of Part I of this Quarterly Report, which contains additional information about the MSK Letter.

Amendment to Loan and Security Agreement with Oxford Finance – On July 3, 2018, we entered into the Second Amendment to Loan and Security Agreement with Oxford Finance. See "Second Amendment to Loan and Security Agreement" in Note 12 to the Unaudited Condensed Consolidated Financial Statements included in Item 1 of Part I of this Quarterly Report, which contains additional information about the Loan Agreement.

Change in Board Members – Effective July 31, 2018, Paul Maier, Jeffrey E. Eisenberg, Thomas C. Varvaro and Kenneth Cohen, resigned from their positions as members of the Board of Directors and any committee thereof. On August 1, 2018, in a separate action, the remaining members of the Board of Directors appointed our Chief Financial Officer, Gregory Hanson CMA, MBA, to fill one of the vacancies. For additional information, see "Resignation and Appointment of Members of the Board of Directors" in Item 2 of Part I of this Quarterly Report.

Auditor Resignation and Appointment of New Auditor – Effective August 3, 2018, CohnReznick resigned as the Company's independent auditor, as approved by the Board. On August 22, 2018, we entered into an engagement agreement pursuant to which we appointed Haskell & White LLP as our independent accounting firm. For additional information see "Withdrawal and Reinstatement of Auditor Reports; Auditor Resignation and Appointment of New Auditor" in Item 2 of Part I of this Quarterly Report.

Notice of Default from Oxford Finance – On August 14, 2018, we received a letter from Oxford Finance giving notice of events of default. If we fail to cure the events of default, Oxford Finance will have the right to declare all of our obligations under the Loan and Security Agreement due and payable and direct the Collateral Agent to, among other things, foreclose upon and/or sell or otherwise liquidate the collateral pledged under the Loan and Security Agreement. For additional information, see Note 6 to Unaudited Condensed Consolidated Financial Statements included in Item 1 of Part I of this Quarterly Report.

Cold Spring Harbor Laboratory License Agreement – On September 8, 2018, the Company entered into the Laboratory License Agreement with CSHL. For additional information, see "Cold Spring Harbor Laboratory License Agreement" Note 12 to the Unaudited Condensed Consolidated Financial Statements included in Item 1 of Part I of this Quarterly Report.

Delaware Order Approving Petition – On September 20, 2018, upon hearing the Delaware Petition, the Court found in our favor and validated the (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. For additional information, see "Delaware Order Granting Petition for Relief" in Note 1 to Unaudited Condensed Consolidated Financial Statements included in Item 1 of Part I of this Quarterly Report.

Nasdaq Delisting – As previously discussed in Item 2 of Part I of this Quarterly Report, the Staff notified the Company on July 2, 2018, of its determination to delist our securities 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, we 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, our 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.

We currently intend to apply for listing on the OTCQB Marketplace once we meet the requisite eligibility requirements for the OTCQB Marketplace.

Item 6. Exhibits.

EXHIBIT INDEX

Exhibit No.	Exhibit Title	Filed with this Form 10-Q	Incorporated by Reference		
			Form	File No.	Date Filed
3.1	Form of Certificate of Designations, Preferences and Rights of the 0% Series M Convertible Preferred Stock		8-K (Exhibit 3.1)	001-37861	February 6, 2018
3.2	Certificate of Amendment to MabVax's Amended and Restated Certificate of Incorporation		8-K (Exhibit 3.1)	001-37861	February 15, 2018
3.3	Form of Certificate of Designations, Preferences and Rights of the 0% Series N Convertible Preferred Stock		8-K (Exhibit 3.1)	001-37861	May 3, 2018
3.4	Correction to Certificate of Designations, Preferences and Rights of the 0% Series N Convertible Preferred Stock		8-K (Exhibit 3.2)	001-37861	May 3, 2018
3.5	Form of Certificate of Designations, Preferences and Rights of the 0% Series O Convertible Preferred Stock		8-K (Exhibit 3.3)	001-37861	May 3, 2018
4.1	Form of Warrant		8-K (Exhibit 4.1)	001-37861	February 6, 2018
4.2	Delaware Order Granting Verified Petition for Relief	X			
10.1	Form of Purchase Agreement		8-K (Exhibit 10.1)	001-37861	February 6, 2018
10.2	Form of Registration Rights Agreement		8-K (Exhibit 10.2)	001-37861	February 6, 2018
10.3	Form of Purchase Agreement		8-K (Exhibit 10.1)	001-37861	May 3, 2018
10.4	Form of Registration Rights Agreement		8-K (Exhibit 10.2)	001-37861	May 3, 2018
10.5	Form of May 2018 Letter Agreement		8-K (Exhibit 10.3)	001-37861	May 3, 2018
10.6†	Sublicense Grant to Y-mAbs Therapeutics, Inc.	X			
10.7†	Side Letter with Memorial Sloan-KetteringInstitute for Cancer Research	X			
10.8	Second Amendment to Loan and Security Agreement with Oxford Finance, LLC	X			
10.9±	Fifth Amended and Restated 2014 Employee, Director and Consultant Equity Incentive Plan		S-8 (Exhibit 99.1)	001-37861	December 21, 2017
31.1	Certification of Chief Executive Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002	X			
31.2	Certification of Chief Financial Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002	X			
32.1*	Certification pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002	X			
101	Interactive data file	X			

* Furnished herewith
† Confidential treatment requested for portions of this exhibit. Confidential materials omitted and filed separately with the SEC.
± Management contract or compensatory plan.

SIGNATURES

Pursuant to the requirements 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 authorized to sign on behalf of the registrant)

By: /s/ Gregory P. Hanson
Gregory P. Hanson
Chief Financial Officer (Principal Financial and Accounting Officer authorized to sign on behalf of the registrant)

EXHIBIT 4.2

IN THE COURT OF CHANCERY OF THE STATE OF DELAWARE

IN RE MABVAX THERAPEUTICS HOLDINGS, INC.))) C.A. No. 2018-0549-TMR

FORM OF ORDER VALIDATING

Petitioner's Corporate Acts Under 8 *Del. C.* § 205

WHEREAS, Petitioner MabVax Therapeutics Holdings, Inc. ("MabVax") has filed a Verified Petition for Relief under 8 *Del. C.* § 205 (the "Petition") seeking to have this Court validate certain corporate acts by MabVax,

WHEREAS, this Court has determined that the relief sought is appropriate and just,

IT IS HEREBY ORDERED, this 20th day of September 2018,

1. All conversions of MabVax's preferred stock between June 30, 2014 and February 12, 2018, which are listed on **Exhibit B** to the Petition, are validated pursuant to 8 *Del. C.* § 205;

2. All shares of common stock issued upon the conversions validated pursuant to Paragraph 1 hereof and listed in **Exhibit B** to the Petition are validated pursuant to 8 *Del. C.* § 205;

3. The corporate acts listed below, which were purportedly approved by the stockholders of MabVax at meetings of stockholders during the time period identified in Paragraph 1 hereof, are validated pursuant to 8 *Del. C.* § 205. The corporate acts to be validated under this paragraph are:

a. *Elections of Directors*

- The election on August 26, 2015 of Kenneth M. Cohen and Paul V. Maier as Class III directors, with each to serve until the 2018 Annual Meeting of Stockholders.

- The election on June 29, 2016 of J. David Hansen, Philip O. Livingston, M.D., and Thomas C. Varvaro as Class I directors, with each to serve until the 2019 Annual Meeting of Stockholders.

- The election on June 12, 2017 of Jeffrey F. Eisenberg and Jeffrey V. Ravetch, M.D., Ph.D., as Class II directors, with each to serve until the 2020 Annual Meeting of Stockholders.

b. *The Filing of, and Amendments and/or Restatements Effected by, the Following Documents Filed with the Office of the Secretary of State of the State of Delaware (the "State Office")*

- Amended and Restated Certificate of Incorporation of MabVax, filed with the State Office on September 8, 2014.

- Certificate of Amendment of Amended and Restated Certificate of Incorporation of MabVax, filed with the State Office on September 8, 2014.

- Certificate of Amendment of Amended and Restated Certificate of Incorporation of MabVax, filed with the State Office on August 16, 2016.

- Certificate of Amendment of Amended and Restated Certificate of Incorporation of MabVax, filed with the State Office on February 14, 2018.

c. Amendments to MabVax's Amended and Restated 2014 Employee, Director and Consultant Equity Incentive Plan

- Second Amended and Restated 2014 Employee, Director and Consultant Equity Incentive Plan, including increasing the number of shares issuable thereunder to 8,360,789 shares, which was approved by the stockholders of MabVax on August 26, 2015.

- Fourth Amended and Restated 2014 Employee, Director and Consultant Equity Incentive Plan, including increasing the number of shares issuable thereunder to 4,128,406 shares, which was approved by the stockholders of MabVax on June 12, 2017.

- Fifth Amended and Restated 2014 Employee, Director and Consultant Equity Incentive Plan, including increasing the number of shares issuable thereunder to 6,128,406 shares, which was approved by the stockholders of MabVax on October 2, 2017.

- Amendment to the Fifth Amended and Restated 2014 Employee, Director and Consultant Equity Incentive Plan, including increasing the number of shares issuable thereunder to 10,128,406 shares, which was approved by the stockholders of MabVax on December 1, 2017.

d. *Corporate authorization, for stock exchange purposes, of certain potential issuances of common stock, the ratification of certain prior issuances of common stock and certain issuances of securities*

- The potential issuance, approved by the stockholders on October 2, 2017, of up to an aggregate of 3,400,000 shares of common stock, in excess of 19.99% of the number of shares of common stock that were issued and outstanding on August 11, 2017, consisting of (i) 2,386,360 shares of common stock issuable upon conversion of Series J Preferred Stock, issued to investors in a financing consummated in August 2017 and (ii) 1,013,640 shares of common stock available for issuance under designated but unissued shares of Series J Preferred Stock.

- The potential issuance, approved by the stockholders on October 2, 2017, of up to 6,500,000 shares of common stock upon conversion of Series K Preferred Stock issuable in connection with a financing consummated in August 2017, in excess of 19.99% of the number of shares of common stock that were issued and outstanding on August 11, 2017.

- The issuance, approved by the stockholders on October 2, 2017, 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).

- The issuance, approved by the stockholders on October 2, 2017, 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).

- The potential issuance, approved by the stockholders on December 1, 2017, of up to an aggregate of 9,666,667 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 Company's newly authorized Series L Convertible Preferred Stock, which were issued to certain holders of the Company's Preferred Stock pursuant to Exchange Agreements dated October 18, 2017.

- Ratification of the issuance, approved by the stockholders on December 1, 2017, of up to an aggregate of 2,900,000 restricted shares of common stock to certain investors in the Company's May 2017 public offering, in excess of 19.99% of the number of shares of common stock that were issued and outstanding on May 3, 2017, including 1,968,664 shares of common stock underlying the Company's Series I Convertible Preferred Stock.

4. This Order validates the corporate acts referenced in the foregoing Paragraphs, effective as of the time each such act was originally taken and notwithstanding any failures of authorization or potential failures of authorization described in, or resulting from the matters described in, the Petition.

By: /s/ Montgomery-Reeves
Vice Chancellor Montgomery-Reeves

EXHIBIT 10.6

SUBLICENSE AGREEMENT

This **Sublicense Agreement** (the **"Agreement"**) is made and signed as of June 27, 2018 (the **"Effective Date"**) by and between **MabVax Therapeutics Holdings, Inc.**, with a principal place of business at 11535 Sorrento Valley Road, Suite 400, San Diego, CA 92121 (**"MabVax"**), on the one hand, and **Y-mAbs Therapeutics Inc.**, with a principal place of business at 230 Park Avenue, Suite 3350, New York, NY 10169 (**"YmAbs"**), on the other hand. MabVax and YmAbs are sometimes referred to herein individually as a **"Party"** and collectively as the **"Parties"**.

Recitals

Whereas, MabVax and Sloan-Kettering Institute for Cancer Research, (**"SKI"**) have entered into that certain Exclusive License Agreement dated June 30, 2008 and amended on May 11, 2011 (and subject to the side letter agreement of even date hereof (the **"Side Letter"**) of MabVax and SKI), under which SKI granted MabVax an exclusive license under SKI's rights in the invention that is the subject of the disclosure entitled "Polyvalent Conjugate Vaccines for Cancer (SK#14491)," and patent rights thereon (the **"SKI License Agreement"**);

Whereas, MabVax desires to grant to YmAbs, and YmAbs desires to obtain, a sublicense under MabVax's interest and rights in, to, and under such patent rights for use in developing and commercializing a vaccine against neuroblastoma; and

Whereas, SKI and MabVax have agreed to amend certain terms of the SKI License Agreement with respect to, among other things, the obligations hereby assumed by YmAbs or its sublicensees in accordance with the Side Letter of MabVax and SKI.

Agreement

Now, Therefore, in consideration of the foregoing and the covenants and promises contained in this Agreement and intending to be legally bound, the Parties agree as follows:

ARTICLE 1. DEFINITIONS

The terms, as defined herein, shall have the same meanings in both their singular and plural forms:

1.1 **"Affiliate"** means a corporation, partnership, trust or other entity that directly, or indirectly through one or more intermediates, controls, is controlled by or is under common control with a specified Party but only for so long as such relationship exists. For such purposes, "control", "controlled by", and "under common control with" shall mean the possession of the power to direct or cause the direction of the management and policies of an entity, whether through the ownership of voting equity, voting member or partnership interests, control of a majority of the board of directors or other similar body, by contract, or otherwise, including without limitation, in the case of a corporation, the direct or indirect ownership of fifty percent (50%) or more of its outstanding voting shares.

Portions of this Exhibit, indicated by the mark "[***],"* were omitted and have been filed separately with the Secretary of the *Commission pursuant to the Registrant's application requesting confidential treatment pursuant to Rule 24b-2 of the Securities Exchange Act of 1934, as amended.

1.2 **"Control"** means, with respect to items, information, or intellectual property rights (including patents, patent applications and/or know-how), possession by a Party of the power and authority, whether arising by ownership, license, or other authorization, to grant and authorize the licenses or sublicenses, as applicable, under such items, information, or intellectual property rights (including patents, patent applications and/or know-how) of the scope granted to the other Party in this Agreement.

1.3 **"FDA"** means the United States Food and Drug Administration.

1.4 **"Field"** means the prevention or treatment of neuroblastoma by means of administering a bi-valent ganglioside vaccine.

1.5 **"Know-How"** means ideas, inventions, discoveries, trade secrets, know how, improvements, data, and information (which as of the Effective Date are not subject to a patent or patent application), together with all experience, data, formulas, procedures, and results, and improvements thereon, that (a) exist as of the Effective Date, (b) are under the Control of MabVax, and (c) are listed on Exhibit B.

1.6 **"Licensed Process"** means any process which either (a) is covered in whole or in part by the Patent Rights, (b) would infringe a Valid Claim but for this Agreement, or (c) uses Know-How, in each case, in any country in which such process is practiced.

1.7 **"Licensed Product"** means any product or part thereof which: (a) either (i) is covered in whole or in part by the Patent Rights; (ii) would infringe a Valid Claim but for this Agreement; or (iii) uses Know-How, in each case, in the country in which any product or part thereof is made, leased, used or sold; or (b) is manufactured using a Licensed Process.

1.8 **"Net Income"** means [***].

1.9 **"Patent Rights"** means: (a) the United States and foreign patents and patent applications listed in Exhibit A which is a subset of the patents and patent applications licensed to MabVax in the SKI License Agreement; (b) United States and foreign patents issued from the applications listed in Exhibit A, and from divisionals and continuations of these applications; (c) claims of U.S. and foreign continuation-in-part applications, and of the resulting patents, which are directed to subject matter specifically described in or entitled to or claim priority on the U.S. and foreign patent applications listed in Exhibit A; and (d) any reissues, extensions, substitutions, re-examinations, supplementary protection certificates, and patents of addition of patents and patent applications described in (a), (b), or (c) above.

1.10 **"Priority Review Voucher"** means a voucher issued to YmAbs under the United States Congress Rare Pediatric Disease Priority Review Voucher Program, effectuated by the FDA under Section 529 to the Federal Food, Drug, and Cosmetic Act as part of a rare pediatric disease product application made by YmAbs for a Licensed Product only.

1.11 **"Territory"** means worldwide.

Portions of this Exhibit, indicated by the mark "[***]," were omitted and have been filed separately with the Secretary of the Commission pursuant to the Registrant's application requesting confidential treatment pursuant to Rule 24b-2 of the Securities Exchange Act of 1934, as amended.

1.12 **"Valid Claim"** means any claim of an issued and unexpired patent within the Patent Rights that has not been held unenforceable, unpatentable or invalid by a decision of a court or governmental agency of competent jurisdiction, which decision is unappealable or unappealed within the time allowed for appeal.

ARTICLE 2. GRANT

2.1 **Sublicense.** Subject to the terms and conditions of this Agreement and the SKI License Agreement, MabVax hereby grants to YmAbs under all rights granted to it under the SKI License Agreement including the Patent Rights and Know-How, an exclusive (even to MabVax), worldwide sublicense, including the right to grant sublicenses, to develop, make, have made, use, sell, offer to sell, import, and export Licensed Products in the Field in the Territory and to use the Know-How in connection therewith. For clarity, the Parties intend that YmAbs shall have the right to practice all rights granted to MabVax under the SKI License Agreement to the extent applicable to the exploitation of the Licensed Products in the Field in the Territory.

2.2 **The SKI License Agreement.** YmAbs acknowledges that the rights granted to YmAbs under this Agreement that constitute a sublicense under the SKI License Agreement are, in addition to being limited by and are subject to the terms and conditions of this Agreement, further limited by the terms and conditions of the SKI License Agreement. Notwithstanding Article 8, pursuant to the SKI License Agreement, YmAbs acknowledges that MabVax will furnish to SKI a true and complete copy of this Agreement and any current and future amendments thereto.

2.3 **Incorporation by Reference.** MabVax and YmAbs hereby agree that the SKI License Agreement is incorporated into this Agreement by reference and made a part hereof, and the terms and conditions of the SKI License Agreement shall govern the sublicense from MabVax to YmAbs pursuant to Section 2.1, provided however that it is understood and agreed that YmAbs' obligations resulting from such incorporation of the SKI License Agreement shall never exceed those described in Section 3.4 below (for clarity, such incorporation does not limit payment obligations owed by YmAbs to MabVax directly). Nothing in this Agreement shall be deemed to grant to YmAbs any rights under the rights sublicensed to it under the SKI License Agreement beyond those MabVax has the right to grant to YmAbs pursuant to the SKI License Agreement.

2.4 **Transfer of Know-How.** Within thirty (30) days after the Effective Date, MabVax shall deliver to YmAbs the materials and information set forth in Exhibit B. The Parties acknowledge and agree that YmAbs will obtain directly from SKI additional information and know-how relating to an investigator-sponsored clinical trial of Licensed Products in the Field conducted by SKI, and that such information and know-how is not included in the Know-How.

2.5 **Transfer of** [***]**.** Any and all supply of the [***] owned by MabVax as of the Effective Date shall be transferred to YmAbs within fifteen (15) days after the Effective Date at no charge to YmAbs.

Portions of this Exhibit, indicated by the mark "[***],"* were omitted and have been filed separately with the Secretary of the *Commission pursuant to the Registrant's application requesting confidential treatment pursuant to Rule 24b-2 of the Securities Exchange Act of 1934, as amended.

ARTICLE 3. CONSIDERATION & DILIGENCE OBLIGATIONS

3.1 **Upfront Payment.** In partial consideration for the rights granted to YmAbs under this Agreement, YmAbs shall pay to MabVax a one-time, non-refundable payment of seven hundred thousand U.S. dollars ($700,000) within five (5) days after YmAbs' receipt of the Know-How pursuant to Section 2.4.

3.2 **Continuation Payment.** In partial consideration for the rights granted to YmAbs under this Agreement, YmAbs shall pay to MabVax a one-time, non-refundable payment of six hundred thousand U.S. dollars ($600,000) within five (5) days after the first anniversary of the Effective Date, provided that no notice of termination of this Agreement has been made by YmAbs before such date.

3.3 **Priority Review Voucher Revenue Share.**

(a) In partial consideration for the rights granted to YmAbs under this Agreement, YmAbs shall pay MabVax a one-time amount equal to [***] percent ([***]%) of [***] for the sale by YmAbs of one Priority Review Voucher.

(b) YmAbs will use [***] to obtain the Priority Review Voucher set forth in Section 3.3(a) and thereafter to sell such Priority Review Voucher.

3.4 **Assumed Obligations.** In consideration for the rights granted to YmAbs under this Agreement, YmAbs agrees that it shall solely be responsible for the amounts payable by MabVax to SKI and the other obligations of MabVax to SKI pursuant to the SKI License Agreement to the extent incurred after the Effective Date and solely (i) arising out of YmAbs' exercise of its sublicense under the SKI License Agreement and (ii) to the extent applicable to Licensed Products in the Field, including without limitation those that are set forth in Exhibit C (the **"Assumed Obligations"**). Such payments shall be made in accordance with Sections 5.5 and 5.6 of the SKI License Agreement, applied *mutatis mutandis* as if such payments were payable by MabVax to SKI. YmAbs confirms that it has received a copy of and reviewed a copy of the SKI License Agreement, and covenants that it shall perform all obligations of MabVax to the extent incurred after the Effective Date and solely (i) arising out of YmAbs' exercise of its sublicense under the SKI License Agreement and (ii) to the extent applicable to Licensed Products in the Field.

3.5 **Clarification.** For clarity, no development milestones or royalties are payable by YmAbs to MabVax under this Agreement in consideration for the rights granted by MabVax under this Agreement. Any payments payable by MabVax to SKI under the SKI License Agreement arising as a result of payments made by YmAbs to MabVax under this Agreement shall be of no concern to YmAbs. For clarity, this Section 3.5 does not supersede the Assumed Obligations in Section 3.4. Further, for clarity it is noted that YmAbs shall not assume any obligations of MabVax to make payments to SKI under clause 4 of the Side Letter.

3.6 Diligence Milestones. YmAbs agrees to use [***] to:

(a) [***] within [***] from the Effective Date of this Agreement;

(b) [***] within [***]from the Effective Date of this Agreement; and

(c) make (or have made) the [***] from the Effective Date of this Agreement.

ARTICLE 4. RECORDS

4.1 Records. YmAbs will keep, and cause its Affiliates and sublicensees to keep, full, complete and proper records and accounts of the sales of Priority Review Vouchers in sufficient detail to enable the payment set forth in Section 3.3(a) to be determined.

ARTICLE 5. INTELLECTUAL PROPERTY

5.1 Prosecution. As of the Effective Date, [***] is responsible for the prosecution and maintenance of the Patent Rights under the supervision of [***]. [***].

5.2 Cooperation. [***] shall fully cooperate with and assist [***] in performing activities reasonably required for filing and prosecuting patent, trademark and copyright applications and otherwise protecting [***] rights to any of the Know-How. In this regard, [***] shall execute such filings, assignments and other documents as [***] deems necessary. [***] will reimburse [***] for all reasonable costs and expenses incurred in performing [***] obligations under this Section 5.2.

5.3 Enforcement.

(a) [***] shall have the first right (but not the obligation) to institute, prosecute, and control any action or proceeding with respect to any infringement of Patent Rights, at [***]' expense and by counsel of its own choice, in [***] own name and under [***] direction and control, including the right to control the defense of any challenges to such Patent Rights as a counterclaim in such infringement proceeding as well as the defense of declaratory judgment actions. [***] shall cooperate in the institution and prosecution of such infringement suit, including without limitation consenting to being joined in such infringement suit as a party plaintiff.

(b) If [***] determines not to institute an action or proceeding with respect to a given infringement of Patent Rights, it shall notify and consult with [***] of such decision, and [***] shall thereupon have the right (but not the obligation) to institute an action or proceeding with respect to such infringement, at [***] expense with counsel of its choice, [***]. If [***] does not institute such action or proceeding [***], then [***] shall thereupon have the right (but not the obligation) to institute such action or proceeding, at [***] expense with counsel of its choice. If either [***] or [***] determines to undertake such action or proceeding, [***] any such action or proceeding as a party at [***] or [***], as applicable, if doing so is necessary for the purposes of establishing standing.

(c) [***].

Portions of this Exhibit, indicated by the mark "[***],"
were omitted and have been filed separately with the Secretary of the Commission pursuant to the Registrant's application requesting confidential treatment pursuant to Rule 24b-2 of the Securities Exchange Act of 1934, as amended.

5.4 **SKI License Agreement.** Notwithstanding the foregoing provisions of this Section 5, the provisions of the SKI License Agreement shall control with respect to intellectual property rights and responsibilities should they conflict with this Section 5.

ARTICLE 6. TERM AND TERMINATION

6.1 **Term.** The term of this Agreement shall commence on the Effective Date and, unless this Agreement is earlier terminated in accordance with the provisions herein, shall subject to Section 6.4 below end on the expiration or termination date of the SKI License Agreement.

6.2 **Termination for Material Breach.** If either Party commits a material breach of this Agreement, then the other Party may give the breaching Party written notice of default and intent to terminate. The non-breaching Party shall be entitled to terminate this Agreement if the breaching Party fails to cure the default within sixty (60) days of receiving such written notice.

6.3 **Termination at Will.** YmAbs shall have the right to terminate this Agreement at will upon [***] advance written notice to MabVax.

6.4 **Termination of SKI License Agreement.** This Agreement shall terminate upon the expiration or termination of the SKI License Agreement, provided that if YmAbs is in material compliance with this Agreement as of such termination date, then this Agreement shall be assumed by SKI on the terms negotiated hereunder as provided in Section 14.5 of the SKI License Agreement, provided that SKI shall not be liable to YmAbs with respect to any obligations of MabVax to YmAbs that exceed the obligations of SKI to MabVax under the SKI License Agreement.

6.5 **Effect of Termination or Expiration.**

(a) All rights and licenses granted to YmAbs under this Agreement shall terminate upon termination of this Agreement. [***]. Termination shall not relieve YmAbs of its obligations to pay any fees owed at the time of termination and shall not impair any accrued right of MabVax. Termination shall not relieve YmAbs of any obligation or liability accrued under this Agreement prior to termination, or rescind any payment made to MabVax or action by YmAbs prior to the time termination becomes effective.

(b) YmAbs will redeliver and assign to MabVax all Know-how and regulatory filings and approvals for Licensed Products then owned by YmAbs or its Affiliates or sublicensees, [***]. In this regard, YmAbs shall execute such filings, assignments and other documents as is necessary for such purpose.

(c) The following Articles shall survive the termination or expiration of this Agreement:

(i) Article 4 (RECORDS);

(ii) Article 7 (REPRESENTATIONS AND WARRANTIES; LIMITATION OF LIABILITY; INDEMNIFICATION);

(iii) Article 8 (CONFIDENTIALITY); and

(iv) Article 9 (MISCELLANEOUS PROVISIONS).

ARTICLE 7. REPRESENTATIONS AND WARRANTIES; LIMITATION OF LIABILITY; INDEMNIFICATION

7.1 Representations and Warranties.

(a) MabVax hereby represents and warrants to YmAbs that:

(i) It is duly organized and validly existing under the laws of its jurisdiction of organization and has the requisite power and authority to execute, deliver and perform its obligations under this Agreement.

(ii) MabVax has not granted as of the Effective Date, and shall not grant during the Term, any right, option, license or interest in or to any of the Patent Rights that is in conflict with the rights and licenses granted to YmAbs under this Agreement.

(iii) As of the Effective Date, to MabVax's knowledge, MabVax is not in possession of information that would, in its reasonable opinion and to its knowledge, render invalid and/or unenforceable any claims that are in any of the Patent Rights, and MabVax has no knowledge of any infringement of any of the Patent Rights by any third party.

(iv) As of the Effective Date, MabVax is not currently bound by any agreement with any third party, or by any outstanding order, judgment, or decree of any court or administrative agency, that restricts it from granting to YmAbs the rights and licenses as set forth in this Agreement.

(v) MabVax has until now and will continue to comply with all of its obligations to SKI under the terms of the SKI License Agreement in all material respects and will not take any action to terminate the SKI License Agreement without the prior written consent of YmAbs. Further, MabVax will not amend any of the terms of the SKI License Agreement that affect the rights and/or obligations of YmAbs, unless with the prior written approval of YmAbs, provided that such prior written approval of YmAbs shall not be needed for amendment of applicable provisions of the SKI License Agreement relating to payment obligations that do not affect YmAbs' obligations.

(vi) Exhibit A contains a complete and accurate list of all patents included in the Patent Rights that claim or Cover the Licensed Products or Licensed Process. Except for the Patent Rights, MabVax does not own or Control (by license or otherwise), as of the Effective Date, any patent that covers any invention that is necessary or useful to develop, manufacture, or commercialize any Licensed Product in the Field in the Territory.

(b) YmAbs hereby represents and warrants to MabVax that:

(i) It is duly organized and validly existing under the laws of its jurisdiction and has the requisite power and authority to execute, deliver and perform its obligations under this Agreement.

(ii) YmAbs will [***] to obtain and seek to sell any resulting Priority Review Voucher as set forth in Section 3.3.

(iii) For the term of this Agreement, upon the commencement of clinical use, production, sale, or transfer by YmAbs, whichever occurs first, of any Licensed Product, YmAbs shall obtain and carry in full force and effect general liability insurance which shall protect YmAbs and MabVax in regard to events covered by Section 7.5(b). Such insurance shall be written by a reputable insurance company, shall list SKI as an additional named insured thereunder, shall be endorsed to include liability coverage, and shall require thirty (30) days written notice to be given to MabVax prior to any cancellation or material change thereof that would violate the foregoing. The limits of such insurance shall not be less than $[***] per occurrence with an annual aggregate of $[***] for personal injury, death or property damage. YmAbs shall provide MabVax with Certificates of Insurance evidencing the same.

7.2 **DISCLAIMER OF WARRANTY.** EXCEPT AS EXPRESSLY PROVIDED IN THIS AGREEMENT, NEITHER PARTY PROVIDES ANY WARRANTIES, WHETHER WRITTEN OR ORAL, EXPRESS OR IMPLIED, REGARDING THE LICENSED PRODUCTS USED IN CLINICAL TRIALS OR FOR COMMERCIAL USE, AND EACH PARTY HEREBY DISCLAIMS ALL OTHER WARRANTIES, WHETHER WRITTEN OR ORAL, EXPRESS OR IMPLIED, INCLUDING WITHOUT LIMITATION THE IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, AND FREEDOM FROM INFRINGEMENT OF THIRD PARTY RIGHTS.

7.3 **LIMITATION OF LIABILITY.** NEITHER PARTY SHALL BE LIABLE TO THE OTHER PARTY FOR SPECIAL, INDIRECT, INCIDENTAL, PUNITIVE OR CONSEQUENTIAL DAMAGES (INCLUDING WITHOUT LIMITATION DAMAGES RESULTING FROM LOSS OF USE, LOSS OF PROFITS, INTERRUPTION OR LOSS OF BUSINESS, OR OTHER ECONOMIC LOSS) ARISING OUT OF THIS AGREEMENT OR WITH RESPECT TO A PARTY'S PERFORMANCE OR NON-PERFORMANCE HEREUNDER, EXCEPT WITH RESPECT TO ANY BREACH OF THE CONFIDENTIALITY OBLIGATIONS OF ARTICLE 8 OR TO THE EXTENT THAT THE LOSS IS COVERED BY THE INDEMNIFICATION OBLIGATIONS OF A PARTY UNDER SECTION 7.5. EXCEPT FOR MABVAX'S GROSS NEGLIGENCE OR BREACH OF ANY OF ITS REPRESENTATIONS OR WARRANTIES HEREUNDER, MABVAX SHALL NOT BE LIABLE TO YMABS FOR ANY DAMAGES UNDER THIS AGREEMENT EXCEEDING THE AMOUNTS PAID TO MABVAX UNDER THIS AGREEMENT.

7.4 MabVax shall have no responsibility for the quality of the Know-How and other items delivered to YmAbs. YmAbs agrees that the delivered Know-How and other items are delivered "As Is," "With All Faults," and "With All Defects." YmAbs is solely responsible for determining whether the delivered Know-How and other items have applicability or utility in YmAbs' contemplated exploitation of Licensed Products and in the Field, with no further assurances, and YmAbs assumes all risk and liability in connection with such determination.

7.5 **Indemnification.**

(a) MabVax hereby agrees to indemnify, defend and hold harmless YmAbs from and against any and all costs, expenses, judgments, liabilities, damages and losses of any type (including reasonable attorney fees and costs) that YmAbs may suffer as a result of [***], except to the extent arising from an action for which YmAbs must indemnify MabVax pursuant to subsection (b).

(b) YmAbs hereby agrees to indemnify, defend and hold harmless MabVax from and against any and all costs, expenses, judgments, liabilities, damages and losses of any type (including reasonable attorney fees and costs) that MabVax may suffer as a result of [***], except to the extent arising from an action for which MabVax must indemnify YmAbs pursuant to subsection (a).

(c) In the event that either Party seeks indemnification under the terms of this Section 7.5(a or b), it shall inform the other Party of the claim as soon as reasonably practicable after it receives notice thereof, shall permit the indemnifying Party, at indemnifying Party's cost, to assume direction and control of the defence of the claim, and shall co-operate as requested (at the expense of the indemnifying Party), in the defense of the claim. An indemnifying Party shall not settle or otherwise compromise any claim or suit in any manner that adversely affects the other Party hereunder or imposes obligations on the other Party in addition to those set forth in this Agreement, without prior written consent of the indemnified Party, for which consent shall not be unreasonably withheld or delayed.

(d) YmAbs hereby agrees to indemnify, defend and hold harmless [***], and their respective successors, heirs and assigns (each an "Indemnitee"), from and against any and all costs, expenses, judgments, liabilities, damages and losses of any type (including reasonable attorney fees and costs) that they may suffer as a result of [***]. In the event that an Indemnitee seeks indemnification under the terms of this Section 7.5 (d) it shall inform YmAbs of the claim as soon as reasonably practicable after it receives notice thereof, shall permit YmAbs, at YmAbs' cost, to assume direction and control of the defence of the claim, and shall co-operate as requested (at the expense of YmAbs), in the defence of the claim. YmAbs shall not settle or otherwise compromise any claim or suit in any manner (i) that does not release the Indemnitee from all liability with respect to such third party claims; or (ii) that adversely affects [***], without prior written consent of [***], for which consent shall not be unreasonably withheld or delayed.

ARTICLE 8. CONFIDENTIALITY

8.1 Each of the Parties undertakes to treat as strictly confidential all information that it receives from the other Party relating to its business affairs (**"Confidential Information"**). Each of the Parties may disclose the other Party's Confidential Information to its employees, directors, agents, affiliates, or third party contractors, potential or actual investors, acquirers or collaborators, and advisors (**"Representatives"**); provided that such Representatives have a need to know the Confidential Information in order to carry out this Agreement and are under a written obligation to safeguard the Confidential Information prior to disclosure. This duty of confidentiality shall not include Confidential Information that is already in the public domain, which enters the public domain for reasons beyond the relevant Party's control, or which must be disclosed under a statutory obligation (provide the disclosing Party uses reasonable efforts to seek confidential treatment thereof where available). This duty of confidentiality shall survive any expiration or termination of this Agreement for [***].

8.2 Neither Party shall disclose the terms and conditions of this Agreement or activities under this Agreement except as may be required by law or rules of a securities exchange. Notwithstanding the foregoing, with respect to complying with the disclosure requirements of any governmental authority or securities exchange in connection with any required filing of this Agreement, the Parties shall consult with one another concerning which terms of this Agreement shall be requested to be redacted in any public disclosure of the Agreement, and in any event each Party shall seek reasonable confidential treatment for any public disclosure by any such governmental authority or securities exchange. Each Party shall have the right to issue press releases in regards to this Agreement

with the prior written agreement of the other Party or as required to comply with any law or by the rules of any stock exchange or automated quotation system (in the case of such required disclosure, by providing five (5) days' notice to the other Party and reasonably considering comments provided by such other Party within two (2) days after such notice, or such shorter notice and comment time periods as the disclosing Party may reasonably require).

Portions of this Exhibit, indicated by the mark "[***],"were omitted and have been filed separately with the Secretary of the Commission pursuant to the Registrant's application requesting confidential treatment pursuant to Rule 24b-2 of the Securities Exchange Act of 1934, as amended.

ARTICLE 9. MISCELLANEOUS PROVISIONS

9.1 **Relationship of the Parties.** The Parties are independent contractors and nothing herein shall be construed as creating a partnership, joint venture, employment or the relationship of principal and agent between the parties.

9.2 **Assignment.** This Agreement may not be assigned, in whole or in part, by a Party without the prior written consent of the other Party, except that such prior consent shall not be needed for assignment of this Agreement to a Party's affiliate or successor-in-interest (whether by merger, acquisition, asset purchase, share purchase, or other transaction). Subject to the first sentence of this Section 9.2, this Agreement will be binding upon, inure to the benefit of and be enforceable by, the Parties' successors and permitted assigns.

9.3 **Further Actions.** Each Party agrees to execute, acknowledge and deliver such further instruments, and to do all such other acts, as may be necessary or appropriate in order to carry out the purposes and intent of this Agreement.

9.4 **Force Majeure.** Neither Party shall be liable or responsible to the other Party for loss or damages, nor shall it have any right to terminate this Agreement for any default or delay attributable to any event beyond its reasonable control and without its fault or negligence, including without limitation acts of God, acts of government (including injunctions), fire, flood, earthquake, strike, lockout, labor dispute, breakdown of plant, shortage of critical equipment, loss or unavailability of manufacturing facilities or material, casualty or accident, civil commotion, acts of public enemies, acts of terrorism or threat of terrorist acts, blockage or embargo and the like; *provided, however*, that in each such case the Party affected shall (i) use reasonable efforts to avoid such occurrence and to remedy it promptly and (ii) give prompt notice of any such cause to the other Party. The Party giving such notice shall thereupon be excused from such of its obligations hereunder as it is thereby disabled from performing for so long as it is so disabled and for thirty (30) days thereafter, and the Party receiving notice shall be similarly excused from its respective obligations which it is thereby disabled from performing; *provided, however*, that such affected Party commences and continues to take reasonable and diligent actions to cure such cause. Notwithstanding the foregoing, nothing in this Section 9.4 shall excuse or suspend the obligation to make any payment due hereunder in the manner and at the time provided.

9.5 **Notices.** All notices and other communications hereunder shall be in writing and shall be deemed given (a) if delivered personally or by facsimile transmission (receipt verified), (b) three (3) business days after mailed by registered or certified mail (return receipt requested), postage prepaid, or (c) one (1) business day after sent by express courier service, to the Parties at the following addresses (or at such other address for a Party as shall be specified by like notice, provided that notices of a change of address shall be effective only upon receipt thereof):

If to YmAbs:
YmAbs Therapeutics Inc.,
230 Park Avenue, Suite 3350
New York, NY 10169
USA
Att: Thomas Gad, President
Telephone: [***]
E-mail: [***]

With copies to:
Y-mAbs Therapeutics Inc.
230 Park Avenue, Suite 3350
New York, N.Y. 10169
Attn.: Sune R. Nyland, Esq.
Telephone: [***]
E-mail: [***]

If to MabVax:
MabVax Therapeutics Holdings, Inc.
11535 Sorrento Valley Road, Suite 400
San Diego, CA 92121
USA
Attn: David Hansen, President and CEO
Telephone: [***]
Mobile: [***]
E-mail: [***]

9.6 **Governing Law; Jurisdiction.** This Agreement shall be governed by and interpreted in accordance with the substantive laws of the State of New York, U.S.A., without regard to its or any other jurisdiction's choice of law rules. The Parties hereto submit and consent to the jurisdiction of the courts of the State of New York, including the federal courts located therein, should federal jurisdiction requirements exist, in any action brought to enforce (or otherwise relating to) this Agreement.

Portions of this Exhibit, indicated by the mark "[***],"* were omitted and have been filed separately with the Secretary of the *Commission pursuant to the Registrant's application requesting confidential treatment pursuant to Rule 24b-2 of the Securities Exchange Act of 1934, as amended.

9.7 **Amendment.** No amendment, modification or supplement of any provision of this Agreement shall be valid or effective unless made in writing and signed by a duly authorized officer of each Party.

9.8 **Waiver.** No provision of this Agreement shall be waived by any act, omission or knowledge of a Party or its agents or employees except by an instrument in writing expressly waiving such provision and signed by a duly authorized officer of the waiving Party. A waiver by either Party of any term or condition of this Agreement in any instance shall not be deemed or construed to be a waiver of such term or condition for any similar instance in the future or any subsequent breach hereof.

9.9 **Severability.** Whenever possible, each provision of this Agreement shall be interpreted in such manner as to be effective and valid under applicable laws, but if any provision of this Agreement is held to be prohibited by or invalid under applicable laws, such provision shall be ineffective only to the extent of such prohibition or invalidity, without invalidating the remainder of this Agreement. In the event of such invalidity, the Parties shall seek to agree on an alternative enforceable provision that preserves the original purpose of this Agreement.

9.10 **Construction.** The descriptive headings of this Agreement are for convenience only, and shall be of no force or effect in construing or interpreting any of the provisions of this Agreement. Except where the context otherwise requires, wherever used the singular shall include the plural, the plural the singular, the use of any gender shall be applicable to all genders. The language of this Agreement shall be deemed to be the language mutually chosen by the Parties and no rule of strict construction shall be applied against either Party hereto.

9.11 **Entire Agreement; Third Party Beneficiaries.** This Agreement constitutes and contains the complete, final and exclusive understanding and agreement of the Parties, and cancels and supersedes any and all prior or contemporaneous negotiations, correspondence, understandings, and agreements, whether oral or written, between the Parties respecting the subject matter hereof. This Agreement is not intended to confer upon any person other than the Parties hereto, as applicable, any rights or remedies.

9.12 **Counterparts; Electronic Delivery.** This Agreement may be executed simultaneously in two counterparts, either one of which need not contain the signature of more than one Party, but both of which taken together shall constitute one and the same agreement. Signatures to this Agreement transmitted by facsimile, by email in "portable document format" or ".pdf", or by any other electronic means intended to preserve the original graphic and pictorial appearance of this Agreement, shall have the same effect as physical delivery of the paper document bearing original signature.

[*Signature Page Follows*]

Portions of this Exhibit, indicated by the mark "[***],"were omitted and have been filed separately with the Secretary of the Commission pursuant to the Registrant's application requesting confidential treatment pursuant to Rule 24b-2 of the Securities Exchange Act of 1934, as amended.

In Witness Whereof, the Parties have caused this Agreement to be executed as of the Effective Date by their duly authorized representatives as set forth below:

Y-mAbs Therapeutics, Inc.
By: /s/ Thomas Gas
Name: Thomas Gad
Title: Chairman, President

MabVax Therapeutics Holdings, Inc.
By: /s/ J. David Hansen
Name: J. David Hansen
Title: President and CEO

CONFIDENTIAL TREATMENT REQUESTED
Exhibit A

Patent Rights

[***]

Portions of this Exhibit, indicated by the mark "[***]," were omitted and have been filed separately with the Secretary of the Commission pursuant to the Registrant's application requesting confidential treatment pursuant to Rule 24b-2 of the Securities Exchange Act of 1934, as amended.

CONFIDENTIAL TREATMENT REQUESTED

Exhibit B

Know-How

[***]

Portions of this Exhibit, indicated by the mark "[***]," were omitted and have been filed separately with the Secretary of the Commission pursuant to the Registrant's application requesting confidential treatment pursuant to Rule 24b-2 of the Securities Exchange Act of 1934, as amended.

CONFIDENTIAL TREATMENT REQUESTED
Exhibit C

***Portions of this Exhibit, indicated by the mark "[***],"* were omitted and have been filed separately with the Secretary of the Commission pursuant to the Registrant's application requesting confidential treatment pursuant to Rule 24b-2 of the Securities Exchange Act of 1934, as amended.**

Assumed Obligations

Assumed obligations means all due diligence obligations under Article III, payment obligations under Article V, reporting obligations under Article VI, and obligations to SKI under Articles IX, XI, XII, XIII and XIV of the SKI License Agreement, all solely with respect to the Licensed Products in the Field and incurred after the Effective Date (as they may have been amended or waived with respect to YmAbs or its sublicensees under the Side Letter of even date between MabVax and SKI).

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YmAbs agrees that it is solely responsible for performing all obligations under the SKI License Agreement after the Effective Date that arise solely out of and relate solely to YmAbs' development, manufacture, use or commercialization of Licensed Products in the Field, and that it will comply with all such terms of the SKI License Agreement in a timely manner as required thereunder (all as they may have been amended or waived with respect to YmAbs or its sublicensees under the Side Letter of even date between MabVax and SKI).

CONFIDENTIAL TREATMENT REQUESTED

EXHIBIT 10.7

MabVax Therapeutics Holdings, Inc.
11535 Sorrento Valley Road, Suite 400
San Diego, CA 92121

June 27, 2018

Memorial Sloan-Kettering Institute for Cancer Research
1275 York Ave.
New York, NY 10065

Re: Side Letter Agreement to the Exclusive License Agreement, dated June 30, 2008 and amended on May 11, 2011, between MabVax Therapeutics Holdings, Inc. ("MabVax") and Sloan-Kettering Institute for Cancer Research ("SKI") (the "SKI License Agreement")

Dear Sir/Madame,

This Side Letter Agreement relates to the SKI License Agreement ("Side Letter"), under which SKI granted MabVax an exclusive license under SKI's rights in the invention that is the subject of the disclosure entitled "Polyvalent Conjugate Vaccines for Cancer" (SK#14491), and patent rights thereon.

As we have discussed, MabVax and Y-mAbs Therapeutics Inc. ("YmAbs") wish to enter into a Sublicense Agreement (the "Sublicense Agreement"), in the form attached hereto as Exhibit A, pursuant to which MabVax would sublicense to YmAbs certain of MabVax's patent rights and know-how for development and commercialization of products for the prevention or treatment of neuroblastoma by means of administering a bi-valent ganglioside vaccine (the "Field"), including certain patent rights granted to MabVax pursuant to the SKI License Agreement.

In this Side Letter, MabVax and SKI agree to certain understandings with respect to their respective rights and obligations under the SKI License Agreement. Specifically, this Side Letter clarifies the rights and obligations of MabVax and SKI with respect to sublicensing and payments due to SKI under the SKI License Agreement.

Capitalized terms used, but not defined herein, shall have the respective meanings ascribed to them in the SKI License Agreement, as the context requires.

MabVax and SKI hereby agree to the following:

1. SKI hereby consents to YmAbs as a sublicensee for Licensed Products in the Field, effective upon the Effective Date of the Sublicense Agreement.

2. SKI acknowledges and agrees that all amounts payable to SKI under Article V of the SKI License Agreement arising out of YmAbs' practice of the rights sublicensed to it pursuant to the Sublicense Agreement, subject to paragraph 5 below, when and if it becomes effective, shall be made directly by YmAbs to SKI, and YmAbs hereby agrees to pay such amounts directly to SKI in accordance with the terms of the SKI License Agreement, subject to paragraph 5 below.

***Portions of this Exhibit, indicated by the mark "[***],"* were omitted and have been filed separately with the Secretary of the Commission pursuant to the Registrant's application requesting confidential treatment pursuant to Rule 24b-2 of the Securities Exchange Act of 1934, as amended.**

3. SKI and MabVax agree that the amounts payable by YmAbs to SKI under the Sublicense Agreement as described in paragraph 2 shall not be treated as Non-Royalty Sublicense Revenue pursuant to Section 5.1(c) of the SKI License Agreement.

4. Notwithstanding the foregoing, MabVax agrees to pay SKI the following amounts:

   i. [***]

   ii. [***]

   iii. [***]

   iv. [***]

   v. [***]

   Payments for i, ii, iii and iv shall be made to SKI within ten (10) days of the Effective Date of the Sublicense Agreement. Payment for v shall be made within ten (10) days of receipt of such consideration from YmAbs.

   The amounts listed in 4.i – 4iv constitute payments that are owed by MabVax to SKI relating to Licensed Products within the Field (as defined in the Sublicense Agreement).

5. SKI and MabVax agree to amend the SKI License Agreement solely with respect to YmAbs (or its sublicensees) so that the following shall apply:

   i. YmAbs (or its sublicensees) shall pay SKI the annual minimum royalty payments due to SKI under Section 5.1(e) of the SKI License Agreement, as follows:

      a. [***]

      b. [***]

      c. [***]

   ii. YmAbs (or its sublicensees) shall [***];

   iii. any payment terms of YmAbs (or its sublicensees) towards SKI shall be due within a minimum of sixty (60) days from the relevant event triggering the obligation to make such payment; and

   iv. the rights of YmAbs (or its sublicensees) and the corresponding obligations of SKI towards YmAbs (or its sublicensees) under Section 7.5 of the SKI License Agreement shall continue to be in force until at least [***] from the Effective Date of the Sublicense Agreement.

6. SKI acknowledges and agrees that [***].

Portions of this Exhibit, indicated by the mark "[***]," were omitted and have been filed separately with the Secretary of the Commission pursuant to the Registrant's application requesting confidential treatment pursuant to Rule 24b-2 of the Securities Exchange Act of 1934, as amended.

7. SKI and MabVax acknowledge and agree that this Side Letter shall be deemed a contract for the benefit of third parties, namely YmAbs (or its sublicensees), and that YmAbs (or its sublicensees) as a third party beneficiary shall immediately acquire the rights that affect any of YmAbs' (or its sublicensees') current or future obligations towards SKI and/or MabVax under the Sublicense Agreement and that YmAbs shall, furthermore, be entitled to enforce any of the provisions hereof by all remedies available at law and/or in equity.

If the foregoing accurately sets forth the agreement of the parties with respect to the subject hereof, kindly indicate your acknowledgment, consent, and agreement thereto by countersigning below and returning an executed copy of this Side Letter to the undersigned.

Sincerely,

MabVax Therapeutics Holdings, Inc.

By: /s/ J. David Hansen

Name: J. David Hansen

Title: President and CEO

ACKNOWLEDGED, CONSENTED TO, AND AGREED:

Sloan-Kettering Institute for Cancer Research

By: /s/ Eric M. Cottington, Ph.D.
Name: Eric M. Cottington, Ph.D.

Title: Senior VP Research & Technology Management

ACKNOWLEDGED BY:

Y-mAbs Therapeutics Inc.

By: /s/ Thomas Gad
Thomas Gad

Chairman, President

***Portions of this Exhibit, indicated by the mark "[***],"* were omitted and have been filed separately with the Secretary of the Commission pursuant to the Registrant's application requesting confidential treatment pursuant to Rule 24b-2 of the Securities Exchange Act of 1934, as amended.**

CONFIDENTIAL TREATMENT REQUESTED
EXHIBIT A

SUBLICENSE AGREEMENT

***Portions of this Exhibit, indicated by the mark "[***],"* were omitted and have been filed separately with the Secretary of the Commission pursuant to the Registrant's application requesting confidential treatment pursuant to Rule 24b-2 of the Securities Exchange Act of 1934, as amended.**

EXHIBIT 10.8

CONSENT UNDER AND SECOND AMENDMENT TO LOAN AND SECURITY AGREEMENT

THIS CONSENT UNDER AND SECOND AMENDMENT to Loan and Security Agreement (this "**Amendment**") is entered into as of July 3, 2018 (the "**Second Amendment Date**"), by and among OXFORD FINANCE LLC, a Delaware limited liability company with an office located at 133 North Fairfax Street, Alexandria, Virginia 22314 (in its individual capacity, "**Oxford**"; and in its capacity as Collateral Agent, "**Collateral Agent**"), the Lenders listed on Schedule 1.1 thereof from time to time including Oxford in its capacity as a Lender (each a "**Lender**" and collectively, the "**Lenders**"), and MABVAX THERAPEUTICS HOLDINGS, INC., a Delaware corporation with offices located at 11533 Sorrento Valley Road, Suite 400, San Diego, CA 92121 ("**Holdings**"), MABVAX THERAPEUTICS, INC., a Delaware corporation with offices located at 11533 Sorrento Valley Road, Suite 400, San Diego, CA 92121 ("**MabVax**" and together with Holdings, individually and collectively, jointly and severally, "**Borrower**").

WHEREAS, Collateral Agent, Borrower and the Lenders party thereto from time to time have entered into that certain Loan and Security Agreement, dated as of January 15, 2016 (as amended, supplemented or otherwise modified from time to time, the "**Loan Agreement**") pursuant to which the Lenders have provided to Borrower certain loans in accordance with the terms and conditions thereof;

WHEREAS, Holdings anticipates entering into a certain Asset Purchase and License Agreement, on July 3, 2018, contract number 43088525, with Boehringer Ingelheim International GmbH, with a principal place of business at Binger Strasse 173, 55216 Ingelheim, Germany ("**BII**"), the form of which is attached hereto as Exhibit A (the "Asset **Purchase and License Agreement**") and in connection with the consummation of the transactions contemplated therein pay certain fees to Greenhill & Co., LLC ("**Greenhill**") in the aggregate amount of Three Hundred Eighty-Five Thousand Dollars ($385,000.00) (the "**Greenhill Payment**") in six equal monthly installments commencing with the date of the consummation of the transactions contemplated in the Asset Purchase and License Agreement;

WHEREAS, Borrower has requested that Collateral Agent and Lenders consent to the sale, conveyance, assignment and transfer of Borrower's right, title and interest in and to certain of Borrower's assets by Borrower to BII pursuant to the Asset Purchase and License Agreement (the "Acquired Assets"), as described in Section 2 hereof, the licenses granted by Borrower to BII pursuant to the Asset Purchase and License Agreement, the release of any encumbrances, if any, under the Loan Agreement that relate to the Acquired Assets, and to the making of the Greenhill Payment, in each case to the extent that such consent may be required pursuant to Section 7.1 of the Loan Agreement;

WHEREAS, Collateral Agent and Lenders have agreed to provide such consents, but only to the extent set forth herein, in accordance with the terms and subject to the conditions set forth herein, and in reliance upon the representations and warranties set forth herein;

WHEREAS, in connection with and in consideration for providing the aforementioned consents and other provisions set forth herein, Borrower, Lenders and Collateral Agent desire to amend certain provisions of the Loan Agreement as provided herein and subject to the terms and conditions set forth herein;

NOW, THEREFORE, in consideration of the promises, covenants and agreements contained herein, and other good and valuable consideration, the receipt and adequacy of which are hereby acknowledged, Borrower, Lenders and Collateral Agent hereby agree as follows:

1. Capitalized terms used herein but not otherwise defined shall have the respective meanings given to them in the Loan Agreement.

2. Subject to the terms and conditions hereof, Collateral Agent and Lenders hereby consent to the grant of the licenses and the sale, conveyance, assignment and transfer of the Acquired Assets, by Borrower to BII pursuant to and strictly in accordance with the terms of the Asset Purchase and License Agreement (and without any amendments thereto, unless such amendments (i) are not material, (ii) do not adversely affect the consideration to be received by Borrower under the Asset Purchase and License Agreement (including, without limitation, the amount, form and dates thereof), and (iii) do not represent transactions that would

require the consent of Collateral Agent or the Lenders or the Required Lenders under the terms of the Loan Agreement). Collateral Agent and Lenders agree that they shall have no right and title to and in the Acquired Assets which are released from the scope of, and shall be unencumbered by the Loan Agreement. For clarity, the Loan Agreement shall not apply to, and shall have no force and effect as far as the Acquired Assets are concerned.

3. Subject to the consummation of the transactions contemplated by the Asset Purchase and License Agreement, as consented to herein, Collateral Agent and Lenders hereby consent to the making of the Greenhill Payment over a course of six months in equal monthly installments.

4. Borrower hereby reaffirms the security interest granted by Borrower previously in Section 4.1 of the Loan Agreement with respect to the Collateral (prior to the date hereof) and hereby grants Collateral Agent, for the ratable benefit of the Lenders, to secure the payment and performance in full of all of the Obligations, a continuing security interest in, and pledges to Collateral Agent, for the ratable benefit of the Lenders, such part of the Collateral that was not pledged previously or in which security interest was not granted prior to the Second Amendment Date, wherever located, whether now owned or hereafter acquired or arising, and all proceeds and products thereof. Furthermore, Borrower hereby authorizes Collateral Agent to file financing statements or take any other action required to perfect Collateral Agent's security interests in the Collateral, without notice to Borrower, with all appropriate jurisdictions to perfect or protect Collateral Agent's interest or rights under the Loan Documents, including a notice that any disposition of the Collateral, except to the extent permitted by the terms of this Amendment, by Borrower, or any other Person, shall be deemed to violate the rights of Collateral Agent under the Code. For the avoidance of doubt, none of the assets sold, conveyed, assigned and transferred by Borrower to BII under the Asset Purchase and License Agreement shall be part of the Collateral and the Loan Agreement shall not apply to such assets.

5. Section 2.2(b) of the Loan Agreement is hereby amended and restated in its entirety as follows:

(b) Repayment. Borrower shall make monthly payments of interest only commencing on the first (1st) Payment Date following the Funding Date of each Term Loan, and continuing on the Payment Date of each successive month thereafter through and including the Payment Date immediately preceding the Amortization Date. Borrower agrees to pay, on the Funding Date of each Term Loan, any initial partial monthly interest payment otherwise due for the period between the Funding Date of such Term Loan and the first Payment Date thereof. Commencing on the Amortization Date, and continuing on the Payment Date of each month thereafter through June 1, 2018, Borrower shall make consecutive equal monthly payments of principal, together with applicable interest, in arrears, to each Lender, as calculated by Collateral Agent (which calculations shall be deemed correct absent manifest error) based upon: (1) the amount of such Lender's Term Loan, (2) the effective rate of interest, as determined in Section 2.3(a), and (3) a repayment schedule equal to thirty-six (36) months; provided, however, that the payment of principal that otherwise would have been due on the Amortization Date will be due and payable on May 1, 2017 along with any other payment of principal due on May 1, 2017. Borrower shall make monthly payments of interest only commencing on July 1, 2018, and continuing on the Payment Date of each successive month thereafter through and including December 1, 2018. Commencing on the January 1, 2019, and continuing on the Payment Date of each month thereafter, Borrower shall make consecutive equal monthly payments of principal, together with applicable interest, in arrears, to each Lender, as calculated by Collateral Agent (which calculations shall be deemed correct absent manifest error) based upon: (1) the unpaid principal amount of such Lender's Term Loan as of January 1, 2019, (2) the effective rate of interest, as determined in Section 2.3(a), and (3) a repayment schedule equal to fourteen (14) months. The Final Payment and all unpaid principal and accrued and unpaid interest with respect to each Term Loan are due and payable in full on the Maturity Date. Each Term Loan may only be prepaid in accordance with Sections 2.2(c) and 2.2(d).

6. Section 2.5 of the Loan Agreement is hereby amended by deleting the word "and" immediately following Section 2.5(d), replacing "." at the end of Section 2.5(e) with "; and" and adding Section 2.5(f) thereto as follows:

(f) Amendment Fee. A fully earned and non-refundable amendment fee in the amount of Five Thousand Dollars ($5,000.00), which shall become due and payable upon the earlier of: (i) the Maturity Date, (ii) the acceleration of any Term Loan, or (iii) the prepayment of a Term Loan pursuant to Section 2.2(c) or (d).

7. Section 5.2(d) of the Loan Agreement is hereby amended and restated as follows:

Borrower and each of its Subsidiaries is the sole owner of the Intellectual Property each respectively purports to own, free and clear of all Liens other than Permitted Liens. (i) Each of Borrower's and its Subsidiaries' Copyrights, Trademarks and issued Patents are valid and enforceable and no part of Borrower's or its Subsidiaries' Intellectual Property has been judged invalid or unenforceable, in whole or in part, and (ii) to the best of Borrower's knowledge, no claim has been made that any part of the Intellectual Property or any practice by Borrower or its Subsidiaries violates the rights of any third party except to the extent such claim could not reasonably be expected to have a Material Adverse Change.
Except as noted on the Perfection Certificates, neither Borrower nor any of its Subsidiaries is a party to, nor is bound by, any material license or other material agreement with respect to which Borrower or such Subsidiary is the licensee that (i) prohibits or otherwise restricts Borrower or its Subsidiaries from granting a security interest in Borrower's or such Subsidiaries' interest in such material license or material agreement or any other property, or (ii) for which a default under or termination of could interfere with Collateral Agent's or any Lender's right to sell any Collateral. Borrower shall provide written notice to Collateral Agent and each Lender within ten (10) days of Borrower or any of its Subsidiaries entering into or becoming bound by any license or agreement with respect to which Borrower or any Subsidiary is the licensee (other than over the counter software that is commercially available to the public).

8. Section 6.2(a)(vii) of the Loan Agreement is hereby amended and restated in its entirety as follows:

prompt notice of (A) any material change in the composition of the Intellectual Property, (B) the registration of any copyright, including any subsequent ownership right of Borrower or any of its Subsidiaries in or to any copyright, patent or trademark, including a copy of any such registration, and (C) any event that could reasonably be expected to materially and adversely affect the value of the Intellectual Property;

9. Section 6.7 of the Loan Agreement is hereby amended and restated in its entirety as follows:

Borrower and each of its Subsidiaries shall: (a) use commercially reasonable efforts to protect, defend and maintain the validity and enforceability of its Intellectual Property that is material to Borrower's business;
(b) promptly advise Collateral Agent in writing of material infringement by a third party of its Intellectual Property; and (c) not allow any Intellectual Property material to Borrower's business to be abandoned, forfeited or dedicated to the public without Collateral Agent's prior written consent. If Borrower or any of its Subsidiaries (i) obtains any patent, registered trademark or servicemark, registered copyright, registered mask work, or any pending application for any of the foregoing, whether as owner, licensee or otherwise, or (ii) applies for any patent or the registration of any trademark or servicemark, then Borrower or such Subsidiary shall substantially contemporaneously provide written notice thereof to Collateral Agent and each Lender and shall execute such intellectual property security agreements and other documents and take such other actions as Collateral Agent shall reasonably request in its good faith business judgment to perfect and maintain a first priority perfected security interest in favor of Collateral Agent, for the ratable benefit of the Lenders, in such property. If Borrower or any of its Subsidiaries decides to register any copyrights or mask works in the United States Copyright Office, Borrower or such Subsidiary shall: (x) provide Collateral Agent and each Lender with at least fifteen (15) days prior written notice of Borrower's or such Subsidiary's intent to register such copyrights or mask works together with a copy of the application it intends to file with the United States Copyright Office (excluding exhibits thereto); (y) execute an intellectual property security agreement and such other documents and take such other actions as Collateral Agent may reasonably request in its good faith business judgment to perfect and maintain a first priority perfected security interest in favor of Collateral Agent, for the ratable benefit of the Lenders, in the copyrights or mask works intended to be registered with the United States Copyright Office; and (z)

record such intellectual property security agreement with the United States Copyright Office contemporaneously with filing the copyright or mask work application(s) with the United States Copyright Office. Borrower or such Subsidiary shall promptly provide to Collateral Agent and each Lender with evidence of the recording of the intellectual property security agreement necessary for Collateral Agent to perfect and maintain a first priority perfected security interest in such property.

10. Section 13.1 of the Loan Agreement is hereby amended by amending and restating the following definition therein as follows:

"**Loan Documents**" are, collectively, this Agreement, the Warrants, the Perfection Certificates, each Compliance Certificate, each Disbursement Letter, the Post Closing Letter, the IP Agreement, any subordination agreements, any note, or notes or guaranties executed by Borrower or any other Person, and any other present or future agreement entered into by Borrower, any Guarantor or any other Person for the benefit of the Lenders and Collateral Agent in connection with this Agreement; all as amended, restated, or otherwise modified.

11. Section 13.1 of the Loan Agreement is hereby further amended by adding the following definitions thereto in alphabetical order:

"**Second Amendment Date**" is July 3, 2018.

"**IP Agreement**" is that certain Intellectual Property Security Agreement entered into by and between Borrower and Collateral Agent dated as of the Second Amendment Date, as such may be amended from time to time.

12. Exhibit A to the Loan Agreement is hereby amended and restated in its entirety as set forth on Exhibit B hereto.

13. Borrower hereby represents and warrants that a complete and accurate list of its Intellectual Property as of the Second Amendment Date is attached hereto as Exhibit C.

14. Borrower hereby authorizes Collateral Agent to file financing statements, amendments to financing statements or take any other action required to perfect Collateral Agent's security interests in the Collateral (as such term has been amended pursuant to this Amendment) , without notice to Borrower, with all appropriate jurisdictions to perfect or protect Collateral Agent's interest or rights under the Loan Documents, including a notice that any disposition of the Collateral, except to the extent permitted by the terms of the Loan Documents, by Borrower, or any other Person, shall be deemed to violate the rights of Collateral Agent under the Code.

15. The Amortization Table attached to the Disbursement Letter dated as of the Effective Date is hereby replaced in its entirety with the Amortization Table attached hereto as Exhibit D.

16. Limitation of Amendment and consents.

    a. The amendments and consents set forth above are effective for the purposes set forth herein and shall be limited precisely as written and, subject always to Section 18 of this Amendment, shall not be deemed to (i) be a consent to any amendment, waiver or modification of any other term or condition of any Loan Document, or (ii) otherwise prejudice any right, remedy or obligation which Lenders or Borrower may now have or may have in the future under or in connection with any Loan Document, as amended hereby.

    b. This Amendment shall be construed in connection with and as part of the Loan Documents and all terms, conditions, representations, warranties, covenants and agreements set forth in the Loan Documents, except as herein amended, are hereby ratified and confirmed and shall remain in full force and effect.

17. To induce Collateral Agent and Lenders to enter into this Amendment, Borrower hereby represents and warrants to Collateral Agent and Lenders and covenants as follows:

a. Immediately after giving effect to this Amendment (i) the representations and warranties contained in the Loan Documents are true, accurate and complete in all material respects as of the date hereof (except to the extent such representations and warranties relate to an earlier date, in which case they are true and correct as of such date), and (ii) no Event of Default has occurred and is continuing;

b. Borrower has the power and due authority to execute and deliver this Amendment and to perform its obligations under the Loan Agreement, as amended by this Amendment;

c. The organizational documents of Borrower delivered to Collateral Agent on the Effective Date, and updated pursuant to subsequent deliveries by the Borrower to the Collateral Agent, remain true, accurate and complete and have not been amended, supplemented or restated and are and continue to be in full force and effect;

d. Neither the organizational documents of Borrower nor any of its governing documents grant any right to any stockholder of Borrower or any other Person to prohibit Borrower from the sale of Borrower's equity securities. The Borrower is not party to any agreement (other than the Borrower's agreements set forth in the Loan Documents) with any stockholder of Borrower or any other Person that would impede Borrower's ability to incur indebtedness.

e. The execution and delivery by Borrower of this Amendment and the performance by Borrower of its obligations under the Loan Agreement, as amended by this Amendment, do not and will not contravene (i) any law or regulation binding on or affecting Borrower, (ii) any contractual restriction with a Person binding on Borrower, (iii) any order, judgment or decree of any court or other governmental or public body or authority, or subdivision thereof, binding on Borrower, or (iv) the organizational documents of Borrower;

f. The execution and delivery by Borrower of this Amendment and the performance by Borrower of its obligations under the Loan Agreement, as amended by this Amendment, do not require any order, consent, approval, license, authorization or validation of, or filing, recording or registration with, or exemption by any governmental or public body or authority, or subdivision thereof, binding on Borrower, except as already has been obtained or made;

g. This Amendment has been duly executed and delivered by Borrower and is the binding obligation of Borrower, enforceable against Borrower in accordance with its terms, except as such enforceability may be limited by bankruptcy, insolvency, reorganization, liquidation, moratorium or other similar laws of general application and equitable principles relating to or affecting creditors' rights; and

h. In connection with the transactions contemplated in the Asset Purchase and License Agreement, Borrower will not be obligated to pay any broker, investment banker or other similar fees other than the Greenhill Payment (the aggregate amount of which is Three Hundred Eight Five Thousand Dollars ($385,000.00) as set forth above and Borrower shall make such payment to Greenhill in six equal monthly installments commencing with the consummation of the aforementioned transactions.

18. Notwithstanding anything to the contrary in this Amendment, and/or the Loan Agreement, Collateral Agent and Lenders agree that the Loan Agreement, as amended, shall not apply to, and shall have no force and effect as far as the Acquired Assets are concerned, and that the Acquired Assets with regard to Loan Agreement, as amended, are free and clear of any security interest, pledge, attachment, easement, restriction, hypothecation, mortgage, lien (statutory or otherwise), option, conditional sale agreement, right of first refusal or right of first offer (including any agreement to grant any of the foregoing), or any other encumbrance under the Loan Agreement.

19. Except as expressly set forth herein, the Loan Agreement shall continue in full force and effect without alteration or amendment. This Amendment and the Loan Documents represent the entire agreement about this subject matter and supersede prior negotiations or agreements.

20. The Borrower hereby remises, releases, acquits, satisfies and forever discharges the Lenders and Collateral Agent, their agents, employees, officers, directors, predecessors, attorneys and all others acting or purporting to act on behalf of or at the direction of the Lenders and Collateral Agent **("Releasees**"), of and from any and all manner of actions, causes of action, suit, debts, accounts, covenants, contracts, controversies, agreements, variances, damages, judgments, claims and demands whatsoever, in law or in equity, which any of such parties ever had, now has or, to the extent arising from or in connection with any act, omission or state of facts taken or existing on or prior to the date hereof, may have after the date hereof against the Releasees, for, upon or by reason of any matter, cause or thing whatsoever relating to or arising out of the Loan Agreement or the other Loan Documents on or prior to the date hereof through the date hereof. Without limiting the generality of the foregoing, the Borrower waives and affirmatively agrees not to allege or otherwise pursue any defenses, affirmative defenses, counterclaims, claims, causes of action, setoffs or other rights they do, shall or may have as of the date hereof, including the rights to contest: (a) the right of Collateral Agent and each Lender to exercise its rights and remedies described in the Loan Documents; (b) any provision of this Amendment or the Loan Documents; or (c) any conduct of the Lenders or other Releasees relating to or arising out of the Loan Agreement or the other Loan Documents on or prior to the date hereof.

21. This Amendment shall be deemed effective as of the Second Amendment Date upon (a) the due execution and delivery to Collateral Agent of this Amendment by each party hereto, (b) the execution and delivery by Borrower of the IP Agreement, (c) Collateral Agent's receipt of the fully executed and complete Purchase and License Agreement, and (d) Borrower's payment of all Lenders' Expenses incurred through the date hereof, which may be debited (or ACH'd) from any of Borrower's accounts.

22. This Amendment may be executed in any number of counterparts, each of which shall be deemed an original, and all of which, taken together, shall constitute one and the same instrument.

23. This Amendment and the rights and obligations of the parties hereto shall be governed by and construed in accordance with the laws of the State of New York.

[*Balance of Page Intentionally Left Blank*]

IN WITNESS WHEREOF, the parties hereto have caused this Amendment to be executed as of the date first set forth above.

BORROWER:

MABVAX THERAPEUTICS HOLDINGS, INC.

By */s/ David Hansen*
Name: .David Hansen
Title: President and CEO

BORROWER:

MABVAX THERAPEUTICS, INC.

By: /s/ J. David Hansen

COLLATERAL AGENT AND LENDER:

OXFORD FINANCE LLC

By: /s/ Colette H. Featherly
Name: Colette H. Featherly
Title: Senior Vice President

Exhibit A

Asset Purchase and License Agreement

Exhibit B

Description of Collateral

The Collateral consists of all of Borrower's right, title and interest in and to the following personal property:

All goods, Accounts (including health-care receivables), Equipment, Inventory, contract rights or rights to payment of money, leases, license agreements, franchise agreements, General Intangibles (including all Intellectual Property), commercial tort claims, documents, instruments (including any promissory notes), chattel paper (whether tangible or electronic), cash, deposit accounts and other Collateral Accounts, all certificates of deposit, fixtures, letters of credit rights (whether or not the letter of credit is evidenced by a writing), securities, and all other investment property, supporting obligations, and financial assets, whether now owned or hereafter acquired, wherever located; and

All Borrower's Books relating to the foregoing, and any and all claims, rights and interests in any of the above and all substitutions for, additions, attachments, accessories, accessions and improvements to and replacements, products, proceeds and insurance proceeds of any or all of the foregoing.

Notwithstanding the foregoing, the Collateral does not include (i) more than 65% of the total combined voting power of all classes of stock entitled to vote the shares of capital stock (the "Shares") of any Foreign Subsidiary, if Borrower demonstrates to Collateral Agent's reasonable satisfaction that a pledge of more than sixty five percent (65%) of the Shares of such Subsidiary creates a present and existing adverse tax consequence to Borrower under the U.S. Internal Revenue Code; and (ii) any license or contract, in each case if the granting of a Lien in such license or contract is prohibited by or would constitute a default under the agreement governing such license or contract (but (A) only to the extent such prohibition is enforceable under applicable law and (B) other than to the extent that any such term would be rendered ineffective pursuant to Sections 9-406, 9-408 or 9-409 (or any other Section) of Division 9 of the Code); provided that upon the termination, lapsing or expiration of any such prohibition, such license or contract, as applicable, shall automatically be subject to the security interest granted in favor of Collateral Agent hereunder and become part of the "Collateral."

Exhibit 31.1

Certification Under Section 302

I, J. David Hansen, certify that:

1. I have reviewed this quarterly report on Form 10-Q 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 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(s) 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 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(s) 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.

Date: October 15, 2018

By: /s/ J. David Hansen
J. David Hansen
Chief Executive Officer (Principal Executive Officer)

Exhibit 31.2

Certification Under Section 302

I, Gregory P. Hanson, certify that:

1. I have reviewed this quarterly report on Form 10-Q 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 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(s) 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 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(s) 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.

Date: October 15, 2018

By: /s/ Gregory P. Hanson
Gregory P. Hanson
Chief Financial Officer (Principal Financial and Accounting Officer)

Exhibit 32.1

Certification
Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002
(Subsections (a) and (b) of Section 1350, Chapter 63 of Title 18, United States Code)

Pursuant to section 906 of the Sarbanes-Oxley Act of 2002 (subsections (a) and (b) of section 1350, chapter 63 of title 18, United States Code), each of the undersigned officers of MabVax Therapeutics Holdings, Inc., does hereby certify, to such officer's knowledge, that:

The Quarterly Report on Form 10-Q of MabVax Therapeutics Holdings, Inc. for the three months ended March 31, 2018, fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934, and the information contained in the Form 10-Q fairly presents, in all material respects, the financial condition and results of operations of MabVax Therapeutics Holdings, Inc.

Date: October 15, 2018 By: /s/ J. David Hansen
J. David Hansen
Chief Executive Officer (Principal Executive Officer)

Date: October 15, 2018 By: /s/ Gregory P. Hanson
Gregory P. Hanson
Chief Financial Officer (Principal Financial and Accounting Officer)

A signed original of this written statement required by Section 906 has been provided to the Company and will be retained by the Company and furnished to the Securities and Exchange Commission or its staff upon request.