# UNITED STATES SECURITIES AND EXCHANGE COMMISSION

WASHINGTON, D.C. 20549

# FORM 10-Q

			-
×	QUARTERLY REPORT PURS 1934	SUANT TO SECTION 13 OR 15(d) O	F THE SECURITIES EXCHANGE ACT OF
		For the quarterly period ended March	31, 2019
		OR	
	TRANSITION REPORT PURS 1934	SUANT TO SECTION 13 OR 15(d) O	F THE SECURITIES EXCHANGE ACT OF
		For the transition period from	to
		Commission File Number: 001-38	3624
			-
		Vaccinex, Inc	
		(Exact name of registrant as specified in	its charter) -
	Delaware (State or other jurisdic incorporation or organi 1895 Mount Hope A	zation) wenue	16-1603202 (I.R.S. Employer Identification No.)
	Rochester, New Y (Address of principal execut		14620 (Zip Code)
	• • •	gistrant's telephone number, including area c	
Yes	ding 12 months (or for such shorter period that  ⊠ No □  Indicate by check mark whether the registra  g the preceding 12 months (or for such shorter	the registrant was required to file such reports), and in thas submitted electronically every Interactive Data period that the registrant was required to submit such	ion 13 or 15(d) of the Securities Exchange Act of 1934 during the (2) has been subject to such filing requirements for the past 90 days.  File required to be submitted pursuant to Rule 405 of Regulation S-files). Yes ⊠ No □  on-accelerated filer, smaller reporting company, or an emerging grow
compa	any. See the definitions of "large accelerated fi	ler," "accelerated filer," "smaller reporting company,	" and "emerging growth company" in Rule 12b-2 of the Exchange
Large	e accelerated filer $\Box$		Accelerated filer $\Box$
Non-	accelerated filer		Smaller reporting company $\square$
Emer	ging growth company		
new (		te by check mark if the registrant has elected no provided pursuant to Section 13(a) of the Excha	to use the extended transition period for complying with any age Act. $\square$
	Indicate by check mark whether the reg	istrant is a shell company (as defined in Rule 12	b-2 of the Exchange Act). Yes □ No ⊠
Secui	rities registered pursuant to Section 12(b)	of the Securities Exchange Act of 1934:	
	Title of each class	Trading Symbol(s)	Name of each exchange on which registered
	Common Stock, \$0.0001 par value	VCNX	Nasdaq Global Market
	As of May 10, 2019, the registrant had	11,478,843 shares of common stock, \$0.0001 pa	r value per share, outstanding.



# VACCINEX, INC. FORM 10-Q

# TABLE OF CONTENTS

		Page
	PART I – FINANCIAL INFORMATION	
Item 1.	Unaudited Condensed Consolidated Financial Statements	3
	Condensed Consolidated Balance Sheets (Unaudited)	3
	Condensed Consolidated Statements of Operations and Comprehensive Loss (Unaudited)	4
	Consolidated Statements of Redeemable Convertible Preferred Stock and Stockholders' Equity (Deficit) (Unaudited)	5
	Condensed Consolidated Statements of Cash Flows (Unaudited)	6
	Notes to Condensed Consolidated Financial Statements (Unaudited)	7
Item 2.	Management's Discussion and Analysis of Financial Condition and Results of Operations	18
Item 3.	Quantitative and Qualitative Disclosures About Market Risk	26
Item 4.	Controls and Procedures	26
	PART II – OTHER INFORMATION	
Item 1.	<u>Legal Proceedings</u>	27
Item 1A.	Risk Factors	27
Item 6.	<u>Exhibits</u>	28
	<u>Signatures</u>	29
	2	

### PART I - FINANCIAL INFORMATION

### **Item 1. Unaudited Condensed Consolidated Financial Statements**

### VACCINEX, INC.

# Condensed Consolidated Balance Sheets (Unaudited) (in thousands, except share and per share data)

		As of March 31, 2019	De	As of cember 31, 2018
ASSETS				
Current assets:				
Cash and cash equivalents	\$	8,942	\$	5,618
Marketable securities		2,348		14,106
Accounts receivable, net		628		639
Prepaid expenses and other current assets		832		1,061
Total current assets		12,750		21,424
Property and equipment, net		544		604
TOTAL ASSETS	\$	13,294	\$	22,028
LIABILITIES AND STOCKHOLDERS' EQUITY	_			
Current liabilities:				
Accounts payable	\$	2,439	\$	2,322
Accrued expenses		4,520		4,364
TOTAL LIABILITIES		6,959		6,686
Commitments and contingencies (Note 9)		,		Ĺ
Stockholders' equity:				
Common stock, par value of \$0.0001 per share; 100,000,000 shares authorized as of March 31, 2019 and December 31, 2018; 11,476,601 shares issued as of March 31, 2019 and December 31, 2018; 11,475,749 shares				
outstanding as of March 31, 2019 and December 31, 2018		1		1
Additional paid-in capital		208,216		208,156
Treasury stock, at cost; 852 shares				
of common stock as of March 31, 2019 and December 31, 2018		(11)		(11)
Accumulated deficit		(225,834)		(216,767)
Total Vaccinex, Inc. stockholders' deficit		(17,628)		(8,621)
Noncontrolling interests		23,963		23,963
TOTAL STOCKHOLDERS' EQUITY		6,335		15,342
TOTAL LIABILITIES AND STOCKHOLDERS' EQUITY	\$	13,294	\$	22,028

# Condensed Consolidated Statements of Operations and Comprehensive Loss (Unaudited) (in thousands, except share and per share data)

		arch 31,		
		2019		2018
Revenue	\$	94	\$	206
Costs and expenses:				
Cost of revenue		175		240
Research and development		7,412		4,454
General and administrative		1,647		1,221
Total costs and expenses		9,234		5,915
Loss from operations		(9,140)		(5,709)
Change in fair value of derivative liabilities		-		308
Interest expense		-		(267)
Loss on extinguishment of related party convertible promissory note		-		(2,180)
Other income (expense), net		73		(14)
Loss before provision for income taxes		(9,067)		(7,862)
Provision for income taxes		-		-
Net loss		(9,067)		(7,862)
Net loss attributable to noncontrolling interests		-		-
Net loss attributable to Vaccinex, Inc. common stockholders, basic and diluted	\$	(9,067)	\$	(7,862)
Net loss per share attributable to Vaccinex, Inc. common stockholders, basic and diluted	\$	(0.79)	\$	(7.13)
Weighted-average shares used in computing net loss per share attributable to Vaccinex,		-		
Inc. common stockholders, basic and diluted		11,475,749		1,102,571

# Consolidated Statements of Redeemable Convertible Preferred Stock and Stockholders' Equity (Deficit) (Unaudited) (in thousands, except share data)

	Redeemable Convertible Convertible Preferred Stock Preferred Stock			Common Stock			Treasury Stock Redeemable				T- 4-1		Transl.	
	Shares	Amount	Shares	Amount	Shares	Amount	Additional Paid-in Capital	Convertible Preferred Stock Shares	Common Stock Shares	Amount	Accumulated Deficit	Total Vaccinex, Inc. Stockholders' Deficit	Noncontrolling Interests	Total Stockholders' Equity (Deficit)
Balance as of January 1, 2018	53,089,959	\$ 111,718	5,702,450	\$ 7,684	1,103,396	\$ -	\$ 54,123	163	836	\$ (11)	\$ (187,249)	\$ (125,453)	\$ 11,963	\$ (113,490)
Stock-based compensation	-	-	-	-	-	-	36	-	-	-	_	36	-	36
Capital contribution	-	-	-	-	-	-	-	-	-	-	- (7.052)	- (7.052)	8,000	8,000
Net loss Balance as of		- - 111 710		e 7.004	1 102 200		£ 54.150	163			(7,862)	(7,862)		(7,862)
March 31, 2018	53,089,959	\$ 111,718	5,702,450	\$ 7,684	1,103,396	<u>\$ -</u>	\$ 54,159	163	836	\$ (11)	<u>\$ (195,111)</u>	\$ (133,279)	\$ 19,963	\$ (113,316)
	Redeemable (		Conver Preferred		Common	Stock		Tre Redeemable	asury Stock			Total		
	Shares	Amount	Shares	Amount	Shares	Amount	Additional Paid-in Capital	Convertible Preferred Stock Shares	Common Stock Shares	Amount	Accumulated Deficit	Vaccinex, Inc. Stockholders' Deficit	Noncontrolling Interests	Total Stockholders' Equity
Balance as of January 1, 2019	-			\$ -	11,476,601		\$ 208,156	-	852		\$ (216,767)			\$ 15,342
Stock-based compensation	-	-	-	-	-	-	60	-	-	-	-	60	-	60
Net loss											(9,067)	(9,067)		(9,067)
Balance as of March 31, 2019		<u>\$ -</u>		<u>\$ -</u>	11,476,601	\$ 1	\$ 208,216		852	<u>\$ (11)</u>	\$ (225,834)	\$ (17,628)	\$ 23,963	\$ 6,335

# Condensed Consolidated Statements of Cash Flows (Unaudited) (in thousands)

		Three Months Ended March 31,				
		2019	2018			
CASH FLOWS FROM OPERATING ACTIVITIES:						
Net loss	\$	(9,067) \$	(7,862)			
Adjustments to reconcile net loss to net cash used in operating activities:						
Depreciation and amortization		60	56			
Amortization of debt discount		-	235			
Net amortization of premiums and discounts on marketable securities		(42)	-			
Stock-based compensation		60	36			
Change in fair value of derivative liabilities		-	(308)			
Loss on extinguishment of related party convertible promissory note		-	2,180			
Changes in operating assets and liabilities:						
Accounts receivable		11	37			
Prepaid expenses and other current assets		229	(65)			
Accounts payable		117	348			
Accrued expenses		156	309			
Deferred revenue		-	(131)			
Net cash used in operating activities		(8,476)	(5,165)			
CASH FLOWS FROM INVESTING ACTIVITIES:						
Sales and maturities of marketable securities		11,800	-			
Purchase of property and equipment		-	(47)			
Net cash provided by (used in) investing activities		11,800	(47)			
CASH FLOWS FROM FINANCING ACTIVITIES:			<u> </u>			
Payments of initial public offering costs		-	(44)			
Repayment of convertible promissory note, related party		_	(4,000)			
Proceeds from capital contribution		-	8,000			
Net cash provided by financing activities		_	3,956			
NET INCREASE (DECREASE) IN CASH AND CASH EQUIVALENTS		3,324	(1,256)			
CASH AND CASH EQUIVALENTS–Beginning of period		5,618	4,180			
CASH AND CASH EQUIVALENTS–End of period	\$	8,942 \$				
SUPPLEMENTAL DISCLOSURES OF NONCASH INVESTING AND	<u>*                                    </u>					
FINANCING ACTIVITIES:						
Cash paid for interest	\$	- \$	13			
Purchase of property and equipment in accounts payable	\$	- \$	9			
Deferred offering costs in accounts payable and accrued expenses	\$	<u> </u>	573			
Deferred offering costs reclassed from prepaid expenses and other current assets	\$	- \$				
Zererred stream, costs recussed from prepare expenses and streat earliest assets	Ψ	Ψ	30			

#### Notes to Condensed Consolidated Financial Statements (Unaudited)

#### 1. COMPANY AND NATURE OF BUSINESS

#### **Description of Business**

Vaccinex, Inc. (together with its subsidiaries, the "Company") was incorporated in Delaware in April 2001 and is headquartered in Rochester, New York. The Company is a clinical-stage biotechnology company engaged in the discovery and development of targeted biotherapeutics to treat serious diseases and conditions with unmet medical needs, including cancer, neurodegenerative diseases, and autoimmune disorders. Since its inception, the Company has devoted substantially all of its efforts toward product research, manufacturing and clinical development.

The Company is subject to a number of risks common to other early-stage biotechnology companies including, but not limited to, the successful development and commercialization of its product candidates, rapid technological change and competition, dependence on key personnel and collaborative partners, uncertainty of protection of proprietary technology and patents, clinical trial uncertainty, fluctuation in operating results and financial performance, the need to obtain additional funding, potential product liability, compliance with governmental regulations, technological and medical risks, customer demand, management of growth and effectiveness of marketing by the Company. If the Company does not successfully commercialize or partner any of its product candidates, it will be unable to generate product revenue or achieve profitability.

#### Going Concern

These unaudited condensed consolidated financial statements have been prepared on a going concern basis, which implies the Company will continue to realize its assets and discharge its liabilities in the normal course of business. The Company has incurred significant losses and negative cash flows from operations since inception and expects to incur additional losses until such time that it can generate significant revenue from the commercialization of its product candidates. The Company had negative cash flow from operations of \$8.5 million and \$25.3 million for the three months ended March 31, 2019 and year ended December 31, 2018, respectively, and an accumulated deficit of \$225.8 million and \$216.8 million as of March 31, 2019 and December 31, 2018, respectively. The Company's ability to continue as a going concern is at issue due to its historical net losses and negative cash flows from operations, and its need for additional financing to fund future operations. These conditions raise substantial doubt about the Company's ability to continue as a going concern. The consolidated financial statements do not include any adjustments relating to the recoverability and classification of recorded asset amounts or the amounts and classification of liabilities that might result from the outcome of this uncertainty.

To date, the Company has relied on equity and debt financing to fund its operations. In addition, the Company received \$12.0 million in capital contributions from noncontrolling interests during each of the years ended December 31, 2018 and 2017. As the Company's product candidates are still in the early stages of development, substantial additional financing will be needed by the Company to fund its operations and ongoing research and development efforts prior to the commercialization, if any, of its product candidates. Given our projected operating requirements and our existing cash and cash equivalents and marketable securities, we plan to complete an additional financing transaction prior to the commencement of the 2019 fourth quarter in order for us to continue operations. Management is currently evaluating different strategies to obtain the required funding of future operations. These strategies may include, but are not limited to, additional funding from current or new investors, refinancing of existing debt obligations or obtaining additional debt financing. There can be no assurances that the Company will be able to secure such additional financing, or if available, that it will be sufficient to meet its needs or on favorable terms.

#### **Initial Public Offering**

In August 2018, the Company completed its initial public offering (the "IPO") in which it issued and sold 3,333,334 shares of its common stock, \$0.0001 par value, at a public offering price of \$12.00 per share. The Company received net proceeds of \$37.2 million after deducting underwriting discounts and commissions of \$2.8 million, but before deducting offering expenses of \$2.7 million. In addition, in connection with the IPO:

- all shares of the Company's then-outstanding convertible preferred stock were automatically converted and reclassified into 7,039,155 shares of its common stock, \$0.0001 par value;
- a 1-for-10 reverse stock split of the Company's common stock was effected; and
- the Company repaid a \$1.5 million convertible promissory note issued in June 2016 (the "June 2016 Note"), held by a related party, Vaccinex (Rochester), L.L.C. ("Vaccinex LLC"), which is majority owned and controlled by Dr. Maurice Zauderer, the Company's President, Chief Executive Officer and a member of its board of directors.

#### 2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

#### Basis of Presentation and Consolidation

These condensed consolidated financial statements reflect the accounts and operations of the Company and those of its subsidiaries in which the Company has a controlling financial interest. All intercompany transactions and balances have been eliminated.

The accompanying condensed consolidated financial statements have been prepared in accordance with accounting principles generally accepted in the United States of America ("U.S. GAAP") and following the requirements of the Securities and Exchange Commission ("SEC"), for interim reporting. As permitted under those rules, certain footnotes or other financial information that are normally required by U.S. GAAP can be condensed or omitted. These condensed consolidated financial statements have been prepared on the same basis as the Company's annual consolidated financial statements and, in the opinion of management, reflect all adjustments, consisting only of normal recurring adjustments that are necessary for a fair statement of the Company's financial information. The results of operations for the interim periods presented are not necessarily indicative of the results to be expected for any subsequent quarter or for the entire year ending December 31, 2019. The year-end balance sheet data was derived from audited consolidated financial statements but does not include all disclosures required by U.S. GAAP. Certain information and note disclosures normally included in annual consolidated financial statements prepared in accordance with U.S. GAAP have been omitted under the rules and regulations of the SEC.

These condensed consolidated financial statements should be read in conjunction with the Company's audited consolidated financial statements and related notes included in the Company's Annual Report on Form 10-K for the year ended December 31, 2018, filed with the SEC on March 13, 2019.

#### Use of Estimates

These condensed consolidated financial statements have been prepared in conformity with U.S. GAAP. The preparation of financial statements in conformity with U.S. GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and the disclosure of contingent assets and liabilities as of the date of the condensed consolidated financial statements and the reported amount of expenses during the reporting period. Such management estimates include those relating to assumptions used in the valuation of stock option awards, the valuation of derivative instruments, and valuation allowances against deferred income tax assets. Actual results could differ from those estimates.

#### Concentration of Credit Risk, Other Risks and Uncertainties

Financial instruments that potentially subject the Company to concentrations of credit risk consist primarily of cash and cash equivalents and marketable securities. Cash equivalents are deposited in interest-bearing money market accounts and short-term investments consist of highly liquid U.S. government treasury bills and notes. The Company deposits its cash with multiple financial institutions and cash balances may occasionally be in excess of the amounts insured by the Federal Deposit Insurance Corporation. Management believes the financial risk associated with these balances is minimal and has not experienced any losses to date.

The Company depends on third-party manufacturers for the manufacture of drug substance and drug product for clinical trials. The Company also relies on certain third parties for its supply chain. Disputes with these third- party manufacturers or shortages in goods or services from third-party suppliers could delay the manufacturing of the Company's product candidates and adversely impact its results of operations.

#### Comprehensive Loss

The Company did not have any other comprehensive income or loss for any of the periods presented and therefore comprehensive loss did not differ from net loss.

#### Recent Accounting Pronouncements Not Yet Adopted

In February 2016, the Financial Accounting Standards Board (the "FASB") issued Accounting Standard Update ("ASU") No. 2016-02, *Leases*, which supersedes the Accounting Standards Codification ("ASC") No. 840, *Leases*. ASU No. 2016-02 requires lessees to recognize all leases, with exception of short-term leases, as lease liabilities on the balance sheet. Under ASU No. 2016-02, a lease is defined as a lessee's obligation to make lease payments arising from a lease, measured on a discounted basis, and 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 during the lease term. ASU No. 2016-02 also requires additional disclosure about the amount, timing and uncertainty of cash flow from leases. The new standard is effective for the Company at the earlier of losing the emerging growth company status or the Company's fiscal year beginning January 1, 2020. Early adoption is permitted. This new standard will require the present value of these leases to be recorded in the condensed consolidated balance sheets as a right-of-use asset and lease liability. The Company will adopt the new standard effective January 1, 2020 and is continuing to evaluate the impact of this guidance on its condensed consolidated financial statements and related disclosures.

#### **Recently Adopted Accounting Pronouncements**

In May 2014, the FASB issued ASU No. 2014-09, *Revenue from Contracts with Customers*, which supersedes the revenue recognition requirements in ASC No. 605, *Revenue Recognition*. ASU No. 2014-09 is based on the principle that revenue is recognized to depict the transfer of goods or services to customers in an amount that reflects the consideration to which the entity expects to be entitled in exchange for those goods or services. ASU No. 2014-09 also requires additional disclosure about the nature, amount, timing and uncertainty of revenues and cash flows arising from customer contracts, including significant judgments and changes in judgments and assets recognized from costs incurred to obtain or fulfill a contract. In August 2015, the FASB issued ASU No. 2015-14 to defer the effective date by one year with early adoption permitted as of the original effective date. In addition, the FASB issued ASU Nos. 2016-08, 2016-10 and 2016-12 in March 2016, April 2016 and May 2016, respectively, to help provide interpretive clarification on the new guidance in ASC No. 606. ASU Nos. 2016-08, 2016-10 and 2016-12 are all effective beginning the same period as ASU No. 2014-09. The Company adopted the new revenue standards using the modified retrospective method as of January 1, 2019; however, it is not required to reflect the effects of adoption in its consolidated financial statements until it files its annual report for the fiscal year ending December 31, 2019. The Company is in the process of evaluating the effect that the new revenue standards will have on its consolidated financial statements and related disclosures.

### 3. BALANCE SHEET COMPONENTS

#### **Property and Equipment**

Property and equipment consist of the following (in thousands):

	N	As of Iarch 31, 2019	As of December 31, 2018
Leasehold improvements	\$	3,145	\$ 3,145
Research equipment		3,219	3,219
Furniture and fixtures		350	350
Computer equipment		214	214
Property and equipment, gross	' <u></u>	6,928	 6,928
Less: accumulated depreciation and amortization		(6,384)	(6,324)
Property and equipment, net	\$	544	\$ 604

Depreciation and amortization expense related to property and equipment was \$60,000 and \$56,000 for the three months ended March 31, 2019 and 2018, respectively.

### **Accrued Expenses**

Accrued expenses consist of the following (in thousands):

	N	As of Aarch 31, 2019	De	As of ecember 31, 2018
Accrued clinical trial cost	\$	4,084	\$	3,796
Accrued payroll and related benefits		247		236
Accrued consulting and legal		117		296
Accrued other		72		36
Accrued expenses	\$	4,520	\$	4,364

### 4. MARKETABLE SECURITIES

As of March 31, 2019, the fair value of available-for-sale marketable securities was as follows (in thousands):

	As of March 31, 2019						
	nortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Fa	ir Value		
Marketable securities:							
U.S. Treasury securities	\$ 2,348	\$ -	\$ -	\$	2,348		
	\$ 2,348	\$ -	\$ -	\$	2,348		
		As of Decen	nber 31, 2018				
	nortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Fa	ir Value		
Marketable securities:							
U.S. Treasury securities	\$ 14,106	\$ -	\$ -	\$	14,106		
	\$ 14,106	\$ -	\$ -	\$	14,106		

All of the Company's available-for-sale marketable securities at March 31, 2019 are maturing in one year or less.

#### 5. FAIR VALUE OF FINANCIAL MEASUREMENTS

Assets and liabilities recorded at fair value on a recurring basis in the condensed consolidated balance sheets are categorized based upon the level of judgment associated with the inputs used to measure their fair values. Fair value is defined as the exchange price that would be received for an asset or paid to transfer a liability (an exit price) in the principal or most advantageous market for the asset or liability in an orderly transaction between market participants on the measurement date. Valuation techniques used to measure fair value must maximize the use of observable inputs and minimize the use of unobservable inputs. ASC 820 describes a fair value hierarchy based on the following three levels of inputs, of which the first two are considered observable and the last unobservable, that may be used to measure fair value:

Level 1 – Quoted prices in active markets for identical assets or liabilities.

Level 2 — Inputs other than Level 1 that are observable, either directly or indirectly, such as quoted prices for similar assets or liabilities; quoted prices in markets that are not active; or other inputs that are observable or can be corroborated by observable market data for substantially the full term of the assets or liabilities.

Level 3 – Unobservable inputs that are supported by little or no market activity and that are significant to the fair value of the assets or liabilities.

The assets' or liabilities' fair value measurement level within the fair value hierarchy is based on the lowest level of any input that is significant to the fair value measurement.

The following table sets forth the fair value of the Company's financial assets by level within the fair value hierarchy (in thousands):

		As of March 31, 2019						
	Fa	Fair Value		Level 1		Level 2		Level 3
Financial Assets:								
Cash equivalents:								
Money market funds	\$	8,233	\$	8,233	\$	-	\$	-
Marketable securities:								
U. S. Treasury securities		2,348		-		2,348		-
Total Financial Assets	\$	10,581	\$	8,233	\$	2,348	\$	
				As of Decem				
Financial Assets:	Fa	ir Value		Level 1		Level 2		Level 3
Cash equivalents:								
Money market funds	\$	4,881	\$	4,881	\$	-	\$	-
Marketable securities:								
U. S. Treasury securities		14,106		-		14,106		-
Total Financial Assets	\$	18,987	\$	4,881	\$	14,106	\$	-

The Company did not transfer any assets measured at fair value on a recurring basis to or from Level 1 and Level 2 during either of the three months ended March 31, 2019 and 2018.

#### 6. LICENSE AND SERVICES AGREEMENT

In November 2017, the Company entered into a license agreement (the "VX3 License Agreement") with VX3 (DE) LLP ("VX3"), which was formed by a group of Canadian investors including the Company's majority stockholder, FCMI Parent Co. ("FCMI Parent"). VX3 was created for the purpose of funding the Company's research and development activities for VX15, our most advanced product candidate. In June 2018, the U.S. Adopted Name Council approved the use of pepinemab as the adopted name for VX15. Under the VX3 License Agreement, the Company granted VX3 the license to use, make, have made, sell, offer and import pepinemab for the

treatment of Huntington's disease in the U.S. and Canada and, in return, VX3 agreed to fund research and development activities with up to an aggregate of \$32.0 million in milestone payments to the Company and to share any pepinemab profits and sublicensing revenue under the agreement in an amount based on a calculation set forth in the agreement. The Company also entered into a services agreement with VX3 (the "Services Agreement"), pursuant to which the Company will carry out development activities for pepinemab for the treatment of Huntington's disease in the U.S. and Canada in exchange for services payments from VX3, including a payment of \$11.9 million in 2017. The VX3 License Agreement expires upon the last to expire licensed patent and may be terminated by either party upon uncured material breach, the occurrence of certain transactions or financings including the consummation of an initial public offering by the Company, uncured failure of VX3 to make any payment due under the Services Agreement, or upon written notice after November 6, 2020. The Services Agreement may be terminated by either party upon an uncured material breach and is automatically terminated upon termination of the VX3 License Agreement. The VX3 License Agreement provides that upon termination, the Company will issue to VX3 or its designees the number of shares of the Company's common stock equal to the lesser of (1) the aggregate of all payments made to VX3 by the Canadian investors divided by \$18.20 and (2) the then fair market value of VX3 divided by the then fair market value of one share of the Company's common stock.

The Company has a variable interest in VX3 through FCMI Parent, which is majority owned and controlled by the Company's chairman, and it controlled 90% of VX3's voting interest at each of March 31, 2019 and December 31, 2018. VX3 does not have any business operations or generate any income or expenses and is primarily a funding mechanism specifically for the benefit of the Company, as its only activities consist of the receipt of funding and the contribution of such funding to the Company. Therefore, the Company determined that it is the primary beneficiary of VX3 and that the operating results of VX3 should be incorporated into the Company's condensed consolidated financial statements accordingly.

In February, May and June 2018, the Services Agreement was amended to allow VX3 to provide additional funding for future research and development activities to take place in the year ending December 31, 2018 and to repay an outstanding convertible note in the amount of \$4.0 million (Note 8). No other terms of the Services Agreement were amended; therefore, the above assessment resulting in the Company being the primary beneficiary of the VX3 entity remained unchanged as of March 31, 2019.

For the three months ended March 31, 2018, the Company recorded the gross proceeds of \$8.0 million, received from VX3 as capital contributions from noncontrolling interests on the condensed consolidated financial statements.

#### 7. COLLABORATION AGREEMENTS

#### Merck Sharp & Dohme Corp.

In September 2017, the Company entered into a research agreement with Merck Sharp & Dohme Corp. ("Merck") to test vaccinia strain Modified Vaccinia Ankara. Under the research agreement, the Company designed genetic sequence for all constructs listed in the agreement and conducted research in accordance with the research protocol and a mutually agreed scope of work outlined in the agreement. Merck supplied the Company sufficient samples of the antibodies to carry out the research and has sole ownership of all right, title, interest and copy rights of the research results. Under the research agreement, the Company recognized service revenue of \$69,000 for the three months ended March 31, 2018. The research agreement expired in June 2018. In the fourth quarter of 2018, the Company entered into a second research agreement with Merck to test these antigen particles in an antibody discovery campaign.

#### Surface Oncology, Inc.

In November 2017, the Company entered into a research collaboration and license option agreement with Surface Oncology, Inc. ("Surface") to identify and select antibodies against two target antigens, using the Company's proprietary technology as described in the agreement. The term for each research program is nine to twelve months (not exceeding twelve months unless extended by written agreement) including time necessary for any functional assessment conducted by Surface following the commencement of the research program. Surface will provide the Company material to carry out the research activities. During the research program term, the Company

also grants Surface non-exclusive, worldwide, limited-purpose license for each target to use the Company's research program materials for conducting the research work pursuant to the agreement.

Under the agreement, Surface has been granted exclusive options, exercisable by providing a written notice to the Company, to obtain (i) an exclusive product license to make, use, sell and import products incorporating the antibody targeting the first antigen and (ii) an exclusive research tool license to use the antibody targeting the second antigen to perform research.

Under the agreement, Surface will pay an upfront technology access fee of \$250,000 and milestone payments upon completion of each of four designated milestones for the first target antigen specified in the agreement. For the second target antigen, Surface will make payments to the Company based on time incurred by the Company in the conduct of the work plan described in the agreement. Surface will reimburse the Company for expenses incurred (i) in the conduct of the work plan as detailed in the research funding budget and (ii) for patent filings and prosecution of the Company's program intellectual property as described in the agreement. The exercise of each option would also entail a license fee and annual maintenance fees, and in the case of the product license, royalties and additional milestone payments. During the year ended December 31, 2017, the Company received the upfront technology access fee of \$250,000, of which \$63,000 was recognized as revenue from the amortization of this upfront fee for the three months ended March 31, 2018. The Company also received \$93,877 and \$69,172 service fee payments for work conducted under the agreement for the three months ended March 31, 2019 and 2018, respectively. This agreement will expire upon the expiration of both research programs and all evaluation and testing periods.

### 8. CONVERTIBLE PROMISSORY NOTES

As of March 31, 2019, the Company did not have any convertible promissory notes outstanding. See "Repayment of Convertible Promissory Notes" below.

#### June 2016 Note

In June 2016, the Company issued a \$1.5 million convertible promissory note to a related party. The June 2016 Note accrued interest at a compounded annual rate of 8% and had a maturity date three years from issuance, if not converted before then. Upon the occurrence of a default event, such as payment or performance defaults, bankruptcy, change in control (if elected to be treated as such by the lenders), or other violation, the interest rate would increase to a compounded annual rate of 12% until such time the default is cured. Upon maturity, the holder of these convertible promissory notes was to be repaid the outstanding principal plus all accrued interest. The Company also had the ability to prepay the convertible promissory notes, plus accrued interest, without penalty. The debt issuance costs for these convertible promissory notes were not material. The June 2016 Note was paid in full on August 17, 2018. See "Repayment of Convertible Promissory Notes" below.

#### January 2017 Notes

In January 2017, the Company entered into a convertible promissory note agreement whereby it agreed to issue, in the aggregate, \$10.0 million of convertible promissory notes to a related party (the "January 2017 Notes"). The \$4.0 million of the January 2017 Notes issued in January 2017 did not accrue interest, but the other \$6.0 million of the January 2017 Notes issued in April, August and October 2017 accrued interest at an annual rate of 2%. The January 2017 Notes had a maturity date three years from issuance. Upon maturity, the holder of these convertible promissory notes was to be repaid the outstanding principal plus all accrued interest. The Company was also authorized to prepay the January 2017 Notes, plus accrued interest, without penalty. The debt issuance costs for these convertible promissory notes were not material. Of the January 2017 Notes, \$6.0 million were paid in 2017 and the balance was paid in full on March 8, 2018. See "Repayment of Convertible Promissory Notes" below.

#### **Derivative Liabilities**

From the proceeds of the convertible promissory notes, the portion equal to the fair value of the embedded derivative liabilities and the option derivative at the time of each respective issuance was recognized as a debt

discount to be amortized to interest expense over the term of the related convertible promissory notes. The Company recognized interest expense of \$235,000 for the amortization of the debt discounts during the three months ended March 31, 2018.

#### Repayment of Convertible Promissory Notes

Of the January 2017 Notes, \$2.0 million issued in April 2017 was repaid along with accrued interest in May 2017, \$4.0 million issued in August and October 2017 was repaid along with accrued interest in November 2017 and \$4.0 million issued in January 2017 was repaid in March 2018. The option arrangement associated with the January 2017 Notes was also waived upon the repayment of the January 2017 Notes. As a result of this repayment, the related \$0.3 million derivative liabilities associated with the conversion feature and the option arrangement were written off and the \$2.2 million unamortized debt discount was recognized as a loss on extinguishment of related party convertible promissory note in the condensed consolidated statement of operations for the three months ended March 31, 2018.

The June 2016 Note was repaid along with accrued interest in August 2018. As a result of this repayment, the related \$31,000 derivative liability associated with the conversion feature and the option arrangement were written off and the \$199,000 unamortized debt discount was recognized as a loss on extinguishment of related party convertible promissory note in the condensed consolidated statements of operations in the three months ended September 30, 2018.

#### 9. COMMITMENTS AND CONTINGENCIES

#### **Sublicense Termination Payments**

In 2006, the Company licensed certain technology to EUSA Pharma SAS ("EUSA") and in 2008, this technology was sublicensed by EUSA to Glaxo Group Limited ("GSK") for development. GSK terminated its sub-license with EUSA in March 2010 and ownership of the technology reverted back to the Company. The Company may be required to pay EUSA up to \$25.5 million plus ongoing royalty payments of 1% of net sales upon the occurrence of certain events involving the previously licensed technology, including a Phase 3 clinical trial, FDA acceptance and approval and product sales. The Company is not planning any further commercialization efforts related to the previously licensed technology, and therefore does not anticipate any of the above described amounts will be paid.

#### **Operating Lease**

The Company leases its facilities from 1895 Management, Ltd., a New York corporation controlled by an entity affiliated with a director of the Company, under non-cancellable operating leases. Following entry into a lease extension agreement in July 2018, the lease agreement requires monthly rental payments of \$14,000 through October 31, 2020. The Company is responsible for all maintenance, utilities, insurance and taxes related to the facility.

As of March 31, 2019, the future minimum payments for the operating lease are \$266,000.

Rent expense incurred under the operating lease was \$42,000 for each of the three months ended March 31, 2019 and 2018.

#### **Contingencies**

The Company is subject to claims and assessments from time to time in the ordinary course of business. The Company records a provision for a liability when it believes that it is both probable that a liability has been incurred and the amount can be reasonably estimated. Significant judgment is required to determine both probability and the estimated amount.

In the normal course of business, the Company may become involved in legal proceedings. The Company will accrue a liability for such matters when it is probable that a liability has been incurred and the amount can be

reasonably estimated. When only a range of possible loss can be established, the most probable amount in the range is accrued. If no amount within this range is a better estimate than any other amount within the range, the minimum amount in the range is accrued. The accrual for a litigation loss contingency might include, for example, estimates of potential damages, outside legal fees and other directly related costs expected to be incurred. As of March 31, 2019 and December 31, 2018, the Company was not involved in any material legal proceedings.

#### 10. COMMON STOCK RESERVED FOR ISSUANCE

Common stock has been reserved for the following potential future issuances:

	As of March 31, 2019	As of December 31, 2018
Shares underlying outstanding stock options	538,702	405,683
Shares available for future stock option grants	289,981	423,000
Exchange of Vaccinex Products, LP units	1,202,566	1,202,566
Conversion of VX3 units	1,318,797	1,318,797
Total shares of common stock reserved	3,350,046	3,350,046

#### 11. STOCK-BASED COMPENSATION

#### 2011 Employee Equity Plan

The Company's 2011 Employee Equity Plan (the "2011 Plan") was terminated in connection with the adoption of the Company's 2018 Omnibus Incentive Plan (the "2018 Plan") in August 2018, and the Company will not grant any additional stock options under the 2011 Plan. However, the 2011 Plan will continue to govern the terms and conditions of the outstanding stock options previously granted thereunder. Stock options granted under the 2011 Plan expire in five or ten years from the date of grant.

#### 2018 Omnibus Incentive Plan

In August 2018, the Company's Board of Directors adopted, and its stockholders approved, the 2018 Plan, which allows for the granting of stock, stock option, and stock appreciation rights awards to employees, advisors and consultants. Stock options granted under the 2018 Plan may be either incentive stock options or non-statutory stock options. Incentive stock options may be granted to employees, advisors and consultants at exercise prices of no less than the fair value of the common stock on the grant date. If at the time of grant, the optionee owns stock representing more than 10% of the voting power of all classes of stock of the Company, the exercise price must be at least 110% of the fair value of the common stock on the grant date as determined by the board of directors. Non-statutory stock options may be granted to employees, advisors and consultants at exercise prices of less than the fair market value of a share of common stock on the date the non-statutory stock option is granted but shall under no circumstances be less than adequate consideration as determined by the board of directors for such a share. Vesting period of stock option grants is determined by the board of directors, ranging from zero to eight years. Stock options granted under the 2018 Plan expire in five or ten years from the date of grant.

The Company reserved 425,000 shares of common stock for issuance, subject to certain adjustments, pursuant to awards under the 2018 Plan. Any shares of common stock related to awards outstanding under the 2011 Plan as of the effective date of the 2018 Plan, which thereafter terminate by expiration, forfeiture, cancellation or otherwise without the issuance of such shares, will be added to, and included in, the number of shares of common stock available for grant under the 2018 Plan. In addition, effective January 1, 2020 and continuing until the expiration of the 2018 Plan, the number of shares of common stock available for issuance under the 2018 Plan will automatically increase annually by 2% of the total number of issued and outstanding shares of our common stock as of December 31st of the immediately preceding year or such lesser number as our board of directors may decide, which may be zero.

A summary of the Company's stock option activity and related information is as follows:

	Options Outstanding							
	Stock Options		Weighted- Average Exercise Price	Weighted- Average Remaining Contractual Life (Years)	Aggregate Intrinsic Value (000's)			
Balance as of December 31, 2018	405,683	\$	9.69	6.5	\$	-		
Granted	135,972		3.97					
Exercised	-		-					
Canceled	(2,953)		12.60					
Balance as of March 31, 2019	538,702	\$	8.23	7.2	\$	175		
Exercisable as of March 31, 2019	373,777	\$	9.43	6.1	\$	-		

The weighted-average grant date fair value of stock options granted to employees for the three months ended March 31, 2019 and 2018 was \$2.65 and \$15.63 per share, respectively. The aggregate grant date fair value of stock options that vested during the three months ended March 31, 2019 and 2018 was \$53,716 and \$79,000, respectively.

The intrinsic value of stock options vested and expected to vest and exercisable is calculated based on the difference between the exercise price and the fair value of the Company's common stock as of March 31, 2019 and December 31, 2018. The intrinsic value of exercised stock options is the difference between the fair value of the underlying common stock and the exercise price as of the exercise date.

As of March 31, 2019 and December 31, 2018, total unrecognized compensation cost related to stock options granted to employees was \$710,285 and \$435,639, respectively, which is expected to be recognized over a weighted-average period of 3.3 and 2.8 years, respectively.

The grant date fair value of employee stock options was estimated using a Black-Scholes option-pricing model with the following weighted-average assumptions:

	Three Months En March 31,	nded
	2019	2018
Expected term (in years)	6.0	6.0
Expected volatility	75%	75%
Risk-free interest rate	2.5%	2.6%
Expected dividend yield	-%	-%

Total stock-based compensation expense recognized in the condensed consolidated statements of operations is as follows (in thousands):

	Three Months Ended March 31,				
	20	19		2018	
Research and development	\$	15	\$	21	
General and administrative		45		15	
Total stock-based compensation expense	\$	60	\$	36	

#### 12. INCOME TAXES

No provision for income taxes was recorded in either of the three months ended March 31, 2019 and 2018. The Company remains in a cumulative loss position with a full valuation allowance recorded against its net deferred income tax assets as of March 31, 2019.

The Company evaluates tax positions for recognition using a more-likely-than-not recognition threshold, and those tax positions eligible for recognition are measured as the largest amount of tax benefit that is greater than 50% likely of being realized upon the effective settlement with a taxing authority that has full knowledge of all relevant information. As of March 31, 2019 and December 31, 2018, the Company had no unrecognized income tax benefits that would affect the Company's effective tax rate if recognized.

#### 13. NET LOSS PER SHARE ATTRIBUTABLE TO COMMON STOCKHOLDERS

The following weighted-average common stock equivalents were excluded from the calculation of diluted net loss per share for the periods presented as they had an anti-dilutive effect:

	Three Months  March 3	
	2019	2018
Preferred stock (if converted)	-	7,039,155
Options to purchase common stock	432,051	424,843
Contingently issuable common stock upon exchange of		
Vaccinex Products, LP units	1,202,566	1,202,566
Contingently issuable common stock upon exchange of		
VX3 units	1,318,797	800,880

#### 14. SEGMENT AND GEOGRAPHIC INFORMATION

The Company's chief operating decision maker, its Chief Executive Officer, reviews its operating results on an aggregate basis for purposes of allocating resources and evaluating financial performance. The Company has one business activity, the discovery and development of targeted biotherapeutics to treat serious diseases and conditions with unmet medical needs, and there are no segment managers who are held accountable for operations or operating results. Accordingly, the Company operates in one segment. As of March 31, 2019 and December 31, 2018, all long-lived assets are located in the United States.

#### 15. EMPLOYEE BENEFIT PLAN

The Company sponsors a 401(k) plan that stipulates that eligible employees can elect to contribute to the 401(k) plan, subject to certain limitations, up to the lesser of the statutory maximum or 100% of eligible compensation on a pre-tax basis. Through March 31, 2019, the Company has not elected to match employee contributions as permitted by the plan. The Company pays the administrative costs for the plan.

#### 16. RELATED PARTY TRANSACTIONS

As discussed in Note 9, the Company leases its facility from 1895 Management, Ltd., a New York corporation controlled by an entity affiliated with the Company's chairman and major stockholder of the Company. Rent expense incurred under this operating lease was \$42,000 for each of the three months ended March 31, 2019 and 2018.

As discussed in Note 7, in November 2017, we entered into a research collaboration and license option agreement with Surface to identify and select antibodies against two target antigens, using our proprietary technology as described in the agreement. J. Jeffrey Goater, a member of our board of directors, served as the Chief Business Officer of Surface at that time, and currently serves as the Chief Executive Officer and a director of Surface. The Company received \$93,877 and \$69,172 service fee payments for work conducted under the agreement for the three months ended March 31, 2019 and 2018, respectively.

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

You should read the following discussion and analysis of financial condition and results of operations together with our condensed consolidated financial statements and related notes included elsewhere in this report. References in this report to the "Company," "we," "our," or "us" mean Vaccinex, Inc. and its subsidiaries except where the context otherwise requires. This discussion and other parts of this Quarterly Report on Form 10-Q (the "Report") contain forward-looking statements that involve risk and uncertainties, such as statements of our plans, objectives, expectations and intentions. Our actual results could differ materially from those discussed in these forward-looking statements. Factors that could cause or contribute to such differences include, but are not limited to, those discussed in the risk factors identified in Item 1A of our Annual Report on Form 10-K for the year ended December 31, 2018 and in the cautionary statement below.

#### **Cautionary Note Regarding Forward-Looking Statements**

Some of the statements made in this Report constitute forward-looking statements. In some cases, you can identify forward-looking statements by terminology such as "may," "will," "should," "expects," "plans," "anticipates," "believes," "estimates," "predicts," "potential," "intends" or "continue," or the negative of these terms or other comparable terminology.

Forward-looking statements include, but are not limited to, statements about:

- our estimates regarding our expenses, future revenues, anticipated capital requirements and our needs for additional financing;
- the implementation of our business model and strategic plans for our business and technology;
- the timing and success of the commencement, progress and receipt of data from any of our preclinical and clinical trials;
- our expectations regarding the potential safety, efficacy or clinical utility of our product candidates;
- the expected results of any clinical trial and the impact on the likelihood or timing of any regulatory approval;
- the difficulties in obtaining and maintaining regulatory approval of our product candidates;
- the rate and degree of market acceptance of any of our product candidates;
- the success of competing therapies and products that are or become available;
- regulatory developments in the United States and foreign countries;
- current and future legislation regarding the healthcare system;
- the scope of protection we establish and maintain for intellectual property rights covering our technology;
- developments relating to our competitors and our industry;
- our failure to recruit or retain key scientific or management personnel or to retain our executive officers;
- the performance of third parties, including collaborators, contract research organizations and third-party manufacturers;
- the development of our commercialization capabilities, including the need to develop or obtain additional capabilities; and
- our use of the proceeds from our recent initial public offering.

These statements are only current predictions and are subject to known and unknown risks, uncertainties and other factors that may cause our or our industry's actual results, levels of activity, performance or achievements to be materially different from those anticipated by the forward-looking statements. We discuss many of these risks in greater detail in the risk factors in Item 1A of our 2018 Annual Report on Form 10-K. You should not rely upon forward-looking statements as predictions of future events.

Although we believe that the expectations reflected in the forward-looking statements are reasonable, we cannot guarantee future results, levels of activity, performance or achievements. Except as required by law, after the date of this Report, we are under no duty to update or revise any of the forward-looking statements, whether as a result of new information, future events or otherwise.

#### **Company Overview**

We are a clinical-stage biotechnology company engaged in the discovery and development of targeted biotherapeutics to treat serious diseases and conditions with unmet medical needs, including cancer, neurodegenerative diseases, and autoimmune disorders. We believe we are the leader in the field of SEMA4D biology and that we are the only company targeting SEMA4D as a potential treatment for cancer, neurodegenerative diseases, or autoimmune disorders. SEMA4D is an extracellular signaling molecule that regulates the migration of immune and inflammatory cells to sites of injury, cancer or infection. We are leveraging our SEMA4D antibody platform and our extensive knowledge of SEMA4D biology to develop our lead product candidate, VX15, which we believe utilizes novel mechanisms of action. In June 2018, the U.S. Adopted Name Council approved the use of pepinemab as the adopted name for VX15. We are focused on the development of pepinemab for the treatment of non-small cell lung cancer, or NSCLC, osteosarcoma, melanoma and Huntington's disease. We have developed multiple proprietary platform technologies and are developing product candidates to address serious diseases or conditions that have a substantial impact on day-to-day functioning and for which treatment is not addressed adequately by available therapies. We employ our proprietary platform technologies, including through our work with our academic collaborators, to identify potential product candidates for sustained expansion of our internal product pipeline and to facilitate strategic development and commercial partnerships.

Our lead platform technologies include our SEMA4D antibody platform and our ActivMAb antibody discovery platform.

- Our SEMA4D antibody platform is the application of our extensive knowledge of SEMA4D biology to develop our lead product candidate pepinemab for the treatment of various indications, including cancer and neuroinflammatory and neurodegenerative diseases. We believe pepinemab's mechanisms of action block the SEMA4D signal and activate innate physiological mechanisms to respond to tumors or tissue injury. We have demonstrated in animal models in preclinical studies that the biological activities associated with an antibody blockade of SEMA4D can promote immune cell infiltration into tumors and the repair or prevention of neurological damage in neuroinflammatory and neurodegenerative diseases.
- Our ActivMAb® antibody discovery platform is a proprietary human antibody discovery platform based on a novel method for expressing large and diverse libraries of high affinity, full-length human monoclonal antibodies on the surface of vaccinia, a mammalian virus. We believe our ActivMAb technology offers (i) rapid generation of high affinity, full-length, human monoclonal antibodies synthesized and naturally modified in mammalian cells, (ii) expression and selection of antibodies that easily and predictably transition to manufacturing in mammalian lines, and (iii) an innovative and efficient method for selecting antibodies against multi-pass membrane proteins, an important class of pharmacological targets. Our product candidate VX5 was generated by our ActivMAb platform and is currently in preclinical development for the treatment of MS and potentially for other autoimmune disorders. We intend to continue to utilize our ActivMAb platform to identify additional product candidates for our own pipeline development and for strategic collaborations.

In addition, we and our academic collaborators are using our Natural Killer T, or NKT, vaccine platform to discover product candidates that target and extend the activity of NKT cells. NKT cells work directly to kill certain types of parasites and cells, including tumor cells and virus-infected cells. We are applying our agonists to direct NKT cells to the site of tumors, potentially enhancing tumor-specific immunity through recruitment and activation of cytotoxic T cells, or CTL, and antibody-armed natural killer, or NK, cells that will work to eradicate the tumor.

We have generated a limited amount of service revenue from collaboration agreements but have not generated any revenue from product sales to date. We continue to incur significant development and other expenses related to our ongoing operations. As a result, we are not and have never been profitable and have incurred losses in each period since our inception. For the three months ended March 31, 2019 and 2018, we reported a net loss of \$9.1 million and \$7.9 million, respectively. As of March 31, 2019 and December 31, 2018, we had cash and cash equivalents and marketable securities of \$11.3 million and \$19.7 million, respectively. We expect to continue to incur significant losses for the foreseeable future, and we expect these losses to increase as we continue our research and development of, and seek regulatory approvals for, our product candidates. Our recurring net losses and negative cash flows from operations have raised substantial doubt regarding our ability to continue as a going concern, and as a result, our independent registered public accounting firm has noted this in the opinion they issued on our consolidated financial statements for the year ended December 31, 2018. We may also encounter unforeseen expenses, difficulties, complications, delays and other unknown factors that may adversely affect our business. The size of our future net losses will depend, in part, on the rate of future growth of our expenses and our ability to generate revenues, if any. Our prior losses and expected future losses have had and will continue to have an adverse effect on our stockholders' equity and working capital.

#### **Financial Overview**

#### Revenue

To date, we have not generated any revenue from product sales. During the three months ended March 31, 2019 and 2018, we generated a limited amount of service revenue from our collaboration agreements, including with Surface Oncology, Inc. ("Surface") and Merck Sharp & Dohme Corp. ("Merck").

Our ability to generate revenue and become profitable depends on our ability to successfully obtain marketing approval of and commercialize our product candidates. We do not expect to generate product revenue in the foreseeable future as we continue our development of, and seek regulatory approvals for, our product candidates, and potentially commercialize approved products, if any.

#### **Operating Expenses**

**Research and Development.** Research and development expenses consist primarily of costs for our clinical trials and activities related to regulatory filings, employee compensation-related costs, supply expenses, equipment depreciation and amortization, consulting and other miscellaneous costs. The following table sets forth the components of our research and development expenses and the amount as a percentage of total research and development expenses for the periods indicated.

		Three Months Ended March 31,					
		2019					
	(in t	housands)	%	(in t	housands)	%	
Clinical trial costs	\$	5,776	78%	\$	3,050	68%	
Wages, benefits, and related costs		885	12%		753	17%	
Preclinical supplies and equipment depreciation		471	6%		493	11%	
Consulting, non-clinical trial services, and other		280	4%		158	4%	
Total research and development expenses	\$	7,412		\$	4,454		

Our current research and development activities primarily relate to the clinical development of the following programs:

• Non-Small Cell Lung Cancer (NSCLC). In the CLASSICAL—Lung clinical trial, in which we are evaluating pepinemab in combination with avelumab in NSCLC, the dose escalation phase of the trial consisting of 12 subjects is complete, and we have identified the intended Phase 2 dose for the dose expansion phase. We plan to enroll a total of 50 subjects in two cohorts: because of changes in the regulatory environment following initiation of this study that have made it increasingly difficult to enroll immunotherapy naïve subjects, we have changed the allocation of subjects from 22 to 17 subjects in one cohort in which patients are immunotherapy naïve and 28 to 33 subjects in a second cohort whose

tumors have progressed during or following an initial treatment with anti-PD1/PD-L1. Primary completion for this trial is expected in the second half of 2019.

- **Huntington's Disease.** Enrollment in Cohort B of our SIGNAL trial evaluating pepinemab for the treatment of Huntington's disease, consisting of 265 subjects, was completed in December 2018. We expect data from this study in the second half of 2020.
- In addition, pepinemab is being evaluated in multiple investigator-sponsored trials (ISTs) in additional indications:
  - Melanoma The UCLA School of Medicine, in collaboration with Bristol-Myers Squibb, is evaluating pepinemab in combination with the checkpoint inhibitors nivolumab and ipilimumab in two cohorts of patients with advanced melanoma whose tumors progressed during or following initial treatment with immunotherapy.
  - Osteosarcoma The National Cancer Institute's Children's Oncology Group is evaluating pepinemab for the treatment of osteosarcoma.
  - Other Cancers Multiple "window of opportunity" trials are being conducted by the Winship Cancer Institute of Emory University to evaluate pepinemab in combination with immunotherapies in colorectal, pancreatic, head and neck cancer and melanoma.

As a result of our current research and development activities, the following milestones are anticipated:

- Second quarter of 2019 Presentation of additional data from the Classical-Lung study of pepinemab in combination with avelumab in NSCLC
- Second half of 2019 Anticipated publication of SIGNAL Cohort A data in Huntington's disease
- Second half of 2019 Estimated primary completion date of combination study in NSCLC
- Second half of 2020 Expected topline data from Cohort B of SIGNAL trial of pepinemab in Huntington's disease
- Second half of 2020 Estimated primary completion date of melanoma combination study being conducted at the UCLA School of Medicine with Bristol-Myers Squibb

We expense research and development costs as incurred. We record costs for certain development activities, such as clinical trials, based on an evaluation of the progress to completion of specific tasks using data such as patient enrollment. We do not allocate employee related costs, depreciation, rental and other indirect costs to specific research and development programs because these costs are deployed across multiple of our product programs under research and development.

#### **Results of Operations**

The following table set forth our results of operations for the periods presented (in thousands):

	 Three Months Ended March 31,				
	2019		2018		
Revenue	\$ 94	\$	206		
Costs and expenses:					
Cost of revenue	175		240		
Research and development	7,412		4,454		
General and administrative	 1,647		1,221		
Total costs and expenses	9,234		5,915		
Loss from operations	(9,140)		(5,709)		
Change in fair value of derivative liabilities	-		308		
Interest expense	-		(267)		
Loss on extinguishment of related party convertible promissory note	-		(2,180)		
Other income (expense), net	73		(14)		
Loss before provision for income taxes	 (9,067)	·	(7,862)		
Provision for income taxes	 <u>-</u>		-		
Net loss	 (9,067)		(7,862)		
Net loss attributable to noncontrolling interests	-		-		
Net loss attributable to Vaccinex, Inc.	\$ (9,067)	\$	(7,862)		

#### Comparison of the Three Months Ended March 31, 2019 and 2018

#### **Operating Expenses**

	Three Months Ended March 31,						
	2019 2018 \$ Change % Chang						% Change
	(in thousands)						
Research and development	\$	7,412	\$	4,454	\$	2,958	66%
General and administrative		1,647		1,221		426	35%
Total operating expenses	\$	9,059	\$	5,675	\$	3,384	60%

**Research and Development.** Research and development expenses in the three months ended March 31, 2019 increased by \$3.0 million, or 66%, compared to the three months ended March 31, 2018. This increase was attributable to the increase in patients enrolled in active clinical trials.

*General and Administrative.* General and administrative expenses in the three months ended March 31, 2019 increased by \$426,000, or 35%, compared to the three months ended March 31, 2018. This increase was attributable to costs associated with directors compensation and liability insurance as a result of being a public company.

#### Change in fair value of derivative liabilities

	Three Months Ended March 31,						
	2019 2018 \$ Change % Change						% Change
	·		(in the	ousands)			
Change in fair value of derivative liabilities	\$	-	\$	308	\$	(308)	(100)%

Change in fair value of derivative liabilities in the three months ended March 31, 2018 was due to the repayment of \$10.0 million of convertible promissory notes to a related party (the "January 2017 Notes") and the waiving of the associated option arrangement in March 2018.

		Three Months Ended March 31,					
	2019		2	018		\$ Change	% Change
			(in the	ousands)			
Interest expense	\$	-	\$	(267)	\$	(267)	(100)%

Interest expense in the three months ended March 31, 2019 decreased by \$267,000, compared to the three months ended March 31, 2018, as a result of the repayment of the January 2017 Notes in March 2018 and the \$1.5 million convertible promissory note issued in June 2016 to a related party (the "June 2016 Note") in August 2018.

### **Liquidity and Capital Resources**

To date, we have not generated any revenue from product sales. Since our inception in 2001, we have financed our operations principally through private placements of our preferred stock, issuances of convertible promissory notes and other promissory notes and funding from collaboration agreements with our variable interest entities. Through March 31, 2019, we have received net proceeds of \$87.1 million from the issuance of shares of our preferred stock, \$39.0 million from issuance of convertible promissory notes and \$72.1 million from our variable interest entities.

In August 2018, we completed an initial public offering ("IPO") of our common stock. We received net proceeds of \$37.2 million after deducting underwriting discounts and commissions of \$2.8 million but before deducting offering costs of \$2.7 million.

#### **Operating Capital Requirements**

Our primary uses of capital are, and we expect will continue to be, compensation and related expenses, third-party research services and amounts due to vendors for research supplies. As of March 31, 2019 and December 31, 2018, our principal source of liquidity was cash and cash equivalents and marketable securities in the amount of \$11.3 million and \$19.7 million, respectively. Given our projected operating requirements, our existing cash and cash equivalents and marketable securities, we plan to complete an additional financing transaction prior to the commencement of the fourth quarter of the year ended December 31, 2019 in order for us to continue operations.

Since our inception in 2001, we have incurred significant net losses and negative cash flows from operations. For the three months ended March 31, 2019 and 2018, we reported a net loss of \$9.1 million and \$7.9 million, respectively. As of March 31, 2019 and December 31, 2018, we had an accumulated deficit of \$225.8 million and \$216.8 million, respectively. We anticipate that we will continue to generate losses for the foreseeable future, and we expect the losses to increase as we continue the development of, and seek regulatory approvals for, our product candidates. We are subject to all of the risks associated with the development of new biopharmaceutical products, and we may encounter unforeseen expenses, difficulties, complications, delays and other unknown factors that may adversely affect our business.

Until we can generate a sufficient amount of revenue from our products, we expect to finance future cash needs through public or private equity, debt offerings, or capital contributions from our noncontrolling interests. In 2018, VX3 (DE) LLP ("VX3"), received a commitment of \$8.0 million of additional funding from FCMI Parent Co. ("FCMI Parent"), which was received in the first quarter of 2018, and commitments of \$4.0 million of additional funding in the aggregate from FCMI Parent and another investor, which were received in the second quarter of 2018. In August 2018, we completed our IPO and received net proceeds of \$37.2 million. Additional capital may not be available on reasonable terms, if at all. If we are unable to raise additional capital in sufficient amounts or on terms acceptable to us we may have to significantly delay, scale back or discontinue the development of one or more of our product candidates. If we raise additional funds through the issuance of additional debt or equity securities it could result in dilution to our existing stockholders, increased fixed payment obligations and these securities may have rights senior to those of our common stock and could contain covenants that would restrict our operations and potentially impair our competitiveness, such as limitations on our ability to incur additional debt, limitations on our ability to acquire, sell or license our intellectual property rights and other operating restrictions that could adversely impact our ability to conduct our business. Any of these events could significantly harm our business, financial condition and prospects.

#### Cash Flows

The following table summarizes our cash flows for the periods presented:

	Three	Three Months Ended March 30,				
	2019	2019 2018				
		(in thousands)				
Cash used in operating activities	\$	(8,476) \$	(5,165)			
Cash provided by (used in) investing activities		11,800	(47)			
Cash provided by financing activities		-	3,956			

*Operating Activities.* We have historically experienced negative cash flows as we developed our product candidates and continued to expand our business. Our net cash used in operating activities primarily results from our net loss adjusted for non-cash expenses and changes in working capital components as we have continued our research and development and is influenced by the timing of cash payments for research related expenses. Our primary uses of cash from operating activities are compensation and related-expenses, employee-related expenditures, third-party research services and amounts due to vendors for research supplies. Our cash flows from operating activities will continue to be affected principally by the extent to which we increase spending on personnel, research and development and other operating activities as our business grows.

During the three months ended March 31, 2019, operating activities used \$8.5 million in cash, primarily as a result of our net loss of \$9.1 million.

During the three months ended March 31, 2018, operating activities used \$5.2 million in cash, primarily as a result of our net loss of \$7.9 million, aggregate non-cash items of \$2.2 million, and \$0.5 million net outflow change in our operating assets and liabilities. Non-cash items included a \$2.2 million loss from unamortized debt issuance cost upon the repayment of the \$4.0 million January 2017 Note in March 2018, \$0.2 million amortization of debt discount related to certain convertible promissory notes, a \$0.3 million gain in fair value of derivative liabilities, \$56,000 depreciation expense and \$36,000 of stock-based compensation expense.

*Investing Activities.* Cash provided by investing activities during the three months ended March 31, 2019 resulted from sales and maturities of marketable securities.

*Financing Activities.* During the three months ended March 31, 2018, financing activities provided \$4.0 million primarily attributable to the capital contribution from noncontrolling interests of \$8.0 million partially offset by a \$4.0 million repayment of a convertible promissory note.

#### **Convertible Promissory Notes**

During the year ended December 31, 2017, we raised funds through the issuance of \$10.0 million of convertible promissory notes, of which \$6.0 million were repaid in the same year. On March 8, 2018, we repaid the \$4.0 million January 2017 Note and on August 17, 2018, the \$1.5 million June 2016 Note was repaid.

The June 2016 Note, together with accrued interest, was convertible: (i) automatically upon a future qualifying financing event, which includes the sale of shares in a future preferred stock financing with gross proceeds of at least \$5.0 million or the issuance of shares of common stock in an initial public offering; (ii) upon a change of control (unless the lenders elected to treat such event as a default); or (iii) upon a future non-qualifying financing event at the election of the lenders. Upon a future qualifying financing event, the outstanding principal, together with accrued interest, would convert into shares of the newly issued securities at 85% of the price paid in the financing. Upon the election to convert the June 2016 Note in the event of a change of control, the outstanding principal, together with accrued interest, would convert based on the conversion price of the Series C redeemable convertible preferred stock, which was \$18.20 per share as of December 31, 2017, at the time of conversion. Upon the election to convert the June 2016 Note in the event of a non-qualifying financing event, the outstanding principal, together with accrued interest, would convert based on the lowest price per share paid for in the financing.

All of the convertible promissory notes were allowed to be prepaid, plus accrued interest if applicable, without penalty.

#### **Capital Contributions from Noncontrolling Interests**

In November 2017, we entered into a license agreement (the "VX3 License Agreement"), with VX3, which was formed in October 2017 by a group of Canadian investors including our majority stockholder FCMI Parent. Under the VX3 License Agreement, we granted VX3 the license to use, make, have made, sell, offer and import pepinemab for the treatment of Huntington's disease in the U.S. and Canada. Pursuant to the VX3 License Agreement, VX3 agreed to pay us up to an aggregate of \$32.0 million in milestone payments and to share any pepinemab profits and sublicensing revenue under the agreement in an amount based on a calculation set forth in the agreement. In connection with the VX3 License Agreement, we also entered into a services agreement with VX3 (the "Services Agreement"), effective as of January 1, 2017, pursuant to which we will carry out development activities for pepinemab for the treatment of Huntington's disease in the U.S. and Canada in exchange for services payments from VX3, including a payment of \$11.9 million for 2017 net of certain related expenses. On February 28, 2018, May 15, 2018 and June 12, 2018, the Services Agreement was amended to provide for additional payments of \$8.0 million, \$2.0 million and \$2.0 million, respectively, from VX3 for services performed in 2018. The VX3 License Agreement expires upon the last to expire licensed patent and may be terminated by either party upon uncured material breach, the occurrence of certain transactions or financings including the consummation of an initial public offering by us, uncured failure of VX3 to make any payment due under the services agreement, or upon written notice after November 6, 2020. The Services Agreement may be terminated by either party upon uncured material breach and is automatically terminated upon termination of the VX3 License Agreement. The VX3 License Agreement provides that upon termination, we will issue to VX3 or its designees the number of shares of our common stock equal to the lesser of (1) the aggregate of all capital cont

We have determined VX3 to be a variable interest entity in which we are the primary beneficiary. As such, we recorded the gross proceeds of \$12.0 million received from VX3 as a capital contribution from noncontrolling interests on our consolidated financial statements for the year ended December 31, 2018.

#### **Contractual Obligations**

There were no significant changes to our contractual obligations described in our Annual Report on Form 10-K for the year ended December 31, 2018, filed with the SEC on March 13, 2019.

#### **Off-Balance Sheet Arrangements**

We did not have any off-balance sheet arrangements as defined in the rules and regulations of the SEC.

#### **JOBS Act Accounting Election**

We are an "emerging growth company" within the meaning of the Jumpstart Our Business Startups Act (the "JOBS Act"). Section 107(b) of the JOBS Act provides that an emerging growth company can leverage the extended transition period, provided in Section 102(b) of the JOBS Act, for complying with new or revised accounting standards. Thus, an emerging growth company can delay the adoption of new or revised accounting standards that have different effective dates for public and private companies until those standards apply to private companies. We have elected to use this extended transition period and, as a result, our condensed consolidated financial statements may not be comparable to companies that comply with public company effective dates of such accounting standards.

#### **Critical Accounting Policies and Estimates**

Our unaudited condensed consolidated financial statements are prepared in accordance with accounting principles generally accepted in the United States of America. The preparation of these condensed consolidated financial statements requires us to make estimates and assumptions that affect the reported amounts of assets, liabilities, expenses and related disclosures. We evaluate our estimates and assumptions on an ongoing basis. Our

estimates are based on historical experience and various other assumptions that we believe to be reasonable under the circumstances. Our actual results could differ from these estimates.

There have been no material changes to our critical accounting policies and significant judgments as compared to the critical accounting policies and estimates disclosed in our Annual Report on Form 10-K for the year ended December 31, 2018.

#### Recent Accounting Pronouncements Not Yet Adopted

For a discussion of recent accounting pronouncements that we have not yet adopted, see Note 2 to our unaudited condensed consolidated financial statements.

### **Recently Adopted Accounting Pronouncements**

For a discussion of accounting pronouncements that we have recently adopted, see Note 2 to our unaudited condensed consolidated financial statements.

#### Item 3. Quantitative and Qualitative Disclosures about Market Risk

As a smaller reporting company, we are not required to provide the information required by this item.

#### **Item 4. Controls and Procedures**

#### Evaluation of disclosure controls and procedures

Our management, with the participation of our Chief Executive Officer (our principal executive officer) and Chief Financial Officer (our principal financial officer), evaluated the effectiveness of the design and operation of our disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) under the Securities Exchange Act of 1934, as amended (the "Exchange Act")) as of March 31, 2019, the end of the period covered by this Form 10-Q. Based on that evaluation, our Chief Executive Officer and Chief Financial Officer concluded that, as of March 31, 2019, our disclosure controls and procedures were effective.

### Changes in internal control over financial reporting

There were no changes in our internal control over financial reporting during the quarter ended March 31, 2019 that materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

# Part II - OTHER INFORMATION

# **Item 1. Legal Proceedings**

We are not currently subject to any material legal proceedings.

# Item 1A. Risk Factors

There have been no material changes from the risk factors as previously disclosed in our Annual Report on Form 10-K for the year ended December 31, 2018 filed with the SEC on March 13, 2019.

### INDEX TO EXHIBITS

<b>Exhibit No.</b> 31.1*	Description Certification of Chief Executive Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002
31.2*	Certification of Chief Financial Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002
32.1*	<u>Certification of Chief Executive Officer and Chief Financial Officer pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, 18 U.S.C. Section 1350</u>
101*	The following items from this Quarterly Report on Form 10-Q formatted in Extensible Business Reporting Language: (i) Condensed Consolidated Balance Sheets (unaudited), (ii) Condensed Consolidated Statements of Operations (unaudited), (iii) Consolidated Statements of Redeemable Convertible Preferred Stock and Stockholders' Deficit (unaudited), (iv) Condensed Consolidated Statements of Cash Flows (unaudited), and (v) Notes to Condensed Consolidated Financial Statements

\* Filed herewith.

### **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.

Vaccinex, Inc.

(Registrant)

May 15, 2019 By: /s/ Maurice Zauderer

Maurice Zauderer, Ph.D.

President & Chief Executive Officer (Principal Executive Officer)

May 15, 2019 By: /s/ Scott E. Royer

Scott E. Royer, CFA, MBA Chief Financial Officer (Principal Financial Officer)

#### Certification of Chief Executive Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002

#### I, Maurice Zauderer, certify that:

- 1. I have reviewed this quarterly report on Form 10-Q for the three months ended March 31, 2019 of Vaccinex, 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:
  - 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.

Dated: May 15, 2019 By: /s/ Maurice Zauderer

Maurice Zauderer, Ph.D.

President and Chief Executive Officer
(Principal Executive Officer)

#### Certification of Chief Financial Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002

#### I, Scott E. Royer, certify that:

- 1. I have reviewed this quarterly report on Form 10-Q for the three months ended March 31, 2019 of Vaccinex, 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.

Dated: May 15, 2019 By: /s/ Scott E. Royer

Scott E. Royer Chief Financial Officer (Principal Financial Officer)

# Certification of Chief Executive Officer and Chief Financial Officer pursuant to 18 U.S.C. Section 1350 as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002

In connection with the quarterly report of Vaccinex, Inc., (the "Company") on Form 10-Q for the three months ended March 31, 2019 (the "Report"), I, Maurice Zauderer, Ph.D., President and Chief Executive Officer of the Company and Scott E. Royer, Chief Financial Officer of the Company, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that:

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

Dated: May 15, 2019 By: /s/ Maurice Zauderer

Maurice Zauderer, Ph.D.

President and Chief Executive Officer

Dated: May 15, 2019 By: /s/ Scott E. Royer

Scott E. Royer

Chief Financial Officer