INOVIO PHARMACEUTICALS, INC.
Form 10-Q
November 09, 2016

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

FORM 10-Q

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

FOR THE QUARTERLY PERIOD ENDED SEPTEMBER 30, 2016

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 NO. 001-14888

INOVIO PHARMACEUTICALS, INC.
(EXACT NAME OF REGISTRANT AS SPECIFIED IN ITS CHARTER)

DELAWARE	33-0969592
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification No.)

660 W. GERMANTOWN PIKE, SUITE 110
PLYMOUTH MEETING, PA 19462

(Address of principal executive offices) (Zip Code)

REGISTRANT'S TELEPHONE NUMBER, INCLUDING AREA CODE: (267) 440-4200

SECURITIES REGISTERED PURSUANT TO SECTION 12(B) OF THE ACT:

COMMON STOCK, $0.001 PAR VALUE	NASDAQ
(Title of Class)	(Name of Each Exchange on Which Registered)

SECURITIES REGISTERED PURSUANT TO SECTION 12(G) OF THE ACT: NONE

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 x No ¨

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

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

Large accelerated filer ¨	Accelerated filer x
Non-accelerated filer ¨ (Do not check if a smaller reporting company)	Smaller reporting company ¨

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

The number of shares outstanding of the Registrant's Common Stock, $0.001 par value, was 74,060,530 as of November 1, 2016.

INOVIO PHARMACEUTICALS, INC.
FORM 10-Q

For the Quarterly Period Ended September 30, 2016

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Part I. Financial Information

Item 1. Financial Statements

INOVIO PHARMACEUTICALS, INC.
CONDENSED CONSOLIDATED BALANCE SHEETS

	September 30, 2016 (Unaudited)	December 31, 2015
ASSETS		
Current assets:		
Cash and cash equivalents	$23,250,762	$57,632,693
Short-term investments	96,435,585	105,357,277
Accounts receivable	17,455,108	7,333,059
Prepaid expenses and other current assets	1,391,252	917,257
Prepaid expenses and other current assets from affiliated entity	1,697,213	610,652
Total current assets	140,229,920	171,850,938
Fixed assets, net	8,990,714	7,306,695
Investment in affiliated entity- GeneOne	20,758,587	14,941,277
Investment in affiliated entity - PLS	4,537,761	5,045,915
Intangible assets, net	8,036,874	3,905,860
Goodwill	10,513,371	10,113,371
Other assets	1,482,066	676,803
Total assets	$194,549,293	$213,840,859
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities:		
Accounts payable and accrued expenses	$16,183,976	$13,064,899
Accounts payable and accrued expenses due to affiliated entity	493,420	165,047
Accrued clinical trial expenses	7,216,266	2,600,483
Common stock warrants	1,812,502	1,301,138
Deferred revenue	14,829,634	13,449,768
Deferred revenue from affiliated entity	438,542	504,442
Deferred rent	400,200	380,629
Total current liabilities	41,374,540	31,466,406
Deferred revenue, net of current portion	365,687	103,074
Deferred revenue from affiliated entity, net of current portion	180,444	677,371
Deferred rent, net of current portion	5,474,834	5,485,313
Deferred tax liabilities	175,642	175,642
Total liabilities	47,571,147	37,907,806
Inovio Pharmaceuticals, Inc. stockholders' equity:		
Common stock	73,967	72,218
Additional paid-in capital	552,753,321	534,004,564
Accumulated deficit	(408,604,765)	(361,097,896)
Accumulated other comprehensive income	2,659,354	2,708,339
Total Inovio Pharmaceuticals, Inc. stockholders' equity	146,881,877	175,687,225
Non-controlling interest	96,269	245,828
Total stockholders' equity	146,978,146	175,933,053
Total liabilities and stockholders' equity	$194,549,293	$213,840,859

See accompanying notes to unaudited condensed consolidated financial statements.

INOVIO PHARMACEUTICALS, INC.
CONDENSED CONSOLIDATED STATEMENTS OF OPERATIONS
(Unaudited)

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2016	2015	2016	2015
Revenues:				
Revenue under collaborative research and development arrangements	$2,327,316	$16,475,083	$6,014,161	$25,055,890
Revenue under collaborative research and development arrangements with affiliated entity	574,596	125,000	1,211,316	404,167
Grants and miscellaneous revenue	9,410,648	7,583,151	19,401,029	9,176,492
Grants and miscellaneous revenue from affiliated entity	227,903	—	227,903	—
Total revenues	12,540,463	24,183,234	26,854,409	34,636,549
Operating expenses:				
Research and development	26,980,343	16,075,201	64,800,304	42,190,032
General and administrative	5,755,603	4,377,616	16,926,746	13,203,804
Gain on sale of assets	—	—	(1,000,000)	(1,000,000)
Total operating expenses	32,735,946	20,452,817	80,727,050	54,393,836
Income (Loss) from operations	(20,195,483)	3,730,417	(53,872,641)	(19,757,287)
Other income (expense):				
Interest and other income, net	391,596	214,982	1,065,797	499,590
Change in fair value of common stock warrants, net	2,690	518,877	(517,334)	467,877
Gain (loss) on investment in affiliated entity	(958,141)	(659,054)	5,817,309	5,849,782
Net income (loss) before income tax benefit	(20,759,338)	3,805,222	(47,506,869)	(12,940,038)
Income tax benefit	—	1,789,246	—	1,789,246
Net income (loss)	(20,759,338)	5,594,468	(47,506,869)	(11,150,792)
Net (income) loss attributable to non-controlling interest	—	—	—	(84,769)
Net income (loss) attributable to Inovio Pharmaceuticals, Inc.	$(20,759,338)	$5,594,468	$(47,506,869)	$(11,235,561)
Net income (loss) per common share attributable to Inovio Pharmaceuticals, Inc. stockholders:				
Basic	$(0.28)	$0.08	$(0.65)	$(0.17)
Diluted	$(0.28)	$0.07	$(0.65)	$(0.18)
Weighted average number of common shares outstanding used in per share calculations:				
Basic	73,602,834	72,029,644	72,932,199	66,846,481
Diluted	73,789,008	73,961,237	72,932,199	67,018,961

See accompanying notes to unaudited condensed consolidated financial statements.

INOVIO PHARMACEUTICALS, INC.
CONDENSED CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME (LOSS)
(Unaudited)

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2016	2015	2016	2015
Net income (loss)	$(20,759,338)	$5,594,468	$(47,506,869)	$(11,150,792)
Other comprehensive income (loss):				
Unrealized gain (loss) on investment in affiliated entity, net of tax	(771,727)	3,998,521	(508,153)	3,998,521
Unrealized gain (loss) on short-term investments, net of tax	(83,281)	(20,149)	459,167	(92,951)
Comprehensive income (loss)	(21,614,346)	9,572,840	(47,555,855)	(7,245,222)
Comprehensive (income) loss attributable to non-controlling interest	—	—	—	(84,769)
Comprehensive income (loss) attributable to Inovio Pharmaceuticals, Inc.	$(21,614,346)	$9,572,840	$(47,555,855)	$(7,329,991)

See accompanying notes to unaudited condensed consolidated financial statements.

INOVIO PHARMACEUTICALS, INC.
CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS
(Unaudited)

	Nine Months Ended September 30,	
	2016	2015
Cash flows from operating activities:		
Net loss	$(47,506,869)	$(11,150,792)
Adjustments to reconcile net loss to net cash used in operating activities:		
Depreciation	1,292,696	733,722
Amortization of intangible assets	968,986	658,049
Change in value of common stock warrants	517,334	(467,877)
Stock-based compensation	7,384,318	4,900,898
Amortization of premiums on investments	200,000	242,384
Gain on short-term investments	(44,928)	—
Deferred rent	(125,408)	317,922
Gain on investment in affiliated entity	(5,817,309)	(5,849,782)
Gain on sale of intangible assets	(1,000,000)	(1,000,000)
Income tax benefit from other unrealized gains on securities	—	(1,789,246)
Changes in operating assets and liabilities:		
Accounts receivable	(10,122,049)	(8,161,066)
Prepaid expenses and other current assets	(473,995)	(550,917)
Prepaid expenses and other current assets from affiliated entity	(1,086,561)	748,049
Other assets	(811,233)	(123,002)
Accounts payable and accrued expenses	2,949,097	2,390,927
Accrued clinical trial expenses	4,615,783	935,012
Accounts payable and accrued expenses due to affiliated entity	328,373	2,784,612
Deferred revenue	1,642,479	9,625,906
Deferred revenue from affiliated entity	(562,827)	90,239
Net cash used in operating activities	(47,652,113)	(5,664,962)
Cash flows from investing activities:		
Purchases of investments	(42,495,236)	(37,391,913)
Maturities of investments	51,721,024	4,745,000
Purchases of capital assets	(2,672,235)	(1,955,621)
Proceeds from sale of intangible assets	1,000,000	1,000,000
Purchase of intangible assets and other assets	(1,200,000)	—
Net cash provided by (used in) investing activities	6,353,553	(33,602,534)
Cash flows from financing activities:		
Proceeds from issuance of common stock, net of issuance costs	5,458,284	81,902,363
Proceeds from stock option and warrant exercises, net of tax payments	1,607,904	2,439,506
Other financing activities	(149,559)	(149,559)
Net cash provided by financing activities	6,916,629	84,192,310
(Decrease) Increase in cash and cash equivalents	(34,381,931)	44,924,814
Cash and cash equivalents, beginning of period	57,632,693	40,543,982
Cash and cash equivalents, end of period	$23,250,762	$85,468,796
Supplemental disclosure of non-cash activities		
Common stock issued for purchase of Bioject	$4,300,000	$—
Change in amounts accrued for purchases of property and equipment	$169,980	$475,123
Lease incentive recorded as fixed assets and deferred rent	$134,500	$186,573

See accompanying notes to unaudited condensed consolidated financial statements.

INOVIO PHARMACEUTICALS, INC.
NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS
(Unaudited)

1. Organization and Operations

Inovio Pharmaceuticals, Inc. (the “Company” or “Inovio”), a clinical stage biopharmaceutical company, develops active DNA immunotherapies and vaccines in combination with proprietary electroporation delivery devices to prevent and treat cancers and infectious diseases. Inovio’s synthetic products are based on the Company’s SynCon® design. The Company has completed, current or planned clinical programs of its proprietary SynCon® products for HPV-caused pre-cancers and cancers, influenza, prostate cancer, breast/lung/pancreatic cancer, hepatitis C virus (HCV), hepatitis B virus (HBV), HIV, Ebola, Middle East Respiratory Syndrome (MERS) and Zika virus. The Company's partners and collaborators include MedImmune, LLC, The Wistar Institute, University of Pennsylvania, GeneOne Life Science Inc. ("GeneOne"), Drexel University, National Microbiology Laboratory of the Public Health Agency of Canada, National Institute of Allergy and Infectious Diseases (“NIAID”), United States Military HIV Research Program (“USMHRP”), U.S. Army Medical Research Institute of Infectious Diseases (“USAMRIID”), HIV Vaccines Trial Network (“HVTN”), and Defense Advanced Research Projects Agency (“DARPA”). Inovio is incorporated in Delaware.

2. Basis of Presentation

The accompanying unaudited condensed consolidated financial statements of Inovio have been prepared in accordance with U.S. generally accepted accounting principles (“U.S. GAAP”) for interim financial information and with instructions to Form 10-Q and Article 10 of Regulation S-X. Accordingly, they do not include all of the information and footnotes required by U.S. GAAP for complete financial statements. The condensed consolidated balance sheet as of September 30, 2016, condensed consolidated statements of operations for the three and nine months ended September 30, 2016 and 2015, condensed consolidated statements of comprehensive loss for the three and nine months ended September 30, 2016 and 2015 and the condensed consolidated statements of cash flows for the nine months ended September 30, 2016 and 2015, are unaudited, but include all adjustments (consisting of normal recurring adjustments) that the Company considers necessary for a fair presentation of the financial position, results of operations and cash flows for the periods presented. The results of operations for the three and nine months ended September 30, 2016 shown herein are not necessarily indicative of the results that may be expected for the year ending December 31, 2016, or for any other period. These financial statements, and notes thereto, should be read in conjunction with the audited consolidated financial statements for the year ended December 31, 2015, included in the Company's Form 10-K filed with the U.S. Securities and Exchange Commission (“SEC”) on March 11, 2016. The balance sheet at December 31, 2015 has been derived from the audited financial statements at that date, but does not include all of the information and footnotes required by U.S. GAAP for complete financial statements. The Company has evaluated subsequent events after the balance sheet date of September 30, 2016 through the date it filed these unaudited condensed consolidated financial statements with the SEC.

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, liabilities, disclosures of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates.

3. Critical Accounting Policies

Revenue Recognition.

The Company recognizes revenues when all four of the following criteria are met: (1) persuasive evidence of an arrangement exists; (2) delivery of the products and/or services has occurred; (3) the selling price is fixed or determinable; and (4) collectability is reasonably assured.

Grant revenue

The Company receives non-refundable grants under available government programs. Government grants towards current expenditures are recorded as revenue when there is reasonable assurance that the Company has complied with all conditions necessary to receive the grants, collectability is reasonably assured, and as the expenditures are incurred.

License fee and milestone revenue

The Company has adopted a strategy of co-developing or licensing its gene delivery technology for specific genes or specific medical indications. Accordingly, the Company has entered into collaborative research and development agreements and has received funding for pre-clinical research and clinical trials. Agreements that contain multiple elements are analyzed to

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determine whether the deliverables within the agreement can be separated or whether they must be accounted for as a single unit of accounting in accordance with the Financial Accounting Standards Board's ("FASB") Accounting Standards Update ("ASU") No. 2009-13, Revenue Recognition (Topic 605): Multiple-Deliverable Revenue Arrangements. Analyzing the arrangement to identify deliverables requires the use of judgment, and each deliverable may be an obligation to deliver services, a right or license to use an asset, or another performance obligation. The delivered item(s) were considered a separate unit of accounting if all of the following criteria were met: (1) the delivered item(s) has value to the customer on a standalone basis; (2) there is objective and reliable evidence of the fair value of the undelivered item(s); and (3) if the arrangement includes a general right of return relative to the delivered item, delivery or performance of the undelivered item(s) is considered probable and substantially in our control. If these criteria were not met, the deliverable was combined with other deliverables in the arrangement and accounted for as a combined unit of accounting.

Arrangement consideration is allocated at the inception of the agreement to all identified units of accounting based on their relative selling price. The relative selling price for each deliverable is determined using vendor specific objective evidence ("VSOE"), of selling price or third-party evidence of selling price if VSOE does not exist. If neither VSOE nor third-party evidence of selling price exists, we use our best estimate of the selling price for the deliverable. The amount of allocable arrangement consideration is limited to amounts that are fixed or determinable. The consideration received is allocated among the separate units of accounting, and the applicable revenue recognition criteria are applied to each of the separate units. Changes in the allocation of the sales price between delivered and undelivered elements can impact revenue recognition but do not change the total revenue recognized under any agreement.

Upfront license fee payments are recognized upon delivery of the license if facts and circumstances dictate that the license has standalone value from the undelivered items, the relative selling price allocation of the license is equal to or exceeds the upfront license fee, persuasive evidence of an arrangement exists, our price to the collaborator is fixed or determinable, and collectability is reasonably assured. Upfront license fee payments are deferred if facts and circumstances dictate that the license does not have standalone value. The determination of the length of the period over which to defer revenue is subject to judgment and estimation and can have an impact on the amount of revenue recognized in a given period.

The Company applies ASU No. 2010-17, Revenue Recognition (Topic 605): Milestone Method of Revenue Recognition ("Milestone Method"). Under the Milestone Method, the Company will recognize consideration that is contingent upon the achievement of a milestone in its entirety as revenue in the period in which the milestone is achieved only if the milestone is substantive in its entirety. A milestone is considered substantive when it meets all of the following criteria:

1. The consideration is commensurate with either the entity's performance to achieve the milestone or the enhancement of the value of the delivered item(s) as a result of a specific outcome resulting from the entity's performance to achieve the milestone,
2. The consideration relates solely to past performance, and
3. The consideration is reasonable relative to all of the deliverables and payment terms within the arrangement.

A milestone is defined as an event (i) that can only be achieved based in whole or in part on either the entity's performance or on the occurrence of a specific outcome resulting from the entity's performance, (ii) for which there is substantive uncertainty at the date the arrangement is entered into that the event will be achieved and (iii) that would result in additional payments being due to the Company.

Business Combinations. The cost of an acquired business is assigned to the tangible and identifiable intangible assets acquired and liabilities assumed on the basis of the estimated fair values at the date of acquisition. We assess fair value, which is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date, using a variety of methods including, but not limited to, an income approach and a market approach such as the estimation of future cash flows of acquired business and current selling prices of similar assets. Fair value of the assets acquired and liabilities assumed, including intangible assets, are measured based on the assumptions and estimations with regards to the variable factors such as the amount and timing of future cash flows for the asset or liability being measured, appropriate risk-adjusted discount rates,

nonperformance risk, or other factors that market participants would consider. Upon acquisition, we determine the estimated economic lives of the acquired intangible assets for amortization purposes, which are based on the underlying expected cash flows of such assets. Goodwill is an asset representing the future economic benefits arising from other assets acquired in a business combination that is not individually identified and separately recognized. Actual results may vary from projected results and assumptions used in the fair value assessments.

Research and Development Expenses. Since the Company's inception, most of its activities have consisted of research and development efforts related to developing electroporation technologies and DNA vaccines. Research and development expenses consist of expenses incurred in performing research and development activities including salaries and benefits, facilities and other overhead expenses, clinical trials, contract services and other outside expenses. Research and development expenses are charged to operations as they are incurred. These expenses result from the Company's independent research and

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development efforts as well as efforts associated with collaborations and licensing arrangements. The Company reviews and accrues clinical trials expense based on work performed, which relies on estimates of total costs incurred based on patient enrollment, completion of studies and other events. The Company follows this method since reasonably dependable estimates of the costs applicable to various stages of a research agreement or clinical trial can be made. Accrued clinical costs are subject to revisions as trials progress. Revisions are charged to expense in the period in which the facts that give rise to the revision become known. Historically, revisions have not resulted in material changes to research and development expense; however a modification in the protocol of a clinical trial or cancellation of a trial could result in a charge to the Company's results of operations.

4. Principles of Consolidation

These unaudited condensed consolidated financial statements include the accounts of Inovio Pharmaceuticals, Inc. and its subsidiaries. In conjunction with the acquisition in June 2009 of VGX Pharmaceuticals (the “Merger”), the Company acquired a majority interest in VGX Animal Health and certain shares in GeneOne (a publicly-traded company in South Korea). The Company consolidates Genetronics, Inc. (a wholly-owned subsidiary of Inovio Pharmaceuticals, Inc.), VGX Pharmaceuticals and its subsidiary VGX Animal Health and records a non-controlling interest for the 15% of VGX Animal Health it does not own as of September 30, 2016 and December 31, 2015. The Company's investment in GeneOne, which is recorded as investment in affiliated entity within the condensed consolidated balance sheets is accounted for at fair value on a recurring basis, with changes in fair value recorded on the condensed consolidated statements of operations within gain (loss) on investment in affiliated entity. All intercompany accounts and transactions have been eliminated upon consolidation.

Variable Interest Entities

The FASB issued authoritative guidance that requires companies to perform a qualitative analysis to determine whether a variable interest in another entity represents a controlling financial interest in a variable interest entity. A controlling financial interest in a variable interest entity is characterized by having both the power to direct the most significant activities of the entity and the obligation to absorb losses or the right to receive benefits of the entity. This guidance requires on-going reassessments of variable interests based on changes in facts and circumstances. The Company determined that none of the entities with which the Company currently conducts business and collaborations are variable interest entities except VGXI (a wholly-owned subsidiary of GeneOne). The Company determined that they are not the primary beneficiary as they do not have voting control or other forms of control over the operations and decision making and therefore are not required to consolidate VGXI. The Company continues to assess its variable interests and has determined that no significant changes have occurred as of September 30, 2016.

5. Impact of Recently Issued Accounting Standards

The recent pronouncements below may have a significant effect on the Company's financial statements. Recent pronouncements that are not anticipated to have an impact on or are unrelated to the Company's financial condition, results of operations, or related disclosures are not discussed.

Accounting Standards Update (“ASU”), No. 2016-09- In March 2016, the Financial Accounting Standards Board (the “FASB”) issued ASU No. 2016-09, Compensation-Stock Compensation. The new guidance simplifies several aspects of the accounting for share-based payment transactions, including the income tax consequences, classification of awards as either equity or liabilities, and classification on the statement of cash flows. The amendments in this standard are effective for the Company's annual year and first fiscal quarter beginning on January 1, 2017 with early adoption permitted. The Company is currently evaluating the impact of the application of this accounting standard update on its financial statements and related disclosures.

ASU, No. 2016-02- In February 2016, the FASB issued ASU No. 2016-02, Leases. Under the new guidance, lessees will be required to recognize the following for all leases (with the exception of short-term leases) at the commencement date: (a) a lease liability, which is a lessee’s obligation to make lease payments arising from a lease, measured on a discounted basis; and (b) 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. The ASU will be effective for the Company beginning January 1, 2019 with early adoption permitted. The Company is currently evaluating the impact of the application of this accounting standard update on its financial statements and related disclosures.

ASU, No. 2014-15- In August 2014, the FASB issued ASU 2014-15, Presentation of Financial Statements Going Concern, which intends to define management's responsibility to evaluate whether there is substantial doubt about an entity's ability to continue as a going concern and to provide related disclosure. ASU 2014-15 defines the term substantial doubt and requires an assessment for a period of one year after the date of the issuance of the financial statements. It requires certain disclosures when substantial doubt is alleviated as a result of consideration of management's plans and requires an express

statement and other disclosures when substantial doubt is not alleviated. The guidance becomes effective for reporting periods beginning after December 15, 2016, with early adoption permitted. The adoption of this guidance will have no impact on the Company's financial statements.

ASU, No. 2014-09- In May 2014, the FASB amended the existing accounting standards for revenue recognition, which outlines a comprehensive revenue recognition model and supersedes most current revenue recognition guidance. The new standard requires a company to recognize revenue upon transfer of goods or services to a customer at an amount that reflects the expected consideration to be received in exchange for those goods or services. The amended guidance defines a five-step approach for recognizing revenue, which may require a company to use more judgment and make more estimates than under the current guidance. The amended guidance as currently issued will be effective for the Company starting in 2018. The new standard allows for two methods of adoption: (a) full retrospective adoption, meaning the standard is applied to all periods presented, or (b) modified retrospective adoption, meaning the cumulative effect of applying the new standard is recognized as an adjustment to the opening retained earnings balance. The Company is in the process of determining the adoption method it will implement, as well as the effects the adoption will have on its financial statements and related disclosures.

6. Investments

Investments consist of mutual funds, United States corporate debt securities, municipal bonds and an equity investment in the Company's affiliated entity Plumbline Life Sciences, Inc. ("PLS") at September 30, 2016 and December 31, 2015. The Company classifies all investments as available-for-sale, as the sale of such investments may be required prior to maturity to implement management strategies. Available-for-sale securities are recorded at fair value, based on current market valuations. Unrealized gains and losses on available-for-sale securities are excluded from earnings and are reported as a separate component of other comprehensive income (loss) until realized. Realized gains and losses are included in non-operating other income (expense) on the condensed consolidated statement of operations and are derived using the specific identification method for determining the cost of the securities sold. During the three and nine months ended September 30, 2016 and 2015, a minimal amount of net realized gain (loss) on investments was recorded. The Company assessed each of its investments on an individual basis to determine if any decline in fair value was other-than-temporary. Interest and dividends on investments classified as available-for-sale are included in interest and other income, net, in the condensed consolidated statements of operations. As of September 30, 2016, the Company had 37 available-for-sale securities in a gross unrealized loss position of which 8 with a total unrealized loss of $8,000 were in such position for longer than 12 months.

The following is a summary of available-for-sale securities as of September 30, 2016 and December 31, 2015:

	As of September 30, 2016			
	Contractual Maturity (in years)	Cost	Gross Unrealized Gains	Gross Unrealized Losses	Fair Market Value
Mutual funds	---	$70,053,356	$ 244,865	$ (62,554)	$ 70,235,667
US corporate debt securities	Less than 2	26,221,990	15,380	(37,452)	26,199,918
Investment in affiliated entity (PLS)	---	—	4,537,761	—	4,537,761
Total investments		$96,275,346	$ 4,798,006	$ (100,006)	$ 100,973,346

	As of December 31, 2015			
	Contractual Maturity (in years)	Cost	Gross Unrealized Gains	Gross Unrealized Losses	Fair Market Value
Mutual funds	---	$78,571,294	$ 435	$ (185,737)	$ 78,385,992
US corporate debt securities	Less than 2	26,923,855	—	(54,452)	26,869,403
Municipal bonds	Less than 1	101,936	—	(54)	101,882
Investment in affiliated entity (PLS)	---	—	5,045,915	—	5,045,915
Total investments		$105,597,085	$ 5,046,350	$ (240,243)	$ 110,403,192

7. Marketable Securities and Fair Value Measurements

The guidance regarding fair value measurements establishes a three-tier fair value hierarchy, which prioritizes the inputs used in measuring fair value. These tiers include: Level 1, defined as observable inputs such as quoted prices in active markets that are accessible at the measurement date; Level 2, defined as inputs other than quoted prices in active markets that are either

directly or indirectly observable; and Level 3, defined as unobservable inputs in which little or no market data exists, therefore requiring an entity to develop its own assumptions.

Assets and liabilities are classified based on the lowest level of input that is significant to the fair value measurements. The Company reviews the fair value hierarchy classification on a quarterly basis. Changes in the ability to observe valuation inputs may result in a reclassification of levels for certain securities within the fair value hierarchy. The Company did not have any transfer of assets and liabilities between Level 1, Level 2 and Level 3 of the fair value hierarchy during the nine months ended September 30, 2016 or 2015.

The following table presents the Company's assets and liabilities that are measured at fair value on a recurring basis, and are determined using the following inputs as of September 30, 2016:

	Fair Value Measurements at September 30, 2016			
	Total	Quoted Prices in Active Markets (Level 1)	Significant Other Unobservable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
Assets:				
Money market funds	$13,778,470	$13,778,470	$—	$—
Mutual funds	70,235,667	—	70,235,667	—
US corporate debt securities	26,199,918	—	26,199,918	—
Investments in affiliated entities	25,296,348	25,296,348	—	—
Total Assets	$135,510,403	$39,074,818	$96,435,585	$—
Liabilities:				
Common stock warrants	$1,812,502	$—	$—	1,812,502
Total Liabilities	$1,812,502	$—	$—	$1,812,502

The following table presents the Company's assets and liabilities that are measured at fair value on a recurring basis, and are determined using the following inputs as of December 31, 2015:

	Fair Value Measurements at December 31, 2015			
	Total	Quoted Prices in Active Markets (Level 1)	Significant Other Unobservable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
Assets:				
Money market funds	$54,474,609	$54,474,609	$—	$—
Mutual funds	78,385,992	—	78,385,992	—
US corporate debt securities	26,869,403	—	26,869,403	—
Municipal bonds	101,882	—	101,882	—
Investment in affiliated entities	19,987,192	19,987,192	—	—
Common stock warrants	5,970	—	—	5,970
Total Assets	$179,825,048	$74,461,801	$105,357,277	$5,970
Liabilities:				
Common stock warrants	$1,301,138	$—	$—	$1,301,138
Total Liabilities	$1,301,138	$—	$—	$1,301,138

Level 1 assets include money market funds held by the Company that are valued at quoted market prices, as well as the Company's investments in GeneOne and PLS. The Company accounts for its investment in GeneOne at fair value on a recurring basis by which the fair value is based on the market value of 1,644,155 common shares on September 30, 2016 and December 31, 2015, listed on the Korean Stock Exchange. The Company accounts for its investment in PLS as an available-for sale security by which the fair value is based on the market value of 395,758 common shares on September 30, 2016, listed on

the Korea New Exchange (KONEX) Market. The Company elected the fair value option in conjunction with the investment in GeneOne at the inception of the investment therefore changes in the fair value of the investment are reflected as other income (expense) in the condensed consolidated statements of operations. The Company did not elect the fair value option for the investment in PLS at the inception of the investment, but rather recorded the investment under the equity method until its ownership interest dropped below 20% in June 2015 and accordingly began recording the investment under the cost method using the carryover basis from the equity method of zero. Once shares of PLS began trading on the KONEX, the Company classified the investment as available-for-sale and began recording the investment at fair value with changes in fair value reflected in other comprehensive income (loss).

Level 2 assets at September 30, 2016 include US corporate debt securities and mutual funds held by the Company that are initially valued at the transaction price and subsequently valued, at the end of each reporting period, typically utilizing market observable data. The Company obtains the fair value of its Level 2 assets from a professional pricing service, which may use quoted market prices for identical or comparable instruments, or inputs other than quoted prices that are observable either directly or indirectly. The professional pricing service gathers quoted market prices and observable inputs from a variety of industry data providers. The valuation techniques used to measure the fair value of the Company's Level 2 financial instruments were derived from non-binding market consensus prices that are corroborated by observable market data, quoted market prices for similar instruments, or pricing models such as discounted cash flow techniques. The Company validates the quoted market prices provided by the primary pricing service by comparing their assessment of the fair values of the Company's investment portfolio balance against the fair values of the Company's investment portfolio balance obtained from an independent source.

Level 3 assets held as of September 30, 2016 include the second warrant received by the Company to purchase shares of common stock of OncoSec Medical Incorporated (“OncoSec”), in connection with the second amendment to the Asset Purchase Agreement between the Company and OncoSec signed in March 2012. This warrant to purchase 150,000 shares of common stock of OncoSec has a contractual life of five years with an exercise price of $20.00 per share. The first warrant to purchase 50,000 shares of common stock of OncoSec at an exercise price of $24.00 per share, expired in September 2016.

The Company reassesses the fair value of the OncoSec warrants at each reporting date utilizing a Black-Scholes pricing model. Inputs used in the pricing model include estimates of OncoSec stock price volatility, expected warrant life and risk-free interest rate. The Company develops its estimates based on publicly available historical data and knowledge of OncoSec. The Company reassesses the fair value of the warrants at each reporting date. The assumptions used to estimate the fair values of the OncoSec common stock warrant at September 30, 2016 are presented below:

Risk-free interest rate	0.43%
Expected volatility	88%
Expected life in years	0.5
Dividend yield	—

As a result of these calculations, the Company recorded a decrease in fair value of the warrants of $0 and $6,000 for the three and nine months ended September 30, 2016, respectively and $98,000 and $461,000 for the three and nine months ended September 30, 2015, respectively. The change in fair value is reflected in the Company's condensed consolidated statements of operations as a component of change in fair value of common stock warrants.

The following table presents a summary of changes in fair value of the Company’s total Level 3 financial assets for the nine months ended September 30, 2016:

Balance at January 1, 2016	$	5,970
Decrease in fair value included in change in fair value of common stock warrants	(5,970	)
Balance at September 30, 2016	$	—

Level 3 liabilities held as of September 30, 2016 consist of common stock warrant liabilities associated with warrants to purchase the Company's common stock issued in March 2013. If unexercised, the warrants will expire in September 2018. During the three and nine months ended September 30, 2016 and 2015, none of these warrants were exercised. As of September 30, 2016 the Company has a $1.8 million common stock warrant liability. The Company reassesses the fair value of the common stock warrants at each reporting date utilizing a Black-Scholes pricing model. Inputs used in the pricing model include estimates of stock price volatility, expected warrant life and risk-free interest rate. The Company develops its estimates based on historical data. The assumptions used to estimate the fair value of common stock warrants at September 30, 2016 are presented below:

Risk-free interest rate	0.73%
Expected volatility	60%
Expected life in years	2.0
Dividend yield	—

Changes in these assumptions as well as in the Company's stock price on the valuation date can have a significant impact on the fair value of the common stock warrant liability. As a result of these calculations, the Company recorded a (decrease) increase in fair value of $(3,000) and $511,000 for the three and nine months ended September 30, 2016, respectively, and a decrease in fair value of $(616,000) and $(929,000) for the three and nine months ended September 30, 2015, respectively. The change in fair value is reflected in the Company's condensed consolidated statements of operations as a component of change in fair value of common stock warrants.

The following table presents the changes in fair value of the Company’s total Level 3 financial liabilities for the nine months ended September 30, 2016:

Balance at January 1, 2016	$1,301,138
Increase in fair value included in change in fair value of common stock warrants	511,364
Balance at September 30, 2016	$1,812,502

8. Business Combination

On April 29, 2016, the Company acquired all of Bioject Medical Technologies Inc.’s ("Bioject") assets including needle-free injection technology, products and intellectual property. The transaction, which was accounted for as a business combination, provides the Company with further opportunities in device development. The Company paid Bioject $4.3 million in the Company's stock and $1.2 million in cash upon closing.

The acquisition consideration was preliminarily allocated to the estimated fair vales of the assets acquired as follows:

Developed technology	$3,800,000
Customer-related intangible	1,000,000
Trademarks	200,000
Covenants not-to-compete	100,000
Goodwill	400,000
Total purchase consideration	$5,500,000

The fair value of the acquired intangible assets was based on the discounted cash flow method that estimated the present value of a revenue stream derived from the licensing of the Bioject technology. These projected cash flows were discounted to present value using a discount rate of 14%. The fair value of the developed technology is being amortized on a straight-line basis over the estimated useful life of 15 years. The fair value of the remaining intangible assets acquired is being amortized on a straight-line basis over the estimated useful life of between 2-5 years. The excess of the acquisition date consideration over the fair values assigned to the assets acquired was recorded as goodwill. The goodwill resulting from the acquisition consists primarily of the synergies expected from combining the technologies and know-how of Bioject with the Company's existing business. This includes synergies expected from combining Bioject's needle-free injection technology with the Company's existing electroporation delivery devices. The purchase price allocation was prepared on a preliminary basis and is subject to change as additional information becomes available concerning the fair value and tax basis of the assets acquired. Any measurement period adjustments to the purchase price allocation will be made as soon as practicable but no later than one year from the date of acquisition.

9. Goodwill and Intangible Assets

The following sets forth the goodwill and intangible assets by major asset class:

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	Useful Life (Yrs)	September 30, 2016 Gross	Accumulated Amortization	Net Book Value	December 31, 2015 Gross	Accumulated Amortization	Net Book Value
Non-Amortizing:							
Goodwill(a)		$10,513,371	$—	$10,513,371	$10,113,371	$—	$10,113,371
Amortizing:							
Patents	8 – 17	5,802,528	(5,599,335)	203,193	5,802,528	(5,516,122)	286,406
Licenses	8 – 17	1,323,761	(1,154,674)	169,087	1,323,761	(1,133,113)	190,648
CELLECTRA®(b)	5 – 11	8,106,270	(6,718,257)	1,388,013	8,106,270	(6,397,947)	1,708,323
GHRH(b)	11	335,314	(232,344)	102,970	335,314	(208,581)	126,733
Bioject (c)	2 – 15	5,100,000	(351,389)	4,748,611	—	—	—
Other(d)	18	4,050,000	(2,625,000)	1,425,000	4,050,000	(2,456,250)	1,593,750
Total intangible assets		24,717,873	(16,680,999)	8,036,874	19,617,873	(15,712,013)	3,905,860
Total goodwill and intangible assets		$35,231,244	$(16,680,999)	$18,550,245	$29,731,244	$(15,712,013)	$14,019,231

(a) Goodwill was recorded from the Inovio AS acquisition in January 2005, the acquisition of VGX in June 2009 and the acquisition of Bioject in April 2016 for $3.9 million, $6.2 million and $400,000, respectively.
(b) CELLECTRA® and GHRH are developed technologies which were recorded from the acquisition of VGX.
(c) Bioject intangible assets represent the fair value of developed technology and intellectual property which were recorded from the acquisition of Bioject.
(d) Other intangible assets represent the fair value of acquired intellectual property from the Inovio AS acquisition.

Aggregate amortization expense on intangible assets for the three and nine months ended September 30, 2016 was $412,000 and $969,000, respectively. Aggregate amortization expense on intangible assets for the three and nine months ended September 30, 2015 was $215,000 and $658,000, respectively. Estimated aggregate amortization expense for each of the five succeeding fiscal years is $408,000 for the remainder of fiscal year 2016, $1.6 million for 2017, $1.2 million for 2018, $1.1 million for 2019, $547,000 for 2020 and $3.1 million for 2021 and the years thereafter.

10. Stockholders' Equity

The following is a summary of the Company's authorized and issued common and preferred stock as of September 30, 2016 and December 31, 2015:

	Authorized	Issued	Outstanding as of September 30, 2016	Outstanding as of December 31, 2015
Common Stock, par $0.001	600,000,000	73,966,730	73,966,730	72,217,965
Series C Preferred Stock, par $0.001	1,091	1,091	23	23

Common Stock

In June 2016, the Company entered into an At-the-Market Equity Offering Sales Agreement (the "Sales Agreement") with an outside placement agent (the "Placement Agent") to sell shares of its common stock with aggregate gross proceeds of up to $50.0 million, from time to time, through an "at-the-market" equity offering program under which the Placement Agent will act as sales agent. Under the Sales Agreement, the Company will set the parameters for the sale of shares, including the number of shares to be issued, the time period during which sales are requested to be made, limitation on the number of shares that may be sold in any one trading day and any minimum price below which sales may not be made. The Sales Agreement provides that the Placement Agent will be entitled to compensation for its services in an amount equal to 2.0% of the gross proceeds from the sales of shares sold through the Placement Agent under the Sales Agreement. The Company has no obligation to sell any shares under the Sales Agreement, and may at any time suspend solicitation and offers under the Sales Agreement.

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During the nine months ended September 30, 2016, the Company sold a total of 568,248 shares of common stock under the Sales Agreement. The sales were made at a weighted average price of $9.80 per share with net proceeds to the Company of $5.5 million.

On May 5, 2015, the Company closed an underwritten public offering of 10,925,000 shares of the Company's common stock, including 1,425,000 shares of common stock issued pursuant to the underwriter’s exercise of its overallotment option, at the public offering price of $8.00 per share. The net proceeds, after deducting the underwriter’s discounts and commission and other estimated offering expenses, were approximately $81.9 million.

Warrants

The Company accounts for registered common stock warrants issued in March 2013 under the authoritative guidance on accounting for derivative financial instruments indexed to, and potentially settled in, a company’s own stock, on the understanding that in compliance with applicable securities laws, the registered warrants require the issuance of registered securities upon exercise and do not sufficiently preclude an implied right to net cash settlement. The Company classifies registered warrants on the condensed consolidated balance sheet as a current liability which is revalued at each balance sheet date subsequent to the initial issuance. Determining the appropriate fair-value model and calculating the fair value of registered warrants requires considerable judgment, including estimating stock price volatility and expected warrant life. The Company develops its estimates based on historical data. A small change in the estimates used may have a relatively large change in the estimated valuation. The Company uses the Black-Scholes pricing model to value the registered warrants. Changes in the fair market value of the warrants are reflected in the condensed consolidated statement of operations as “Change in fair value of common stock warrants.” The following table summarizes the warrants outstanding as of September 30, 2016 and December 31, 2015:

			As of September 30, 2016		As of December 31, 2015	
Issued in Connection With:	Exercise Price	Expiration Date	Number of Warrants	Common Stock Warrant Liability	Number of Warrants	Common Stock Warrant Liability
March 2013 financing	$ 3.17	September 12, 2018	284,091	$ 1,812,502	284,091	$ 1,301,138
Warrants assumed in June 2009 Merger	$4.08-$5.08	April 28, 2016	—	—	276,813	—
Total			284,091	$ 1,812,502	560,904	$ 1,301,138

Stock Options

The Company has two active stock-based incentive plans, the Amended and Restated 2007 Omnibus Incentive Plan (the “Incentive Plan”), pursuant to which the Company has granted stock options and restricted stock awards to executive officers, directors and employees, and the 2016 Omnibus Incentive Plan (the "2016 Incentive Plan").

The 2007 Incentive Plan was adopted on March 31, 2007, approved by the stockholders on May 4, 2007, approved by the stockholders as amended on May 2, 2008, and approved by the stockholders as amended and restated on August 25, 2009, May 14, 2010, May 22, 2014 and May 8, 2015. On May 14, 2010 the stockholders approved to increase the aggregate number of shares available for grant under the Incentive Plan by 500,000 and to provide that the aggregate number of shares available for grant under the Incentive Plan will be increased on January 1 of each year beginning in 2011 by a number of shares equal to the lesser of 513,833 or such lesser number of shares as may be determined by the Board. On May 22, 2014 and May 8, 2015, the stockholders approved to increase the aggregate number of shares available for grant under the Incentive Plan by 1,250,000 and 2,000,000, respectively. At September 30, 2016, there were 7,770,497 shares of common stock reserved for issuance upon exercise of incentive awards granted and to be granted at future dates under the Incentive Plan. At September 30, 2016, the Company had 322,727 shares of common stock available for future grant under the Incentive Plan, 771,335 shares of unvested restricted stock units and options to purchase 5,910,921 shares of common stock outstanding under the Incentive Plan. The awards granted and available for future grant under the Incentive Plan generally vest over three years and have a maximum contractual term of ten years. The Incentive Plan terminates by its terms on March 31, 2017.

The Incentive Plan supersedes all of the Company's previous stock option plans, which include the Amended 2000 Stock Option Plan and the VGX Equity Compensation Plan, under which the Company had options to purchase 100,002 and 737,038 shares of common stock outstanding at September 30, 2016, respectively. The terms and conditions of the options outstanding under these plans remain unchanged.

The 2016 Incentive Plan was approved by stockholders on May 13, 2016. The maximum number of shares of the Company's common stock available for issuance over the term of the 2016 Incentive Plan may not exceed 6,000,000 shares,

provided that commencing with the first business day of each calendar year beginning with January 1, 2018, such maximum number of shares shall be increased by 2,000,000 shares of common stock unless the Board determines, for any such calendar year, to increase such maximum amount by a fewer number of shares. As of September 30, 2016, no awards have been granted under the 2016 Incentive Plan.

11. Net Income (Loss) Per Share

Basic net income (loss) per share is computed by dividing the net income (loss) for the year by the weighted average number of common shares outstanding during the year. Diluted income (loss) per share is calculated in accordance with the treasury stock method and reflects the potential dilution that would occur if securities or other contracts to issue common stock were exercised or converted to common stock. The calculation of diluted income (loss) per share requires that, to the extent the average market price of the underlying shares for the reporting period exceeds the exercise price of the warrants and the presumed exercise of such securities are dilutive to loss per share for the period, an adjustment to net loss used in the calculation is required to remove the change in fair value of the warrants from the numerator for the period. Likewise, an adjustment to the denominator is required to reflect the related dilutive shares, if any, under the treasury stock method.

The following tables reconcile the components of the numerator and denominator included in the calculations of diluted income (loss) per share:

	Three Months Ended September 30,	
	2016	2015
Numerator		
Net income (loss) attributable to Inovio Pharmaceuticals, Inc.	$(20,759,338)	$5,594,468
Reflect adjustment for decrease in fair value of warrant liability	(2,841)	(616,477)
Numerator for use in diluted income (loss) per share	$(20,762,179)	$4,977,991
Denominator		
Weighted average number of common shares outstanding	73,602,834	72,029,644
Effect of dilutive potential common shares	186,174	1,931,593
Denominator for use in diluted income (loss) per share	73,789,008	73,961,237
Net income (loss) per share, diluted	$(0.28)	$0.07

	Nine Months Ended September 30,	
	2016	2015
Numerator		
Net loss attributable to Inovio Pharmaceuticals, Inc.	$(47,506,869)	$(11,235,561)
Reflect adjustment for decrease in fair value of warrant liability	—	(928,978)
Numerator for use in diluted loss per share	$(47,506,869)	$(12,164,539)
Denominator		
Weighted average number of common shares outstanding	72,932,199	66,846,481
Effect of dilutive potential common shares	—	172,480
Denominator for use in diluted loss per share	72,932,199	67,018,961
Net loss per share, diluted	$(0.65)	$(0.18)

The following table summarizes potential common shares that were excluded from the diluted net loss per share calculation because of their anti-dilutive effect for the three months ended September 30, 2016 and 2015:

Common Stock Equivalents	2016	2015
Options to purchase common stock	6,747,961	2,812,185
Restricted stock units	771,335	—
Convertible preferred stock	8,456	8,456
Total	7,527,752	2,820,641

The following table summarizes potential common shares that were excluded from the diluted net loss per share calculation because of their anti-dilutive effect for the nine months ended September 30, 2016 and 2015:

Common Stock Equivalents	2016	2015
Options to purchase common stock	6,747,961	5,875,211
Warrants to purchase common stock	284,091	580,904
Restricted stock units	771,335	230,000
Convertible preferred stock	8,456	8,456
Total	7,811,843	6,694,571

12. Stock-Based Compensation

The Company incurs stock-based compensation expense related to restricted stock units and stock options. The fair value of restricted stock is determined by the closing market price of the Company's common stock on the date of grant. The Company estimates the fair value of stock options granted using the Black-Scholes option pricing model. The Black-Scholes option pricing model was developed for use in estimating the fair value of traded options, which have no vesting restrictions and are fully transferable. In addition, option valuation models require the input of highly subjective assumptions, including the expected stock price volatility and expected option life. The Company amortizes the fair value of the awards expected to vest on a straight-line basis over the requisite service period of the awards. Expected volatility is based on historical volatility. The expected life of options granted is based on historical expected life. The risk-free interest rate is based on the U.S. Treasury yield in effect at the time of grant. The forfeiture rate is based on historical data, and the Company records stock-based compensation expense only for those awards that are expected to vest. The dividend yield is based on the fact that no dividends have been paid historically and none are currently expected to be paid in the foreseeable future.

The weighted average assumptions used in the Black-Scholes model for employees and directors are presented below:

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2016	2015	2016	2015
Risk-free interest rate	0.83%	1.05%	0.91%	0.99%
Expected volatility	76%	75%	76%	74%
Expected life in years	5.0	5.0	5.0	5.0
Dividend yield	—	—	—	—
Forfeiture rate	7%	7%	7%	7%

Total employee and director compensation cost for the Company's stock plan recognized in the condensed consolidated statements of operations for the three and nine months ended September 30, 2016 was $2.1 million and $7.0 million, respectively, of which $1.1 million and $3.8 million were included in research and development expenses and $1.0 million and $3.2 million were included in general and administrative expenses, respectively.

Total employee and director compensation cost for the Company's stock plan recognized in the condensed consolidated statements of operations for the three and nine months ended September 30, 2015 was $1.1 million and $4.6 million,

respectively, of which $565,000 and $2.6 million were included in research and development expenses and $559,000 and $2.0 million were included in general and administrative expenses, respectively.

At September 30, 2016, there was $6.9 million of total unrecognized compensation cost related to unvested stock options, which is expected to be recognized over a weighted-average period of 2.0 years.

The weighted average grant date fair value per share (using the Black-Scholes option pricing model) was $5.69 and $4.56 for employee and director stock options granted during the three and nine months ended September 30, 2016, respectively, and $4.59 and $4.62 for employee and director stock options granted during the three and nine months ended September 30, 2015, respectively.

At September 30, 2016, there was $4.4 million of total unrecognized compensation cost related to unvested restricted stock units, which is expected to be recognized over a weighted-average period of 2.2 years.

The weighted average grant date fair value per share was $9.35 and $7.37 for restricted stock units granted during the three and nine months ended September 30, 2016, respectively, and $7.76 for restricted stock units granted during the nine months ended September 30, 2015. There were no restricted stock units granted during the three months ended September 30, 2015.

The fair value of options granted to non-employees at the measurement dates were estimated using the Black-Scholes pricing model. Total stock-based compensation for options granted to non-employees for the three and nine months ended September 30, 2016 was $81,000 and $381,000, respectively. Total stock-based compensation for options granted to non-employees for the three and nine months ended September 30, 2015 was $3,000 and $273,000, respectively.

13. Related Party Transactions

GeneOne Life Sciences

On May 26, 2015, the Company entered into a Collaborative Development Agreement with GeneOne to co-develop a DNA vaccine for MERS (Middle East Respiratory Syndrome) through phase I clinical trials. Under the terms of the agreement, GeneOne will be responsible for funding all preclinical and clinical studies through Phase I. In return, GeneOne will receive up to 35% milestone-based ownership interest in the MERS immunotherapy upon achievement of the last milestone event of completion of the Phase I safety and immunogenicity study. The collaborative research program shall terminate upon the completion of activities under the development plan, unless sooner terminated.

In January 2016, the Company and Gene One entered into a First Amendment to the May 2015 Collaborative Development Agreement to expand the agreement to test and advance the Company's DNA-based vaccine for preventing and treating Zika virus. GeneOne will be responsible for funding all preclinical and clinical studies through Phase I. In return, GeneOne will receive up to 35% milestone-based ownership interest in the Zika immunotherapy upon achievement of the last milestone event of the completion of the Phase I safety and immunogenicity study. All other agreement terms remain the same.

On September 23, 2014, the Company entered into a Collaborative Development Agreement with GeneOne to co-develop an Ebola vaccine through phase I clinical trials. In July 2015, the Company amended the Agreement with an effective date of April 2015 to change control of development in return for the Company’s payment of certain development fees.

On October 7, 2011, the Company entered into a Collaborative Development and License Agreement (the “Hep Agreement”) with GeneOne. Under the Hep Agreement, as originally executed, the Company and GeneOne agreed to co-develop the Company’s SynCon® therapeutic vaccines for hepatitis B and C infections (the “Products”). Under the terms of the Hep Agreement, GeneOne will receive marketing rights for the Products in Asia, excluding Japan, and in return will fully fund IND-enabling and initial Phase I and II clinical studies with respect to the Products. The Company will receive from GeneOne payments based on the achievement of clinical milestones and royalties based on sales of the Products in the licensed territories, retaining all commercial rights to the Products in all other territories. On August 21, 2013, the Company amended the Hep Agreement to grant back to the Company hepatitis B, along with all associated rights, from the collaboration in return for certain remuneration including a percentage of license fees. On October 7, 2013, the Company further amended the Hep Agreement to in part provide exclusive patent rights to IL-28 technology for use with the Products in Asia, excluding Japan. The Hep Agreement shall terminate upon the later of the expiration or abandonment of the last patent that is a component of the rights or 20

years after the effective date.

On March 24, 2010, the Company entered into a Collaboration and License Agreement (the "GeneOne Agreement") with GeneOne. Under the GeneOne Agreement, the Company granted GeneOne an exclusive license to Inovio's SynCon® universal influenza vaccine delivered with electroporation to be developed in certain countries in Asia (the "Product"). As consideration for the license granted to GeneOne, the Company received payment of $3.0 million, and will receive research support, annual license maintenance fees and royalties on net Product sales. The Company recorded the $3.0 million as deferred revenue from affiliated entity, and will recognize it as revenue over the eight year expected period of the Company's performance obligation. In addition, contingent upon achievement of clinical and regulatory milestones, the Company will receive development

payments over the term of the GeneOne Agreement. The GeneOne Agreement also provides Inovio with exclusive rights to supply devices for clinical and commercial purposes (including single use components) to GeneOne for use in the Product. The term of the GeneOne Agreement commenced upon execution and will extend on a country by country basis until the last to expire of all Royalty Periods for the territory (as such term is defined in the GeneOne Agreement) for any Product in that country, unless the GeneOne Agreement is terminated earlier in accordance with its provisions as a result of breach, by mutual agreement, or by GeneOne's right to terminate without cause upon prior written notice.

For the three and nine months ended September 30, 2016, the Company recognized revenue from GeneOne of $452,000 and $1.0 million, respectively, which consisted of licensing and other fees from the influenza and Zika collaborations. Operating expenses recorded from transactions with GeneOne for the three and nine months ended September 30, 2016 include $801,000 and $2.1 million, respectively, related primarily to biologics manufacturing. For the three and nine months ended September 30, 2015, the Company recognized revenue from GeneOne of $113,000 and $338,000, respectively, which consisted of licensing and other fees. Operating expenses related to GeneOne for the three and nine months ended September 30, 2015 include $1.1 million and $6.5 million, respectively, related to biologics manufacturing. At September 30, 2016 and December 31, 2015, the Company had an accounts receivable balance of $355,000 and $4,000, respectively, and an accounts payable and accrued liability balance of $93,000 and $165,000, respectively, related to GeneOne and its subsidiaries. At September 30, 2016 and December 31, 2015, $619,000 and $373,000 of prepayments made to GeneOne were classified as long-term other assets on the condensed consolidated balance sheet, respectively.

OncoSec Medical Incorporated

The Company's non-executive Chairman, Dr. Avtar Dhillon, is also the non-executive Chairman of OncoSec.

At September 30, 2016, the Company holds a warrant to purchase 150,000 shares of common stock of OncoSec at an exercise price of $20.00 per share. On September 28, 2016, the Company's warrant expired to purchase 50,000 shares of common stock of OncoSec at an exercise price of $24.00 per share. (See Note 7 for further discussion.)

Plumbline Life Sciences, Inc.

In May 2014, the Company's 85% owned subsidiary VGX Animal Health entered into an agreement for the sale of its animal health assets to PLS of Korea. The assets transferred included an exclusive license with Inovio for animal applications of its growth hormone-releasing hormone ("GHRH") technology and animal DNA vaccines plus a non-exclusive license to Inovio electroporation delivery systems. In return, VGX Animal Health received $2.0 million in cash, of which $1.0 million was received in May 2015 and the remainder in May 2016, and 465,364 shares of PLS, of which the Company received 395,758 shares or approximately 16.9% of PLS common stock.

As of September 30, 2016 the Company accounts for its ownership interest in PLS under the accounting guidance for investments considered available-for-sale (Accounting Standards Codification (ASC) 320). The original carrying value of the Company's investment in PLS was $0. On July 28, 2015, PLS registered on the Korea New Exchange (KONEX) Market. The total carrying value of the Company's investment in PLS was $4.5 million as of September 30, 2016. The fair value is based on the market value of the 395,758 common shares owned, listed on the KONEX. The changes in carrying value of PLS are recorded in the condensed consolidated statements of comprehensive income (loss) as an unrealized gain (loss) on investment in affiliated entity.

The Wistar Institute

The Company's director, Dr. David B Weiner, is the Executive Vice President and Director of the Vaccine Center of The Wistar Institute ("Wistar").

On March 16, 2016, the Company entered into collaborative research agreements with Wistar for preventive and therapeutic DNA-based immunotherapy applications and products for cancers and infectious diseases developed by Dr. Weiner and his Wistar laboratory. The Company will reimburse Wistar for all direct and indirect costs incurred in the conduct of the collaborative research not to exceed $3.1 million during the five-year term of the agreement. The Company will have the exclusive right to in-license new intellectual property developed in this collaboration.

For the three and nine months ended September 30, 2016, the Company recognized revenue from Wistar of $228,000, related to work performed on a research sub-award agreement. Operating expenses recorded from Wistar for the three and nine months ended September 30, 2016 were $329,000 and $586,000, respectively, related to the collaborative

research agreements and sub-contract related to the DARPA Ebola grant. At September 30, 2016, the Company had an accounts receivable balance of $39,000 and an accounts payable and accrued liability balance of $401,000 related to Wistar.

14. Commitments and Contingencies

In October 2016, the Company entered into an office lease (the “new Lease”) for a property located in San Diego, California. The total space is approximately 51,000 square feet. The Company intends to use the facility for office, manufacturing and research and development purposes. The term of the new Lease commences on the earlier to occur of the date the Company first conducts business from any portion of the premises, or June 1, 2017. The initial term of the new Lease is ten years, with a right to terminate on November 30, 2023, with appropriate notice to the landlord. The base rent adjusts periodically throughout the term of the new Lease, with a portion of the rent abated for certain periods during the first two years of the initial term. In addition, the Company will pay the landlord its share of operating expenses and has paid a security deposit of $95,000.

In March 2014, the Company entered into an office lease (the "Lease") with a publicly owned real estate investment trust, located in Plymouth Meeting, Pennsylvania. The Company occupied the new space in June 2014. The initial term of the Lease is 11.5 years and the Company plans to use the facility for office purposes.

The base rent adjusts periodically throughout the 11.5 year term of the Lease, with monthly payments ranging from $0 to $58,000. In addition, the Company will pay the landlord its share of operating expenses and a property management fee and has paid a security deposit of $49,000. In July 2015, the Company amended the lease to increase the total leased space. The commencement of the amended lease was in the first quarter of 2016 and increased monthly lease payments by approximately $16,000. The Company has capitalized $1.1 million of tenant improvements to the Plymouth Meeting headquarters within fixed assets on the condensed consolidated balance sheet, offset by a corresponding amount recorded in deferred rent.

In June 2015, the Company amended the lease for its corporate office in San Diego, California to increase the total leased space and occupy the entire building. The commencement of the amended lease was in January 2016 and increased monthly lease payments by approximately $13,000. The Company has capitalized $773,000 of tenant improvements within fixed assets on the condensed consolidated balance sheet related to this additional space, and has recorded a corresponding increase to deferred rent.

After entering into the new Lease, the Company's future minimum lease payments under all non-cancelable operating leases as of October 10, 2016 are as follows:

Remainder of 2016	$449,000
2017	1,785,000
2018	2,266,000
2019	2,682,000
2020	2,869,000
Thereafter	16,498,000
Total	$26,549,000

In the normal course of business, the Company is a party to a variety of agreements pursuant to which they may be obligated to indemnify the other party. It is not possible to predict the maximum potential amount of future payments under these types of agreements due to the conditional nature of our obligations and the unique facts and circumstances involved in each particular agreement. Historically, payments made by us under these types of agreements have not had a material effect on our business, consolidated results of operations or financial condition.

15. Collaborative Agreements

MedImmune

On August 7, 2015, the Company entered into a license and collaboration agreement with MedImmune, the global biologics research and development arm of AstraZeneca. Under the agreement, MedImmune acquired exclusive rights to the Company's INO-3112 immunotherapy, which targets cancers caused by human papillomavirus (HPV) types 16 and 18. MedImmune made an upfront payment of $27.5 million to the Company in September 2015 and has agreed to make additional future development, regulatory and commercial event-based payments totaling up to $700 million. MedImmune will fund all development costs associated with INO-3112 immunotherapy. The Company is entitled to

receive up to mid-single to double-digit tiered royalties on INO-3112 product sales. Within the broader collaboration, the Company and MedImunne will attempt to develop up to two additional DNA-based cancer vaccine products not included in the Company's current product pipeline, which MedImmune will have the exclusive rights to develop and commercialize. The Company expects that it will receive potential development, regulatory and commercialization event-based payments and will be eligible to receive royalties on

worldwide net sales for these additional cancer vaccine products. The Company has assessed event-based payments under the authoritative guidance for research and development milestones and determined that none of the event-based payments represent a milestone under the milestone method of accounting.

The Company identified the deliverables at the inception of the agreement. The Company has determined that the license to INO-3112, the license for the research collaboration products with related research and development services and the product development services for INO-3112 individually represent separate units of accounting because each deliverable has standalone basis. The Company considered the provisions of the multiple-element arrangement guidance in determining whether the deliverables outlined above have standalone basis and thus should be treated as separate units of accounting. The Company determined that the license for INO-3112, the license for the research collaboration products with related research and development services, and the product development services for INO-3112 have standalone basis and represent separate units of accounting because the rights conveyed permit MedImmune to perform all efforts necessary to complete development, commercialize and begin selling the product upon regulatory approval. In addition, MedImmune has the appropriate development, regulatory and commercial expertise with products similar to the product licensed under the agreement and has the ability to engage third parties to manufacture the product allowing MedImmune to realize the value of the license without receiving any of the remaining deliverables. MedImmune can also sublicense its license rights to third parties. Also, the Company determined that the product development services for INO-3112 represents an individual unit of accounting as MedImmune could perform such services and/or could acquire these on a separate basis. The best estimated selling prices for these units of accounting were determined based on market conditions, the terms of comparable collaborative agreements for similar technology in the pharmaceutical and biotechnology industry, the Company's pricing practices and pricing objectives and the nature of the research and development services to be provided. While market data and the cost-to-recreate method under the cost approach were considered throughout the valuation process, ultimately, the estimated selling prices of the licenses were determined utilizing two forms of the relief from royalty method under the income approach. The arrangement consideration was allocated to the deliverables based on the relative selling price method.

The amount allocable to the delivered unit or units of accounting is limited to the amount that is considered fixed and determinable and is not contingent upon the delivery of additional items or meeting other specified performance conditions. Based on the results of the Company's analysis, the $27.5 million up-front payment was allocated as follows: $15.0 million to the product license to INO-3112 and $12.5 million for the license to the research collaboration products and related research and developments services. The amount allocated to the license for INO-3112 was recognized as revenue under collaborative research and development arrangements during the year ended December 31, 2015 as this was determined to be earned upon the granting of the license and delivery of the related knowledge and data. The remaining amount related to the research collaboration products and related research and development services is classified as short-term deferred revenue as of September 30, 2016. The Company believes that no substantive value related to the research collaboration products license and research services has been transferred to MedImmune prior to their selection of the first research collaboration product since there is no economic benefit from the research unless such product candidate is selected. Furthermore, if MedImmune decides to not proceed with the selection of the product candidate, the research collaboration product license would be terminated. Therefore, the Company believes the license for the research collaboration products is not delivered until the research services are completed and the selection of the product candidate is made by MedImmune (i.e. exercise of an option). The Company has classified the amount allocated to this deliverable as short-term deferred revenue as it is expected that MedImmune will select a product candidate within the next six months. The Company will recognize revenues associated with the product development services for INO-3112 as revenues under collaborative arrangements as the related services are performed and according to the relative selling price method of the allocable arrangement consideration. During the three and nine months ended September 30, 2016, the Company recognized revenues of $581,000 and $1.3 million from MedImmune, respectively. During the three and nine months ended September 30, 2015, the Company recognized revenues of $15.1 million from MedImmune. As of September 30, 2016, the Company has a deferred revenue and accounts receivable balance of $13.6 million and $1.0 million, respectively, related to the Agreement.

Roche

In September 2013, the Company entered into a Collaborative, License, and Option Agreement (the “Agreement”) with Roche. The companies agreed to co-develop multi-antigen DNA immunotherapies targeting prostate cancer and hepatitis B.

Under the agreement, Roche acquired an exclusive worldwide license for the Company's DNA-based vaccines INO-5150 (targeting prostate cancer) and INO-1800 (targeting hepatitis B) as well as the use of the Company's CELLECTRA® electroporation technology for delivery of the vaccines. Roche also obtained an option to license additional vaccines in connection with a collaborative research program in prostate cancer. Under the terms of the agreement the Company also agreed to perform research and development services, which include preclinical and clinical costs, and manufacturing and supply services, at Roche's expense.

On November 14, 2014, Roche provided notice that they would be partially terminating the Agreement with respect to the development of INO-5150, the Company’s DNA immunotherapy targeting prostate cancer, as well as the research collaboration

in prostate cancer under the Agreement. The termination was effective in February 2015, 90 days after the date of notice. All of Roche's rights to INO-5150, including the right to license the product to other parties, have been returned to the Company.

On July 28, 2016, Roche provided notice that they would be discontinuing its Agreement with the Company and its development of INO-1800, the Company's DNA immunotherapy against the hepatitis B virus. The termination was effective in October 2016, 90 days after the date of notice. All of Roche's rights to INO-1800, including the right to license the product to other parties, have been returned to the Company.

Under the terms of the agreement, Roche made an upfront payment of $10.0 million and agreed to make additional development, regulatory and commercial event-based payments. These potential future event-based payments have been reduced significantly due to the partial termination of the Agreement. The Company has assessed event-based payments under the authoritative guidance for research and development milestones and determined that $3.0 million related to INO-1800 represents a milestone under the milestone method of accounting.

The Company identified the deliverables at the inception of the agreement. The Company has determined that the license to INO-5150 and INO-1800, the option right to license additional vaccines, research and development services, manufacturing and drug supply, and participation in the joint steering committee individually represent separate units of accounting because each deliverable has standalone value. The Company considered the provisions of the multiple-element arrangement guidance in determining whether the deliverables outlined above have standalone value and thus should be treated as separate units of accounting. The Company determined that the licenses and option right to license additional vaccines have standalone value and represent separate units of accounting because the rights conveyed permit Roche to perform all efforts necessary to complete development, commercialize and begin selling the product upon regulatory approval. In addition, Roche has the appropriate development, regulatory and commercial expertise with products similar to the product licensed under the agreement and has the ability to engage third parties to manufacture the product allowing Roche to realize the value of the license without receiving any of the remaining deliverables. Roche can also sublicense its license rights to third parties. Also, the Company determined that the research services, committee participation and manufacturing services each represent individual units of accounting as Roche could perform such services and/or could acquire these on a separate basis. The best estimated selling prices for these units of accounting were determined based on market conditions, the terms of comparable collaborative agreements for similar technology in the pharmaceutical and biotechnology industry, the Company's pricing practices and pricing objectives and the nature of the research and development services to be provided. While market data and the cost-to-recreate method under the cost approach were considered throughout the valuation process, ultimately, the selling prices of the licenses and option right were determined utilizing two forms of the relief from royalty method under the income approach. The arrangement consideration was allocated to the deliverables based on the relative selling price method.

The amount allocable to the delivered unit or units of accounting is limited to the amount that is considered fixed and determinable and is not contingent upon the delivery of additional items or meeting other specified performance conditions. Based on the results of the Company's analysis, the $10.0 million up-front payment was allocated as follows: $5.0 million and $3.4 million to the license to INO-5150 and INO-1800, respectively, $1.5 million to the option right and $155,000 to the joint steering committee obligation. The amounts allocated to the licenses for INO-5150 and INO-1800 were recognized as revenue under collaborative research and development arrangements during the year ended December 31, 2013 as these were determined to be earned upon the granting of the license and delivery of the related knowledge and data. Due to the Company's continuing involvement obligations, the remaining amounts were classified as deferred revenue as of December 31, 2013. The Company will recognize revenues associated with research and development services and manufacturing and drug supply as revenues under collaborative arrangements as the related services are performed and according to the relative selling price method of the allocable arrangement consideration. During the three and nine months ended September 30, 2016, the Company recognized revenues of $1.7 million and $4.7 million from Roche, respectively. During the three and nine months ended September 30, 2015, the Company recognized revenues of $1.3 million and $9.9 million from Roche, respectively. Of the revenue recognized during the nine-month period ended September 30, 2015, $3.0 million related to a milestone earned during the period and $3.0 million related to previously deferred revenue that was recognized based on the partial termination of the Agreement in February 2015. As of September 30, 2016, the Company has a

deferred revenue and accounts receivable balance of $226,000 and $4.8 million, respectively, related to the Agreement.

DARPA- Ebola

In April 2015, the Company received a grant from the Defense Advanced Research Projects Agency ("DARPA") to lead a collaborative team to develop multiple treatment and prevention approaches against Ebola. The Inovio-led consortium is taking a multi-faceted approach to develop products to prevent and treat Ebola infection. The award covers pre-clinical development costs as well as good manufacturing practice manufacturing costs and the phase I clinical study costs. The funding period is over two years and covers a base award of $19.6 million and an option award of $24.6 million, which was exercised in September 2015. The development proposal includes a second option of $11.1 million to support additional product supply and clinical development activities. The options are contingent upon the successful completion of certain pre-clinical development milestones. During the three and nine months ended September 30, 2016, the Company recognized revenues of

$9.4 million and $17.6 million, respectively, from DARPA related to the grant. During the three and nine months ended September 30, 2015, the Company recognized revenues of $7.3 million from DARPA related to the grant. As of September 30, 2016, the Company has a deferred revenue and accounts receivable balance of $1.3 million and $11.0 million, respectively, related to the DARPA grant.

16. Subsequent Events

In October 2016, the Company entered into an office lease (the “Lease”) for a property located in San Diego, California. The total space is approximately 51,000 square feet. The Company intends to use the facility for office, manufacturing and research and development purposes. The term of the Lease commences on the earlier to occur of the date the Company first conducts business from any portion of the premises, or June 1, 2017. The initial term of the Lease is ten years, with a right to terminate on November 30, 2023, with appropriate notice to the landlord.

The base rent adjusts periodically throughout the term of the Lease, with a portion of the rent abated for certain periods during the first two years of the initial term. In addition, the Company will pay the landlord its share of operating expenses and has paid a security deposit of $95,000.

Between October 1 and October 10, 2016, the Company sold 90,500 shares of common stock under its Sales Agreement for net proceeds of $837,000. No sales were made under the Sales Agreement from October 11, 2016 through November 8, 2016.

On October 24, 2016, the Company announced that the U.S. Food and Drug Administration (FDA) has placed a clinical hold on its proposed phase III clinical program for VGX-3100. A clinical hold is a notification issued by the FDA to a trial sponsor to delay a proposed clinical trial or suspend an ongoing clinical trial. This study has not yet been initiated and has not enrolled or dosed subjects. Additionally, the hold does not pertain to any of the Company's other ongoing clinical studies.

The Company anticipates receiving a formal letter with complete information from the FDA within 30 days. In its initial communication, the FDA has requested additional data to support the Company's shelf-life claim for the single-use disposable array of the newly designed and manufactured CELLECTRA® 5PSP immunotherapy delivery device. The Company is working diligently with the FDA to address its concerns and anticipates that the requested data will be available before the end of this year. The Company estimates that the start of the phase III clinical program will be delayed until the first half of 2017 pending resolution of the FDA’s requests.

ITEM 2. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

This report contains forward-looking statements, as defined in Section 27A of the Securities Act of 1933 and Section 21E of the Securities Exchange Act of 1934. These statements relate to future events or our future financial performance. In some cases, you can identify forward-looking statements by terminology such as "may," "will," "should," "expect," "plan," "anticipate," "believe," "estimate," "predict," "potential" or "continue," the negative of such terms or other comparable terminology. These statements are only predictions. Actual events or results may differ materially. 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. Moreover, neither we, nor any other person, assume responsibility for the accuracy and completeness of the forward-looking statements. We are under no obligation to update any of the forward-looking statements after the filing of this Quarterly Report to conform such statements to actual results or to changes in our expectations.

The following discussion of our financial condition and results of operations should be read in conjunction with our consolidated financial statements and the related notes and other financial information appearing elsewhere in this Quarterly Report. Readers are also urged to carefully review and consider the various disclosures made by us that attempt to advise interested parties of the factors that affect our business, including without limitation the disclosures made in Item 1A of Part II of this Quarterly Report under the Caption "Risk Factors" and under the captions "Management's Discussion and Analysis of Financial Condition and Results of Operations," and "Risk Factors" and in our audited consolidated financial statements and related notes included in our Annual Report on Form 10-K for the year ended December 31, 2015.

Risk factors that could cause actual results to differ from those contained in the forward-looking statements include but are not limited to: our history of losses; our lack of products that have received regulatory approval; uncertainties inherent in clinical trials and product development programs, including but not limited to the fact that pre-clinical and clinical results may not be indicative of results achievable in other trials or for other indications, that the studies or trials may not be successful or achieve desired results, that pre-clinical studies and clinical trials may not commence, have sufficient enrollment or be completed in the time periods anticipated, that results from one study may not necessarily be reflected or supported by the results of other similar studies, that results from an animal study may not be indicative of results achievable in human studies, that clinical testing is expensive and can take many years to complete, that the outcome of any clinical trial is uncertain and failure can occur at any time during the clinical trial process, and that our electroporation technology and DNA vaccines may fail to show the desired safety and efficacy traits in clinical trials; the availability of funding; the ability to manufacture vaccine candidates; the availability or potential availability of alternative therapies or treatments for the conditions targeted by us or our collaborators, including alternatives that may be more efficacious or cost-effective than any therapy or treatment that we and our collaborators hope to develop; our ability to receive development, regulatory and commercialization event-based payments under our collaborative agreements; whether our proprietary rights are enforceable or defensible or infringe or allegedly infringe on rights of others or can withstand claims of invalidity; and the impact of government healthcare proposals.

General

Inovio is a bio-pharmaceutical company that is developing active DNA immunotherapies and vaccines focused on treating and preventing cancers and infectious diseases. Our DNA-based immunotherapies, in combination with our proprietary electroporation delivery devices, are intended to generate robust immune responses, in particular T cells, in the body to fight target diseases. In 2014 we reported that in a controlled phase II clinical study we generated significant, functional antigen-specific T cells that correlated to clinically relevant efficacy against HPV-associated cervical precancer. This data was published in The Lancet in September 2015. We plan to launch a phase III study of this product in the first half of 2017 as part of our VGX-3100 phase III development program and are advancing multiple cancer clinical studies.

Our novel SynCon® immunotherapy design has shown the ability to help break the immune system's tolerance of cancerous cells. Our SynCon® product design approach is also intended to facilitate cross-strain protection against

known as well as new unmatched strains of pathogens such as influenza. Given the recognized role of killer T cells in eliminating cancerous or infected cells from the body and our published phase II results, our scientists believe our active immunotherapies may play an important role in helping fight multiple cancers and infectious diseases. Human data to date have shown a favorable safety profile of our DNA immunotherapies delivered using electroporation.
We or our collaborators are currently conducting or planning clinical studies of our proprietary SynCon® immunotherapies for HPV-caused pre-cancers (including cervical, anal and vulvar neoplasia), HPV-caused cancers (head and neck and cervical), prostate cancer, breast/lung/pancreatic cancer, hepatitis C virus (HCV), hepatitis B virus (HBV), HIV, Ebola, MERS (Middle East Respiratory Syndrome) and Zika virus.

Our corporate strategy is to advance and protect a differentiated immunotherapy platform and use its unique capabilities to design and develop an array of cancer and infectious disease products. We aim to advance products through to commercialization. We continue to leverage third party resources through collaborations and partnerships including product license agreements. Our partners and collaborators include MedImmune, LLC, The Wistar Institute, University of Pennsylvania, GeneOne Life Science Inc., Drexel University, National Microbiology Laboratory of the Public Health Agency of Canada, National Institute of Allergy and Infectious Diseases ("NIAID"), United States Military HIV Research Program ("USMHRP"), U.S. Army Medical Research Institute of Infectious Diseases ("USAMRIID"), HIV Vaccines Trial Network ("HVTN"), and Defense Advanced Research Projects Agency ("DARPA"). All of our potential human products are in research and development phases. We have not generated any revenues from the sale of any such products, and we do not expect to generate any such revenues for at least the next several years. We earn revenue from license fees and milestone revenue, collaborative research and development agreements, grants and government contracts. Our product candidates will require significant additional research and development efforts, including extensive preclinical and clinical testing. All product candidates that we advance to clinical testing will require regulatory approval prior to commercial use, and will require significant costs for commercialization. We may not be successful in our research and development efforts, and we may never generate sufficient product revenue to be profitable.

Recent Developments

On July 28, 2016 Roche provided notice that they would be discontinuing our collaboration and the development of INO-1800, our DNA immunotherapy against the hepatitis B virus. The termination was effective in October 2016, 90 days after the notice date. All of Roche's rights to INO-1800, including the right to license the product to other parties, have been returned to us. We plan to continue to develop our hepatitis B DNA vaccine (INO-1800) and independently advance our phase I study of INO-1800.

In August 2016, we incorporated a 100%-owned subsidiary, GENEOS Therapeutics, Inc., to develop and commercialize neo-antigen based personalized cancer therapies. While we pursue our SynCon® immunotherapy design to break tolerance and create cancer products targeting shared tumor specific antigens, GENEOS will exclusively focus on leveraging the Company's DNA immunotherapy technology platform to advance the field of patient-specific neo-antigen therapies. Our clinically validated DNA based platform is well suited for advancing individualized therapies due to its rapid product design and manufacturing benefits, ability to combine multiple neo-antigens into formulations, and generation of potent killer T cell responses that are needed to drive clinical efficacy.

On October 24, 2016, we announced that the U.S. Food and Drug Administration (FDA) has placed a clinical hold on our proposed phase III clinical program for VGX-3100. A clinical hold is a notification issued by the FDA to a trial sponsor to delay a proposed clinical trial or suspend an ongoing clinical trial. This study has not yet been initiated and has not enrolled or dosed subjects. Additionally, the hold does not pertain to any of our other ongoing clinical studies. We anticipate receiving a formal letter with complete information from the FDA within 30 days. In its initial communication, the FDA has requested additional data to support our shelf-life claim for the single-use disposable array of the newly designed and manufactured CELLECTRA® 5PSP immunotherapy delivery device. We are working diligently with the FDA to address its concerns and anticipate that the requested data will be available before the end of this year. We estimate that the start of the phase III clinical program will be delayed until the first half of 2017 pending resolution of the FDA's requests.

As of September 30, 2016 we had an accumulated deficit of $408.6 million. We expect to continue to incur substantial operating losses in the future due to our commitment to our research and development programs, the funding of preclinical studies, clinical trials and regulatory activities and the costs of general and administrative activities.

Critical Accounting Policies

There have been no significant changes to our critical accounting policies since December 31, 2015. For a description of critical accounting policies that affect our significant judgments and estimates used in the preparation of our consolidated financial statements, refer to Item 7 in Management's Discussion and Analysis of Financial Condition and Results of Operations and Note 2 to our Consolidated Financial Statements contained in our Annual Report.

Adoption of Recent Accounting Pronouncements

Information regarding recent accounting pronouncements is contained in Note 5 to the Condensed Consolidated Financial Statements, included elsewhere in this report.

Results of Operations

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Revenue. We had total revenue of $12.5 million and $26.9 million for the three and nine months ended September 30, 2016, respectively, as compared to $24.2 million and $34.6 million for the three and nine months ended September 30, 2015, respectively. Revenue primarily consists of revenue under collaborative research and development arrangements, grants and government contracts.

Revenue under collaborative research and development arrangements, including arrangements with affiliated entities, was $2.9 million and $7.2 million for the three and nine months ended September 30, 2016, respectively, as compared to $16.6 million and $25.5 million for the three and nine months ended September 30, 2015, respectively. The decrease for the three-month period year over year was primarily due to the up-front revenue recognized in 2015 from our Agreement with MedImmune entered into in August 2015 (See Note 15). The decrease for the nine-month period year over year was primarily due to the up-front revenue recognized in 2015 from our Agreement with MedImmune as well as the revenue recognized from the Roche Agreement in 2015, related to the partial termination of the Agreement in February 2015 as well as the $3.0 million milestone earned during the period.

During the three and nine months ended September 30, 2016, we recorded grant and miscellaneous revenue, including arrangements with affiliated entities, of $9.6 million and $19.6 million, respectively, as compared to $7.6 million and $9.2 million for the three and nine months ended September 30, 2015, respectively. The increase for the three-month period year over year was primarily due to an increase in revenue recognized from our DARPA Ebola grant of $2.1 million. The increase for the nine-month period year over year was primarily due to an increase in revenue recognized from our DARPA Ebola grant and subcontract with the University of Pennsylvania for the treatment of infectious diseases of $10.3 million and $572,000, respectively, offset by a decrease in revenue recognized from our contract with the NIAID of $643,000.

Research and development expenses. Research and development expenses for the three and nine months ended September 30, 2016, were $27.0 million and $64.8 million, respectively, as compared to $16.1 million and $42.2 million for the three and nine months ended September 30, 2015, respectively. The increase for the three-month period year over year was primarily due to increased expenses related to our DARPA Ebola grant, an increase in clinical studies expenses, an increase in employee headcount to support clinical trials and partnerships, an increase in expenses related to our Hepatitis B collaboration and an increase in non-cash stock based compensation of $5.6 million, $2.8 million, $2.1 million, $511,000 and $471,000, respectively. These were offset by a decrease in sub-license fee expense based on the up-front payment received from MedImmune and Roche milestone achievement in 2015 of $2.4 million, among other variances. The increase for the nine-month period year over year was primarily due to an increase in expenses related to our DARPA Ebola grant, an increase in clinical studies expenses, an increase in employee headcount to support clinical trials and partnerships, an increase in contract labor and engineering and laboratory supplies and an increase in non-cash stock based compensation of $7.4 million, $6.6 million, $6.0 million, $1.9 million and $1.2 million, respectively. These were offset by a decrease in sub-license fee expense based on the up-front payment received from MedImmune and Roche milestone achievement in 2015 of $2.6 million, among other variances.

General and administrative expenses. General and administrative expenses, which include business development expenses, the amortization of intangible assets and patent expenses, for the three and nine months ended September 30, 2016, were $5.8 million and $16.9 million, respectively, as compared to $4.4 million and $13.2 million for the three and nine months ended September 30, 2015, respectively. The increase for the three-month period year over year was primarily due to an increase in non-cash stock based compensation, employee headcount, employee training, recruitment and related expenses and amortization of intangible assets of $534,000 $331,000, $293,000 and $211,000, respectively, among other variances. The increase for the nine-month period year over year was primarily due to an increase in non-cash stock based compensation, employee headcount, employee training, recruitment and related expenses, accounting fees and contract labor of $1.3 million, $787,000, $644,000, $374,000 and $299,000, respectively, among other variances.

Stock-based compensation. Stock-based compensation cost is measured at the grant date, based on the fair value of the award reduced by estimated forfeitures, and is recognized as expense over the employee's requisite service period. Total employee and director compensation cost for our stock plans for the three and nine months ended September 30, 2016 was $2.1 million and $7.0 million, respectively. From these amounts, $1.1 million and $3.8 million were

included in research and development expenses and $1.0 million and $3.2 million were included in general and administrative expenses, respectively. Total employee and director compensation cost for our stock plans for the three and nine months ended September 30, 2015 was $1.1 million and $4.6 million, respectively. From these amounts, $565,000 and $2.6 million were included in research and development expenses and $559,000 and $2.0 million were included in general and administrative expenses, respectively. The increase for the three and nine-month period year over year was primarily due to an increase in the number of employee stock options and restricted stock units granted.

Change in fair value of common stock warrants. The net change in fair value of common stock warrants for the three and nine months ended September 30, 2016 was an increase of $3,000 and decrease of $(517,000), respectively, as compared to increases of $519,000 and $468,000 for the three and nine months ended September 30, 2015. The variance is primarily due to

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the revaluation of the registered common stock warrants issued by us in March 2013. We revalue these warrants at each balance sheet date to fair value. If unexercised, the remaining warrants will expire in September 2018.
Gain (Loss) from investment in affiliated entity. The gain (loss) is a result of the change in the fair market value of the investment in GeneOne for the three and nine months ended September 30, 2016 and 2015.
Gain on sale of assets. The gain on sale of assets is related to the May 2014 sale of animal health assets to Plumbline Life Sciences ("PLS"). The gain is related to the cash received related to the sale in May 2016 and 2015 (See Note 13).

Liquidity and Capital Resources

Historically, our primary uses of cash have been to finance research and development activities including clinical trial activities in the oncology, DNA vaccines and other immunotherapy areas of our business. Since inception, we have satisfied our cash requirements principally from proceeds from the sale of equity securities.

Working Capital and Liquidity
As of September 30, 2016, we had cash and short-term investments of $119.7 million and working capital of $98.9 million, as compared to $163.0 million and $140.4 million, respectively, as of December 31, 2015. The decrease in cash and short-term investments during the nine months ended September 30, 2016 was primarily due to expenditures related to our research and development activities and various general and administrative expenses related to legal, consultants, accounting and audit, and corporate development.
Net cash used in operating activities was $47.7 million and $5.7 million for the nine months ended September 30, 2016 and 2015, respectively. The variance was primarily due to the increase in net loss for the period due to a decrease in revenue of $7.8 million and an increase in research and development and general and administrative operating expenses of $22.6 million and $3.7 million, respectively. In addition, an up-front payment of $27.5 million was received from MedImmune in September 2015, of which $12.5 million was recorded as deferred revenue at September 30, 2015.
Net cash provided by (used in) investing activities was $6.4 million and $(33.6) million for the nine months ended September 30, 2016 and 2015, respectively. The variance was primarily the result of timing differences in short-term investment purchases, sales and maturities.
Net cash provided by financing activities was $6.9 million and $84.2 million for the nine months ended September 30, 2016 and 2015, respectively. The cash from financing activities in 2016 and 2015 was primarily related to the “at-the-market” (ATM) sales agreement entered into in June 2016 and the May 2015 equity financing, respectively.
In June 2016, we entered into an ATM sales agreement with an outside placement agent (the “Placement Agent”) to sell shares of our common stock with aggregate gross proceeds of up to $50.0 million from time to time, through an ATM equity offering program under which the Placement Agent will act as sales agent. During the nine months ended September 30, 2016, we sold 568,248 shares of common stock under the ATM sales agreement for net proceeds of $5.5 million.
On May 5, 2015, we closed an underwritten public offering of 10,925,000 shares of our common stock, including 1,425,000 shares of common stock issued pursuant to the underwriter’s exercise of its overallotment option, at the public offering price of $8.00 per share. The net proceeds, after deducting the underwriter’s discounts and commission and other offering expenses, were $81.9 million.
During the nine months ended September 30, 2016, stock options to purchase 625,925 shares of common stock were exercised for total proceeds to the Company of $1.8 million. During the nine months ended September 30, 2015, warrants and stock options to purchase 514,712 shares of common stock were exercised for total proceeds to the Company of $2.4 million.
As of September 30, 2016, we had an accumulated deficit of $408.6 million. We have operated at a loss since 1994, and we expect to continue to operate at a loss for some time. The amount of the accumulated deficit will continue to increase, as it will be expensive to continue research and development efforts. If these activities are successful and if we receive approval from the FDA to market our DNA vaccine products, then we will need to raise additional funding

to market and sell the approved vaccine products and equipment. We cannot predict the outcome of the above matters at this time. We are evaluating potential collaborations as an additional way to fund operations. We believe that current cash and short-term investments are sufficient to meet planned working capital requirements for at least the next twelve months.

ITEM 3. QUALITATIVE AND QUANTITATIVE DISCLOSURES ABOUT MARKET RISK

Interest Rate Risk

Market risk represents the risk of loss that may impact our consolidated financial position, results of operations or cash flows due to adverse changes in financial and commodity market prices and rates. We are exposed to market risk primarily in the area of changes in United States interest rates and conditions in the credit markets, and the recent fluctuations in interest rates and availability of funding in the credit markets primarily impact the performance of our investments. We do not have any material foreign currency or other derivative financial instruments. Under our current policies, we do not use interest rate derivative instruments to manage exposure to interest rate changes. We attempt to increase the safety and preservation of our invested principal funds by limiting default risk, market risk and reinvestment risk. We mitigate default risk by investing in investment grade securities.

Fair Value measurements

We account for our common stock warrants pursuant to the authoritative guidance on accounting for derivative financial instruments indexed to, and potentially settled in, a company's own stock, on the understanding that in compliance with applicable securities laws, the registered warrants require the issuance of registered securities upon exercise and do not sufficiently preclude an implied right to net cash settlement. We classify registered warrants on the condensed consolidated balance sheet as a current liability that is revalued at each balance sheet date subsequent to the initial issuance.

The investment in affiliated entity represents our ownership interest in the Korean based companies, GeneOne and PLS. We report these investments at fair value on the condensed consolidated balance sheet using the closing price of GeneOne and PLS shares of common stock as listed on the Korean Stock Exchange and Korea New Exchange Market, respectively.

Common stock warrants that we have received to purchase shares of OncoSec are classified on the condensed consolidated balance sheet as a long-term asset that is revalued at each balance sheet date subsequent to the initial receipt.

Foreign Currency Risk

We have operated primarily in the United States and most transactions during the nine months ended September 30, 2016, have been made in United States dollars. Accordingly, we have not had any material exposure to foreign currency rate fluctuations, with the exception of the valuation of our equity investments in GeneOne and PLS which are denominated in South Korean Won. We do not have any foreign currency hedging instruments in place.

Certain transactions related to us are denominated primarily in foreign currencies, including Euros, British Pounds, Canadian Dollars and South Korean Won. As a result, our financial results could be affected by factors such as changes in foreign currency exchange rates or weak economic conditions in foreign markets where we conduct business, including the impact of the existing crisis in the global financial markets in such countries and the impact on both the United States dollar and the noted foreign currencies.

We do not use derivative financial instruments for speculative purposes. We do not engage in exchange rate hedging or hold or issue foreign exchange contracts for trading purposes. Currently, we do not expect the impact of fluctuations in the relative fair value of other currencies to be material in 2016.

ITEM 4. CONTROLS AND PROCEDURES

Evaluation of Disclosure Controls and Procedures

We maintain disclosure controls and procedures, which are designed to ensure that information required to be disclosed in the reports we file or submit under the Securities Exchange Act of 1934, as amended, is recorded, processed, summarized and reported within the time periods specified in the SEC's rules and forms, and that such information is accumulated and communicated to our management, including our Chief Executive Officer, or CEO, and Chief Financial Officer, or CFO, as appropriate to allow timely decisions regarding required disclosures.

Based on an evaluation carried out as of the end of the period covered by this quarterly report, under the supervision and with the participation of our management, including our CEO and CFO, our CEO and CFO have concluded that, as of the end of such period, our disclosure controls and procedures (as defined in Rule 13a-15(e) and 15d-15(e) under the Securities Exchange Act of 1934) were effective as of September 30, 2016.

Changes in Internal Control over Financial Reporting

There have not been any changes in our internal control over financial reporting (as defined in Rules 13a-15(f) and 15d-15(f) under the Securities Exchange Act of 1934) that occurred during the quarter ended September 30, 2016, that have 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 a party to any material litigation or other material legal proceedings.

ITEM 1A. RISK FACTORS

The following Risk Factors do not reflect any material changes to the Risk Factors set forth in our Annual Report on Form 10-K for the fiscal year ended December 31, 2015, which we filed with the Securities and Exchange Commission on March 11, 2016. You should carefully consider and evaluate each of the following factors as well as the other information in this quarterly report on Form 10-Q, including our financial statements and the related notes, in evaluating our business and prospects. The risks and uncertainties described below are not the only ones we face. Additional risks and uncertainties not presently known to us or that we currently consider immaterial may also impair our business operations. If any of the following risks actually occur, our business and financial results could be harmed. In that case, the trading price of our common stock could decline. You should also consider the more detailed description of our business contained in our annual report on Form 10-K for the year ended December 31, 2015.

Risks Related to Our Business and Industry

We have incurred losses since inception, expect to incur significant net losses in the foreseeable future and may never become profitable.

We have experienced significant operating losses to date; as of September 30, 2016 our accumulated deficit was approximately $408.6 million. We have generated limited revenues, primarily consisting of license and grant revenue, and interest income. We expect to continue to incur substantial additional operating losses for at least the next several years as we advance our clinical trials and research and development activities. We may never successfully commercialize our vaccine product candidates or electroporation-based synthetic vaccine delivery technology and thus may never have any significant future revenues or achieve and sustain profitability.

We have limited sources of revenue and our success is dependent on our ability to develop our vaccine and other product candidates and electroporation equipment.

We do not sell any products and may not have any other products commercially available for several years, if at all. Our ability to generate future revenues depends heavily on our success in:

- developing and securing United States and/or foreign regulatory approvals for our product candidates, including securing regulatory approval for conducting clinical trials with product candidates;
- developing our electroporation-based DNA delivery technology; and
- commercializing any products for which we receive approval from the FDA and foreign regulatory authorities.

Our electroporation equipment and product candidates will require extensive additional clinical study and evaluation, regulatory approval in multiple jurisdictions, substantial investment and significant marketing efforts before we generate any revenues from product sales. We are not permitted to market or promote our electroporation equipment and product candidates before we receive regulatory approval from the FDA or comparable foreign regulatory authorities. If we do not receive regulatory approval for and successfully commercialize any products, we will not generate any revenues from sales of electroporation equipment and products, and we may not be able to continue our operations.

None of our human vaccine product candidates has been approved for sale, and we may not develop commercially successful vaccine products.

Our human vaccine programs are in the early stages of research and development, and currently include vaccine product candidates in discovery, pre-clinical studies and phase I and II clinical studies. There is limited data regarding the efficiency of synthetic vaccines compared with conventional vaccines, and we must conduct a substantial amount of additional research and development before any regulatory authority will approve any of our vaccine product candidates. The success of our efforts to develop and commercialize our vaccine product candidates could fail for a number of reasons. For example, we could experience delays in product development and clinical trials. Our vaccine product candidates could be found to be ineffective or unsafe, or otherwise fail to receive necessary regulatory clearances. The products, if safe and effective, could be difficult to manufacture on a large scale or uneconomical to market, or our competitors could develop superior vaccine products more quickly and efficiently or more effectively

market their competing products.

In addition, adverse events, or the perception of adverse events, relating to vaccines and vaccine delivery technologies may negatively impact our ability to develop commercially successful vaccine products. For example, pharmaceutical companies have been subject to claims that the use of some pediatric vaccines has caused personal injuries, including brain damage, central nervous system damage and autism. These and other claims may influence public perception of the use of vaccine products and could result in greater governmental regulation, stricter labeling requirements and potential regulatory delays in the testing or approval of our potential products.

We will need substantial additional capital to develop our synthetic vaccine and electroporation delivery technology and other product candidates and for our future operations.

Conducting the costly and time consuming research, pre-clinical and clinical testing necessary to obtain regulatory approvals and bring our vaccine delivery technology and product candidates to market will require a commitment of substantial funds in excess of our current capital. Our future capital requirements will depend on many factors, including, among others:

- the progress of our current and new product development programs;
- the progress, scope and results of our pre-clinical and clinical testing;
- the time and cost involved in obtaining regulatory approvals;
- the cost of manufacturing our products and product candidates;
- the cost of prosecuting, enforcing and defending against patent infringement claims and other intellectual property rights;
- competing technological and market developments; and
- our ability and costs to establish and maintain collaborative and other arrangements with third parties to assist in potentially bringing our products to market.

Additional financing may not be available on acceptable terms, or at all. Domestic and international capital markets have been experiencing heightened volatility and turmoil, making it more difficult to raise capital through the issuance of equity securities. Furthermore, as a result of the recent volatility in the capital markets, the cost and availability of credit has been and may continue to be adversely affected by illiquid credit markets and wider credit spreads. Concern about the stability of the markets generally and the strength of counterparties specifically has led many lenders and institutional investors to reduce, and in some cases cease to provide, funding to borrowers. To the extent we are able to raise additional capital through the sale of equity securities or we issue securities in connection with another transaction, the ownership position of existing stockholders could be substantially diluted. If additional funds are raised through the issuance of preferred stock or debt securities, these securities are likely to have rights, preferences and privileges senior to our common stock and may involve significant fees, interest expense, restrictive covenants and the granting of security interests in our assets. Fluctuating interest rates could also increase the costs of any debt financing we may obtain. Raising capital through a licensing or other transaction involving our intellectual property could require us to relinquish valuable intellectual property rights and thereby sacrifice long-term value for short-term liquidity.

Our failure to successfully address ongoing liquidity requirements would have a substantially negative impact on our business. If we are unable to obtain additional capital on acceptable terms when needed, we may need to take actions that adversely affect our business, our stock price and our ability to achieve cash flow in the future, including possibly surrendering our rights to some technologies or product opportunities, delaying our clinical trials or curtailing or ceasing operations.

We depend upon key personnel who may terminate their employment with us at any time and we may need to hire additional qualified personnel in order to obtain financing, pursue collaborations or develop or market our product candidates.

The success of our business strategy will depend to a significant degree upon the continued services of key management, technical and scientific personnel and our ability to attract and retain additional qualified personnel and managers, including personnel with expertise in clinical trials, government regulation, manufacturing, marketing and other areas. Competition for qualified personnel is intense among companies, academic institutions and other organizations. If we are unable to attract and retain key personnel and advisors, it may negatively affect our ability to successfully develop, test, commercialize and market our products and product candidates.

We face intense and increasing competition and many of our competitors have significantly greater resources and experience.

If any of our competitors develop products with efficacy or safety profiles significantly better than our products, we may not be able to commercialize our products, and sales of any of our commercialized products could be harmed. Some of our competitors and potential competitors have substantially greater product development capabilities and financial, scientific,

marketing and human resources than we do. Competitors may develop products earlier, obtain FDA approvals for products more rapidly, or develop products that are more effective than those under development by us. We will seek to expand our technological capabilities to remain competitive; however, research and development by others may render our technologies or products obsolete or noncompetitive, or result in treatments or cures superior to ours.
Many other companies are pursuing other forms of treatment or prevention for diseases that we target. For example, many of our competitors are working on developing and testing H5N1, H1N1 and universal influenza vaccines, and several H1N1 vaccines developed by our competitors have been approved for human use. Our competitors and potential competitors include large pharmaceutical and medical device companies and more established biotechnology companies. These companies have significantly greater financial and other resources and greater expertise than us in research and development, securing government contracts and grants to support research and development efforts, manufacturing, pre-clinical and clinical testing, obtaining regulatory approvals and marketing. This may make it easier for them to respond more quickly than us to new or changing opportunities, technologies or market needs. Many of these competitors operate large, well-funded research and development programs and have significant products approved or in development. Small companies may also prove to be significant competitors, particularly through collaborative arrangements with large pharmaceutical companies or through acquisition or development of intellectual property rights. Our potential competitors also include academic institutions, governmental agencies and other public and private research organizations that conduct research, seek patent protection and establish collaborative arrangements for product and clinical development and marketing. Research and development by others may seek to render our technologies or products obsolete or noncompetitive.
If we lose or are unable to secure collaborators or partners, or if our collaborators or partners do not apply adequate resources to their relationships with us, our product development and potential for profitability will suffer.
We have entered into, or may enter into, distribution, co-promotion, partnership, sponsored research and other arrangements for development, manufacturing, sales, marketing and other commercialization activities relating to our products. For example, in the past we have entered into license and collaboration agreements. The amount and timing of resources applied by our collaborators are largely outside of our control.
If any of our current or future collaborators breaches or terminates our agreements, or fails to conduct our collaborative activities in a timely manner, our commercialization of products could be diminished or blocked completely. We may not receive any event-based payments, milestone payments or royalty payments under our collaborative agreements if our collaborative partners fail to develop products in a timely manner or at all. It is possible that collaborators will change their strategic focus, pursue alternative technologies or develop alternative products, either on their own or in collaboration with others. Further, we may be forced to fund programs that were previously funded by our collaborators, and we may not have, or be able to access, the necessary funding. The effectiveness of our partners, if any, in marketing our products will also affect our revenues and earnings.
We desire to enter into new collaborative agreements. However, we may not be able to successfully negotiate any additional collaborative arrangements and, if established, these relationships may not be scientifically or commercially successful. Our success in the future depends in part on our ability to enter into agreements with other highly-regarded organizations. This can be difficult due to internal and external constraints placed on these organizations. Some organizations may have insufficient administrative and related infrastructure to enable collaborations with many companies at once, which can extend the time it takes to develop, negotiate and implement a collaboration. Once news of discussions regarding possible collaborations are known in the medical community, regardless of whether the news is accurate, failure to announce a collaborative agreement or the entity's announcement of a collaboration with another entity may result in adverse speculation about us, resulting in harm to our reputation and our business.
Disputes could also arise between us and our existing or future collaborators, as to a variety of matters, including financial and intellectual property matters or other obligations under our agreements. These disputes could be both expensive and time-consuming and may result in delays in the development and commercialization of our products or could damage our relationship with a collaborator.
A small number of licensing partners and government contracts account for a substantial portion of our revenue.
We currently derive, and in the past we have derived, a significant portion of our revenue from a limited number of licensing partners and government grants and contracts. Revenue can fluctuate significantly depending on the timing of up-front and event-based payments and work performed. If we fail to sign additional future contracts with major

licensing partners and the government, if a contract is delayed or deferred, or if an existing contract expires or is canceled and we fail to replace the contract with new business, our revenue would be adversely affected.

We have agreements with government agencies, which are subject to termination and uncertain future funding.

We have entered into agreements with government agencies, such as the NIAID and the US Army, and we intend to continue entering into these agreements in the future. Our business is partially dependent on the continued performance by these government agencies of their responsibilities under these agreements, including adequate continued funding of the agencies and their programs. We have no control over the resources and funding that government agencies may devote to these agreements, which may be subject to annual renewal and which generally may be terminated by the government agencies at any time.

Government agencies may fail to perform their responsibilities under these agreements, which may cause them to be terminated by the government agencies. In addition, we may fail to perform our responsibilities under these agreements. Many of our government agreements are subject to audits, which may occur several years after the period to which the audit relates. If an audit identifies significant unallowable costs, we could incur a material charge to our earnings or reduction in our cash position. As a result, we may be unsuccessful entering, or ineligible to enter, into future government agreements.

Our quarterly operating results may fluctuate significantly.

We expect our operating results to be subject to quarterly fluctuations. Our net loss and other operating results will be affected by numerous factors, including:

- variations in the level of expenses related to our electroporation equipment, product candidates or future development programs;
- expenses related to corporate transactions, including ones not fully completed;
- addition or termination of clinical trials or funding support;
- any intellectual property infringement lawsuit in which we may become involved;
- any legal claims that may be asserted against us or any of our officers;
- regulatory developments affecting our electroporation equipment and product candidates or those of our competitors;
- our execution of any collaborative, licensing or similar arrangements, and the timing of payments we may make or receive under these arrangements; and
- if any of our products receives regulatory approval, the levels of underlying demand for our products.

If our quarterly operating results fall below the expectations of investors or securities analysts, the price of our common stock could decline substantially. Furthermore, any quarterly fluctuations in our operating results may, in turn, cause the price of our stock to fluctuate substantially. We believe that quarterly comparisons of our financial results are not necessarily meaningful and should not be relied upon as an indication of our future performance.

If we are unable to obtain FDA approval of our products, we will not be able to commercialize them in the United States.

We need FDA approval prior to marketing our electroporation equipment and products in the United States. If we fail to obtain FDA approval to market our electroporation equipment and product candidates, we will be unable to sell our products in the United States, which will significantly impair our ability to generate any revenues.

This regulatory review and approval process, which includes evaluation of pre-clinical studies and clinical trials of our products as well as the evaluation of our manufacturing processes and our third-party contract manufacturers' facilities, is lengthy, expensive and uncertain. To receive approval, we must, among other things, demonstrate with substantial evidence from well-controlled clinical trials that our electroporation equipment and product candidates are both safe and effective for each indication for which approval is sought. Satisfaction of the approval requirements typically takes several years and the time needed to satisfy them may vary substantially, based on the type, complexity and novelty of the product. We do not know if or when we might receive regulatory approvals for our electroporation equipment and any of our product candidates currently under development. Moreover, any approvals that we obtain may not cover all of the clinical indications for which we are seeking approval, or could contain significant limitations in the form of narrow indications, warnings, precautions or contra-indications with respect to conditions of use. In such event, our ability to generate revenues from such products would be greatly reduced and our business would be harmed.

The FDA has substantial discretion in the approval process and may either refuse to consider our application for substantive review or may form the opinion after review of our data that our application is insufficient to allow approval of our electroporation equipment and product candidates. If the FDA does not consider or approve our

application, it may require that we conduct additional clinical, pre-clinical or manufacturing validation studies and submit that data before it will reconsider our application. Depending on the extent of these or any other studies, approval of any applications that we submit may be

delayed by several years, or may require us to expend more resources than we have available. It is also possible that additional studies, if performed and completed, may not be successful or considered sufficient by the FDA for approval or even to make our applications approvable. If any of these outcomes occur, we may be forced to abandon one or more of our applications for approval, which might significantly harm our business and prospects.

It is possible that none of our products or any product we may seek to develop in the future will ever obtain the appropriate regulatory approvals necessary for us or our collaborators to commence product sales. Any delay in obtaining, or an inability to obtain, applicable regulatory approvals would prevent us from commercializing our products, generating revenues and achieving and sustaining profitability.

Clinical trials involve a lengthy and expensive process with an uncertain outcome, and results of earlier studies and trials may not be predictive of future trial results.

Clinical testing is expensive and can take many years to complete, and its outcome is uncertain. Failure can occur at any time during the clinical trial process. The results of pre-clinical studies and early clinical trials of our products may not be predictive of the results of later-stage clinical trials. Results from one study may not be reflected or supported by the results of similar studies. Results of an animal study may not be indicative of results achievable in human studies. Human-use equipment and product candidates in later stages of clinical trials may fail to show the desired safety and efficacy traits despite having progressed