

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

FORM 10-Q

☒ **QUARTERLY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
FOR THE QUARTERLY PERIOD ENDED JUNE 30, 2020**

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



Delaware
(State or other jurisdiction of
incorporation or organization)

33-0969592
(I.R.S. Employer
Identification No.)

**660 W. GERMANTOWN PIKE, SUITE 110
PLYMOUTH MEETING, PA 19462
(Address of principal executive offices)**

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

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

Title of Each Class	Trading Symbol(s)	Name of Each Exchange on Which Registered
COMMON STOCK, \$0.001 PAR VALUE	INO	Nasdaq Global Select Market

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

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). Yes ☒ No ☐

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

Large accelerated filer	<input type="checkbox"/>	Accelerated filer	<input checked="" type="checkbox"/>
Non-accelerated filer	<input type="checkbox"/>	Smaller reporting company	<input type="checkbox"/>
		Emerging growth company	<input type="checkbox"/>

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act. ☐

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

The number of shares outstanding of the Registrant's Common Stock, \$0.001 par value, was 167,520,435 as of August 7, 2020.

INOVIO PHARMACEUTICALS, INC.
FORM 10-Q

For the Quarterly Period Ended June 30, 2020

INDEX

<u>Part I. Financial Information</u>	<u>1</u>
<u>Item 1. Financial Statements</u>	<u>1</u>
a) <u>Condensed Consolidated Balance Sheets</u>	<u>2</u>
b) <u>Condensed Consolidated Statements of Operations</u>	<u>3</u>
c) <u>Condensed Consolidated Statements of Comprehensive Loss</u>	<u>4</u>
d) <u>Condensed Consolidated Statements of Stockholders' Equity</u>	<u>5</u>
e) <u>Condensed Consolidated Statements of Cash Flows</u>	<u>7</u>
f) <u>Notes to Condensed Consolidated Financial Statements</u>	<u>9</u>
<u>Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations</u>	<u>32</u>
<u>Item 3. Quantitative and Qualitative Disclosures About Market Risk</u>	<u>37</u>
<u>Item 4. Controls and Procedures</u>	<u>38</u>
<u>Part II. Other Information</u>	<u>39</u>
<u>Item 1. Legal Proceedings</u>	<u>39</u>
<u>Item 1A. Risk Factors</u>	<u>39</u>
<u>Item 2. Unregistered Sales of Equity Securities and Use of Proceeds</u>	<u>59</u>
<u>Item 3. Defaults Upon Senior Securities</u>	<u>59</u>
<u>Item 4. Mine Safety Disclosures</u>	<u>59</u>
<u>Item 5. Other Information</u>	<u>59</u>
<u>Item 6. Exhibits</u>	<u>59</u>
<u>Signatures</u>	<u>61</u>

Part I. Financial Information

Item 1. Financial Statements

INOVIO PHARMACEUTICALS, INC.
CONDENSED CONSOLIDATED BALANCE SHEETS

	June 30, 2020	December 31, 2019
	(Unaudited)	
ASSETS		
Current assets:		
Cash and cash equivalents	\$ 215,432,713	\$ 22,196,097
Short-term investments	156,231,102	67,338,017
Accounts receivable	3,513,159	700,073
Accounts receivable from affiliated entities	482,373	1,332,044
Prepaid expenses and other current assets	4,591,966	1,584,598
Prepaid expenses and other current assets from affiliated entities	1,811,140	1,050,140
Total current assets	382,062,453	94,200,969
Fixed assets, net	11,323,531	12,773,017
Investment in affiliated entities	17,327,569	6,315,356
Investment in Geneos	2,717,241	—
Intangible assets, net	3,420,311	3,693,851
Goodwill	10,513,371	10,513,371
Operating lease right-of-use assets	13,265,144	13,783,009
Other assets	2,555,782	2,672,024
Total assets	\$ 443,185,402	\$ 143,951,597
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities:		
Accounts payable and accrued expenses	\$ 17,216,875	\$ 18,237,258
Accounts payable and accrued expenses due to affiliated entities	511,953	729,729
Accrued clinical trial expenses	6,870,450	4,049,727
Deferred revenue	14,853	92,353
Deferred revenue from affiliated entities	94,275	31,775
Operating lease liability	2,200,459	2,074,842
Grant funding liability	10,330,235	6,065,212
Grant funding liability from affiliated entities	742,875	708,425
Total current liabilities	37,981,975	31,989,321
Deferred revenue, net of current portion	86,641	101,567
Convertible senior notes	65,844,260	64,180,325
Convertible bonds	13,718,528	12,842,592
Derivative liability	119,796,000	8,819,023
Operating lease liability, net of current portion	19,261,354	20,409,922
Deferred tax liabilities	32,046	32,046
Grant funding liability from affiliated entity, net of current portion	37,500	135,000
Other liabilities	66,629	36,943
Total liabilities	256,824,933	138,546,739
Stockholders' equity:		
Preferred stock	—	—
Common stock	158,756	101,361
Additional paid-in capital	1,087,745,242	742,646,785
Accumulated deficit	(901,029,768)	(739,785,655)
Accumulated other comprehensive income (loss)	(610,030)	472,608
Total Inovio Pharmaceuticals, Inc. stockholders' equity	186,264,200	3,435,099
Non-controlling interest	96,269	1,969,759
Total stockholders' equity	186,360,469	5,404,858
Total liabilities and stockholders' equity	\$ 443,185,402	\$ 143,951,597

See accompanying notes to unaudited condensed consolidated financial statements.

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

	Three Months Ended June 30,		Six Months Ended June 30,	
	2020	2019	2020	2019
Revenues:				
Revenue under collaborative research and development arrangements	\$ 74,102	\$ 64,283	\$ 145,602	\$ 2,834,995
Revenue under collaborative research and development arrangements with affiliated entities	95,146	71,390	1,267,272	126,970
Miscellaneous revenue	97,939	—	181,587	3,614
Total revenues	267,187	135,673	1,594,461	2,965,579
Operating expenses:				
Research and development	22,376,575	22,486,266	41,487,763	46,876,155
General and administrative	11,071,510	5,850,101	18,519,864	12,825,129
Total operating expenses	33,448,085	28,336,367	60,007,627	59,701,284
Loss from operations	(33,180,898)	(28,200,694)	(58,413,166)	(56,735,705)
Other income (expense):				
Interest income	1,067,399	755,330	1,483,968	1,380,864
Interest expense	(2,846,641)	(2,194,783)	(5,650,396)	(2,851,031)
Change in fair value of derivative liability	(97,755,000)	—	(110,976,977)	—
Gain (loss) on investment in affiliated entities	(3,883,176)	(173,212)	9,298,443	(923,315)
Net unrealized gain (loss) on available-for-sale equity securities	4,358,634	—	(691,458)	—
Other income (expense), net	(152,102)	127,512	(577,602)	91,673
Gain on deconsolidation of Geneos	4,121,075	—	4,121,075	—
Net loss before income tax benefit and share in net loss of Geneos	(128,270,709)	(29,685,847)	(161,406,113)	(59,037,514)
Income tax benefit	—	106,771	—	169,571
Share in net loss of Geneos	(901,757)	—	(901,757)	—
Net loss	(129,172,466)	(29,579,076)	(162,307,870)	(58,867,943)
Net loss attributable to non-controlling interest	469,407	191,850	1,063,757	261,455
Net loss attributable to Inovio Pharmaceuticals, Inc.	\$ (128,703,059)	\$ (29,387,226)	\$ (161,244,113)	\$ (58,606,488)
Net loss per share attributable to Inovio Pharmaceuticals, Inc. stockholders				
Basic and diluted	\$ (0.83)	\$ (0.30)	\$ (1.15)	\$ (0.60)
Weighted average number of common shares outstanding				
Basic and diluted	155,807,054	98,083,896	140,215,158	97,795,910

See accompanying notes to unaudited condensed consolidated financial statements.

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

	Three Months Ended June 30,		Six Months Ended June 30,	
	2020	2019	2020	2019
Net loss	\$ (129,172,466)	\$ (29,579,076)	\$ (162,307,870)	\$ (58,867,943)
Other comprehensive income (loss):				
Unrealized gain (loss) on short-term investments, net of tax	846,900	441,545	(1,082,638)	1,260,722
Comprehensive loss	(128,325,566)	(29,137,531)	(163,390,508)	(57,607,221)
Comprehensive loss attributable to non-controlling interest	469,407	191,850	1,063,757	261,455
Comprehensive loss attributable to Inovio Pharmaceuticals, Inc.	\$ (127,856,159)	\$ (28,945,681)	\$ (162,326,751)	\$ (57,345,766)

See accompanying notes to unaudited condensed consolidated financial statements.

INOVIO PHARMACEUTICALS, INC.
CONDENSED CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY
(Unaudited)

Three and Six Months Ended June 30, 2020									
	Preferred stock		Common stock		Additional paid-in capital	Accumulated deficit	Accumulated other comprehensive income (loss)	Non-controlling interest	Total stockholders' equity
	Number of shares	Amount	Number of shares	Amount					
Balance at December 31, 2019	23	\$ —	101,361,034	\$ 101,361	\$ 742,646,785	\$ (739,785,655)	\$ 472,608	\$ 1,969,759	\$ 5,404,858
Issuance of common stock for cash	—	—	43,148,952	43,149	208,198,784	—	—	—	208,241,933
Exercise of stock options for cash and vesting of RSUs, net of tax payments	—	—	1,405,114	1,405	3,099,298	—	—	—	3,100,703
Stock-based compensation	—	—	—	—	4,017,761	—	—	(16,208)	4,001,553
Acquisition of non-controlling interest in Geneos	—	—	—	—	—	—	—	2,169,998	2,169,998
Net loss attributable to common stockholders	—	—	—	—	—	(32,541,054)	—	(594,350)	(33,135,404)
Unrealized loss on short-term investments	—	—	—	—	—	—	(1,929,538)	—	(1,929,538)
Balance at March 31, 2020	23	\$ —	145,915,100	\$ 145,915	\$ 957,962,628	\$ (772,326,709)	\$ (1,456,930)	\$ 3,529,199	\$ 187,854,103
Issuance of common stock for cash	—	—	12,041,178	12,041	121,706,881	—	—	—	121,718,922
Conversion of preferred stock to common stock	(14)	—	5,147	5	(5)	—	—	—	—
Exercise of stock options for cash and vesting of RSUs, net of tax payments	—	—	794,986	795	4,421,449	—	—	—	4,422,244
Stock-based compensation	—	—	—	—	3,654,289	—	—	8,146	3,662,435
Acquisition of non-controlling interest in Geneos	—	—	—	—	—	—	—	209,971	209,971
Deconsolidation of Geneos	—	—	—	—	—	—	—	(3,181,640)	(3,181,640)
Net loss attributable to common stockholders	—	—	—	—	—	(128,703,059)	—	(469,407)	(129,172,466)
Unrealized gain on short-term investments	—	—	—	—	—	—	846,900	—	846,900
Balance at June 30, 2020	9	\$ —	158,756,411	\$ 158,756	\$ 1,087,745,242	\$ (901,029,768)	\$ (610,030)	\$ 96,269	\$ 186,360,469

Three and Six Months Ended June 30, 2019

	Preferred stock		Common stock		Additional paid-in capital	Accumulated deficit	Accumulated other comprehensive income (loss)	Non- controlling interest	Total stockholders' equity
	Number of shares	Amount	Number of shares	Amount					
Balance at December 31, 2018	23	\$ —	97,225,810	\$ 97,226	\$707,794,215	\$(620,426,436)	\$ (528,867)	\$ 96,269	\$ 87,032,407
Issuance of common stock for cash	—	—	183,200	183	907,147	—	—	—	907,330
Exercise of stock options for cash and vesting of RSUs, net of tax payments	—	—	525,000	525	(719,922)	—	—	—	(719,397)
Equity component of issuance of convertible notes	—	—	—	—	15,752,698	—	—	—	15,752,698
Stock-based compensation	—	—	—	—	3,432,796	—	—	—	3,432,796
Acquisition of non-controlling interest in Geneos	—	—	—	—	—	—	—	3,030,107	3,030,107
Net loss attributable to common stockholders	—	—	—	—	—	(29,219,262)	—	(69,605)	(29,288,867)
Unrealized gain on short-term investments, net of tax	—	—	—	—	—	—	819,177	—	819,177
Balance at March 31, 2019	23	\$ —	97,934,010	\$ 97,934	\$727,166,934	\$(649,645,698)	\$ 290,310	\$ 3,056,771	\$ 80,966,251
Issuance of common stock for cash	—	—	476,600	476	1,388,510	—	—	—	1,388,986
Exercise of stock options for cash and vesting of RSUs, net of tax payments	—	—	173,761	174	(81,433)	—	—	—	(81,259)
Stock-based compensation	—	—	—	—	3,345,378	—	—	9,817	3,355,195
Cost of acquisition of non-controlling interest in Geneos	—	—	—	—	—	—	—	(13,569)	(13,569)
Net loss attributable to common stockholders	—	—	—	—	—	(29,387,226)	—	(191,850)	(29,579,076)
Unrealized gain on short-term investments, net of tax	—	—	—	—	—	—	441,545	—	441,545
Balance at June 30, 2019	23	\$ —	98,584,371	\$ 98,584	\$731,819,389	\$(679,032,924)	\$ 731,855	\$ 2,861,169	\$ 56,478,073

See accompanying notes to unaudited condensed consolidated financial statements.

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

	Six Months Ended June 30,	
	2020	2019
Cash flows from operating activities:		
Net loss	\$ (162,307,870)	\$ (58,867,943)
Adjustments to reconcile net loss to net cash used in operating activities:		
Depreciation	1,608,060	1,863,225
Amortization of intangible assets	273,540	533,126
Change in fair value of derivative liability	110,976,977	—
Stock-based compensation	7,663,988	6,787,991
Non-cash interest expense	3,013,942	2,851,031
Amortization of premiums on investments	—	1,962
Loss on short-term investments	576,001	(93,273)
Settlement of receivable with shares of common stock from affiliated entity (PLS)	(1,713,770)	—
Gain on deconsolidation of Geneos	(4,121,075)	—
(Gain) loss on equity investment in affiliated entities	(9,298,443)	923,315
Share of net loss in Geneos	901,757	—
Net unrealized loss on available-for-sale equity securities	691,458	—
Non-cash lease expense	517,865	412,533
Tax benefit from other unrealized gains on short-term investments	—	(335,228)
Unrealized transaction loss on foreign-currency denominated debt	(474,071)	—
Changes in operating assets and liabilities:		
Accounts receivable	(2,813,086)	3,186,131
Accounts receivable from affiliated entities	865,832	(258,353)
Prepaid expenses and other current assets	(3,084,082)	(902,772)
Prepaid expenses and other current assets from affiliated entities	(1,330,601)	20,059
Other assets	116,242	(183,091)
Accounts payable and accrued expenses	(732,774)	(9,187,074)
Accrued clinical trial expenses	2,882,486	(1,033,367)
Accounts payable and accrued expenses due to affiliated entities	4,634	(324,224)
Deferred revenue	(92,426)	(137,046)
Deferred revenue from affiliated entities	62,500	62,500
Operating lease right-of-use assets and liabilities, net	(1,022,951)	(786,079)
Grant funding liability	4,265,023	(1,695,191)
Grant funding liability from affiliated entities	(63,050)	817,125
Other liabilities	29,686	(34,688)
Net cash used in operating activities	(52,604,208)	(56,379,331)
Cash flows from investing activities:		
Purchases of investments	(138,698,249)	(73,698,391)
Proceeds from sale or maturity of investments	47,455,067	46,688,689
Purchases of capital assets	(176,534)	(739,808)
Decrease in cash resulting from the deconsolidation of Geneos	(2,774,851)	—
Net cash used in investing activities	(94,194,567)	(27,749,510)
Cash flows from financing activities:		
Proceeds from issuance of convertible senior notes	—	75,658,953
Proceeds from issuance of common stock, net of issuance costs	329,960,855	2,296,316
Proceeds from stock option exercises	9,599,514	92,272
Taxes paid related to net share settlement of equity awards	(2,076,567)	(892,928)
Acquisition of non-controlling interest	2,379,969	3,016,538
Proceeds from Geneos issuance of note payable	171,620	—
Net cash provided by financing activities	340,035,391	80,171,151
Effect of exchange rate changes on cash and cash equivalents	—	—
Increase (Decrease) in cash and cash equivalents	193,236,616	(3,957,690)

Cash and cash equivalents, beginning of period	22,196,097	23,693,633
Cash and cash equivalents, end of period	\$ 215,432,713	\$ 19,735,943
Supplemental disclosures:		
Amounts accrued for purchases of property and equipment	\$ 1,620	\$ —

Interest paid	\$	2,636,454	\$	—
Right-of-use assets obtained in exchange for lease obligations	\$	—	\$	14,634,769

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”), is a biotechnology company focused on rapidly bringing to market precisely designed DNA medicines to treat, cure, and protect people from diseases associated with human papillomavirus (HPV), cancer, and infectious diseases. The Company's DNA medicine pipeline is comprised of three types of candidates, DNA vaccines, DNA immunotherapies and DNA encoded monoclonal antibodies (dMABs). In clinical trials, Inovio has demonstrated that a DNA medicine can be delivered directly into cells in the body via its proprietary smart device to consistently activate robust and fully functional T cell and antibody responses against targeted cancers and pathogens.

The Company's novel DNA medicines are made using its proprietary SynCon[®] technology that creates optimized plasmids, which are circular strands of DNA that can produce antigens independently inside a cell to help the person's immune system recognize and destroy cancerous or virally infected cells.

Inovio's hand-held CELLECTRA[®] smart delivery devices provide optimized uptake of its DNA medicines within the cell, overcoming a key limitation of other DNA-based technology approaches.

Human data to date have shown a favorable safety profile of Inovio's DNA medicines delivered directly into cells in the body using the CELLECTRA[®] smart delivery device in more than 6,000 administrations across more than 2,000 patients.

Inovio's corporate strategy is to advance, protect, and provide its novel DNA medicines to meet urgent and emerging global health needs. The Company continues to advance and validate an array of DNA medicine candidates that target HPV-related diseases, cancer, and infectious diseases. The Company aims to advance these candidates through commercialization and continue to leverage third-party resources through collaborations and partnerships, including product license agreements.

The Company's partners and collaborators include ApolloBio Corp., AstraZeneca, Beijing Advaccine, The Bill & Melinda Gates Foundation, Coalition for Epidemic Preparedness Innovations (CEPI), The U.S. Department of Defense (DoD), Defense Advanced Research Projects Agency (DARPA), GeneOne Life Science, HIV Vaccines Trial Network, the U.S. Defense Threat Reduction Agency's Medical CBRN Defense Consortium (MCDC), National Cancer Institute, National Institutes of Health, National Institute of Allergy and Infectious Diseases, Plumblinc Life Sciences, Regeneron Pharmaceuticals, Inc., Roche/Genentech, the University of Pennsylvania, the Walter Reed Army Institute of Research, and The Wistar Institute.

The Company and its collaborators are currently conducting or planning clinical studies of its DNA medicines for HPV-associated precancers, including cervical, vulvar, and anal dysplasia; HPV-associated cancers, including head & neck, cervical, anal, penile, vulvar, and vaginal; other HPV-associated disorders, such as recurrent respiratory papillomatosis (RRP); glioblastoma multiforme (GBM); prostate cancer; HIV; Ebola; Middle East Respiratory Syndrome (MERS); Lassa fever; Zika virus; and the COVID-19 virus (coronavirus).

Inovio was incorporated in Delaware in June 2001 and has its principal executive offices in Plymouth Meeting, Pennsylvania.

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”) as contained in the Financial Accounting Standards Board (“FASB”) Accounting Standards Codification (“ASC”) 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 June 30, 2020, the condensed consolidated statements of operations, the condensed consolidated statements of comprehensive loss and the condensed consolidated statements of stockholders' equity for the three and six months ended June 30, 2020 and 2019 and the condensed consolidated statements of cash flows for the six months ended June 30, 2020 and 2019 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, cash flows and changes in stockholders' equity for the periods presented. The results of operations for the three and six months ended June 30, 2020 shown herein are not necessarily indicative of the results that may be expected for the year ending December 31, 2020, or for any other period. These unaudited financial statements, and notes thereto, should be read in conjunction with the audited consolidated financial statements for the year ended December 31, 2019, included in the Company's Annual Report on Form 10-K filed with the U.S. Securities and Exchange Commission (“SEC”) on March 12, 2020. The balance sheet at December 31, 2019 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.

In June of 2020, the Company formed a wholly-owned subsidiary, Inovio Asia LLC, under the laws of South Korea, through which the Company intends to advance its corporate development projects and other functions in South Korea and other Asian countries.

These unaudited condensed consolidated financial statements include the accounts of Inovio Pharmaceuticals, Inc. and its subsidiaries. The Company consolidates its wholly-owned subsidiaries Genetronics, Inc., VGX Pharmaceuticals, Inc. ("VGX") and Inovio Asia LLC, and records a 15% non-controlling interest for its subsidiary VGX Animal Health, Inc., a subsidiary of VGX. All intercompany accounts and transactions have been eliminated upon consolidation. As of June 1, 2020, the Company deconsolidated its subsidiary Geneos Therapeutics, Inc. ("Geneos"), as the Company no longer held a controlling financial interest, retaining 47% of the outstanding equity on an as-converted to common stock basis. Refer to Footnote 17 for further discussion.

Inovio incurred a net loss attributable to common stockholders of \$128.7 million and \$161.2 million for the three and six months ended June 30, 2020, respectively. Inovio had working capital of \$344.1 million and an accumulated deficit of \$901.0 million as of June 30, 2020. The Company has incurred losses in each year since its inception and expects to continue to incur significant expenses and operating losses for the foreseeable future in connection with the research and preclinical and clinical development of its product candidates. The Company's cash, cash equivalents and short-term investments of \$371.7 million as of June 30, 2020, are sufficient to support the Company's operations for a period of at least 12 months from the date it is issuing these financial statements.

In order to continue to fund future research and development activities, the Company will need to seek additional capital. This may occur through strategic alliance and licensing arrangements, grant agreements and/or future public or private debt or equity financings including use of its current or potential future At-the-Market Equity Offering Sales Agreements (each, a "Sales Agreement" and collectively, the "Sales Agreements"). The Company has a history of conducting debt and equity financings, including the receipt of net proceeds under the Sales Agreements of \$121.7 million and \$330.0 million during the three and six months ended June 30, 2020, respectively, and net proceeds of \$9.1 million under a Sales Agreement during the year ended December 31, 2019. The Company also received net proceeds of \$75.7 million from a private placement of 6.50% convertible senior notes due 2024 (the "Notes"), net proceeds of \$14.5 million from the private placement of 18 billion Korean Won (KRW) (approximately USD \$15.0 million based on the exchange rate on the date of issuance) aggregate principal amount of its 1.0% convertible bonds due August 2024 (the "August 2019 Bonds"), and net proceeds of \$4.0 million from the private placement of 4.7 billion KRW (approximately USD \$4.1 million based on the exchange rate on the date of issuance) aggregate principal amount of its 1.0% convertible bonds due December 2024 (the "December 2019 Bonds" and, together with the August 2019 Bonds, the "Bonds") during the year ended December 31, 2019. However, sufficient funding may not be available in the future, or if available, may be on terms that significantly dilute or otherwise adversely affect the rights of existing stockholders. If adequate funds are not available, the Company may need to delay, reduce the scope of or put on hold one or more of its clinical and/or preclinical programs.

From time to time, the Company may be subject to various legal proceedings and claims arising in the ordinary course of business. The Company assesses contingencies to determine the degree of probability and range of possible loss for potential accrual in its consolidated financial statements. An estimated loss contingency is accrued in the consolidated financial statements if it is probable that a liability has been incurred and the amount of the loss can be reasonably estimated. Legal proceedings, including litigation, government investigations and enforcement actions, could result in material costs, occupy significant management resources and entail civil and criminal penalties, even if the Company ultimately prevails. Any of the foregoing consequences could result in serious harm to the Company's business, results of operations and financial condition.

The Company's ability to continue its operations is dependent upon its ability to obtain additional capital in the future and achieve profitable operations. The Company expects to continue to rely on outside sources of financing to meet its capital needs and the Company may never achieve positive cash flow. These condensed consolidated financial statements do not include any adjustments to the specific amounts and classifications of assets and liabilities, which might be necessary should Inovio be unable to continue as a going concern. Inovio's condensed consolidated financial statements as of and for the three and six months ended June 30, 2020 have been prepared on a going concern basis, which contemplates the realization of assets and the settlement of liabilities and commitments in the normal course of business for the foreseeable future. The Company has evaluated subsequent events after the balance sheet date through the date it issued these condensed consolidated financial statements.

3. Critical Accounting Policies

Collaboration Agreements

The Company assesses whether its collaboration agreements are subject to Accounting Standards Codification ("ASC") 808: Collaborative Arrangements ("Topic 808") based on whether they involve joint operating activities and whether both parties have active participation in the arrangement and are exposed to significant risks and rewards. To the extent that the

arrangement falls within the scope of Topic 808, the Company assesses whether the payments between the Company and the collaboration partner are subject to other accounting literature. If payments from the collaboration partner to the Company represent consideration from a customer, then the Company accounts for those payments within the scope of Accounting Standards Update (“ASU”) 2014-09, *Revenue from Contracts with Customers* (“Topic 606”). However, if the Company concludes that its collaboration partner is not a customer for certain activities, such as for certain collaborative research and development activities, the Company presents such payments as a reduction of research and development expense.

Revenue Recognition

The Company recognizes revenue when it transfers promised goods or services to customers in an amount that reflects the consideration to which it expects to be entitled in exchange for those goods or services. To determine revenue recognition for contracts with customers, the Company performs the following five steps: (i) identify the contract(s) with a customer; (ii) identify the performance obligations in the contract; (iii) determine the transaction price; (iv) allocate the transaction price to the performance obligations in the contract; and (v) recognize revenue when (or as) the Company satisfies its performance obligations. At contract inception, the Company assesses the goods or services agreed upon within each contract and assess whether each good or service is distinct and determine those that are performance obligations. The Company then recognizes as revenue the amount of the transaction price that is allocated to the respective performance obligation when (or as) the performance obligation is satisfied.

Collaborative Arrangements

The Company enters into collaborative arrangements with partners that typically include payment of one or more of the following: (i) license fees; (ii) product supply services; (iii) milestone payments related to the achievement of developmental, regulatory, or commercial goals; and (iv) royalties on net sales of licensed products. Where a portion of non-refundable, upfront fees or other payments received are allocated to continuing performance obligations under the terms of a collaborative arrangement, they are recorded as deferred revenue and recognized as revenue when (or as) the underlying performance obligation is satisfied.

As part of the accounting for these arrangements, the Company must develop estimates and assumptions that require judgment of management to determine the underlying stand-alone selling price for each performance obligation which determines how the transaction price is allocated among the performance obligation. The standalone selling price may include items such as forecasted revenues, development timelines, discount rates and probabilities of technical and regulatory success. The Company evaluates each performance obligation to determine if it can be satisfied at a point in time or over time. In addition, variable consideration must be evaluated to determine if it is constrained and, therefore, excluded from the transaction price.

License Fees

If a license to intellectual property is determined to be distinct from the other performance obligations identified in the arrangement, the Company will recognize revenues from non-refundable, upfront fees allocated to the license when the license is transferred to the licensee and the licensee is able to use and benefit from the license. For licenses that are bundled with other promises, the Company will utilize judgment to assess the nature of the combined performance obligation to determine whether the combined performance obligation is satisfied over time or at a point in time and, if over time, the appropriate method of measuring progress for purposes of recognizing revenue. The Company evaluates the measure of progress each reporting period and, if necessary, adjusts the measure of performance and related revenue recognition.

Product Supply Services

Arrangements that include a promise for future supply of drug product for either clinical development or commercial supply at the licensee’s discretion are generally considered as options. The Company will assess if these options provide a material right to the licensee and if so, they will be accounted for as separate performance obligations. The Company evaluates whether it is the principal or agent in the arrangement. The Company had determined that it is the principal in the current arrangements as the Company controls the product supply before it is transferred to the customer.

Milestone Payments

At the inception of each arrangement that includes milestone payments (variable consideration), the Company evaluates whether the milestones are considered probable of being reached and estimates the amount to be included in the transaction price using the most likely amount method. If it is probable that a significant revenue reversal would not occur, the associated milestone value is included in the transaction price. Milestone payments that are not within the Company's or its collaboration partner's control, such as regulatory approvals, are generally not considered probable of being achieved until those approvals are received. The transaction price is then allocated to each performance obligation on a relative stand-alone selling price basis, for which the Company recognizes revenue as or when the performance obligations under the contract are satisfied. At the end of each subsequent reporting period, the Company re-evaluates the probability of achieving such milestones and any related constraint, and if necessary, adjusts its estimate of the overall transaction price. Any such adjustments are recorded on a cumulative catch-up basis, which would affect license, collaboration or other revenues and earnings in the period of adjustment.

Royalties

For arrangements that include sales-based royalties, including milestone payments based on the level of sales, and for which the license is deemed to be the predominant item to which the royalties relate, the Company recognizes revenue at the later of (i) when the related sales occur, or (ii) when the performance obligation to which some or all of the royalty has been allocated has been satisfied (or partially satisfied). To date, the Company has not recognized any royalty revenue resulting from any of its collaborative arrangements.

Grants

The Company accounts for various grant agreements under the contributions guidance under Subtopic 958-605, *Not-for-Profit Entities-Revenue Recognition*, which is outside the scope of Topic 606, as the government agencies granting the Company funds are not receiving reciprocal value for their contributions. All contributions received from current grant agreements are recorded as a contra-expense as opposed to revenue on the condensed consolidated statement of operations.

Leases

For its long-term operating leases, the Company recognized an operating lease right-of-use asset and an operating lease liability on its condensed consolidated balance sheets. The lease liability is determined as the present value of future lease payments using an estimated rate of interest that the Company would pay to borrow equivalent funds on a collateralized basis at the lease commencement date. The right-of-use asset is based on the liability adjusted for any prepaid or deferred rent. The Company determines the lease term at the commencement date by considering whether renewal options and termination options are reasonably assured of exercise.

Fixed rent expense for the Company's operating leases is recognized on a straight-line basis over the term of the lease and is included in operating expenses on the condensed consolidated statements of operations. Variable lease payments including lease operating expenses are recorded as incurred.

Research and Development Expenses

The Company's activities have largely consisted of research and development efforts related to developing electroporation delivery technologies, DNA vaccines, DNA immunotherapies and dMABs. 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 development efforts as well as efforts associated with collaborations and licensing arrangements. The Company reviews and accrues clinical trial 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 trial 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.

Valuation of Intangible Assets and Goodwill

Intangible assets are amortized over their estimated useful lives ranging from two to 18 years. Acquired intangible assets are continuously being developed for the future economic viability contemplated at the time of acquisition. The Company is concurrently conducting preclinical studies and clinical trials using the acquired intangibles and has entered into licensing agreements for the use of these acquired intangibles.

License costs are recorded based on the fair value of consideration paid and are amortized using the straight-line method over the shorter of the expected useful life of the underlying patents or the term of the related license agreement to the extent

the license has an alternative future use. As of June 30, 2020 and December 31, 2019, the Company's intangible assets resulting from the acquisition of Inovio AS and Bioject Medical Technologies, Inc. ("Bioject"), and additional intangibles including license costs, net of accumulated amortization, totaled \$3.4 million and \$3.7 million, respectively.

The determination of the value of intangible assets requires management to make estimates and assumptions that affect the Company's condensed consolidated financial statements. The Company assesses potential impairments to intangible assets when there is evidence that events or changes in circumstances indicate that the carrying amount of an asset may not be recovered. The Company's judgments regarding the existence of impairment indicators and future cash flows related to intangible assets are based on operational performance of its acquired businesses, market conditions and other factors. If impairment is indicated, the Company will reduce the carrying value of the intangible asset to fair value. While current and historical operating and cash flow losses are potential indicators of impairment, the Company believes the future cash flows to be received from its intangible assets will exceed the intangible assets' carrying value, and accordingly, the Company has not recognized any impairment losses through June 30, 2020.

Goodwill represents the excess of acquisition cost over the fair value of the net assets of acquired businesses. Goodwill is reviewed for impairment at least annually at November 30, or more frequently if an event occurs indicating the potential for impairment. During its goodwill impairment review, the Company may assess qualitative factors to determine whether it is more likely than not that the fair value of its reporting unit is less than its carrying amount, including goodwill. The qualitative factors include, but are not limited to, macroeconomic conditions, industry and market considerations, and the overall financial performance of the Company. If, after assessing the totality of these qualitative factors, the Company determines that it is not likely that the fair value of its reporting unit is less than its carrying amount, then no additional assessment is deemed necessary. Otherwise, the Company will proceed to perform the impairment test in which the fair value of the reporting unit is compared with its carrying amount, and an impairment charge will be recorded for the amount by which the carrying amount exceeds the reporting unit's fair value, if any. The Company performed its annual assessment for goodwill impairment as of November 30, 2019, identifying no impairment.

Although there are inherent uncertainties in this assessment process, the estimates and assumptions the Company is using are consistent with its internal planning. If these estimates or their related assumptions change in the future, the Company may be required to record an impairment charge on all or a portion of its goodwill and intangible assets. Furthermore, the Company cannot predict the occurrence of future impairment triggering events nor the impact such events might have on its reported asset values. Future events could cause the Company to conclude that impairment indicators exist and that goodwill or other intangible assets associated with its acquired businesses are impaired. Any resulting impairment loss could have an adverse impact on the Company's results of operations. See Note 8 for further discussion of the Company's goodwill and intangible assets.

Derivative Liabilities

The Company evaluates its debt and equity issuances to determine if those contracts or embedded components of those contracts qualify as derivatives requiring separate recognition in the Company's financial statements. The result of this accounting treatment is that the fair value of the embedded derivative is revalued at each balance sheet date and recorded as a liability, and the change in fair value during the reporting period is recorded in other income (expense) in the condensed consolidated statements of operations. In circumstances where the embedded conversion option in a convertible instrument is required to be bifurcated and there are also other embedded derivative instruments in the convertible instrument that are required to be bifurcated, the bifurcated derivative instruments are accounted for as a single, compound derivative instrument. The classification of derivative instruments, including whether such instruments should be recorded as liabilities or as equity, is reassessed at the end of each reporting period. Derivative instrument liabilities are classified in the balance sheet as current or non-current based on whether or not net-cash settlement of the derivative instrument is expected within twelve months of the balance sheet date.

Foreign Currency Translation

The functional and presentation currency of the Company is the U.S. dollar. Transactions denominated in a currency other than the functional currency are recorded on the initial recognition at the exchange rate at the date of the transaction. After initial recognition monetary assets and liabilities denominated in foreign currency are translated at the end of each reporting period into the functional currency at the exchange rate at that date. The cumulative translation adjustment is included in the accumulated other comprehensive gain (loss) within the statement of stockholders' equity. Exchange differences are included in general and administrative expenses in the condensed consolidated statement of operations. Non-monetary assets and liabilities measured at cost are translated at the exchange rate at the date of the transaction.

Variable Interest Entities (VIE)

The Company evaluates its ownership, contractual and other interests in entities that are not wholly-owned to determine if these entities are VIEs, and, if so, whether the Company is the primary beneficiary of the VIE. In determining whether the Company is the primary beneficiary of a VIE and therefore required to consolidate the VIE, the Company applies a qualitative

approach that determines whether it has both (1) the power to direct the activities of the VIE that most significantly impact the VIE's economic performance and (2) the obligation to absorb losses of, or the rights to receive benefits from, the VIE that could potentially be significant to that VIE. The Company will continuously perform this assessment, as changes to existing relationships or future transactions may result in the consolidation or deconsolidation of a VIE.

Equity Investments

Under Accounting Standards Codification ("ASC") Topic 321, *Investments - Equity Securities*, the Company must measure equity investments (except those accounted for under the equity method, those that result in consolidation of the investee and certain other investments) at fair value and recognize any changes in fair value in the condensed consolidated statement of operations. The Company can elect a measurement alternative for equity investments that do not have readily determinable fair values and do not qualify for the practical expedient in ASC 820, *Fair Value Measurement*, to estimate fair value using the net asset value per share (or its equivalent). The Company's equity investments that do not have readily determinable fair values and do not qualify for the net asset value practical expedient for estimating fair value are measured at cost, less any impairments, plus or minus changes resulting from observable price changes in orderly transactions for identifiable or similar investments of the same issuer.

4. Impact of Recently Issued Accounting Standards

The recent accounting pronouncements below may have a significant effect on the Company's financial statements. Recent accounting 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 Recently Adopted

ASU No. 2019-12. In December 2019, the FASB issued ASU No. 2019-12, *Income Taxes (Topic 740) Simplifying the Accounting for Income Taxes*. FASB issued this Update as part of its simplification initiative to improve areas of GAAP and reduce cost and complexity while maintaining usefulness. The main provision that impacts the Company is the removal of the exception to the incremental approach of intra-period tax allocation when there is a loss from continuing operations and income or gain from other items (for example, discontinued operations and other comprehensive income). ASU 2019-12 is effective for annual periods, and interim periods within those annual periods, beginning after December 15, 2020. Early adoption is permitted, including adoption in an interim period. The Company has elected to early adopt ASU 2019-12. By early adopting, ASU 2019-12 became effective as of the beginning of 2020; however, there was no cumulative effect to be recognized with the early adoption. As of June 30, 2020, there was a loss from continuing operations and a cumulative loss in other comprehensive income and there was therefore no effect on the tax provision for the period ended June 30, 2020.

ASU No. 2016-13. In June 2016, the FASB issued ASU 2016-13, *Financial Instruments - Credit Losses: Measurement of Credit Losses on Financial Instruments (Topic 326)*, which amends the impairment model by requiring entities to use a forward-looking approach based on expected losses to estimate credit losses on certain types of financial instruments, including trade receivables and available for sale debt securities. This standard includes the Company's financial instruments, such as accounts receivable and investments that are generally of high credit quality. Previously, when credit losses were measured under GAAP, an entity generally only considered past events and current conditions in measuring the incurred loss. The new guidance requires the Company to identify, analyze, document and support new methodologies for quantifying expected credit loss estimates for its financial instruments, using information such as historical experience and current economic conditions, plus the use of reasonably supportable forecast information. The Company adopted ASU 2016-13 on January 1, 2020, and there was no material impact to its condensed consolidated financial statements. The Company will continue to monitor the impact of the coronavirus, SARS-CoV-2 ("COVID-19") outbreak on expected credit losses.

ASU No. 2018-13. In August 2018, the FASB issued ASU 2018-13, *Fair Value Measurement Disclosure Framework-Changes to the Disclosure Requirements for Fair Value Measurement*, which amends certain disclosure requirements over fair value measurements. Under the new guidance, entities will no longer be required to disclose the amount of and reasons for transfers between Level 1 and Level 2 of the fair value hierarchy, or valuation processes for Level 3 fair value measurements. However, public companies will be required to disclose the range and weighted average of significant unobservable inputs used to develop Level 3 fair value measurements, and related changes in unrealized gains and losses included in other comprehensive income. The Company adopted this guidance on January 1, 2020, and there was no material impact to its condensed consolidated financial statement disclosures (see Note 7 for more information about the Company's fair value classifications).

ASU No. 2018-18. In November 2018, the FASB issued ASU 2018-18, *Collaborative Arrangements (Topic 808): Clarifying the Interaction between Topic 808 and Topic 606*, which clarified the interaction between Topic 808, *Collaborative Arrangements*, and Topic 606, *Revenue from Contracts with Customers*. The Company adopted this guidance on January 1, 2020, and there was no material impact to its condensed consolidated financial statements.

ASU 2017-04. In January 2017, the FASB issued ASU 2017-04, *Intangibles - Goodwill and Other (Topic 350): Simplifying the Test for Goodwill Impairment* ("ASU 2017-04"). ASU 2017-04 simplifies the recognition and measurement of a goodwill impairment loss by eliminating Step 2 of the quantitative goodwill impairment test. The guidance requires a one-step impairment test in which an entity compares the fair value of a reporting unit with its carrying amount and recognizes an impairment charge for the amount by which the carrying amount exceeds the reporting unit's fair value, if any. ASU 2017-04 is effective for fiscal years beginning after December 15, 2019 and should be applied on a prospective basis. The Company adopted this guidance on January 1, 2020, and there was no material impact to its condensed consolidated financial statements.

5. Revenue Recognition

During the three and six months ended June 30, 2020, the Company recognized total revenue under collaborative research and development and other agreements of \$64,000 and \$1.2 million, respectively, from its affiliated entity Plumblin Life Sciences, Inc. ("PLS"), \$74,000 and \$146,000, respectively, from AstraZeneca and \$129,000 and \$244,000, respectively, from various other contracts. Of the total revenue recognized during the three and six months ended June 30, 2020, \$66,000 and \$124,000, respectively, were in deferred revenue as of December 31, 2019. Performance obligations are generally satisfied within 12 months of the initial contract date.

6. Short-term Investments

Short-term investments at June 30, 2020 consisted of mutual funds, corporate debt securities and certificates of deposit. Short-term investments at December 31, 2019 consisted of mutual funds. Short-term investments are recorded at fair value, based on current market valuations. Unrealized gains and losses on the Company's short-term debt investments are excluded from earnings and reported as a separate component of other comprehensive loss until realized. Realized gains and losses and unrealized gains and losses on available-for-sale equity securities are included in non-operating other income (expense) on the condensed consolidated statements of operations and are derived using the specific identification method for determining the cost of the securities sold. During the three and six months ended June 30, 2020, the Company recorded gross realized gain on investments of \$585,000 and \$635,000, respectively, and gross realized loss on investments of \$686,000 and \$1.2 million, respectively. During the three and six months ended June 30, 2019, the Company recorded gross realized gain on investments of \$157,000 and \$175,000, respectively, and gross realized loss on investments of \$29,000 and \$82,000, respectively. During the three and six months ended June 30, 2020, the Company recorded net unrealized gain (loss) on available-for-sale equity securities of \$4.4 million and \$(691,000), respectively. There was no material unrealized gain or loss on available-for-sale equity securities recorded during the three and six months ended June 30, 2019. No material balances were reclassified out of accumulated other comprehensive income (loss) for the three and six months ended June 30, 2020 and 2019. Interest and dividends on investments classified as available-for-sale are included in interest income in the condensed consolidated statements of operations. As of June 30, 2020, the Company had 16 available-for-sale securities in an unrealized loss position, of which none were in such position for longer than 12 months.

The following is a summary of available-for-sale securities as of June 30, 2020 and December 31, 2019:

	Contractual Maturity (in years)	As of June 30, 2020			
		Cost	Gross Unrealized Gains	Gross Unrealized Losses	Fair Market Value
Mutual funds	---	\$ 149,641,400	\$ 1,180,185	\$ (1,871,643)	\$ 148,949,942
Corporate debt securities	---	4,625,000	14,400	(376,600)	4,262,800
Certificates of deposit	Less than 1	3,000,000	38,360	(20,000)	3,018,360
		<u>\$ 157,266,400</u>	<u>\$ 1,232,945</u>	<u>\$ (2,268,243)</u>	<u>\$ 156,231,102</u>
	Contractual Maturity (in years)	As of December 31, 2019			
		Cost	Gross Unrealized Gains	Gross Unrealized Losses	Fair Market Value
Mutual funds	---	\$ 66,599,219	\$ 754,709	\$ (15,911)	\$ 67,338,017

The Company periodically reviews its portfolio of available-for-sale debt securities to determine if any investment is impaired due to credit loss or other potential valuation concerns. For the debt securities where the fair value of the investment is less than the amortized cost basis, the Company has assessed at the individual security level for various quantitative factors including, but not limited to, the nature of the investments, changes in credit ratings, interest rate fluctuations, industry analyst reports, and the severity of impairment. Unrealized losses on available-for-sale debt securities as of June 30, 2020 were primarily due to changes in interest rates, including credit spreads from perceived increased credit risks as a result of the

COVID-19 global pandemic, and not due to increased credit risks associated with specific securities. The Company does not intend to sell these investments and it is not more likely than not that the Company will be required to sell the investments before recovery of their amortized cost bases, which may be at maturity. Based on the credit quality of the available-for-sale debt securities that are in an unrealized loss position, and the Company's estimates of future cash flows to be collected from those securities, the Company believes the unrealized losses are not credit losses. Accordingly, at June 30, 2020, the Company has not recorded an allowance for credit losses related to its available-for-sale debt securities.

7. 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 or liabilities between Level 1, Level 2 and Level 3 of the fair value hierarchy during the six months ended June 30, 2020 or 2019.

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 June 30, 2020:

Fair Value Measurements at June 30, 2020				
	Total	Quoted Prices in Active Markets (Level 1)	Significant Other Unobservable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
Assets:				
Mutual funds	148,949,942	148,949,942	—	—
Corporate debt securities	4,262,800	4,262,800	—	—
Certificates of deposit	3,018,360	—	3,018,360	—
Investment in affiliated entities	17,327,569	17,327,569	—	—
Total assets	<u>\$ 173,558,671</u>	<u>\$ 170,540,311</u>	<u>\$ 3,018,360</u>	<u>\$ —</u>
Liabilities:				
Derivative liability (Note 9)	\$ 119,796,000	\$ —	\$ —	119,796,000
Total liabilities	<u>\$ 119,796,000</u>	<u>\$ —</u>	<u>\$ —</u>	<u>\$ 119,796,000</u>

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, 2019:

Fair Value Measurements at December 31, 2019				
	Total	Quoted Prices in Active Markets (Level 1)	Significant Other Unobservable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
Assets:				
Money market funds	\$ 2,349,729	\$ 2,349,729	\$ —	\$ —
Mutual funds	67,338,017	67,338,017	—	—
Investment in affiliated entities	6,315,356	6,315,356	—	—
Total assets	<u>\$ 76,003,102</u>	<u>\$ 76,003,102</u>	<u>\$ —</u>	<u>\$ —</u>
Liabilities:				
Derivative liability (Note 9)	\$ 8,819,023	\$ —	\$ —	\$ 8,819,023
Total Liabilities	<u>\$ 8,819,023</u>	<u>\$ —</u>	<u>\$ —</u>	<u>\$ 8,819,023</u>

Level 1 assets at June 30, 2020 consisted of mutual funds and corporate debt securities held by the Company that are valued at quoted market prices, as well as the Company's investments in affiliates, GeneOne and PLS. The Company accounts for its investment in 1,644,155 common shares of GeneOne based on the closing price of the shares on the Korean Stock Exchange on the applicable balance sheet date. The Company accounts for its investment in 597,808 common shares of PLS based on the closing price of the shares on the Korea New Exchange (KONEX) Market on the applicable balance sheet date. Unrealized gains and losses on the Company's equity securities are reported in the condensed consolidated statement of operations as a gain (loss) on investment in affiliated entities.

Level 2 assets at June 30, 2020 consisted of certificates of deposit 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 the service's 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.

There were no Level 3 assets at June 30, 2020.

Level 3 liabilities held as of June 30, 2020 consisted of the embedded conversion option contained in the August 2019 Bonds that met the criteria to be bifurcated and accounted for separately from the August 2019 Bonds (the "derivative liability") (see Note 9 below for more information). The derivative liability was recorded at fair value of \$7.1 million upon the issuance of the August 2019 Bonds, and is subsequently remeasured to fair value at each reporting period. The derivative liability was initially valued and remeasured using a "with-and-without" method. The "with-and-without" methodology involves valuing the whole instrument on an as-is basis and then valuing the instrument without the embedded conversion option. The difference between the entire instrument with the embedded conversion option compared to the instrument without the embedded conversion option is the fair value of the derivative, recorded as the derivative liability. There was no derivative liability associated with the issuance of the December 2019 Bonds.

The fair value of the August 2019 Bonds with the conversion option is estimated using a Monte Carlo simulation approach. The key inputs to valuing the August 2019 Bonds with the conversion option on the date of issuance and as of June 30, 2020 include the Company's stock price on the valuation date; the expected annual volatility of the Company's common stock, and the discount yield, which was derived by making the fair value of the August 2019 Bonds equal to the face value on the issuance date. Fair value measurements are highly sensitive to changes in these inputs and significant changes in these inputs could result in a significantly higher or lower fair value.

The following table presents the changes in fair value of the Company's derivative liability for the six months ended June 30, 2020:

Balance at December 31, 2019	\$	8,819,023
Change in fair value		110,976,977
Balance at June 30, 2020	\$	119,796,000

8. Goodwill and Intangible Assets

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

	Weighted Average Useful Life (Yrs)	June 30, 2020			December 31, 2019		
		Gross	Accumulated Amortization	Net Book Value	Gross	Accumulated Amortization	Net Book Value
Indefinite lived:							
Goodwill(a)		\$ 10,513,371	\$ —	\$ 10,513,371	\$ 10,513,371	\$ —	\$ 10,513,371
Definite lived:							
Licenses	10	1,323,761	(1,262,478)	61,283	1,323,761	(1,248,104)	75,657
Bioject(b)	12	5,100,000	(2,322,222)	2,777,778	5,100,000	(2,175,556)	2,924,444
Other(c)	18	4,050,000	(3,468,750)	581,250	4,050,000	(3,356,250)	693,750
Total intangible assets	11	10,473,761	(7,053,450)	3,420,311	10,473,761	(6,779,910)	3,693,851
Total goodwill and intangible assets		\$ 20,987,132	\$ (7,053,450)	\$ 13,933,682	\$ 20,987,132	\$ (6,779,910)	\$ 14,207,222

- (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) Bioject intangible assets represent the estimated fair value of developed technology and intellectual property which were recorded from the Bioject asset acquisition.
- (c) Other intangible assets represent the estimated fair value of acquired intellectual property from the Inovio AS acquisition.

Aggregate amortization expense on intangible assets for the three and six months ended June 30, 2020 was \$137,000 and \$274,000, respectively. Aggregate amortization expense on intangible assets for the three and six months ended June 30, 2019 was \$267,000 and \$533,000, respectively. Estimated aggregate amortization expense is \$274,000 for the remainder of fiscal year 2020, \$520,000 for 2021, \$493,000 for 2022, \$276,000 for 2023, \$253,000 for 2024 and \$1.6 million for 2025 and subsequent years combined.

9. Convertible Debt

Convertible Senior Notes

On February 19, 2019 and March 1, 2019, the Company completed a private placement of \$78.5 million aggregate principal amount of the Notes to qualified institutional buyers pursuant to Rule 144A under the Securities Act of 1933, as amended. Net proceeds from the offering were approximately \$75.7 million.

The Notes are senior unsecured obligations of the Company and accrue interest payable in cash semi-annually in arrears on March 1 and September 1 of each year, beginning on September 1, 2019, at a rate of 6.50% per annum. The Notes will mature on March 1, 2024, unless earlier converted, redeemed or repurchased. Prior to the close of business on the business day immediately preceding November 1, 2023, the Notes will be convertible at the option of the holders only upon the satisfaction of certain circumstances. Thereafter, the Notes will be convertible at the option of the holders at any time until the close of business on the scheduled trading day immediately before the maturity date. Upon conversion, the Company will pay or deliver, as the case may be, cash, shares of its common stock or a combination of cash and shares of its common stock, at its election. The initial conversion rate will be 185.8045 shares per \$1,000 principal amount of Notes (equivalent to an initial conversion price of approximately \$5.38 per share), subject to adjustment upon the occurrence of specified events.

The Company may not redeem the Notes prior to March 1, 2022. On or after March 1, 2022, the Company may redeem all, or any portion, of the Notes for cash if the last reported sale price per share of the Company's common stock exceeds 130% of the conversion price on (i) each of at least 20 trading days (whether or not consecutive) during the 30 consecutive trading days ending on, and including, the trading day immediately before the Company sends the related redemption notice; and (ii) the trading day immediately before the date the Company sends such redemption notice. The redemption price will be equal to 100% of the principal amount of the Notes to be redeemed, plus accrued and unpaid interest to, but excluding, the redemption date.

The Company evaluated the accounting for the issuance of the Notes and concluded that the embedded conversion features meet the requirements for a derivative scope exception for instruments that are both indexed to an entity's own stock and classified in stockholders' equity in its condensed consolidated balance sheet, and that the cash conversion guidance

applies. Therefore, the Notes issuance proceeds of \$78.5 million are allocated first to the liability component based on the fair value of non-convertible debt with otherwise identical residual terms with the residual proceeds allocated to equity for the conversion features. The Company determined that the fair value of the non-convertible debt upon issuance of the Notes was \$62.2 million and recorded this amount as a liability and the offsetting amount as a debt discount as a reduction to the carrying value of the Notes on the closing date. The debt issuance costs associated with the Notes of \$2.8 million are allocated to the liability and equity component in the same proportion as the issuance proceeds.

The Company determined that all other features of the Notes were clearly and closely associated with a debt host and did not require bifurcation as a derivative liability, or the fair value of the feature was immaterial to the Company's condensed consolidated financial statements.

The balance of the Notes at June 30, 2020 is as follows:

Principal amount	\$	78,500,000
Unamortized debt discount on the liability component		(12,619,675)
Unamortized debt issuance cost		(1,736,898)
Accrued interest		1,700,833
Net carrying amount	\$	65,844,260

The Company determined that the expected life of the Notes was equal to the period through November 1, 2023 as this represents the point at which the Notes are initially subject to repurchase by the Company at the option of the holders. Accordingly, the total debt discount of \$18.6 million, inclusive of the fair value of the embedded conversion feature derivative at issuance, is being amortized using the effective interest method through November 1, 2023. The effective interest rate of the liability component is 13.1%. For the three and six months ended June 30, 2020, the Company recognized \$2.1 million and \$4.2 million, respectively, of interest expense related to the Notes, of which \$1.3 million and \$2.6 million, respectively, related to the contractual interest coupon. For the three and six months ended June 30, 2019, the Company recognized \$2.0 million and \$2.9 million, respectively, of interest expense related to the Notes, of which \$1.3 million and \$1.8 million, respectively, related to the contractual interest coupon. As of June 30, 2020, there had not been any conversions or redemptions of the Notes. As described in Note 18 below, subsequent to June 30, 2020, certain holders converted a portion of the Notes into shares of the Company's common stock.

August 2019 Convertible Bonds

On August 1, 2019, the Company closed a private placement of the August 2019 Bonds with an aggregate principal amount of 18 billion Korean Won (KRW) (approximately USD \$15.0 million based on the exchange rate on the date of issuance) issued to institutional investors led by Korea Investment Partners (KIP), a global venture capital and private equity firm based in Seoul, Korea. Net proceeds from the offering were approximately \$14.5 million. The Company also announced its intent to pursue a listing of its securities on the KOSDAQ Market of the Korea Exchange (KOSDAQ) in the form of Korean Depositary Receipts (KDRs) representing shares of common stock.

The August 2019 Bonds, which were unsecured obligations of the Company, were issued on August 1, 2019 and accrued interest at a coupon rate of 1.00% per annum, payable quarterly. The August 2019 Bonds were scheduled to mature on July 31, 2024, unless earlier converted or repurchased. As described in Note 18 below, on August 1, 2020 the August 2019 Bonds were converted in full. The initial conversion rate was 211.0595 shares per KRW 1,000,000 in principal amount (equivalent to an initial conversion price of approximately USD \$4.00 per share based on the exchange rate as of July 30, 2019), subject to adjustment upon the occurrence of specified events. The conversion rate was reset on January 2, 2020 and was subject to reset on each three month anniversary thereafter to the then current market price if the current market price was lower than the conversion price then in effect; subject to a maximum conversion rate of 351.7658 shares per KRW 1,000,000 (equivalent to a conversion price of approximately USD \$2.40 per share based on the exchange rates as of July 30, 2019). The conversion rate as of the date of conversion on August 1, 2020 was 275.6873 shares per KRW 1,000,000 in principal amount (equivalent to a conversion price of approximately USD \$3.14 per share based on the exchange rate as of January 2, 2020).

The Company evaluated the accounting for the issuance of the August 2019 Bonds and concluded that the embedded conversion feature was considered a derivative requiring bifurcation from the August 2019 Bonds as it did not meet the equity scope exception due to the fact that it was denominated in a currency other than the Company's functional currency. The fair value of the conversion feature at August 1, 2019 was \$7.1 million, which was recorded as a reduction to the carrying value of the debt. This debt discount was being amortized to interest expense over the term of the debt using the effective interest method. The conversion option was accounted for as a derivative liability, which was revalued each reporting period with the resulting change in fair value reflected in other income (expense), net, in the condensed consolidated statements of operations.

The Company determined that all other features of the August 2019 Bonds were clearly and closely associated with a debt host and did not require bifurcation as a derivative liability, or the fair value of the feature was immaterial to the Company's condensed consolidated financial statements.

The balance of the August 2019 Bonds at June 30, 2020 was as follows:

Principal amount	\$	14,993,753
Unamortized debt discount		(5,600,302)
Unamortized debt issuance cost		(211,272)
Accretion of premium associated with the August 2019 Bonds		519,085
Accrued interest		37,484
Net carrying amount	\$	9,738,748

At their issuance, the Company determined that the expected life of the August 2019 Bonds was equal to the period through August 1, 2022 as this represented the point at which the August 2019 Bonds were initially subject to repurchase by the Company at the option of the holders. Accordingly, the total debt discount of \$7.3 million, inclusive of the fair value of the embedded conversion feature derivative at issuance, was being amortized using the effective interest method through August 1, 2022. The effective interest rate of the August 2019 Bonds was 29.4%. For the three and six months ended June 30, 2020, the Company recognized \$672,000 and \$1.3 million, respectively, of interest expense related to the August 2019 Bonds, of which \$37,000 and \$75,000, respectively, related to the contractual interest coupon. As of June 30, 2020, there had not been any conversions or redemptions of the August 2019 Bonds.

The derivative liability was valued at \$119.8 million as of June 30, 2020. The change in fair value of the derivative liability was \$97.8 million and \$111.0 million for the three and six months ended June 30, 2020, respectively. As a result of the conversion in full of the August 2019 Bonds in August 2020, the derivative liability will be eliminated during the quarter ended September 30, 2020.

December 2019 Convertible Bonds

On December 26, 2019, the Company closed a private placement of convertible promissory notes (the "December 2019 Bonds") with an aggregate principal amount of 4.7 billion KRW (approximately USD \$4.1 million based on the exchange rate on the date of issuance) issued to a Korea-based institutional investor. Net proceeds from the offering were approximately \$4.0 million.

The December 2019 Bonds, which are unsecured obligations of the Company, were issued on December 31, 2019 and will accrue interest at a coupon rate of 1.00% per annum, payable quarterly. The December 2019 Bonds will mature on December 31, 2024, unless earlier converted or repurchased. The outstanding December 2019 Bonds will be repaid at maturity at a price equal to the principal of the outstanding bonds to be repaid plus a premium on such bonds to provide an internal rate of return with respect to such bonds of 6.00%. Commencing on December 31, 2020, the December 2019 Bonds will be convertible until the date that is one month prior to maturity date. Upon conversion, the Company will deliver KDRs, if the Company has any such securities listed on the KOSDAQ at that time, or otherwise shares of common stock of the Company. The initial conversion rate is 214.7766 shares per KRW1,000,000 principal amount of Bonds (equivalent to an initial conversion price of approximately USD \$4.00 per share based on the exchange rate as of December 19, 2019), subject to adjustment upon the occurrence of certain events. The conversion rate is subject to reset on July 2, 2020 and on each three month anniversary thereafter until the maturity date to the then current market price if the current market price is lower than the conversion price then in effect; provided that the conversion rate will not exceed 357.9611 shares per KRW1,000,000 (equivalent to a conversion price of approximately USD \$2.40 per share based on the exchange rate as of December 19, 2019).

The December 2019 Bonds will be subject to repurchase by the Company at the option of the bondholders from and including December 31, 2022 up to the date that is one month prior to the maturity date at a repurchase price equal to the principal of the December 2019 Bonds to be repurchased plus a premium on the Bonds in order to ensure an internal rate of return with respect to the Bonds equal to 6.00%. In addition, upon the occurrence of a fundamental change (as defined in the Subscription Agreement) the Company will be required to offer to repurchase the Bonds at a repurchase price equal to the principal amount thereof plus accrued and unpaid interest thereon to but excluding the applicable repurchase date. If certain bankruptcy and insolvency-related events of default occur, the principal of, and accrued and unpaid interest on, all of the then outstanding December 2019 Bonds shall automatically become due and payable. If any other event of default occurs and is continuing, the holders of at least 25% of the in aggregate principal amount of the December 2019 Bonds by notice to the Company may declare the principal of, and accrued and unpaid interest on, all of the then-outstanding December 2019 Bonds to be due and payable.

The Company evaluated the accounting for the issuance of the December 2019 Bonds and concluded that the embedded conversion feature does not require bifurcation from the December 2019 Bonds. Although the embedded conversion feature meets the definition of a derivative, it qualifies for the equity scope exception for instruments that are both indexed to an entity's own stock and classified in stockholders' equity in its consolidated balance sheet. The December 2019 Bonds are denominated in a foreign currency other than the Company's functional currency, which would typically violate the settlement provision criteria when analyzing whether the conversion option is indexed to an entity's own stock. However, per the terms of the agreement, the functional currency rate required to be used in a conversion scenario is fixed as of the date preceding the date of issuance of the Bonds. Therefore, the fluctuation in functional currency does not impact the settlement of the conversion option. Further, as there was no cash conversion feature or beneficial conversion feature on the date of issuance, and the Bonds were not issued at a substantial premium, all of the proceeds were recorded as a liability.

The Company determined that all other features of the December 2019 Bonds were clearly and closely associated with a debt host and did not require bifurcation as a derivative liability, or the fair value of the feature was immaterial to the Company's condensed consolidated financial statements.

The balance of the December 2019 Bonds at June 30, 2020 was as follows:

Principal amount	\$	3,915,035
Unamortized debt issuance cost		(40,681)
Accretion of premium associated with the December 2019 Bonds		95,638
Accrued interest		9,788
Net carrying amount	\$	3,979,780

The Company determined that the expected life of the December 2019 Bonds was equal to the period through December 31, 2022 as this represents the point at which the December 2019 Bonds are initially subject to repurchase by the Company at the option of the holders. The effective interest rate of the December 2019 Bonds is 6.2%. For the three and six months ended June 30, 2020, the Company recognized \$60,000 and \$122,000, respectively, of interest expense related to the December 2019 Bonds, of which \$10,000 and \$20,000, respectively, related to the contractual interest coupon. As of June 30, 2020, there had not been any conversions or redemptions of the December 2019 Bonds.

As of June 30, 2020, future minimum payments due under the Company's convertible debt instruments are as follows:

	Convertible Notes (1)	August 2019 Bonds (2)	December 2019 Bonds (2)	Total
Remainder of 2020	\$ 2,551,000	\$ 75,000	\$ 20,000	\$ 2,646,000
2021	5,103,000	150,000	39,000	5,292,000
2022	5,103,000	150,000	39,000	5,292,000
2023	5,103,000	150,000	39,000	5,292,000
2024	81,051,000	19,270,000	5,040,000	105,361,000
Total	\$ 98,911,000	\$ 19,795,000	\$ 5,177,000	\$ 123,883,000

(1) Amounts represent contractual amounts due under the Notes, including interest based on the fixed rate of 6.5% per year.

(2) Amounts represent contractual amounts due under the August 2019 and December 2019 Bonds, including interest based on the fixed rate of 1% per year plus a premium on such bonds to provide an internal rate of return with respect to such Bonds of 6% at maturity.

10. Stockholders' Equity

The following is a summary of the Company's authorized and issued common and preferred stock as of June 30, 2020 and December 31, 2019:

	Authorized	Issued	Outstanding as of	
			June 30, 2020	December 31, 2019
Common Stock, par value \$0.001 per share	600,000,000	158,756,411	158,756,411	101,361,034
Series C Preferred Stock, par value \$0.001 per share	1,091	1,091	9	23

Preferred Stock

During the three months ended June 30, 2020, 14 shares of the Company's Series C preferred stock were converted into an aggregate of 5,147 shares of the Company's common stock.

Common Stock

In May 2018, the Company entered into a Sales Agreement with an outside placement agent (the "Placement Agent") to sell shares of its common stock with aggregate gross proceeds of up to \$100.0 million, from time to time, through an "at-the-market" equity offering program under which the Placement Agent would act as sales agent. During the first quarter of 2020, the Company and the Placement Agent entered into a first and second amendment to the Sales Agreement (the "Prior Sales Agreement") to increase the amount of common stock that may be sold under the Sales Agreement from \$100.0 million to \$250.0 million. As of March 31, 2020, there was no remaining capacity under the Prior Sales Agreement. On April 3, 2020, the Company and the Placement Agent entered into a new Sales Agreement (the "New Sales Agreement") to sell shares of its common stock. On April 3, 2020 and May 12, 2020, the Company filed prospectus supplements pursuant to the New Sales Agreement for the offer and sale of its Common Stock for aggregate gross proceeds of up to an aggregate of \$250.0 million. Under the New Sales Agreement, the Company sets 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 New Sales Agreement provides that the Placement Agent is entitled to compensation for its services in an amount equal to up to 3.0% of the gross proceeds from the sales of shares sold through the Placement Agent under the New Sales Agreement. The Company has no obligation to sell any shares under the New Sales Agreement, and could at any time suspend solicitation and offers under the New Sales Agreement.

During the three months ended March 31, 2020, the Company sold 43,148,952 shares of its common stock under the Prior Sales Agreement. The sales were made at a weighted average price of \$4.92 per share, resulting in aggregate net proceeds of \$208.2 million. As of March 31, 2020, there was no remaining capacity under the Prior Sales Agreement.

During the three months ended June 30, 2020, the Company sold 12,041,178 shares of its common stock under the New Sales Agreement. The sales were made at a weighted average price of \$10.26 per share, resulting in aggregate net proceeds of \$121.7 million. As of June 30, 2020, the Company may sell up to \$126.4 million in gross proceeds of shares of Common Stock under the New Sales Agreement before it would be required to file a new prospectus supplement with the SEC to sell additional shares pursuant to the New Sales Agreement.

Stock Options and Restricted Stock Units

The Company has a stock-based incentive plan, the 2016 Omnibus Incentive Plan (as amended to date, the "2016 Incentive Plan"), pursuant to which the Company may grant stock options, restricted stock awards, restricted stock units and other stock-based awards or short-term cash incentive awards to employees, directors and consultants.

The 2016 Incentive Plan was originally approved by the Company's stockholders on May 13, 2016, and an amendment to the plan to increase the number of shares available for issuance was approved by the stockholders on May 8, 2019. 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 18,000,000 shares, provided that commencing with the first business day of each calendar year beginning January 1, 2020, such maximum number of shares shall be increased by 2,000,000 shares of common stock unless the Company's Board of Directors determines, prior to January 1 for any such calendar year, to increase such maximum amount by a fewer number of shares or not to increase the maximum amount at all for such year. On January 1, 2020, the maximum number of shares to be issued increased by 2,000,000. At June 30, 2020, there were 18,000,000 shares of common stock reserved for issuance upon exercise of incentive awards granted and to be granted at future dates under the 2016 Incentive Plan. At June 30, 2020, the Company had 6,953,960 shares of common stock available for future grant under the 2016 Incentive Plan, 2,868,665 shares underlying outstanding but unvested restricted stock units and options outstanding to purchase 5,733,501 shares of common stock under the 2016 Incentive Plan. The awards granted and available for future grant under the 2016 Incentive Plan generally vest over three years and have a maximum contractual term of ten years. The 2016 Incentive Plan terminates by its terms on March 9, 2026.

The Amended and Restated 2007 Omnibus Incentive Plan (the "2007 Incentive Plan") was adopted on March 31, 2007 and terminated by its terms on March 31, 2017. At June 30, 2020, the Company had options outstanding to purchase 3,459,595 shares of common stock under the 2007 Incentive Plan. The awards granted under the 2007 Incentive Plan generally vest over three years and have a maximum contractual term of ten years.

11. Net Loss Per Share

Basic net loss per share is computed by dividing the net loss for the year by the weighted average number of common shares outstanding during the year. Diluted net loss per share is calculated in accordance with the treasury stock method for the outstanding stock options and restricted stock units 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 dilutive impact of the outstanding Notes and Bonds issued by the Company (discussed in Note 9) has been considered using the "if-converted" method. For the three and six months ended June 30, 2020 and 2019, basic and diluted net loss per share are the same, as the assumed exercise or settlement of stock options, restricted stock units and the potentially dilutive shares issuable upon conversion of the Notes and Bonds are anti-dilutive.

The following table summarizes potential shares of common stock that were excluded from the diluted net loss per share calculation because of their anti-dilutive effect for the three and six months ended June 30, 2020 and 2019:

Common Stock Equivalents	2020	2019
Options to purchase common stock	9,193,096	10,770,319
Restricted stock units	2,868,665	1,580,192
Convertible preferred stock	3,309	8,456
Convertible notes	14,585,653	14,585,653
August 2019 Bonds	4,962,364	—
December 2019 Bonds	1,009,450	—
Total	32,622,537	26,944,620

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 price of the Company's common stock reported on the Nasdaq Global Select Market 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 subjective assumptions, including the expected stock price volatility and expected option life. The Company amortizes the fair value of the awards on a straight-line basis over the requisite vesting 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 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 option grants to employees and directors are presented below:

	Three Months Ended June 30,		Six Months Ended June 30,	
	2020	2019	2020	2019
Risk-free interest rate	0.40%	2.31%	0.67%	2.43%
Expected volatility	80%	70%	77%	70%
Expected life in years	5.9	6.2	5.9	6.2
Dividend yield	—	—	—	—

Total employee and director stock-based compensation expense recognized in the condensed consolidated statements of operations for the three and six months ended June 30, 2020 was \$3.4 million and \$7.1 million, respectively, of which \$1.8 million and \$4.1 million, respectively, was included in research and development expenses, and \$1.6 million and \$3.0 million, respectively, was included in general and administrative expenses.

Total employee and director stock-based compensation expense recognized in the condensed consolidated statements of operations for the three and six months ended June 30, 2019 was \$3.1 million and \$6.3 million, respectively, of which \$2.3 million and \$4.2 million, respectively, was included in research and development expenses, and \$877,000 and \$2.1 million, respectively, was included in general and administrative expenses.

At June 30, 2020, there was \$9.4 million of total unrecognized compensation expense related to unvested stock options, which is expected to be recognized over a weighted-average period of 2.3 years.

The weighted average grant date fair value per share, calculated using the Black-Scholes option pricing model, was \$9.52 and \$6.19 for employee and director stock options granted during the three and six months ended June 30, 2020, respectively, and \$2.44 and \$2.20 for employee and director stock options granted during the three and six months ended June 30, 2019, respectively.

At June 30, 2020, there was \$15.0 million of total unrecognized compensation expense related to unvested restricted stock units, which is expected to be recognized over a weighted-average period of 2.3 years.

The weighted average grant date fair value per share was \$14.50 and \$9.12 for restricted stock units granted during the three and six months ended June 30, 2020, respectively, and \$3.90 and \$3.42 for restricted stock units granted during the three and six months ended June 30, 2019, respectively.

The fair value of stock options granted to non-employees was estimated using the Black-Scholes pricing model. Total stock-based compensation expense for stock options and restricted stock units granted to non-employees for the three and six months ended June 30, 2020 was \$224,000 and \$607,000, respectively. Total stock-based compensation expense for stock options and restricted stock units granted to non-employees for the three and six months ended June 30, 2019 was \$207,000 and \$480,000, respectively.

13. Related Party Transactions

GeneOne Life Sciences

The Company owns 1,644,155 shares of common stock in GeneOne as of June 30, 2020 and one of the Company's directors, Dr. David B. Weiner, acts as a consultant to GeneOne.

In 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 the Company'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 an upfront payment of \$3.0 million, and is entitled to receive research support, annual license maintenance fees and royalties on net Product sales. The GeneOne Agreement also provides the Company 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.

In 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 "Hep 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 1 and 2 clinical studies with respect to the Hep Products. The Company will receive from GeneOne payments based on the achievement of clinical milestones and royalties based on sales of the Hep Products in the licensed territories, retaining all commercial rights to the Hep Products in all other territories. In 2013, the Company amended the Hep Agreement to grant back to the Company the SynCon® therapeutic vaccines targeting hepatitis B, along with all associated rights, from the collaboration in return for certain remuneration including a percentage of license fees. In 2013, the Company further amended the Hep Agreement to in part provide exclusive patent rights to IL-28 technology for use with the Hep 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.

In May 2015, the Company entered into a Collaborative Development Agreement with GeneOne to co-develop a DNA vaccine for MERS through Phase 1 clinical trials. Under the terms of the agreement, GeneOne will be responsible for funding all preclinical and clinical studies through Phase 1. In return, GeneOne will receive up to a 35% milestone-based ownership interest in the MERS immunotherapy upon achievement of the last milestone event of completion of the Phase 1 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 GeneOne amended the Collaborative Development Agreement for MERS 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 1. In return, GeneOne will receive up to a 35% milestone-based ownership interest in the Zika immunotherapy upon achievement of the last milestone event of the completion of the Phase 1 safety and immunogenicity study. All other agreement terms remain the same.

Revenue recognized from GeneOne consisted of patent and device maintenance fees. For both the three and six months ended June 30, 2020 and 2019, the Company recognized revenue from GeneOne of \$31,000 and \$63,000, respectively.

Operating expenses recorded from transactions with GeneOne related primarily to biologics manufacturing were \$2.2 million and \$2.8 million for the three and six months ended June 30, 2020, respectively, and \$727,000 and \$1.8 million for the three and six months ended June 30, 2019, respectively.

At June 30, 2020 and December 31, 2019, the Company had an accounts receivable balance of \$3,000 and \$128,000, respectively, and an accounts payable and accrued liability balance of \$26,000 and \$511,000, respectively, related to GeneOne and its subsidiaries. At June 30, 2020 and December 31, 2019, \$238,000 and \$284,000, respectively, of prepayments made to GeneOne were classified as long-term other assets on the Company's condensed consolidated balance sheet.

Plumblin Life Sciences, Inc.

The Company owns 597,808 shares of common stock in Plumblin Life Sciences, Inc. ("PLS") as of June 30, 2020 and one of the Company's directors, Dr. David B. Weiner, acts as a consultant to PLS.

On February 20, 2020, the Company entered into a Debt and Share Subscription Agreement with PLS under which the Company received 202,050 shares of PLS common stock in exchange for a portion of the outstanding accounts receivable balance due from PLS. Following the issuance of these shares and as of June 30, 2020, the Company held a 19.9% ownership interest in PLS.

Revenue recognized from PLS consists of milestone, license and patent fees. For the three and six months ended June 30, 2020, the Company recognized revenue from PLS of \$64,000 and \$1.2 million, respectively, and \$40,000 and \$64,000 for the three and six months ended June 30, 2019, respectively. At June 30, 2020 and December 31, 2019, the Company had an accounts receivable balance of \$13,000 and \$589,000, respectively, related to PLS.

The Wistar Institute

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

In March 2016, the Company entered into collaborative research agreements with Wistar for preventive and therapeutic DNA-based immunotherapy applications and products developed by Dr. Weiner and Wistar for the treatment of cancers and infectious diseases. Under the terms of the agreement, 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 under the agreement.

In November 2016, the Company received a \$6.1 million sub-grant through Wistar to develop a DNA-based monoclonal antibody against the Zika infection, with funding through December 2020.

The Company is also a collaborator with Wistar on an Integrated Preclinical/Clinical AIDS Vaccine Development grant from the NIAID, with funding through February 2020.

Deferred grant funding recognized from Wistar and recorded as contra-research and development expense is related to work performed by the Company on the research sub-contract agreements. For the three and six months ended June 30, 2020, the Company recorded \$73,000 and \$691,000, respectively, and for the three and six months ended June 30, 2019 the Company recorded \$368,000 and \$1.2 million, respectively, as contra-research and development expense from Wistar.

Research and development expenses recorded from Wistar relate primarily to the collaborative research agreements and sub-contract agreements related to the Bill and Melinda Gates Foundation and CEPI (see Note 15). Research and development expenses recorded from Wistar for the three and six months ended June 30, 2020 were \$408,000 and \$770,000, respectively. Research and development expenses recorded from Wistar for the three and six months ended June 30, 2019 were \$170,000 and \$458,000, respectively. At June 30, 2020 and December 31, 2019, the Company had an accounts receivable balance of \$370,000 and \$616,000, respectively, and an accounts payable and accrued liability balance of \$486,000 and \$219,000, respectively, related to Wistar. As of June 30, 2020, the Company had \$780,000 recorded as deferred grant funding on the condensed consolidated balance sheet related to Wistar.

14. Leases

The Company leases approximately 82,200 square feet of office, laboratory, and manufacturing space in San Diego, California and 57,360 square feet of office space in Plymouth Meeting, Pennsylvania under various non-cancellable operating lease agreements with remaining lease terms as of June 30, 2020 of 3.4 to 9.5 years, which represent the non-cancellable periods of the leases. The Company has excluded the extension options from its lease terms in the calculation of future lease payments as they are not reasonably certain to be exercised. The Company's lease payments consist primarily of fixed rental payments for the right to use the underlying leased assets over the lease terms as well as payments for common area maintenance and administrative services. The Company has received customary incentives from its landlords, such as reimbursements for tenant improvements and rent abatement periods, which effectively reduce the total lease payments owed for these leases.

The Company performed an evaluation of its contracts with customers and suppliers in accordance with Topic 842 and determined that, except for the real estate leases described above and various copier leases, none of its other contracts contain a right-of-use asset.

Operating lease right-of-use assets and liabilities on the condensed consolidated balance sheet represents the present value of the remaining lease payments over the remaining lease terms. Payments for additional monthly fees to cover the Company's share of certain facility expenses are not included in operating lease right-of-use assets and liabilities. The Company uses its incremental borrowing rate to calculate the present value of its lease payments, as the implicit rates in the leases are not readily determinable.

As of June 30, 2020, the maturities of the Company's operating lease liabilities were as follows:

Remainder of 2020	\$	1,956,000
2021		3,968,000
2022		4,045,000
2023		4,023,000
2024		3,001,000
Thereafter		12,951,000
Total remaining lease payments		29,944,000
Less: present value adjustment		(8,482,000)
Total operating lease liabilities		21,462,000
Less: current portion		(2,201,000)
Long-term operating lease liabilities	\$	19,261,000
Weighted-average remaining lease term		7.8 years
Weighted-average discount rate		8.4%

Lease costs included in operating expenses in the condensed consolidated statements of operations for the three and six months ended June 30, 2020 were \$814,000 and \$1.7 million, respectively. Lease costs included in operating expenses in the condensed consolidated statements of operations for the three and six months ended June 30, 2019 were \$835,000 and \$1.7 million, respectively. Operating lease costs consisting of the fixed lease payments included in operating lease liabilities are recorded on a straight-line basis over the lease terms. Variable lease costs are recorded as incurred.

In the normal course of business, the Company is a party to a variety of agreements pursuant to which it 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 the Company's obligations and the unique facts and circumstances involved in each particular agreement. Historically, payments made by the Company under these types of agreements have not had a material effect on its business, consolidated results of operations or financial condition.

15. Collaborative Agreements

ApolloBio Corporation

On December 29, 2017, the Company entered into an Amended and Restated License and Collaboration Agreement (the "ApolloBio Agreement"), with ApolloBio Corporation ("ApolloBio"), with an effective date of March 20, 2018. Under the terms of the ApolloBio Agreement, the Company has granted to ApolloBio the exclusive right to develop and commercialize VGX-3100, its DNA immunotherapy product candidate designed to treat pre-cancers caused by HPV, within the territories of China, Hong Kong, Macao, Taiwan, and potentially Korea in the event that no patent covering VGX-3100 is issued in China within the three years following the effective date of the ApolloBio Agreement.

Under the ApolloBio Agreement, the Company received proceeds of \$19.4 million in March 2018 which comprised the upfront payment of \$23.0 million less \$2.2 million in foreign income taxes and \$1.4 million in certain foreign non-income taxes. The foreign income taxes were recorded as a provision for income taxes and the foreign non-income taxes were recorded as a general and administrative expense, on the condensed consolidated statement of operations. The Company also incurred advisory fees of \$960,000 in connection with receiving the upfront payment from ApolloBio. These fees were determined to be incremental costs of obtaining the contract. The Company applied the practical expedient that permits a company to expense incremental costs to obtain a contract when the expected amortization period is one year or less and recorded the fees in general and administrative expense during the quarter ended March 31, 2018. No additional advisory fees are due related to the ApolloBio Agreement.

In addition to the upfront payment, the Company is entitled to receive up to an aggregate of \$20.0 million, less required income, withholding or other taxes, upon the achievement of specified milestones related to the regulatory approval of VGX-3100 in the United States, China and Korea. In the event that VGX-3100 is approved for marketing, the Company will

be entitled to receive royalty payments based on a tiered percentage of annual net sales, with such percentage being in the low- to mid-teens, subject to reduction in the event of generic competition in a particular territory. ApolloBio's obligation to pay royalties will continue for 10 years after the first commercial sale in a particular territory or, if later, until the expiration of the last-to-expire patent covering the licensed products in the specified territory.

The Company evaluated the terms of the ApolloBio Agreement under Topic 606, and the license to VGX-3100 in the territories was identified as the only distinct performance obligation on a standalone basis as of the inception of the agreement. The Company concluded that the license was distinct from potential future manufacturing and supply obligations. The Company further determined that the transaction price under the agreement consisted of the \$23.0 million upfront payment. The future potential milestone amounts were not included in the transaction price, as they were all determined to be fully constrained. As part of the evaluation of the development and regulatory milestones constraint, the Company determined that the achievement of such milestones is contingent upon success in future clinical trials and regulatory approvals, each of which is uncertain at this time. Future potential milestone amounts may be recognized as revenue under the ApolloBio Agreement, as well as under other collaborative research and development arrangements, if unconstrained. Reimbursable program costs will be recognized proportionately with the performance of the underlying services or delivery of drug supply and are excluded from the transaction price.

The ApolloBio Agreement will continue in force until ApolloBio has no remaining royalty obligations. Either party may terminate the ApolloBio Agreement in the event the other party shall materially breach or default in the performance of its material obligations thereunder and such default continues for a specified period after written notice thereof. In addition, ApolloBio may terminate the ApolloBio Agreement at any time beginning one year after the effective date for any reason upon 90 days written notice to the Company.

Under Topic 606, the entire transaction price of \$23.0 million was allocated to the license performance obligation. The Company determined that during the quarter ended June 30, 2018, the transfer of technology occurred and accordingly, the performance obligation was fully satisfied. The Company has recorded the gross upfront payment received from ApolloBio of \$23.0 million as revenue under collaborative research and development arrangements on the condensed consolidated statement of operations during the three months ended June 30, 2018.

AstraZeneca

On August 7, 2015, the Company entered into a license and collaboration agreement with MedImmune, the global biologics research and development arm of AstraZeneca ("AstraZeneca"). Under the agreement, AstraZeneca acquired exclusive rights to the Company's INO-3112 immunotherapy, renamed as MEDI0457, which targets cancers caused by human papillomavirus (HPV) types 16 and 18, with the ability to sublicense those license rights. AstraZeneca made an upfront payment of \$27.5 million to the Company in September 2015. AstraZeneca may be obligated to make potential future development and regulatory event-based payments to the Company totaling up to \$125 million and potential future commercial event-based payments totaling up to \$115 million, in each case upon the achievement of specified milestones related to MEDI0457 set forth in the license and collaboration agreement. AstraZeneca will fund all development costs associated with MEDI0457 immunotherapy. The Company is entitled to receive up to mid-single to double-digit tiered royalties on MEDI0457 product sales. Under the agreement, AstraZeneca can also request the Company to provide certain clinical manufacturing at an agreed upon price. The Company determined these options did not represent material rights at the inception of the agreement.

Within the broader collaboration, AstraZeneca had rights to co-develop up to two additional DNA-based cancer vaccine product candidates not included in the Company's current product pipeline. The Company has received notice that AstraZeneca intends to discontinue activities with respect to the research collaboration programs, other than MEDI0457, that were covered by the collaboration agreement.

As of December 31, 2017, the Company had recognized all of the \$27.5 million upfront payment as revenue, as all identified material performance obligations had been met with respect to that payment. During the three and six months ended June 30, 2020, the Company recognized revenues of \$74,000 and \$146,000, respectively, from AstraZeneca primarily for manufacturing services. During the three and six months ended June 30, 2019, the Company recognized revenues of \$62,000 and \$2.8 million, respectively, from AstraZeneca primarily from a milestone achieved in the first quarter of 2019 triggered by the initiation of a Phase 2 portion of an ongoing clinical trial in the third major indication, as well as for manufacturing services.

Coalition for Epidemic Preparedness Innovations

In April 2018, the Company entered into agreements with CEPI, pursuant to which the Company intends to develop vaccine candidates against Lassa fever and MERS. The goal of the collaboration between the Company and CEPI is to conduct research and development so that investigational stockpiles will be ready for clinical efficacy trial testing during potential disease outbreaks. The agreements with CEPI contemplate preclinical studies, as well as Phase 1 and Phase 2 clinical trials, occurring over multiple years. As part of the arrangement between the parties, CEPI has agreed to fund up to an aggregate of \$56 million of costs over a five-year period for preclinical studies, as well as planned Phase 1 and Phase 2 clinical trials, to be

conducted by the Company and collaborators, with funding from CEPI based on the achievement of identified milestones. During the three and six months ended June 30, 2020, the Company received funding of \$1.8 million and \$2.9 million, respectively, related to the CEPI Lassa fever and MERS grants and recorded such amounts as contra-research and development expense. During the three and six months ended June 30, 2019, the Company received funding of \$1.5 million and \$3.2 million, respectively, related to these grants and recorded such amounts as contra-research and development expense. As of June 30, 2020, the Company had \$5.3 million recorded as deferred grant funding on the condensed consolidated balance sheet related to these CEPI grants.

In January 2020, CEPI awarded the Company a grant of up to \$9.0 million to develop a vaccine against COVID-19. This initial CEPI funding is intended to support preclinical and clinical development through Phase 1 human testing in the United States of INO-4800, the Company's COVID-19 vaccine candidate against COVID-19. In April 2020, CEPI awarded the Company a grant of \$6.9 million to work with the International Vaccine Institute ("IVI") and the Korea National Institute of Health ("KNIH") to conduct clinical trials of INO-4800 in South Korea, a grant of \$5.0 million to accelerate development of the Company's next-generation intradermal electroporation device, known as CELLECTRA® 3PSP, for the intradermal delivery of INO-4800, and a grant of \$1.3 million to support large-scale manufacturing of INO-4800. During the three and six months ended June 30, 2020, the Company received funding of \$5.8 million and \$8.1 million, respectively, from CEPI related to these grants for INO-4800 and recorded such amounts as contra-research and development expense. As of June 30, 2020, the Company had an accounts receivable balance of \$2.9 million and \$101,000 recorded deferred grant funding on the condensed consolidated balance sheet related to the CEPI grants related to INO-4800.

Bill & Melinda Gates Foundation

In October 2018, the Bill & Melinda Gates Foundation ("Gates") awarded and funded the Company a grant of \$2.2 million to advance the development of DNA-encoded monoclonal antibody technology ("dMAb") to address issues in infectious disease prevention and therapy. This technology has high relevance for the control of influenza and HIV. This next-generation approach to the delivery of monoclonal antibodies would make the technology accessible to low and middle-income countries. In August 2019, Gates funded an additional \$1.1 million for the project. During the three and six months ended June 30, 2020, the Company recorded \$36,000 and \$170,000, respectively, and during the three and six months ended June 30, 2019 recorded \$698,000 and \$1.8 million, respectively, as contra-research and development expense related to the Gates dMAb grant. As of June 30, 2020, the Company had \$858,000 recorded as deferred grant funding on the condensed consolidated balance sheet related to the grant.

In March 2020, Gates awarded and funded the Company a grant of \$5.0 million to accelerate the development of the CELLECTRA® 3PSP device for the intradermal delivery of INO-4800. During the three and six months ended June 30, 2020, the Company recorded \$850,000 and \$913,000, respectively, as contra-research and development expense and had \$4.1 million recorded as deferred grant funding on the condensed consolidated balance sheet related to this Gates grant.

Department of Defense (DoD)

In June 2020, the Company entered into an Other Transaction Authority for Prototype Agreement (the "OTA Agreement") with the U.S. Department of Defense (the "DoD"), to fund the Company's efforts in developing the CELLECTRA® 3PSP device and associated arrays to be used for delivery of INO-4800 against COVID-19. Under the OTA Agreement, the Company intends to develop the CELLECTRA® 3PSP device and arrays for use in the U.S. military population and the U.S. population as a whole, subject to approval of the device by the U.S. Food and Drug Administration (the "FDA"). The OTA Agreement is also expected to support large-scale manufacturing of the CELLECTRA® 3PSP device, as well as large-scale DNA plasmid production for manufacture and supply of a specified number of doses of INO-4800 in support of FDA approval of the device. The total amount of funding being made available to the Company under the OTA Agreement is approximately \$54.5 million.

Additionally, in June 2020, the Company was awarded a fixed-price contract (the "Procurement Contract") from the DoD for the purchase of the Company's intradermal CELLECTRA® 2000 device and accessories. The CELLECTRA® 2000 devices will be used to inject INO-4800 in the Company's planned later-stage clinical trials. The total purchase price under the Procurement Contract is approximately \$16.6 million.

During the three and six months ended June 30, 2020, there was no contra-research and development expense nor deferred grant funding recorded related to these agreements with the DoD.

16. Income Taxes

The Company uses an estimated annual effective tax rate, which is based on expected annual income, statutory tax rates and tax planning opportunities available in the various jurisdictions in which the Company operates, to determine its quarterly provision for income taxes. Certain significant or unusual items are separately recognized in the quarter in which they occur and can be a source of variability in the effective tax rates from quarter to quarter. Due to the adoption of ASU 2019-12 which

removes the exception under ASC 740-20-45-7 to consider all sources of income in order to determine the tax benefit resulting from a loss from continuing operations, ASC 740-20-45-7 no longer applies.

On March 27, 2020, the United States enacted the Coronavirus Aid, Relief and Economic Security Act (CARES Act). The CARES Act is an emergency economic stimulus package that includes spending and tax breaks to strengthen the United States economy and fund a nationwide effort to curtail the effect of COVID-19. The CARES Act provides sweeping tax changes in response to the COVID-19 pandemic; some of the more significant provisions are removal of certain limitations on utilization of net operating losses, increasing the loss carryback period for certain losses to five years, and increasing the ability to deduct interest expense, as well as amending certain provisions of the previously enacted Tax Cuts and Jobs Act. At June 30, 2020, the Company has not recorded any income tax provision/(benefit) for the impact for the CARES Act due to the Company's history of net operating losses generated and the maintenance of a full valuation allowance against its net deferred tax assets. The Company will continue to analyze the impact that the CARES Act will have, if any, on its financial position, results of operations or cash flows.

17. Geneos Therapeutics, Inc.

In August 2016, the Company formed Geneos, to develop and commercialize neoantigen-based personalized cancer therapies. Geneos was considered a variable interest entity (VIE) for which the Company was the primary beneficiary. In February 2019, Geneos completed the initial closing of a preferred stock financing. The Company invested \$1.2 million in the preferred stock financing, which was led by an outside investor. Following this transaction, the Company held 61% of the outstanding equity, on an as-converted to common stock basis, of Geneos and continued to consolidate its investment in Geneos under ASC 810, *Consolidation*.

In January 2020, Geneos completed the second closing of the preferred stock financing, in which the Company invested \$800,000. Following this transaction, as of March 31, 2020, the Company held 52% of the outstanding equity, on an as-converted to common stock basis, of Geneos and continued to consolidate its investment in Geneos.

In June 2020, Geneos closed an additional preferred stock financing round, in which the Company invested \$800,000. Following this transaction, the Company no longer held a controlling financial interest as the Company, retaining 47% of the outstanding equity of Geneos on an as-converted to common stock basis. This transaction triggered a VIE reconsideration. Based on the Company's assessment, Geneos is a VIE as it does not have sufficient equity at risk to finance its activities without additional subordinated financial support. However, the Company is not the primary beneficiary of Geneos as it does not have the power to direct the activities that most significantly impact Geneos' economic performance. Accordingly, the Company deconsolidated its investment in Geneos as of June 1, 2020, resulting in a gain of \$4.1 million, of which \$2.4 million relates to the remeasurement of the retained noncontrolling interest investment to fair value. The gain has been recorded separately on the Company's condensed consolidated statement of operations. The following table shows the amounts related to the deconsolidation accounting:

Working capital (excluding cash)	\$	(59,992)
Note Payable		171,620
Fixed Assets, net of accumulated depreciation		(16,340)
Carrying value of noncontrolling interest		3,181,640
Fair value of investment in Geneos retained		3,618,998
Gain on deconsolidation of Geneos		(4,121,075)
Decrease in cash resulting from the deconsolidation of Geneos	\$	2,774,851

As of June 1, 2020, the fair value of the Company's 47% retained investment in Geneos is shown in the table below.

Geneos Share Class	Shares	Price per Share	Fair Value
Common	3,000,000	\$ 0.273	\$ 819,000
Preferred	2,113,206	\$ 1.325	\$ 2,799,998
Total	5,113,206		\$ 3,618,998

The fair value of Geneos preferred stock was based on the per share price paid by third-party investors in connection with the most recent closing of preferred stock financing for Geneos on June 1, 2020. The fair value of Geneos common stock was determined by a third-party valuation, as there is no public market for Geneos' common stock. Geneos' enterprise value, which was estimated using a market approach that derived an implied total equity value from a transaction involving Geneos' own securities, was allocated to all classes of equity using the option pricing method. Under the option pricing method, each equity

class was modeled as having a call option with a distinct claim on the total value of Geneos. Each option's exercise price was based on Geneos' total value available for each participating security holder. The characteristics of each class of ownership determined the claim on the total value for that class of ownership.

The estimated value allocated to common stock included assumptions related to the fair value of the enterprise, expected volatility, expected term, and risk-free interest rate. Expected volatility was based on historical asset volatilities derived from daily stock price changes of guideline public companies. The estimated expected term was based on a weighted average of Geneos' estimated time to their next financing and successful exit timing assumption. The risk-free interest rate was based on the yield of U.S. Treasury with a comparable term. Geneos's common stock is classified as a Level 3 financial instrument. The assumptions used in the fair value calculation as of June 30, 2020 are presented below:

Expected term (years)	2.92
Volatility	70%
Risk-free interest rate	2.46%
Enterprise value	\$4,966,531

The Company applies the equity method to investments in common stock and to other investments in entities that have risk and reward characteristics that are substantially similar to an investment in the investee's common stock. Since the Company's preferred stock investment in Geneos has a substantive liquidation preference, it is not substantially similar to the Company's common stock investment and will therefore be recorded as an equity security under ASC 321.

As of June 1, 2020, the Company accounts for its common stock investment in Geneos, in which the Company lacks control but does have the ability to exercise significant influence over operating and financial policies, using the equity method. Generally, the ability to exercise significant influence is presumed when the investor possesses more than 20% of the voting interests of the investee. This presumption may be overcome based on specific facts and circumstances that demonstrate that the ability to exercise significant influence is restricted. The Company applies the equity method to investments in common stock and to other investments in entities that have risk and reward characteristics that are substantially similar to an investment in the investee's common stock. In applying the equity method, the Company records the investment at cost unless the initial recognition is the result of the deconsolidation of a subsidiary, in which case it is recorded at fair value. The Company's proportionate share of net loss of Geneos is recorded in equity in net earnings of Geneos in the Company's condensed consolidated statements of operations. The Company's equity method investments are reviewed for indicators of impairment at each reporting period and are written down to fair value if there is evidence of a loss in value that is other-than-temporary. Any difference between the carrying amount of the Company's investment and the amount of underlying equity in Geneos' net assets is amortized into income or expense accordingly. There were no basis differences identified as of the deconsolidation date that would need to be amortized.

Upon deconsolidation, the Company recorded its preferred stock investment at fair value based on the per share price paid by third party investors in connection with the preferred stock financing on June 1, 2020. The Company has determined that its preferred stock investment in Geneos does not have a readily determinable fair value and has therefore elected the measurement alternative in ASC 321 to subsequently record the investment at cost, less any impairments, plus or minus changes resulting from observable price changes in orderly transactions for identical or similar investments of the same issuer. When fair value becomes determinable, from observable price changes in orderly transactions, the Company's investment will be marked to fair value. There have been no observable price changes or impairments identified since the deconsolidation date.

The Company's share of net losses of Geneos for the period from June 1, 2020 through June 30, 2020 was \$902,000. Of this amount, \$819,000 has been allocated to the equity method investment, thereby reducing the balance to \$0 as of June 30, 2020. The remaining \$83,000 loss has been allocated to the Company's preferred stock investment in Geneos.

The Company continues to exclusively license its SynCon® immunotherapy and CELLECTRA® technology platform to Geneos to be used in the field of personalized, neoantigen-based therapy for cancer. The license agreement provides for potential royalty payments to the Company in the event that Geneos commercializes any products using the licensed technology. The Company is not obligated to use any of its assets to fund the future operations of Geneos.

As of June 30, 2020 the Company has \$97,000 recorded as a receivable from Geneos.

18. Subsequent Events

In July 2020, certain holders converted an aggregate principal amount of \$19.1 million of Notes into an aggregate of 3,546,074 shares of the Company's common stock.

In August 2020, the holders converted all of the August 2019 Bonds into an aggregate of 4,962,364 shares of the Company's common stock, leaving no further August 2019 Bonds outstanding. The conversion rate as of the date of conversion

on August 1, 2020 was 275.6873 shares per KRW 1,000,000 in principal amount (equivalent to a conversion price of approximately USD \$3.14 per share based on the exchange rate as of January 2, 2020).

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

This Quarterly Report contains forward-looking statements, as defined in Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended. 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 based on our current expectations and projections, 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 condensed consolidated financial statements and the related notes and other financial information appearing elsewhere in this Quarterly Report and our audited consolidated financial statements and related notes for the year ended December 31, 2019 included in our Annual Report on Form 10-K filed with the U.S. Securities and Exchange Commission, or SEC, on March 12, 2020 (our "2019 Annual 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 captions "Risk Factors" and "Management's Discussion and Analysis of Financial Condition and Results of Operations," and the disclosures made in our 2019 Annual Report under the caption "Risk Factors" and in our audited consolidated financial statements and related notes.

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 preclinical 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 preclinical 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, DNA immunotherapies and DNA encoded monoclonal antibody product candidates, or dMABS, 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; the impact of government healthcare proposals; and the impact of COVID-19 on us and our third-party contractors and suppliers.

General

We are a biotechnology company focused on rapidly bringing to market precisely designed DNA medicines to treat, cure, and protect people from diseases associated with human papillomavirus (HPV), cancer, and infectious diseases. Our DNA medicine pipeline is comprised of three types of product candidates, DNA vaccines, DNA immunotherapies and DNA encoded monoclonal antibodies (dMABS). In clinical trials, we have demonstrated that a DNA medicine can be delivered directly into cells in the body via our proprietary smart device to consistently activate robust and fully functional T cell and antibody responses against targeted cancers and pathogens.

Our novel DNA medicine candidates are made using our proprietary SynCon® technology that creates optimized plasmids, which are circular strands of DNA that can produce antigens independently inside a cell to help the person's immune system recognize and destroy cancerous or virally infected cells.

Our hand-held CELLECTRA® smart delivery devices provide optimized uptake of our DNA medicines within the cell, overcoming a key limitation of other DNA-based technology approaches.

Human data to date have shown a favorable safety profile of our DNA medicines delivered directly into cells in the body using the CELLECTRA® smart device in more than 6,000 administrations across more than 2,000 patients.

Our corporate strategy is to advance, protect, and provide our novel DNA medicines to meet urgent and emerging global health needs. We continue to advance and validate an array of DNA medicine candidates that target HPV-related diseases, cancer, and infectious diseases. We aim to advance these candidates through commercialization and continue to leverage third-party resources through collaborations and partnerships, including product license agreements.

Our partners and collaborators include ApolloBio Corp., AstraZeneca, Beijing Advaccine, The Bill & Melinda Gates Foundation (Gates), Coalition for Epidemic Preparedness Innovations (CEPI), Defense Advanced Research Projects Agency (DARPA), The U.S. Department of Defense (DoD), GeneOne Life Science, HIV Vaccines Trial Network, the U.S. Defense Threat Reduction Agency's Medical CBRN Defense Consortium (MCDRC), National Cancer Institute, National Institutes of Health, National Institute of Allergy and Infectious Diseases, Plumblin Life Sciences, Regeneron Pharmaceuticals, Roche/Genentech, the University of Pennsylvania, the Walter Reed Army Institute of Research, and The Wistar Institute.

We or our collaborators are currently conducting or planning clinical studies of our DNA medicines for HPV-associated precancers, including cervical, vulvar, and anal dysplasia; HPV-associated cancers, including head & neck, cervical, anal, penile, vulvar, and vaginal; other HPV-associated disorders, such as recurrent respiratory papillomatosis, or RRP; glioblastoma multiforme, or GBM; prostate cancer; HIV; Ebola; Middle East Respiratory Syndrome, or MERS; Lassa fever; Zika virus; and the COVID-19 virus (coronavirus).

All of our product candidates are in the research and development phase. We have not generated any revenues from the sale of any 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 and collaborative research and development agreements. 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.

As of June 30, 2020, we had an accumulated deficit of \$901.0 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.

Impacts of COVID-19 on Our Business

The COVID-19 pandemic has had a number of significant impacts on our business during 2020. Most notably, in the United States, South Korea and China, we have accelerated the clinical development of INO-4800, our DNA vaccine candidate matched to the outbreak strain of SARS-CoV-2, the virus that causes COVID-19. In January, we received initial grant funding from CEPI to advance INO-4800 into preclinical studies and clinical development through Phase 1 human testing. We had previously been awarded grants from CEPI for the development of other DNA vaccines against Lassa fever and Middle East Respiratory Syndrome, MERS, which is also caused by a coronavirus like COVID-19. We commenced a Phase 1 clinical trial in the United States in April, and in June we reported positive interim data from the first two cohorts of the trial. In addition, INO-4800 was selected to participate in a non-human primate (NHP) challenge study as part of the U.S. government's Operation Warp Speed, a national program aiming to provide substantial quantities of safe, effective COVID-19 vaccine for Americans by January 2021. We recently expanded our Phase 1 trial to add older participants in additional cohorts and plan to initiate a Phase 2/3 efficacy trial subject to FDA concurrence.

We have also initiated clinical trials of INO-4800 in South Korea and China. In April, CEPI awarded us a grant of \$6.9 million to work with International Vaccine Institute and the Korea National Institute of Health to conduct a Phase 1/2 trial, which is the first COVID-19 vaccine clinical trial approved in South Korea. In China, we are collaborating with Beijing Advaccine Biotechnology Co. to conduct a Phase 1 trial, the initiation of which was approved by regulatory authorities in July.

In parallel with our accelerated clinical development efforts, we have engaged a network of partners for the planned large-scale manufacturing of INO-4800 if it achieves regulatory approval. In March, the U.S. Department of Defense, or DoD, awarded Ology Bioservices Inc. a contract to manufacture INO-4800 for the DoD to be used in upcoming clinical trials. In April, we entered into an agreement with the German contract manufacturer Richter-Helm BioLogics GmbH & Co. KG and expanded our preexisting manufacturing partnership to support large-scale manufacturing of INO-4800. In March, we also received a grant from the Bill and Melinda Gates Foundation for accelerated testing and scale up of our CELLECTRA 3PSP proprietary smart device for the intradermal delivery of INO-4800. In June, the DoD awarded us \$71 million to support the large-scale manufacture of CELLECTRA 3PSP and the procurement of CELLECTRA 2000 devices that are used to deliver INO-4800 intradermally.

With this growing coalition of partners and funders, and with our existing capacity and current and planned contract resources, we are seeking to produce up to one million doses of INO-4800 by the end of 2020 and 100 million doses in 2021.

Operationally, we have not experienced significant disruptions to date as a result of the COVID-19 pandemic. In response to the outbreak, a number of governmental orders and other public health guidance measures were implemented across much of the United States, including in the locations of our offices, laboratories, clinical trial sites and third parties on whom we rely. We have implemented a work from home policy allowing employees who can work from home to do so, while those needing to work in laboratory facilities work in shifts to reduce the number of people gathered together at one time. Business travel has been suspended, and online and teleconference technology is used to meet virtually rather than in person. We have taken measures to secure our research and development project activities, while work in laboratories has been organized to reduce risk of COVID-19 transmission.

To date, our liquidity has also not been negatively impacted by the pandemic. During 2019, we raised a total of \$94.1 million in net proceeds from the issuances of convertible notes and bonds, which allowed us to continue the funding of our clinical development programs. In addition, during the six months ended June 30, 2020, we have raised an additional \$330.0 million from the sale of shares of our common stock, which has further enhanced our liquidity and capital resources. As of June 30, 2020, our cash and cash equivalents and short-term investments were \$371.7 million, compared to \$89.5 million as of December 31, 2019.

We are closely monitoring the impact of the COVID-19 pandemic on our employees, collaborators and service providers. The extent to which the pandemic will impact our business and operations will depend on future developments, including the duration of the outbreak, travel restrictions and social distancing in the United States and other countries, and the effectiveness of actions taken in the United States and other countries to contain and treat the disease, that are highly uncertain. For additional information on the potential effects of the COVID-19 pandemic on our business, financial condition and results of operations, see the "Risk Factors" section below in Part II, Item 1A of this Form 10-Q.

Critical Accounting Policies

There have been no significant changes to our critical accounting policies since December 31, 2019, other than our adoption of Accounting Standards Update ("ASU") No. 2016-13, *Financial Instruments-Credit Losses: Measurement of Credit Losses on Financial Instruments (Topic 326)*, on January 1, 2020. For a description of our critical accounting policies that affect our significant judgments and estimates used in the preparation of our condensed consolidated financial statements, refer to Note 3 to our Condensed Consolidated Financial Statements included in this Quarterly Report, as well as Item 7, "Management's Discussion and Analysis of Financial Condition and Results of Operations" in our 2019 Annual Report and Note 2 to our audited Consolidated Financial Statements contained in our 2019 Annual Report.

Adoption of Recent Accounting Pronouncements

Information regarding recent accounting pronouncements is contained in Note 4 to the Condensed Consolidated Financial Statements, included in this Quarterly Report.

Results of Operations

Revenue. Total revenue was \$267,000 and \$1.6 million, respectively, for the three and six months ended June 30, 2020, as compared to \$136,000 and \$3.0 million, respectively, for the three and six months ended June 30, 2019. Revenue primarily consisted of revenues under collaborative research and development arrangements, including arrangements with affiliated entities, for the three and six months ended June 30, 2020 and 2019. The decrease in revenue for the six-month period year over year was primarily due to less revenue recognized from our collaboration with AstraZeneca, offset by milestone revenue earned from our affiliated entity PLS.

Research and development expenses. Research and development expenses for the three and six months ended June 30, 2020 were \$22.4 million and \$41.5 million, respectively, as compared to \$22.5 million and \$46.9 million, respectively, for the three and six months ended June 30, 2019. The decrease for the three-month period year over year was primarily due to an increase in contra-research and development expense recorded from grant agreements of \$6.6 million, offset by an increase in drug manufacturing expenses related to our COVID-19 and VGX-3100 clinical trials of \$3.9 million and increases in device inventory expense of \$1.0 million and expensed engineering equipment of \$769,000, among other variances. The decrease for the six-month period year over year was primarily due to an increase in contra-research and development expense recorded from grant agreements of \$7.6 million, a decrease in clinical trial expenses related to our GBM and bladder cancer trials of \$2.2 million and lower employee compensation expense of \$1.4 million. These were offset by an increase in drug manufacturing and clinical trial expenses of \$3.7 million related to COVID-19 and an increase in R&D expenses incurred by our subsidiary Geneos of \$1.1 million, among other variances.

Contributions received from current grant agreements and recorded as contra-research and development expense were \$9.1 million and \$14.1 million, respectively, for the three and six months ended June 30, 2020 as compared to \$2.6 million and

\$6.5 million, respectively, for the three and six months ended June 30, 2019. The increase for the three-month period year over year was primarily due to increases of \$5.8 million, \$850,000 and \$595,000 earned under grants from CEPI, Gates and MCDC, respectively, for our INO-4800 and device development activities, partially offset by a decrease of \$662,000 earned from the Gates grant related to our dMAB technology, among other variances. The increase for the six-month period year over year was primarily due to increases of \$8.1 million, \$1.2 million and \$913,000 earned from the CEPI, MCDC and Gates grants, respectively, related to our INO-4800 and device development activities, partially offset by a decrease of \$1.7 million earned from the Gates grant related to our dMAB technology, among other variances.

General and administrative expenses. General and administrative expenses, which include business development expenses, the amortization of intangible assets and patent expenses, were \$11.1 million and \$18.5 million, respectively, for the three and six months ended June 30, 2020, as compared to \$5.9 million and \$12.8 million, respectively, for the three and six months ended June 30, 2019. The increase for the three-month period year over year was primarily related to an increase in legal expenses of \$1.8 million related to the legal proceedings described elsewhere in this report, an increase in expenses for work performed related to corporate marketing and communications of \$1.6 million, and higher employee and consultant stock-based compensation expense of \$897,000, among other variances. The increase for the six-month period year over year was primarily related to an increase in expenses for work performed related to corporate marketing and communications of \$2.8 million, an increase in legal expenses of \$1.4 million, and higher employee and consultant stock-based compensation expense of \$1.2 million, among other variances.

Stock-based compensation. Stock-based compensation expense is measured at the grant date, based on the fair value of the award, and is recognized as expense over the requisite vesting period. Total employee and director stock-based compensation expense for the three and six months ended June 30, 2020 was \$3.4 million and \$7.1 million, respectively. Of these amounts, \$1.8 million and \$4.1 million, respectively, was included in research and development expenses, and \$1.6 million and \$3.0 million, respectively, was included in general and administrative expenses. Total employee and director stock-based compensation expense for the three and six months ended June 30, 2019 was \$3.1 million and \$6.3 million, respectively. Of these amounts, \$2.3 million and \$4.2 million, respectively, was included in research and development expenses, and \$877,000 and \$2.1 million, respectively, was included in general and administrative expenses. The year over year increase was primarily related to a higher weighted average grant date fair value for the awards granted in 2020, offset in part by an option modification expense recorded in the second quarter of 2019.

Interest income. Interest income for the three and six months ended June 30, 2020 was \$1.1 million and \$1.5 million, respectively, as compared to \$755,000 and \$1.4 million, respectively, for the three and six months ended June 30, 2019. The increase was related to higher interest earned on our short-term investment holdings.

Interest expense. Interest expense for the three and six months ended June 30, 2020 was \$2.8 million and \$5.7 million, respectively, as compared to \$2.2 million and \$2.9 million, respectively, for the three and six months ended June 30, 2019. The increase was due to higher interest expense recorded for our 6.5% convertible senior notes due 2024, or the Notes, which were issued during the first quarter of 2019, as well as interest expense from our August 2019 Bonds and our December 2019 Bonds, which were issued during the third and fourth quarters of 2019, respectively.

Change in fair value of derivative liability. The change in fair value of derivative liability for the three and six months ended June 30, 2020 was \$97.8 million and \$111.0 million, respectively. We determined that our August 2019 Bonds included an embedded conversion feature that is considered to be a derivative liability requiring bifurcation from the debt instrument and separate recognition in our financial statements. The conversion feature was revalued at the end of each reporting period with the resulting changes in fair value reflected in the condensed consolidated statements of operations.

Gain (loss) on investment in affiliated entities. The gain (loss) results from the change in the fair market value of the investments in GeneOne and PLS for a loss of \$3.9 million and gain of \$9.3 million, respectively, for the three and six months ended June 30, 2020 as compared to a loss of \$173,000 and \$923,000, respectively, for the three and six months ended June 30, 2019. We record our investments in GeneOne and PLS at their market values based on the closing prices of those securities on the applicable stock exchange at each balance sheet date, with changes in fair value reflected in the condensed consolidated statements of operations.

Net unrealized gain (loss) on available-for-sale equity securities. The net unrealized gain (loss) on available-for-sale equity securities for the three and six months ended June 30, 2020 of \$4.4 million and \$(691,000), respectively, results from a change in the fair market value of the investments as of June 30, 2020.

Gain on deconsolidation of Geneos. The gain recorded represents the excess of the fair value of our retained noncontrolling investment in Geneos and the carrying amount of the noncontrolling interest over the carrying amount of Geneos' assets and liabilities as of June 1, 2020, the date of deconsolidation.

Share in net loss of Geneos. The share in net loss of Geneos represents our share of Geneos' losses during the period after deconsolidation.

Income tax benefit/(Provision for income taxes). The income tax benefit of \$107,000 and \$170,000 recorded for the three and six months ended June 30, 2019, respectively, reflected our application of the intraperiod tax allocation rules under which we are required to record a tax benefit in continuing operations to offset the tax provision we recorded directly to other comprehensive income (loss) related to unrealized gains on our short-term investments. There was no income tax benefit or provision recorded for the three and six months ended June 30, 2020.

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, indebtedness and grants and government contracts.

Working Capital and Liquidity

As of June 30, 2020, we had cash, cash equivalents and short-term investments of \$371.7 million and working capital of \$344.1 million, as compared to \$89.5 million and \$62.2 million, respectively, as of December 31, 2019. The increase in cash and short-term investments during the six months ended June 30, 2020 was primarily due to the net proceeds from the sale of our common stock under at-the-market, or ATM, sales agreements, offset by expenditures related to our research and development activities, clinical trials and various general and administrative expenses related to legal, consultants, accounting and audit, and corporate development.

Cash Flows

Net cash used in operating activities was \$52.6 million and \$56.4 million for the six months ended June 30, 2020 and 2019, respectively. Net cash used in operating activities for the six months ended June 30, 2020 consisted of net loss of \$162.3 million, less use of net cash in operating assets and liabilities of \$913,000 partially offset by net non-cash adjustments of \$110.6 million. The primary non-cash adjustments to net loss included the increase in fair value of derivative liability of \$111.0 million, stock-based compensation of \$7.7 million, interest expense of \$3.0 million and depreciation and amortization of \$1.9 million, offset by gain on investment in affiliated entities of \$9.3 million, gain on deconsolidation of Geneos of \$4.1 million and acquisition of investment in our affiliated entity PLS of \$1.7 million through the settlement of accounts receivable with additional shares of PLS common stock.

Net cash used in operating activities for the six months ended June 30, 2019 consisted of net loss of \$58.9 million, less use of net cash in operating assets and liabilities of \$10.5 million, partially offset by net non-cash adjustments of \$12.9 million. The primary non-cash expenses added back to net loss included stock-based compensation of \$6.8 million, interest expense of \$2.9 million and depreciation and amortization of \$2.4 million.

Net cash used in investing activities was \$94.2 million and \$27.7 million for the six months ended June 30, 2020 and 2019, 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 \$340.0 million and \$80.2 million for the six months ended June 30, 2020 and 2019, respectively. The variance was primarily due to the significantly higher net proceeds from the sale of common stock under the ATM sales agreement as well as proceeds from stock option exercises in 2020, offset by the net proceeds received from the issuance of Notes in the first quarter of 2019 (described below).

Issuances of Notes and Bonds

In the fourth quarter of 2019, we completed a private placement of our 1.0% convertible bonds due December 2024, or the December 2019 Bonds, to an institutional investor in Korea for an aggregate principal amount of 4.7 billion Korean Won (KRW) (approximately USD \$4.1 million based on the exchange rate on the date of issuance). Net proceeds from the offering were \$4.0 million, after deducting the offering expenses payable by us. See Note 9 to the condensed consolidated financial statements included in this report for further discussion.

In the third quarter of 2019, we completed a private placement of aggregate principal amount of 18 billion Korean Won (KRW) (approximately USD \$15.0 million based on the exchange rate on the date of issuance) of August 2019 Bonds issued to institutional investors led by Korea Investment Partners. Net proceeds from the offering were \$14.5 million, after deducting the offering expenses payable by us. See Note 9 to the condensed consolidated financial statements included in this report for further discussion. In August 2020, all holders of the August 2019 Bonds converted principal amount of 18.0 billion KRW (approximately USD \$15.0 million based on the exchange rate on June 30, 2020) into 4,962,364 shares of our common stock.

In the first quarter of 2019, we completed a private placement of \$78.5 million aggregate principal amount of Notes, sold to qualified institutional buyers pursuant to Rule 144A under the Securities Act of 1933, as amended. Net proceeds from the

offering were \$75.7 million, after deducting the initial purchasers' discount and offering expenses payable by us. See Note 9 to the condensed consolidated financial statements included in this report for further discussion. In July 2020, certain holders of the Notes converted principal amount of \$19.1 million into an aggregate of 3,546,074 shares of our common stock.

Issuances of Common Stock

In May 2018, we entered into an At-the-Market Equity Offering Sales Agreement, or the Sales Agreement, with an outside placement agent, or the Placement Agent, to sell shares of our common stock with aggregate gross proceeds of up to \$100.0 million, from time to time, through an "at-the-market" equity offering program under which the Placement Agent would act as sales agent. During the year ended December 31, 2019, we sold 3,340,678 shares of common stock under the Sales Agreement for aggregate net proceeds of \$9.1 million.

In the first quarter of 2020, we entered into amendments to the Sales Agreement to increase the amount of our common stock that could be sold through the Placement Agent under the Sales Agreement to an aggregate offering price of up to \$250.0 million. During the three months ended March 31, 2020, we sold 43,148,952 shares of common stock under the Sales Agreement for aggregate net proceeds of \$208.2 million. Following these sales, there was no remaining capacity under this Sales Agreement.

On April 3, 2020, we entered into a new sales agreement, or the New Sales Agreement, with the same Placement Agent to sell shares of our common stock. On that same day, we filed a prospectus supplement pursuant to the New Sales Agreement for the offer and sale of our common stock for aggregate gross proceeds of up to \$150.0 million. On May 12, 2020 we filed an additional prospectus supplement pursuant to the New Sales Agreement for the offer and sale of our common stock for an additional \$100.0 million of gross proceeds, bringing the maximum gross proceeds of sales under the New Sales Agreement to \$250.0 million. Through the date of this report, we have sold 12,041,178 shares of common stock under the New Sales Agreement for aggregate net proceeds of \$121.7 million.

During the six months ended June 30, 2020, stock options to purchase 1,649,874 shares of common stock were exercised for aggregate net proceeds to us of \$9.6 million. During the six months ended June 30, 2019, stock options to purchase 33,594 shares of common stock were exercised for aggregate net proceeds of \$92,000.

As of June 30, 2020, we had an accumulated deficit of \$901.0 million. 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 any of our DNA vaccines, DNA immunotherapies or dMAB product candidates, 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 our current cash and short-term investments are sufficient to meet our planned working capital requirements for at least the next twelve months from the date this Quarterly Report is filed.

Off-Balance Sheet Arrangements

We did not have during the periods presented, and we do not currently have, any off-balance sheet arrangements, as defined in the rules and regulations of the SEC.

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. Due to the short-term maturities of our cash equivalents and the low risk profile of our investments at June 30, 2020, an immediate 100 basis point change in interest rates would not have a material effect on the fair market value of our cash equivalents.

The interest rate on our indebtedness, consisting of the Notes and Bonds, is fixed and not subject to fluctuations in interest rates.

Fair Value Measurements

The investment in affiliated entities 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 reported on the date of determination on the Korean Stock Exchange and Korea New Exchange Market, respectively.

Foreign Currency Risk

We have operated primarily in the United States and most transactions during the six months ended June 30, 2020 were made in United States dollars. Accordingly, we have not had any material exposure to foreign currency rate fluctuations, with the exception of the issuance of the August 2019 and December 2019 Bonds, which are denominated in South Korean Won, and the valuation of our equity investments in GeneOne and PLS, each of which is denominated in South Korean Won and then translated into United States dollars. We do not have any foreign currency hedging instruments in place.

Certain transactions are denominated primarily in foreign currencies, including South Korean Won, Euros, British Pounds and Canadian Dollars. These transactions give rise to monetary assets and liabilities that are denominated in currencies other than the U.S. dollar. The value of these monetary assets and liabilities are subject to changes in currency exchange rates from the time the transactions are originated until settlement in cash. 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.

We do not use derivative financial instruments for speculative purposes and do not engage in exchange rate hedging or hold or issue foreign exchange contracts for trading purposes.

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.

In designing and evaluating our disclosure controls and procedures, management recognizes that disclosure controls and procedures, no matter how well conceived and operated, can provide only reasonable, not absolute, assurance that the objectives of the disclosure controls and procedures are met. Additionally, in designing disclosure controls and procedures, our management necessarily was required to apply its judgment in evaluating the cost-benefit relationship of possible disclosure controls and procedures. The design of any system of controls also is based in part upon certain assumptions about the likelihood of future events, and there can be no assurance that any design will succeed in achieving its stated goals under all potential future conditions; over time, controls may become inadequate because of changes in conditions, or the degree of compliance with policies or procedures may deteriorate. Because of the inherent limitations in a control system, misstatements due to error or fraud may occur and not be detected.

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 June 30, 2020 at the reasonable assurance level.

Changes in Internal Control over Financial Reporting

There have not been any changes in our internal control over financial reporting that occurred during the quarter ended June 30, 2020 that materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

Part II. Other Information

ITEM 1. LEGAL PROCEEDINGS

Securities Litigation

On March 12, 2020, a purported shareholder class action complaint, *McDermid v. Inovio Pharmaceuticals, Inc. and J. Joseph Kim*, was filed in the United States District Court for the Eastern District of Pennsylvania, naming us and J. Joseph Kim, our Chief Executive Officer, as defendants. The lawsuit alleges that we made materially false and misleading statements regarding our development of a vaccine for COVID-19 in our public disclosures in violation of certain federal securities laws. The plaintiff seeks unspecified monetary damages on behalf of the putative class and an award of costs and expenses, including reasonable attorneys' fees. On June 18, 2020, the court appointed Manuel Williams to serve as lead plaintiff. On August 3, 2020, the plaintiff filed an amended complaint, naming us and three of our officers as defendants.

On April 20, 2020, a purported shareholder derivative complaint, *Beheshti v. Kim, et al.*, was filed in the United States District Court for the Eastern District of Pennsylvania, naming eight current and former directors as defendants. The lawsuit asserts state and federal claims and is based on the same alleged misstatements as the shareholder class action complaint. The lawsuit accuses our board of directors of failing to exercise reasonable and prudent supervision over our management, policies, practices, and internal controls. The plaintiff seeks unspecified monetary damages on behalf of us as well as governance reforms. On June 5, 2020, the court stayed the *Beheshti* action pending resolution of a forthcoming motion to dismiss the *McDermid* securities class action or until any party provides notice that they no longer consent to the stay.

On June 12 and June 15, 2020, two additional shareholder derivative complaints were filed in the United States District Court for the Eastern District of Pennsylvania, captioned *Isman v. Benito, et al.* and *Devarakonda et al. v Kim, et. al.* The complaints assert substantially similar claims as the *Beheshti* action and name our current directors as defendants. The *Devarakonda* complaint also names one of our former directors as a defendant. On July 21, 2020, the court consolidated the three derivative cases under the caption *In re Inovio Pharmaceuticals, Inc. Derivative Litigation*. The consolidated action is stayed pending resolution of a forthcoming motion to dismiss the *McDermid* securities class action or until any party provides notice that they no longer consent to the stay.

On July 7, 2020, a fourth shareholder derivative complaint, *Fettig v. Kim et al.*, was filed in the United States District Court for the Eastern District of Pennsylvania, naming eight current and former directors as defendants. The complaint asserts substantially similar claims as those in the consolidated derivative action.

We intend to defend these actions vigorously.

VGXI Litigation

On June 3, 2020, we filed a complaint in the Court of Common Pleas of Montgomery County, Pennsylvania against VGXI, Inc. and GeneOne Life Science, Inc., collectively referred to as VGXI, alleging that VGXI had materially breached our supply agreement with them. The complaint seeks declaratory judgments, specific performance of the agreement, injunctive relief, an accounting, damages, attorneys' fees, interest, costs and other relief from VGXI. On June 3, 2020, we filed a petition for preliminary injunction, which was denied on June 25, 2020. On June 26, 2020, we filed notice of appeal of the denial of the petition with the Pennsylvania Superior Court.

On July 7, 2020, VGXI filed an answer, new matter and counterclaims against us, alleging that we had breached the supply agreement, as well as misappropriation of trade secrets and unjust enrichment. The counterclaims seek injunctive relief, damages, attorneys' fees, interest, costs and other relief from us. Also, on July 7, 2020, VGXI filed a third-party complaint against Ology Bioservices, Inc., a contract manufacturing organization that we had engaged to provide services similar to those that were being provided by VGXI. On July 27, 2020, we filed an answer to VGXI's counterclaims, disputing the allegations and the claims raised in VGXI's filing. A trial date for the litigation has not been set.

We intend to aggressively prosecute the claims set forth in our complaint against VGXI and to vigorously defend ourselves against VGXI's counterclaims.

ITEM 1A. RISK FACTORS

Our business is subject to numerous risks. 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, the risk factors discussed in our 2019 Annual Report, which we filed with the SEC on March 12, 2020 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 2019 Annual Report.

Risks Related to Our Business and Industry

Our business could be adversely affected by the effects of health epidemics, including the global COVID-19 pandemic.

In December 2019, a novel strain of coronavirus, since named SARS-CoV-2, causing the disease known as COVID-19, was reported in China. Since then, COVID-19 has spread globally, resulting in the World Health Organization (WHO) declaring the outbreak of COVID-19 as a “pandemic” in March 2020 and United States also declaring a national emergency. In response to the COVID-19 pandemic, a number of governmental orders and other public health guidance measures have been implemented across much of the United States, including in the locations of our offices, laboratories, clinical trial sites and third parties on whom we rely. As a result, our expected clinical development timelines could be negatively affected by COVID-19, which could then materially and adversely affect our business, financial condition and results of operations. Further, we have implemented a work from home policy allowing employees who can work from home to do so, while those needing to work in laboratory facilities work in shifts to reduce the number of people gathered together at one time. Business travel has been suspended, and online and teleconference technology is used to meet virtually rather than in person. We have taken measures to secure our research and development project activities, while work in laboratories has been organized to reduce risk of COVID-19 transmission. Our increased reliance on personnel working from home may negatively impact our productivity, or could disrupt, delay or otherwise adversely impact our business. For example, with our personnel working from home, some of our research activities that require our personnel to be in our laboratories could be delayed.

In addition, as local jurisdictions continue to put restrictions in place, our ability to continue to conduct and enroll patients in our clinical trials, manufacture our product candidates and pursue collaborations may also be limited. Such events may result in a period of business and manufacturing disruption, and in reduced operations, any of which could materially affect our business, financial condition and results of operations.

The spread of COVID-19, which has caused a broad impact globally, could also affect us economically. While the potential economic impact brought by, and the duration of, COVID-19 may be difficult to assess or predict, it has resulted in significant disruption of global financial markets, which could reduce our ability to access capital, including a potential secondary listing of our equity securities on the KOSDAQ Market of the Korea Exchange. Although we have raised a substantial sum of funds from the sale of our common stock in the public markets in 2020, there can be no guarantee that we will be able to continue to do so, which could negative affect our future liquidity. In addition, if a global economic recession results following the spread of COVID-19, its impact could materially affect our business and the value of our common stock.

The continued spread of COVID-19 globally could also adversely affect our clinical trial operations, including our ability to initiate and conduct our planned trials on their expected timelines and to recruit and retain patients and principal investigators and site staff who, as healthcare providers, may have heightened exposure to COVID-19 if an outbreak occurs in their geography. Further, the COVID-19 outbreak could result in delays in our clinical trials due to prioritization of hospital resources toward the outbreak, restrictions in travel, potential unwillingness of patients to enroll in trials, patients withdrawing from trials following enrollment as a result of contracting COVID-19 or other health conditions, or the inability of patients to comply with clinical trial protocols as quarantines and travel restrictions impede patient movement or interrupt healthcare services. In addition, we rely on independent clinical investigators, contract research organizations and other third-party service providers to assist us in managing, monitoring and otherwise carrying out our preclinical studies and clinical trials, and the outbreak may affect their ability to devote sufficient time and resources to our programs or to travel to sites to perform work for us. These restrictions may delay the conduct of multiple clinical trials including our Phase 1 through 3 clinical trials.

Additionally, COVID-19 may also result in delays in receiving approvals from local and foreign regulatory authorities, delays in necessary interactions with local and foreign regulators, ethics committees and other important agencies and contractors due to limitations in employee resources or forced furlough of government employees, and refusals to accept data from clinical trials conducted in these affected geographies.

The global outbreak of COVID-19 continues to rapidly evolve. The extent to which COVID-19 may impact our business, operations and clinical trials will depend on future developments, including the duration of the outbreak, travel restrictions and social distancing in the United States and other countries, the effectiveness of actions taken in the United States and other countries to contain and treat the disease and whether the United States and additional countries are required to move to complete lock-down status. The ultimate long-term impact of COVID-19 is highly uncertain and cannot be predicted with confidence.

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 June 30, 2020, our accumulated deficit was approximately \$901.0 million. We have generated limited revenues, primarily consisting of license revenue, grant funding 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 DNA vaccine, DNA immunotherapy and dMAB product candidates or electroporation-based synthetic vaccine delivery technology and thus may never have any significant future revenues or achieve and sustain profitability.

We are currently subject to litigation and may become subject to additional litigation, which could harm our business, financial condition and reputation.

We may have actions brought against us by stockholders relating to past transactions, changes in our stock price or other matters. For example, during 2020, numerous purported shareholder class action complaints have been filed against us, naming us and our executive officers as defendants, and alleging that we made materially false and misleading statements regarding the development of our INO-4800 vaccine candidate against COVID-19 in violation of certain federal securities laws. We may also become party to litigation with third parties as a result of our business activities. For example, in June 2020 we filed a lawsuit against VGXI, one of our contract manufacturers, seeking to compel VGXI to facilitate the transfer of manufacturing methods, using VGXI's technology, which would for the large-scale manufacture of INO-4800 by other third-party contract manufacturers that we have engaged and are seeking to engage. In July 2020, VGXI filed a counterclaim against us alleging that we had breached our contract with them, among other claims. Even though we intend to vigorously defend ourselves in the shareholder class action and the litigation with VGXI, there can be no assurance that we will ultimately prevail. These and any potential future actions against us could give rise to substantial damages, which could have a material adverse effect on our consolidated financial position, liquidity or results of operations. Even if an action is not resolved against us, the uncertainty and expense associated with litigation could harm our business, financial condition and reputation, as litigation is often costly, time-consuming and disruptive to business operations. The defense of our existing and potential future lawsuits could also result in diversion of our management's time and attention away from business operations, which could harm our business.

We have limited sources of revenue and our success is dependent on our ability to develop our DNA vaccines, DNA immunotherapies, dMAB 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 candidates, including INO-4800, or our immunotherapy and DNA encoded monoclonal antibody product candidates have been approved for sale, and we may never develop commercially successful vaccine, immunotherapy or monoclonal antibody products.

Our human vaccine programs, which includes our COVID-19 vaccine candidate INO-4800, and our immunotherapy programs and our DNA encoded monoclonal antibodies program are in various stages of research and development, and currently include product candidates in discovery, preclinical studies and Phase 1, 2 and 3 clinical trials. There are limited data regarding the efficacy of synthetic vaccine candidates and immunotherapy candidates compared with conventional vaccines, and we must conduct a substantial amount of additional research and development before the FDA or any comparable foreign regulatory authority will approve any of our vaccine product candidates, including INO-4800. The success of our efforts to develop and commercialize our product candidates, including INO-4800, could be delayed or fail for a number of reasons. For example, we could experience delays in product development and clinical trials. Our product candidates could be found to be ineffective or unsafe, or otherwise fail to receive necessary regulatory clearances to proceed with further clinical development or to be approved for marketing. Our products, even if they are deemed to be safe and effective by regulatory authorities, could be difficult to manufacture on a large scale or uneconomical to market, or our competitors could develop superior products more quickly and efficiently or more effectively market their competing products. The ability to manufacture sufficient quantities of a COVID-19 vaccine candidate, like INO-4800, on a large scale is particularly challenging and will require substantial resources and the engagement of third parties, which we may not be able to obtain on a timely basis, or at all.

In addition, adverse events, or the perception of adverse events, relating to vaccine and immunotherapy candidates and delivery technologies may negatively impact our ability to develop commercially successful 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 and immunotherapy products and could result in greater governmental regulation, stricter labeling requirements and potential regulatory delays in the testing or approval of our potential products.

Our substantial indebtedness could limit the cash flow available for our operations and could expose us to risks that could adversely affect our business, financial condition and results of operations.

During 2019, we sold \$78.5 million aggregate principal amount of 6.50% convertible senior notes due 2024, or the Notes, as well as \$4.1 million aggregate principal amount of 1.0% convertible bonds due December 2024, or the December 2019 Bonds. We also sold \$15.0 million of convertible bonds in August 2019 which we fully converted into shares of our common stock in August 2020. A portion of the Notes were also converted into shares of our common stock in July 2020, although the substantial majority of the Notes remain outstanding. We may incur additional indebtedness to meet our future financing needs. Our existing indebtedness and potential future indebtedness could have significant negative consequences for our security holders and our business, results of operations and financial condition by, among other things:

- increasing our vulnerability to adverse economic and industry conditions;
- limiting our ability to obtain additional financing;
- requiring the dedication of a substantial portion of our cash flow from operations to service our indebtedness, which will reduce the amount of cash available for other purposes;
- limiting our flexibility to plan for, or react to, changes in our business;
- diluting the interests of our existing stockholders if we issue additional shares of our common stock upon conversion of any convertible debt, such as the Notes and the December 2019 Bonds, in accordance with their respective terms; and
- placing us at a possible competitive disadvantage with competitors that are less leveraged than us or have better access to capital.

Our business may not generate sufficient funds, and we may otherwise be unable to maintain sufficient cash reserves, to pay amounts due under the Notes and the December 2019 Bonds and any additional indebtedness that we may incur. In addition, our cash needs may increase in the future. In addition, any future indebtedness that we may incur may contain financial and other restrictive covenants that limit our ability to operate our business, raise capital or make payments under our other indebtedness. If we fail to comply with these covenants or to make payments under our indebtedness when due, then we would be in default under that indebtedness, which could, in turn, result in that and our other indebtedness becoming immediately payable in full.

The conditional conversion features of the Notes, if triggered, may adversely affect our financial condition, operating results, or liquidity.

In the event the conditional conversion feature of the Notes is triggered, holders of the Notes will be entitled to convert their Notes into shares of our common stock at any time during specified periods at their option. If one or more of the holders of the Notes elects to convert their Notes, unless we satisfy our conversion obligation by delivering only shares of our common stock, we would be required to settle all or a portion of our conversion obligation through the payment of cash, which could adversely affect our liquidity. The conditional convertibility of the Notes will be monitored at each quarterly reporting date and analyzed dependent upon market prices of our common stock during the prescribed measurement periods.

Conversion of the Notes and/or the December 2019 Bonds will dilute the ownership interest of existing stockholders, and may otherwise depress the price of our common stock.

The conversion of some or all of the Notes and/or December 2019 Bonds will dilute the ownership interests of existing stockholders to the extent we deliver shares of our common stock upon conversion of any of the Notes. The Notes may become in the future convertible at the option of the holders of the Notes prior to November 1, 2023 under certain circumstances as provided in the indenture governing the Notes. The December 2019 Bonds may become in the future convertible at the option of the holders of the December 2019 Bonds starting December 31, 2020. Any sales in the public market of the common stock issuable upon such conversion could adversely affect prevailing market prices of our common stock. In addition, the existence of the Notes may encourage short selling by market participants because the conversion of the Notes could be used to satisfy short positions, or anticipated conversion of the Notes into shares of our common stock could depress the price of our common stock.

We will need substantial additional capital to develop our DNA vaccine, DNA immunotherapy and dMAB programs and electroporation delivery technology.

Conducting the costly and time-consuming research, pre-clinical studies and clinical testing necessary to obtain regulatory approvals and bring our product candidates and delivery technology 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;
- debt service obligations on the Notes and the December 2019 Bonds;
- 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 from time to time experienced heightened volatility and turmoil, particularly in light of the COVID-19 pandemic, making it more difficult in many cases to raise capital through the issuance of equity securities. Volatility in the capital markets can also negatively impact the cost and availability of credit, creating 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, as we have done in 2020 through our “at-the-market” sales agreement, or we issue securities in connection with another transaction in the future, 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 COVID-19 vaccines, cancer vaccines and immunotherapies, and several products such as the CAR-Ts developed by our competitors have been approved for human use. Our competitors and potential competitors include large pharmaceutical 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, preclinical 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, and may continue to 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 to develop, obtain regulatory approval for and commercialize our product candidates for specified indications, including in jurisdictions outside of the United States. 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 upfront 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, DARPA and the DoD, and we intend to continue entering into these types of 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;
- debt service obligations on the Notes and the December 2019 Bonds;
- changes in the fair value of our investments, including investments in affiliated entities;
- 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 product candidates 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 preclinical 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 contraindications 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, preclinical 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 preclinical 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 through preclinical studies and initial clinical testing. The time required to obtain approval by the FDA and similar foreign authorities is unpredictable but typically takes many years following the commencement of clinical trials, depending upon numerous factors. In addition, approval policies, regulations, or the type and amount of clinical data necessary to gain approval may change. We have not obtained regulatory approval for any human-use products.

Our products could fail to complete the clinical trial process for many reasons, including the following:

- we may be unable to demonstrate to the satisfaction of the FDA or comparable foreign regulatory authorities that our electroporation equipment or product candidate is safe and effective for any indication;
- the results of clinical trials may not meet the level of statistical significance required by the FDA or comparable foreign regulatory authorities for approval;
- the FDA or comparable foreign regulatory authorities may disagree with the design or implementation of our clinical trials;
- we may not be successful in enrolling a sufficient number of participants in clinical trials;
- we may be unable to demonstrate that our electroporation equipment or product candidate's clinical and other benefits outweigh its safety risks;
- we may be unable to demonstrate that our electroporation equipment or product candidate presents an advantage over existing therapies, or over placebo in any indications for which the FDA requires a placebo-controlled trial;
- the FDA or comparable foreign regulatory authorities may disagree with our interpretation of data from preclinical studies or clinical trials;
- the data collected from clinical trials of our product candidates may not be sufficient to support the submission of a new drug application or other submission or to obtain regulatory approval in the United States or elsewhere;
- the FDA or comparable foreign regulatory authorities may fail to approve the manufacturing processes or facilities of us or third-party manufacturers with which we or our collaborators contract for clinical and commercial supplies; and
- the approval policies or regulations of the FDA or comparable foreign regulatory authorities may significantly change in a manner rendering our clinical data insufficient for approval.

Our product candidates are combination products regulated under both the biologic and device regulations of the Public Health Service Act and Federal Food, Drug, and Cosmetic Act. Third-party manufacturers may not be able to comply with cGMP regulations, regulations applicable to biologic/device combination products, including applicable provisions of the FDA's drug cGMP regulations, device cGMP requirements embodied in the QSR or similar regulatory requirements outside the United States. Our failure, or the failure of our third-party manufacturers, to comply with applicable regulations could result in sanctions being imposed on us, including clinical holds, fines, injunctions, civil penalties, delays, suspension or withdrawal of approvals, license revocation, seizures or recalls of product candidates, operating restrictions and criminal prosecutions, any of which could significantly affect supplies of our product candidates.

Delays in the commencement or completion of clinical testing could result in increased costs to us and delay or limit our ability to generate revenues.

Delays in the commencement or completion of clinical testing could significantly affect our product development costs. We do not know whether planned clinical trials will begin on time or be completed on schedule, if at all. In addition, ongoing clinical trials may not be completed on schedule, or at all, and could be placed on a hold by the regulators for various reasons. The commencement and completion of clinical trials can be delayed for a number of reasons, including delays related to:

- obtaining regulatory approval to commence a clinical trial;

- adverse results from third party clinical trials involving gene-based therapies and the regulatory response thereto;
- reaching agreement on acceptable terms with prospective CROs and trial sites, the terms of which can be subject to extensive negotiation and may vary significantly among different CROs and trial sites;
- future bans or stricter standards imposed on clinical trials of gene-based therapy;
- manufacturing sufficient quantities of our electroporation equipment and product candidates for use in clinical trials;
- obtaining institutional review board, or IRB, approval to conduct a clinical trial at a prospective site;
- slower than expected recruitment and enrollment of patients to participate in clinical trials for a variety of reasons, including competition from other clinical trial programs for similar indications;
- conducting clinical trials with sites internationally due to regulatory approvals and meeting international standards;
- retaining patients who have initiated a clinical trial but may be prone to withdraw due to side effects from the therapy, lack of efficacy or personal issues, or who are lost to further follow-up;
- collecting, reviewing and analyzing our clinical trial data; and
- global unrest, global pathogen outbreaks or pandemics, terrorist activities, and economic and other external factors.

Clinical trials may also be delayed as a result of ambiguous or negative interim results. In addition, a clinical trial may be suspended or terminated by us, the FDA, the IRB overseeing the clinical trial at issue, any of our clinical trial sites with respect to that site, or other regulatory authorities due to a number of factors, including:

- failure to conduct the clinical trial in accordance with regulatory requirements or our clinical protocols;
- inspection of the clinical trial operations or trial sites by the FDA or other regulatory authorities resulting in the imposition of a clinical hold;
- unforeseen safety issues; and
- lack of adequate funding to continue the clinical trial.

If we experience delays in completion of, or if we terminate, any of our clinical trials, the commercial prospects for our electroporation equipment and our product candidates may be harmed and our ability to generate product revenues will be delayed. In addition, many of the factors that cause, or lead to, a delay in the commencement or completion of clinical trials may also ultimately lead to the denial of regulatory approval of a product candidate. Further, delays in the commencement or completion of clinical trials may adversely affect the trading price of our common stock.

We and our collaborators rely on third parties to conduct our clinical trials. If these third parties do not successfully carry out their contractual duties or meet expected deadlines, we and our collaborators may not be able to obtain regulatory approval for or commercialize our product candidates.

We and our collaborators have entered into agreements with CROs to provide monitors for and to manage data for our on-going clinical programs. We and the CROs conducting clinical trials for our electroporation equipment and product candidates are required to comply with current good clinical practices, or GCPs, regulations and guidelines enforced by the FDA for all of our products in clinical development. The FDA enforces GCPs through periodic inspections of trial sponsors, principal investigators and trial sites. If we or the CROs conducting clinical trials of our product candidates fail to comply with applicable GCPs, the clinical data generated in the clinical trials may be deemed unreliable and the FDA may require additional clinical trials before approving any marketing applications.

If any relationships with CROs terminate, we or our collaborators may not be able to enter into arrangements with alternative CROs. In addition, these third-party CROs are not our employees, and we cannot control whether or not they devote sufficient time and resources to our on-going clinical programs or perform trials efficiently. These CROs may also have relationships with other commercial entities, including our competitors, for whom they may also be conducting clinical studies or other drug development activities, which could harm our competitive position. If CROs do not successfully carry out their contractual duties or obligations or meet expected deadlines, if they need to be replaced, or if the quality or accuracy of the clinical data they obtain is compromised due to the failure to adhere to our clinical protocols, regulatory requirements, or for other reasons, our clinical trials may be extended, delayed or terminated, and we may not be able to obtain regulatory approval for or successfully commercialize our product candidates. As a result, our financial results and the commercial prospects for our product candidates would be harmed, our costs could increase and our ability to generate revenues could be delayed. Cost overruns by or disputes with our CROs may significantly increase our expenses.

Even if our products receive regulatory approval, they may still face future development and regulatory difficulties.

Even if United States regulatory approval is obtained, the FDA may still impose significant restrictions on a product's indicated uses or marketing or impose ongoing requirements for potentially costly post-approval studies. This governmental oversight may be particularly strict with respect to gene-based therapies. Our products will also be subject to ongoing FDA requirements governing the labeling, packaging, storage, advertising, promotion, record keeping and submission of safety and other post-market information. For example, the FDA strictly regulates the promotional claims that may be made about medical products. In particular, a product may not be promoted for uses that are not approved by the FDA as reflected in the product's approved labeling. However, companies may in certain circumstances share truthful and not misleading information that is otherwise consistent with the product's FDA approved labeling. In addition, manufacturers of drug products and their facilities are subject to continual review and periodic inspections by the FDA and other regulatory authorities for compliance with current good manufacturing practices, or cGMP, regulations. If we or a regulatory agency discover previously unknown problems with a product, such as adverse events of unanticipated severity or frequency, or problems with the facility where the product is manufactured, a regulatory agency may impose restrictions on that product, the manufacturer or us, including requiring withdrawal of the product from the market or suspension of manufacturing. If we, our product candidates or the manufacturing facilities for our product candidates fail to comply with applicable regulatory requirements, a regulatory agency may:

- issue Warning Letters or untitled letters;
- impose civil or criminal penalties;
- suspend regulatory approval;
- suspend any ongoing clinical trials;
- refuse to approve pending applications or supplements to applications filed by us;
- impose restrictions on operations, including costly new manufacturing requirements; or
- seize or detain products or require us to initiate a product recall.

Even if our products receive regulatory approval in the United States, we may never receive approval or commercialize our products outside of the United States.

In order to market any electroporation equipment and product candidates outside of the United States, we must establish and comply with numerous and varying regulatory requirements of other countries regarding safety and efficacy. Approval procedures vary among countries and can involve additional product testing and additional administrative review periods. The time required to obtain approval in other countries might differ from that required to obtain FDA approval. The regulatory approval process in other countries may include all of the risks detailed above regarding FDA approval in the United States as well as other risks. Regulatory approval in one country does not ensure regulatory approval in another, but a failure or delay in obtaining regulatory approval in one country may have a negative effect on the regulatory process in others. Failure to obtain regulatory approval in other countries or any delay or setback in obtaining such approval could have the same adverse effects detailed above regarding FDA approval in the United States. Such effects include the risks that our product candidates may not be approved for all indications requested, which could limit the uses of our product candidates and have an adverse effect on their commercial potential or require costly, post-marketing follow-up studies.

We face potential product liability exposure and, if successful claims are brought against us, we may incur substantial liability.

The use of our electroporation equipment and DNA vaccine, DNA immunotherapy and dMAB candidates in clinical trials and the sale of any products for which we obtain marketing approval expose us to the risk of product liability claims. Product liability claims might be brought against us by consumers, healthcare providers, pharmaceutical companies or others selling or otherwise coming into contact with our 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, and these companies have incurred material costs to defend these claims. If we cannot successfully defend ourselves against product liability claims, we could incur substantial liabilities. In addition, regardless of merit or eventual outcome, product liability claims may result in:

- decreased demand for our product candidates;
- impairment of our business reputation;
- withdrawal of clinical trial participants;
- costs of related litigation;
- distraction of management's attention from our primary business;
- substantial monetary awards to patients or other claimants;

- loss of revenues; and
- inability to commercialize our products.

We have obtained product liability insurance coverage for our clinical trials, but our insurance coverage may not be sufficient to reimburse us for any expenses or losses we may suffer. Moreover, insurance coverage is becoming increasingly expensive, and, in the future, we may not be able to maintain insurance coverage at a reasonable cost or in sufficient amounts to protect us against losses due to liability. On occasion, large judgments have been awarded in class action lawsuits based on products that had unanticipated side effects. A successful product liability claim or series of claims brought against us could cause our stock price to decline and, if judgments exceed our insurance coverage, could adversely affect our business.

We currently have no marketing and sales organization. If we are unable to establish marketing and sales capabilities or enter into agreements with third parties to market and sell our products, we may not be able to generate product revenues.

We currently do not have a sales organization for the marketing, sales and distribution of our electroporation equipment and product candidates. In order to commercialize any products, we must build our marketing, sales, distribution, managerial and other non-technical capabilities or make arrangements with third parties to perform these services. We contemplate establishing our own sales force or seeking third-party partners to sell our products. The establishment and development of our own sales force to market any products we may develop will be expensive and time consuming and could delay any product launch, and we may not be able to successfully develop this capability. We will also have to compete with other pharmaceutical and biotechnology companies to recruit, hire, train and retain marketing and sales personnel. To the extent we rely on third parties to commercialize our approved products, if any, we will receive lower revenues than if we commercialized these products ourselves. In addition, we may have little or no control over the sales efforts of third parties involved in our commercialization efforts. In the event we are unable to develop our own marketing and sales force or collaborate with a third-party marketing and sales organization, we would not be able to commercialize our product candidates which would negatively impact our ability to generate product revenues.

If any of our products for which we receive regulatory approval does not achieve broad market acceptance, the revenues that we generate from their sales will be limited.

The commercial success of our electroporation equipment and product candidates for which we obtain marketing approval from the FDA or other regulatory authorities will depend upon the acceptance of these products by both the medical community and patient population. Coverage and reimbursement of our product candidates by third-party payors, including government payors, generally is also necessary for optimal commercial success. The degree of market acceptance of any of our approved products will depend on a number of factors, including:

- our ability to provide acceptable evidence of safety and efficacy;
- the relative convenience and ease of administration;
- the prevalence and severity of any actual or perceived adverse side effects;
- limitations or warnings contained in a product's FDA-approved labeling, including, for example, potential “black box” warnings
- availability of alternative treatments;
- pricing and cost effectiveness;
- the effectiveness of our or any future collaborators' sales and marketing strategies;
- our ability to obtain sufficient third-party coverage and adequate reimbursement; and
- the willingness of patients to pay out of pocket in the absence of third-party coverage.

If our electroporation equipment and product candidates are approved but do not achieve an adequate level of acceptance by physicians, healthcare payors and patients, we may not generate sufficient revenue from these products, and we may not become or remain profitable. In addition, our efforts to educate the medical community and third-party payors on the benefits of our product candidates may require significant resources and may never be successful.

We are subject to uncertainty relating to coverage and reimbursement policies which, if not favorable to our product candidates, could hinder or prevent our products' commercial success.

Patients in the United States and elsewhere generally rely on third-party payors to reimburse part or all of the costs associated with their prescription drugs and medical treatments. Accordingly, our ability to commercialize our electroporation equipment and product candidates successfully will depend in part on the extent to which governmental authorities, including Medicare and Medicaid, private health insurers and other third-party payors establish appropriate coverage and reimbursement levels for our product candidates and related treatments. As a threshold for coverage and reimbursement, third-party payors generally require that drug products have been approved for marketing by the FDA.

Significant uncertainty exists as to the coverage and reimbursement status of any products for which we may obtain regulatory approval. Coverage decisions may not favor new products when more established or lower cost therapeutic alternatives are already available. Even if we obtain coverage for a given product, the associated reimbursement rate may not be adequate to cover our costs, including research, development, intellectual property, manufacture, sale and distribution expenses, or may require co-payments that patients find unacceptably high. Patients are unlikely to use our products unless reimbursement is adequate to cover all or a significant portion of the cost of our drug products.

Additionally, some of our products, if approved, will be provided under the supervision of a physician. When used in connection with medical procedures, our product candidates may not be reimbursed separately but their cost may instead be bundled as part of the payment received by the provider for the procedure only. Separate reimbursement for the product itself or the treatment or procedure in which our product is used may not be available. A decision by a third-party payor not to cover or separately reimburse for our product candidates or procedures using our product candidates, could reduce physician utilization of our products once approved.

Coverage and reimbursement policies for drug products can differ significantly from payor to payor as there is no uniform policy of coverage and reimbursement for drug products among third-party payors in the United States. There may be significant delays in obtaining coverage and reimbursement as the process of determining coverage and reimbursement is often time consuming and costly which will require us to provide scientific and clinical support for the use of our products to each payor separately, with no assurance that coverage or adequate reimbursement will be obtained. It is difficult to predict at this time what government authorities and third-party payors will decide with respect to coverage and reimbursement for our products.

A significant trend in the U.S. healthcare industry and elsewhere is cost containment. Third-party payors have attempted to control costs by limiting coverage and the amount of reimbursement for particular products and services. Third-party payors are increasingly challenging the effectiveness of and prices charged for medical products and services. Moreover, the U.S. government, state legislatures and foreign governmental entities have shown significant interest in implementing cost containment programs to limit the growth of government paid healthcare costs, including price controls, restrictions on reimbursement and coverage and requirements for substitution of generic products for branded prescription drugs. We may not be able to obtain third-party payor coverage or reimbursement for our products in whole or in part.

Healthcare reform measures could hinder or prevent our products' commercial success.

In both the United States and certain foreign jurisdictions there have been, and we anticipate there will continue to be, a number of legislative and regulatory changes to the healthcare system that could impact our ability to sell any of our products profitably. In the United States, the federal government enacted healthcare reform legislation, the Patient Protection and Affordable Care Act, as amended by the Health Care and Education Reconciliation Act, or collectively, the ACA. Among the ACA's provisions of importance to the pharmaceutical industry are that it:

- imposed an annual excise tax of 2.3% on any entity that manufactures or imports medical devices offered for sale in the United States, with limited exceptions, although the effective rate paid may be lower. Under the Consolidated Appropriations Act of 2016, the excise tax was suspended through December 31, 2017, and under the continuing resolution on appropriations for fiscal year 2018, or 2018 Appropriations Resolution, signed by President Trump on January 22, 2018, was further suspended through December 31, 2019;
- created an annual, nondeductible fee on any entity that manufactures or imports certain specified branded prescription drugs and biologic agents apportioned among these entities according to their market share in some government healthcare programs;
- increased the statutory minimum rebates a manufacturer must pay under the Medicaid Drug Rebate Program, to 23.1% and 13% of the average manufacturer price for most branded and generic drugs, respectively and capped the total rebate amount for innovator drugs at 100% of the Average Manufacturer Price, or AMP;
- created new methodology by which rebates owed by manufacturers under the Medicaid Drug Rebate Program are calculated for certain drugs and biologics that are inhaled, infused, instilled, implanted or injected;
- expanded eligibility criteria for Medicaid programs by, among other things, allowing states to offer Medicaid coverage to additional individuals and by adding new mandatory eligibility categories for individuals with income at or below 133% of the federal poverty level, thereby potentially increasing manufacturers' Medicaid rebate liability;
- expanded the entities eligible for discounts under the Public Health program;
- created a new Patient-Centered Outcomes Research Institute to oversee, identify priorities in, and conduct comparative clinical effectiveness research, along with funding for such research;

- established a Center for Medicare & Medicaid Innovation at the Centers for Medicare & Medicaid Services, or CMS, to test innovative payment and service delivery models to lower Medicare and Medicaid spending, potentially including prescription drug spending that began on January 1, 2011; and
- created a licensure framework for follow on biologic products.

Some of the provisions of the ACA have yet to be implemented, and there have been judicial and Congressional challenges to certain aspects of the ACA, as well as recent efforts by the Trump administration to repeal or replace certain aspects of the ACA. Since January 2017, President Trump has signed two Executive Orders and other directives designed to delay the implementation of certain provisions of the ACA. Concurrently, Congress has considered legislation that would repeal or repeal and replace all or part of the ACA. While Congress has not passed comprehensive repeal legislation, it has enacted laws that modify certain provisions of the ACA such as removing penalties, starting January 1, 2019, for not complying with the ACA's individual mandate to carry health insurance and delaying the implementation of certain ACA-mandated fees. On December 14, 2018, a Texas U.S. District Court Judge ruled that the ACA is unconstitutional in its entirety because the "individual mandate" was repealed by Congress as part of the Tax Cuts and Jobs Act of 2017. While the Texas U.S. District Court Judge, as well as the Trump administration and CMS, have stated that the ruling will have no immediate effect pending appeal of the decision, it is unclear how this decision, subsequent appeals, and other efforts to repeal and replace the ACA will impact the ACA and our business.

In addition, other legislative changes have been proposed and adopted since the ACA was enacted. On August 2, 2011, the Budget Control Act of 2011 was signed into law, which, among other things, included reductions to Medicare payments to providers of 2% per fiscal year, which went into effect on April 1, 2013 and, due to subsequent legislative amendments to the statute will remain in effect through 2027 unless additional Congressional action is taken. On January 2, 2013, the American Taxpayer Relief Act of 2012 was signed into law, which, among other things, reduced Medicare payments to several providers, including hospitals, and increased the statute of limitations period for the government to recover overpayments to providers from three to five years.

Further there has been heightened governmental scrutiny in the United States of pharmaceutical pricing practices in light of the rising cost of prescription drugs and biologics. Such scrutiny has resulted in several recent congressional inquiries and proposed and enacted federal and state legislation designed to, among other things, bring more transparency to product pricing, review the relationship between pricing and manufacturer patient programs, and reform government program reimbursement methodologies for products. For example, the Trump administration released a "Blueprint" to lower drug prices and reduce out of pocket costs of drugs that contains additional proposals to increase drug manufacturer competition, increase the negotiating power of certain federal healthcare programs, incentivize manufacturers to lower the list price of their products, and reduce the out of pocket costs of drug products paid by consumers. On January 31, 2019, the U.S. Department of Health and Human Services, Office of Inspector General, proposed modifications to the federal healthcare program Anti-Kickback Statute discount safe harbor for the purpose of reducing the cost of drug products to consumers which, among other things, if finalized, will affect discounts paid by manufacturers to Medicare Part D plans, Medicaid managed care organizations and pharmacy benefit managers working with these organizations. While some of these and other proposed measures may require additional authorization to become effective, Congress and the Trump administration have each indicated that it will continue to seek new legislative and/or administrative measures to control drug costs.

The continuing efforts of the government, insurance companies, managed care organizations and other payors of healthcare services to make and implement healthcare reforms may adversely affect:

- our ability to set a price we believe is fair for our products;
- our ability to generate revenues and achieve or maintain profitability;
- the availability of capital; and
- our ability to obtain timely approval of our products.

If we fail to comply with applicable healthcare regulations, we could face substantial penalties and our business, operations and financial condition could be adversely affected.

Certain federal, state, local and foreign healthcare laws and regulations pertaining to fraud and abuse, transparency, patients' rights, and privacy are applicable to our business. The laws that may affect our ability to operate include:

- the federal healthcare program Anti-Kickback Statute, which prohibits, among other things, people from soliciting, receiving or providing remuneration, directly or indirectly, to induce or reward either the referral of an individual, or ordering, or leasing of an item, good, facility or service, for which payment may be made by a federal healthcare program such as Medicare or Medicaid. The intent standard under the federal healthcare program Anti-Kickback Statute was amended by the ACA to a stricter standard such that a person or entity does not need to have actual knowledge of the statute or specific intent to violate it in order to have committed a violation. Further, the

ACA codified case law that a claim including items or services resulting from a violation of the federal healthcare program Anti-Kickback Statute constitutes a false or fraudulent claim for purposes of the civil False Claims Act;

- federal civil and criminal false claims laws, including the civil False Claims Act, which prohibit, among other things, individuals or entities from knowingly presenting, or causing to be presented, claims for payment from Medicare, Medicaid, or other third-party payors that are false or fraudulent;
- the federal Health Insurance Portability and Accountability Act of 1996, or HIPAA, which prohibits, among other things, executing a scheme to defraud any healthcare benefit program or making false statements relating to healthcare matters. Similar to the federal healthcare program Anti-Kickback Statute, a person or entity does not need to have actual knowledge of the statute or specific intent to violate it in order to have committed a violation;
- HIPAA, as amended by the Health Information Technology for Economic and Clinical Health Act, and their implementing regulations, which imposes certain requirements relating to the privacy, security and transmission of individually identifiable health information on certain individuals and entities;
- the Physician Payments Sunshine Act, created under the ACA, which requires pharmaceutical companies to record any transfers of value made to doctors and teaching hospitals, as well as ownership and investment interests held by physicians and their immediate family members, and to annually report such data to CMS;
- the Federal Food, Drug, and Cosmetic Act, which among other things, strictly regulates drug product marketing, prohibits manufacturers from marketing drug products for off-label use and regulates the distribution of drug samples;
- the U.S. Foreign Corrupt Practices Act, which, among other things, prohibits companies issuing stock in the U.S. from bribing foreign officials for government contracts and other business;
- state law equivalents of each of the above federal laws, such as anti-kickback and false claims laws which may apply to items or services reimbursed by any third-party payor, including commercial insurers, state and local laws requiring the registration of pharmaceutical sales and medical representatives, and state laws governing the privacy and security of health information in certain circumstances, many of which differ from each other in significant ways and often are not preempted by HIPAA, thus complicating compliance efforts; and
- additional state and local laws such as laws in California and Massachusetts, which mandate implementation of compliance programs, compliance with industry ethics codes, and spending limits, and other state and local laws, such as laws in Vermont, Maine, and Minnesota which require reporting to state governments of gifts, compensation, and other remuneration to physicians.

The shifting regulatory environment, along with the requirement to comply with multiple jurisdictions with different compliance and/or reporting requirements, increases the possibility that a company may run afoul of one or more laws.

We will be required to spend substantial time and money to ensure that our business arrangements with third parties comply with applicable healthcare laws and regulations. Because of the breadth of these laws and the narrowness of the statutory exceptions and regulatory safe harbors available, which require strict compliance in order to offer protection, it is possible that governmental authorities may conclude that our business practices do not comply with current or future statutes, regulations, agency guidance or case law involving applicable healthcare laws. If our operations are found to be in violation of any of the laws described above or any other governmental regulations that apply to us, we may be subject to significant penalties, including administrative, civil and criminal penalties, damages, fines, disgorgement, possible exclusion from participation in Medicare, Medicaid and other federal healthcare programs, imprisonment, integrity and/or other oversight obligations, contractual damages, reputational harm, and the curtailment or restructuring of our operations. Any such penalties could adversely affect our ability to operate our business and our financial results. Any action against us for violation of these laws, even if we successfully defend against it, could cause us to incur significant legal expenses and divert our management's attention from the operation of our business.

If we and the contract manufacturers upon whom we rely fail to produce our electroporation devices and product candidates in the volumes that we require on a timely basis, or at all, or fail to comply with their obligations to us or with stringent regulations, we may face delays in the development and commercialization of our electroporation equipment and product candidates.

We manufacture some components of our electroporation devices and utilize the services of contract manufacturers to manufacture the remaining components of these devices. We also rely on third party contract manufacturers to produce our product candidates for use in our clinical trials and potentially for commercial distribution, if any product candidate is approved by regulatory authorities. The manufacture of these devices and our product candidates requires significant expertise and capital investment, including the development of advanced manufacturing techniques and process controls. Manufacturers often encounter difficulties in production, particularly in scaling up for commercial production. These problems include difficulties with production costs and yields, quality control, including stability of the equipment and product candidates and

quality assurance testing, shortages of qualified personnel, as well as compliance with strictly enforced federal, state and foreign regulations.

If we or our manufacturers were to encounter any of these difficulties or our manufacturers otherwise fail to comply with their obligations to us, our ability to provide our electroporation equipment to our partners and to supply product candidates for clinical trials or to commercially launch a product would be jeopardized. For example, we have in the past relied on VGXI to manufacture DNA plasmids for our product candidates, including our COVID-19 vaccine candidate INO-4800. Due to the urgency of the COVID-19 pandemic, we previously announced our goal of having up to one million doses of INO-4800 available by the end of 2020. VGXI notified us that they would be unable to produce the necessary plasmids to meet this timeline due to a lack of manufacturing capacity. As a result, we have sought to engage additional third-party contract manufacturers to support the large-scale manufacturing of INO-4800. However, there can be no assurance that we will be able to secure this additional manufacturing capacity on commercially reasonable terms, if at all. In addition, VGXI has to date refused to permit the transfer of its proprietary methods and technology to third parties for the potential manufacture of INO-4800, something we believe VGXI is contractually obligated to do under our agreement with them. If we are unable to compel VGXI to provide the requested manufacturing methods, it could impair our ability to effectively engage additional third-party manufacturers or could delay the expected timeline for manufacturing sufficient quantities of INO-4800, either of which would adversely affect our commercialization plans and could also harm our reputation.

Furthermore, any delay or interruption in the supply of clinical trial supplies for INO-4800 or any of our other product candidates could delay the completion of our clinical trials, increase the costs associated with maintaining our clinical trial program and, depending upon the period of delay, require us to commence new trials at significant additional expense or terminate the trials completely.

In addition, all manufacturers of our products must comply with cGMP requirements enforced by the FDA through its facilities inspection program. These requirements include, among other things, quality control, quality assurance and the generation and maintenance of records and documentation. Manufacturers of our products may be unable to comply with these cGMP requirements and with other FDA, state and foreign regulatory requirements. We have little control over our manufacturers' compliance with these regulations and standards. A failure to comply with these requirements may result in fines and civil penalties, suspension of production, suspension or delay in product approval, product seizure or recall, or withdrawal of product approval. If the safety of any product is compromised due to our or our manufacturers' failure to adhere to applicable laws or for other reasons, we may not be able to obtain regulatory approval for or successfully commercialize our products, and we may be held liable for any injuries sustained as a result. Any of these factors could cause a delay of clinical trials, regulatory submissions, approvals or commercialization of our products, entail higher costs or result in our being unable to effectively commercialize our products. Furthermore, if our manufacturers fail to deliver the required commercial quantities on a timely basis, pursuant to provided specifications and at commercially reasonable prices, we may be unable to meet demand for our products and would lose potential revenues.

Our failure to successfully acquire, develop and market additional product candidates or approved products would impair our ability to grow.

We may acquire, in-license, develop and/or market additional products and product candidates. The success of these actions depends partly upon our ability to identify, select and acquire promising product candidates and products.

The process of proposing, negotiating and implementing a license or acquisition of a product candidate or approved product is lengthy and complex. Other companies, including some with substantially greater financial, marketing and sales resources, may compete with us for the license or acquisition of product candidates and approved products. We have limited resources to identify and execute the acquisition or in-licensing of third-party products, businesses and technologies and integrate them into our current infrastructure. Moreover, we may devote resources to potential acquisitions or in-licensing opportunities that are never completed, or we may fail to realize the anticipated benefits of such efforts. We may not be able to acquire the rights to additional product candidates on terms that we find acceptable, or at all.

In addition, future acquisitions may entail numerous operational and financial risks, including:

- exposure to unknown liabilities;
- disruption of our business and diversion of our management's time and attention to develop acquired products or technologies;
- incurrence of substantial debt or dilutive issuances of securities to pay for acquisitions;
- higher than expected acquisition and integration costs;
- increased amortization expenses;
- difficulty and cost in combining the operations and personnel of any acquired businesses with our operations and personnel;

- impairment of relationships with key suppliers or customers of any acquired businesses due to changes in management and ownership; and
- inability to retain key employees of any acquired businesses.

Further, any product candidate that we acquire may require additional development efforts prior to commercial sale, including extensive clinical testing and approval by the FDA and applicable foreign regulatory authorities. All product candidates are prone to risks of failure typical of product development, including the possibility that a product candidate will not be shown to be sufficiently safe and effective for approval by regulatory authorities.

Our business involves the use of hazardous materials and we and our third-party manufacturers must comply with environmental laws and regulations, which can be expensive and restrict how we do business.

Our and our third-party manufacturers' activities involve the controlled storage, use and disposal of hazardous materials, including the components of our product candidates and other hazardous compounds. We and our manufacturers are subject to federal, state and local laws and regulations governing the use, manufacture, storage, handling and disposal of these hazardous materials. In the event of an accident, state or federal authorities may curtail the use of these materials and interrupt our business operations. If we are subject to any liability as a result of our or our third-party manufacturers' activities involving hazardous materials, our business and financial condition may be adversely affected.

Our results of operations and liquidity needs could be materially affected by market fluctuations and general economic conditions.

Our results of operations could be materially affected by economic conditions generally, both in the United States and elsewhere around the world. Concerns over inflation, energy costs, geopolitical issues, global pathogen outbreaks or pandemics, including COVID-19, and the availability and cost of credit have in the past and may continue to contribute to increased volatility and diminished expectations for the economy and the markets going forward. Market upheavals may have an adverse effect on us. In the event of a market downturn, our results of operations could be adversely affected. Our future cost of equity or debt capital and access to the capital markets could be adversely affected, and our stock price could decline. There may be disruption in or delay in the performance of our third-party contractors and suppliers. If our contractors, suppliers and partners are unable to satisfy their contractual commitments, our business could suffer. In addition, we maintain significant amounts of cash and cash equivalents at one or more financial institutions that are in excess of federally insured limits, and we may experience losses on these deposits.

We are dependent on information technology and our systems and infrastructure face certain risks, including from cybersecurity breaches and data leakage.

We rely to a large extent upon sophisticated information technology systems to operate our businesses, some of which are managed, hosted provided and/or used for third-parties or their vendors. We collect, store and transmit large amounts of confidential information, and we deploy and operate an array of technical and procedural controls to maintain the confidentiality and integrity of such confidential information. A significant breakdown, invasion, corruption, destruction or interruption of critical information technology systems or infrastructure, by our workforce, others with authorized access to our systems or unauthorized persons could negatively impact operations. The ever-increasing use and evolution of technology, including cloud-based computing, creates opportunities for the unintentional dissemination or intentional destruction of confidential information stored in our or our third-party providers' systems, portable media or storage devices. We could also experience a business interruption, theft of confidential information or reputational damage from industrial espionage attacks, malware or other cyber-attacks, which may compromise our system infrastructure or lead to data leakage, either internally or at our third-party providers. While we have invested in the protection of data and information technology, there can be no assurance that our efforts will prevent service interruptions or security breaches. Any such interruption or breach of our systems could adversely affect our business operations and/or result in the loss of critical or sensitive confidential information or intellectual property, and could result in financial, legal, business and reputational harm to us.

Changes in tax laws could adversely affect our business and financial condition.

In December 2017, the Tax Cuts and Jobs Act of 2017 was enacted, which significantly revised the Internal Revenue Code of 1986, as amended, or the Code. The new federal income tax law, among other things, contains significant changes to corporate taxation, including reduction of the corporate tax rate from a top marginal rate of 35 percent to a flat rate of 21 percent, limitation of the tax deduction for interest expense to 30 percent of adjusted earnings (except for certain small businesses), limitation of the deduction for net operating losses to 80 percent of current-year taxable income and elimination of net operating loss carrybacks, one time taxation of offshore earnings at reduced rates regardless of whether they are repatriated, immediate deductions for certain new investments instead of deductions for depreciation expense over time, and modifying or repealing many business deductions and credits (including reducing the business tax credit for certain clinical testing expenses incurred in the testing of certain drugs for rare diseases or conditions). Notwithstanding the reduction in the

corporate income tax rate, the overall impact of the federal tax law is uncertain and our business and financial condition could be adversely affected. In addition, it is uncertain if and to what extent various states will conform to the federal tax law.

Changes in funding for the FDA and other government agencies could hinder our ability to hire and retain key leadership and other personnel, or otherwise prevent new products from being developed or commercialized in a timely manner, which could negatively impact our business.

The ability of the FDA to review and approve new products can be affected by a variety of factors, including government budget and funding levels, ability to hire and retain key personnel and accept the payment of user fees, and statutory, regulatory, and policy changes. Average review times at the agency have fluctuated in recent years as a result. In addition, government funding of other government agencies that fund research and development activities is subject to the political process, which is inherently fluid and unpredictable.

Disruptions at the FDA and other agencies may also slow the time necessary for new drugs to be reviewed and/or approved by necessary government agencies, which would adversely affect our business. For example, over the last several years, including for 35 days beginning on December 22, 2018, the U.S. government has shut down several times and certain regulatory agencies, such as the FDA, have had to furlough critical FDA employees and stop critical activities. If a prolonged government shutdown occurs, it could significantly impact the ability of the FDA to timely review and process our regulatory submissions, which could have a material adverse effect on our business.

Risks Related to Our Intellectual Property

It is difficult and costly to generate and protect our intellectual property and our proprietary technologies, and we may not be able to ensure their protection.

Our commercial success will depend in part on obtaining and maintaining patent, trademark, trade secret, and other intellectual property protection relating to our electroporation equipment and product candidates, as well as successfully defending these intellectual property rights against third-party challenges.

The patent positions of pharmaceutical and biotechnology companies can be highly uncertain and involve complex legal and factual questions for which important legal principles remain unresolved. The laws and regulations regarding the breadth of claims allowed in biotechnology patents have evolved over recent years and continues to undergo review and revision, both in the United States and abroad. The biotechnology patent situation outside the United States can be even more uncertain depending on the country. Changes in either the patent laws or in interpretations of patent laws in the United States and other countries may diminish the value of our intellectual property. Accordingly, we cannot predict the breadth of claims that may be allowed or enforced in our licensed patents, our patents or in third-party patents, nor can we predict the likelihood of our patents surviving a patent validity challenge.

The degree of future protection for our intellectual property rights is uncertain, because legal decision-making can be unpredictable, thereby often times resulting in limited protection, which may not adequately protect our rights or permit us to gain or keep our competitive advantage, or resulting in an invalid or unenforceable patent. For example:

- we, or the parties from whom we have acquired or licensed patent rights, may not have been the first to file the underlying patent applications or the first to make the inventions covered by such patents;
- the named inventors or co-inventors of patents or patent applications that we have licensed or acquired may be incorrect, which may give rise to inventorship and ownership challenges;
- others may develop similar or alternative technologies, or duplicate any of our products or technologies that may not be covered by our patents, including design-arounds;
- pending patent applications may not result in issued patents;
- the issued patents covering our products and technologies may not provide us with any competitive advantages or have any commercial value;
- the issued patents may be challenged and invalidated, or rendered unenforceable;
- the issued patents may be subject to reexamination, which could result in a narrowing of the scope of claims or cancellation of claims found unpatentable;
- we may not develop or acquire additional proprietary technologies that are patentable;
- our trademarks may be invalid or subject to a third party's prior use; or
- our ability to enforce our patent rights will depend on our ability to detect infringement, and litigation to enforce patent rights may not be pursued due to significant financial costs, diversion of resources, and unpredictability of a favorable result or ruling.

We depend, in part, on our licensors and collaborators to protect a portion of our intellectual property rights. In such cases, our licensors and collaborators may be primarily or wholly responsible for the maintenance of patents and prosecution of patent applications relating to important areas of our business. If any of these parties fail to adequately protect these products with issued patents, our business and prospects would be harmed significantly.

We also may rely on trade secrets to protect our technology, especially where we do not believe patent protection is appropriate or obtainable. However, trade secrets are difficult to protect. Although we use reasonable efforts to protect our trade secrets, our employees, consultants, contractors, outside scientific collaborators and other advisors may unintentionally or willfully disclose our trade secrets to competitors. Enforcing a claim that a third-party entity illegally obtained and is using any of our trade secrets is expensive and time consuming, and the outcome is unpredictable. In addition, courts outside the United States are sometimes less willing to protect trade secrets. Moreover, our competitors may independently develop equivalent knowledge, methods and know-how.

If we or our licensors fail to obtain or maintain patent protection or trade secret protection for our product candidates or our technologies, third parties could use our proprietary information, which could impair our ability to compete in the market and adversely affect our ability to generate revenues and attain profitability.

From time to time, U.S. and other policymakers have proposed reforming the patent laws and regulations of their countries. In September 2011 the America Invents Act (the Act) was signed into law. The Act changed the current “first-to-invent” system to a system that awards a patent to the “first-inventor-to-file” for an application for a patentable invention. The Act also created a procedure to challenge newly issued patents in the patent office via post-grant proceedings and new inter parties reexamination proceedings. These changes may make it easier for competitors to challenge our patents, which could result in increased competition and have a material adverse effect on our product sales, business and results of operations. The changes may also make it harder to challenge third-party patents and place greater importance on being the first inventor to file a patent application on an invention.

If we are sued for infringing intellectual property rights of third parties, it will be costly and time-consuming, and an unfavorable outcome in that litigation would have a material adverse effect on our business.

Other companies may have or may acquire intellectual property rights that could be enforced against us. If they do so, we may be required to alter our technologies, pay licensing fees or cease activities. If our products or technologies infringe the intellectual property rights of others, they could bring legal action against us or our licensors or collaborators claiming damages and seeking to enjoin any activities that they believe infringe their intellectual property rights.

Because patent applications can take many years to issue, and there is a period when the application remains undisclosed to the public, there may be currently pending applications unknown to us or reissue applications that may later result in issued patents upon which our products or technologies may infringe. There could also be existing patents of which we are unaware that our products or technologies may infringe. In addition, if third parties file patent applications or obtain patents claiming products or technologies also claimed by us in pending applications or issued patents, we may have to participate in interference or derivation proceedings in the United States Patent and Trademark Office to determine priority or derivation of the invention. If third parties file oppositions in foreign countries, we may also have to participate in opposition proceedings in foreign tribunals to defend the patentability of our filed foreign patent applications.

If a third party claims that we infringe its intellectual property rights, it could cause our business to suffer in a number of ways, including:

- we may become involved in time-consuming and expensive litigation, even if the claim is without merit, the third party's patent is invalid or we have not infringed;
- we may become liable for substantial damages for past infringement if a court decides that our technologies infringe upon a third party's patent;
- we may be enjoined by a court to stop making, selling or licensing our products or technologies without a license from a patent holder, which may not be available on commercially acceptable terms, if at all, or which may require us to pay substantial royalties or grant cross-licenses to our patents; and
- we may have to redesign our products so that they do not infringe upon others' patent rights, which may not be possible or could require substantial investment or time.

If any of these events occur, our business could suffer and the market price of our common stock may decline.

Risks Related to Our Common Stock

An active trading market for our common stock may not be sustained.

Although our common stock is listed on the Nasdaq Global Select Market, we cannot assure you that an active trading market for our shares will continue to be sustained. If an active market for our common stock is not sustained, it may be difficult for investors in our common stock to sell shares without depressing the market price for the shares or to sell the shares at all.

The price of our common stock may be volatile, and an investment in our common stock could decline substantially in value.

In light of our small size and limited resources, as well as the uncertainties and risks that can affect our business and industry, our stock price may be highly volatile and can be subject to substantial drops, with or even in the absence of news affecting our business. Period to period comparisons are not indicative of future performance. The following factors, in addition to the other risk factors described in this report, and the potentially low volume of trades in our common stock, may have a significant impact on the market price of our common stock, some of which are beyond our control:

- developments concerning any research and development, clinical trials, manufacturing, and marketing efforts or collaborations, particularly developments concerning the prospects of INO-4800 as a potential vaccine candidate against COVID-19;
- fluctuating public or scientific interest in the potential for COVID-19 and other pandemic or other applications for our vaccine or other product candidates;
- our announcement of significant acquisitions, strategic collaborations, joint ventures or capital commitments;
- fluctuations in our operating results;
- announcements of technological innovations;
- new products or services that we or our competitors offer;
- changes in the structure of healthcare payment systems;
- the initiation, conduct and/or outcome of intellectual property and/or litigation matters;
- changes in financial or other estimates by securities analysts or other reviewers or evaluators of our business;
- conditions or trends in bio-pharmaceutical or other healthcare industries;
- regulatory developments in the United States and other countries;
- negative perception of gene-based therapy;
- changes in the economic performance and/or market valuations of other biotechnology and medical device companies;
- additions or departures of key personnel;
- sales or other transactions involving our common stock;
- changes in our capital structure;
- sales or other transactions by executive officers or directors involving our common stock;
- changes in accounting principles;
- global unrest, terrorist activities, and economic and other external factors; and
- catastrophic weather and/or global disease pandemics, such as the recent COVID-19 outbreak.

The stock market in general has recently experienced relatively large price and volume fluctuations, particularly in response to the COVID-19 outbreak during 2020. In particular, the market prices of securities of smaller biotechnology and medical device companies have experienced dramatic fluctuations that often have been unrelated or disproportionate to the operating results of these companies. Continued market fluctuations could result in extreme volatility in the price of our common stock, which could cause a decline in the value of our common stock. In addition, price volatility may increase if the trading volume of our common stock remains limited or declines.

If equity research analysts do not publish research or reports, or publish unfavorable research or reports, about us, our business or our market, our stock price and trading volume could decline.

The trading market for our common stock is influenced by the research and reports that equity research analysts publish about us and our business, and we have limited research coverage by equity research analysts. Equity research analysts may elect not to initiate or continue to provide research coverage of our common stock, and such lack of research coverage may adversely affect the market price of our common stock. Even if we have equity research analyst coverage, we will not have

any control over the analysts or the content and opinions included in their reports. The price of our stock could decline if one or more equity research analysts downgrade our stock or issue other unfavorable commentary or research. If one or more equity research analysts ceases coverage of our company or fails to publish reports on us regularly, demand for our stock could decrease, which in turn could cause our stock price or trading volume to decline.

The issuance of additional stock in connection with financings, acquisitions, investments, our stock incentive plans or otherwise will dilute all other stockholders.

Our certificate of incorporation authorizes us to issue up to 600,000,000 shares of common stock and up to 10,000,000 shares of preferred stock with such rights and preferences as may be determined by our board of directors. Subject to compliance with applicable rules and regulations, we may issue our shares of common stock or securities convertible into our common stock from time to time in connection with a financing, acquisition, investment, our stock incentive plans or otherwise. Any such issuance could result in substantial dilution to our existing stockholders and cause the trading price of our common stock to decline.

Anti-takeover provisions under our charter documents and Delaware law could delay or prevent a change of control which could limit the market price of our common stock.

Our amended and restated certificate of incorporation contains provisions that could delay or prevent a change of control of our company or changes in our board of directors that our stockholders might consider favorable. Some of these provisions include:

- the authority of our board of directors to issue shares of undesignated preferred stock and to determine the rights, preferences and privileges of these shares, without stockholder approval;
- all stockholder actions must be effected at a duly called meeting of stockholders and not by written consent; and
- the elimination of cumulative voting.

In addition, we are governed by the provisions of Section 203 of the Delaware General Corporate Law, which may prohibit certain business combinations with stockholders owning 15% or more of our outstanding voting stock. These and other provisions in our amended and restated certificate of incorporation, amended and restated bylaws and Delaware law could make it more difficult for stockholders or potential acquirers to obtain control of our board of directors or initiate actions that are opposed by the then-current board of directors, including to delay or impede a merger, tender offer or proxy contest involving our company. Any delay or prevention of a change of control transaction or changes in our board of directors could cause the market price of our common stock to decline.

We have never paid cash dividends on our common stock and we do not anticipate paying dividends in the foreseeable future.

We have paid no cash dividends on our common stock to date, and we currently intend to retain our future earnings, if any, to fund the development and growth of our business. In addition, the terms of any future debt or credit facility may preclude or limit our ability to pay any dividends. As a result, capital appreciation, if any, of our common stock will be the sole source of potential gain for the foreseeable future.

We incur significant costs and demands upon management as a result of being a public company.

As a public company listed in the United States, we incur significant legal, accounting and other costs that could negatively affect our financial results. In addition, changing laws, regulations and standards relating to corporate governance and public disclosure, including regulations implemented by the SEC and stock exchanges, may increase legal and financial compliance costs and make some activities more time-consuming. These laws, regulations and standards are subject to varying interpretations and, as a result, their application in practice may evolve over time as new guidance is provided by regulatory and governing bodies. We intend to invest resources to comply with evolving laws, regulations and standards, and this investment may result in increased general and administrative expenses and a diversion of management's time and attention from revenue-generating activities to compliance activities. If notwithstanding our efforts to comply with new laws, regulations and standards, we fail to comply, regulatory authorities may initiate legal proceedings against us and our business may be harmed.

Failure to comply with these rules might also make it more difficult for us to obtain some types of insurance, including director and officer liability insurance, and we might be forced to accept reduced policy limits and coverage or incur substantially higher costs to obtain the same or similar coverage. The impact of these events could also make it more difficult for us to attract and retain qualified persons to serve on our board of directors, on committees of our board of directors or as members of senior management.

ITEM 2. UNREGISTERED SALES OF EQUITY SECURITIES AND USE OF PROCEEDS

Not applicable.

ITEM 3. DEFAULTS UPON SENIOR SECURITIES

Not applicable.

ITEM 4. MINE SAFETY DISCLOSURES

Not applicable.

ITEM 5. OTHER INFORMATION

Not applicable.

ITEM 6. EXHIBITS

(a) Exhibits

<u>Exhibit Number</u>	<u>Description of Document</u>
10.1	Other Transaction Authority For Prototype Agreement dated June 22, 2020 between Inovio Pharmaceuticals, Inc. and Natick Contracting Division (filed herewith).#
10.2	Award Agreement dated June 18, 2020 between Inovio Pharmaceuticals, Inc. and Natick Contracting Division (filed herewith).#
31.1	Certification of Chief Executive Officer Pursuant to Item 601(b)(31) of Regulation S-K, as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002 (filed herewith).
31.2	Certification of Chief Financial Officer Pursuant to Item 601(b)(31) of Regulation S-K, as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002 (filed herewith).
32.1	Certification of the Chief Executive Officer and Chief Financial Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 (furnished herewith).*
101.INS	XBRL Instance Document (the instance document does not appear in the Interactive Data File because its XBRL tags are embedded within the Inline XBRL document).
101.SCH	Inline XBRL Taxonomy Extension Schema Document
101.CAL	Inline XBRL Taxonomy Extension Calculation Linkbase Document.
101.DEF	Inline XBRL Taxonomy Extension Definition Linkbase Document.
101.LAB	Inline XBRL Taxonomy Extension Label Linkbase Document.
101.PRE	Inline XBRL Taxonomy Extension Presentation Linkbase Document.
104	Cover Page Interactive Data File (formatted as Inline XBRL and contained in Exhibit 101)

- * This exhibit shall not be deemed “filed” for purposes of Section 18 of the Securities Exchange Act of 1934 or otherwise subject to the liabilities of that section, nor shall it be deemed incorporated by reference in any filing under the Securities Act of 1933, as amended, or the Securities Exchange Act of 1934, as amended, whether made before or after the date hereof and irrespective of any general incorporation language in any filings.
- # Pursuant to Item 601(b)(10)(iv) of Regulation S-K promulgated by the SEC, certain portions of this exhibit have been redacted because such portions, indicated by asterisks, are both not material and would likely cause competitive harm to the Registrant if publicly disclosed. The Registrant hereby agrees to furnish supplementally to the SEC, upon its request, an unredacted copy of this exhibit.

INOVIO PHARMACEUTICALS, INC.

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

Inovio Pharmaceuticals, Inc.

Date: August 10, 2020

By /s/ J. JOSEPH KIM
J. Joseph Kim
President, Chief Executive Officer and Director (On Behalf of the Registrant)

Date: August 10, 2020

By /s/ PETER KIES
Peter Kies
Chief Financial Officer (Principal Financial and Accounting Officer)

CERTAIN CONFIDENTIAL PORTIONS OF THIS EXHIBIT HAVE BEEN OMITTED AND REPLACED WITH “[*]”. SUCH IDENTIFIED INFORMATION HAS BEEN EXCLUDED FROM THIS EXHIBIT BECAUSE IT (I) IS NOT MATERIAL AND (II) WOULD LIKELY CAUSE COMPETITIVE HARM TO THE COMPANY IF DISCLOSED.**

OTHER TRANSACTION AUTHORITY FOR PROTOTYPE AGREEMENT

BETWEEN

**Inovio Pharmaceuticals, Inc. (Awardee) 660 W Germantown Pike Ste 110 Plymouth Meeting, PA,
19462-1111**

And

**NATICK CONTRACTING DIVISION (Government)
110 Thomas Johnson Dr. Frederick, MD 21702**

Effective Date: 22 June 2020 Agreement No.: [*]**

Total Amount of the Agreement: \$[*]**

Awardee

Government

/s/ J. Joseph Kim

/s/ Lawrence Mize

Signature

Signature

J. Joseph Kim

Lawrence Mize

Printed Name

Printed Name

CEO

Agreement Officer

Title

Title

6/20/2020

6/20/2020

Date

Date

¹ Appendices and schedules have been omitted pursuant to Item 601(a)(5) of Regulation S-K and will be furnished on a supplemental basis to the Securities and Exchange Commission upon request.

This Other Transaction Authority for Prototype Agreement is entered into between the United States of America, hereinafter called the "Government", pursuant to and under U.S. Federal law, and Inovio Pharmaceuticals, Inc. a small business, non-traditional defense contractor, hereinafter called the "Awardee". The United States of America and Awardee are sometimes referred to herein individually as a "Party" and collectively as the "Parties."

WHEREAS, the Awardee is eligible for an Other Transaction Authority for Prototype Agreement in accordance with 10 USC § 2371b(d) (1)(A) as amended by the National Defense Authorization Act for Fiscal Year 2018 as they are non-traditional defense contractor;

WHEREAS, in accordance with 10 U.S.C. 2371b, The Department of Defense currently has authority to award "other transactions" (OTs) in certain circumstances for prototype projects that are directly relevant to enhancing the mission effectiveness of military personnel and the supporting platforms, systems, components, or materials proposed to be acquired or developed by the Department of Defense, or to improvement of platforms, systems, components, or materials in use by the Armed Forces. To the maximum extent practicable, competitive procedures shall be used when entering into agreements to carry out projects under subsection (a);

WHEREAS, the parties are developing a prototype only for use with Inovio's approved products and under Inovio's regulatory filings, whereby such prototype can generally be described as a proof of concept, model, reverse engineering to address obsolescence, pilot, novel application of commercial technologies for defense purposes, agile development activity, creation, design, development, demonstration of technical or operational utility, or combinations of the foregoing;

WHEREAS, this Agreement meets the criteria for a prototype project; NOW THEREFORE, the Parties have agreed as follows:

ARTICLE 1. Scope.

This Other Transaction Authority for Prototypes Agreement (the "Agreement") is entered into between the Government and the Awardee on the Effective Date set forth above. For the avoidance of doubt, this Agreement is entered into pursuant to 10 U.S.C. § 2371b and is not a procurement contract governed by the Federal Acquisition Regulation (FAR), a grant, or cooperative agreement. The FAR and the Defense Federal Acquisition Regulation Supplement (DFARS) apply only as specifically referenced herein. This Agreement is not intended to be, nor will it be construed as, forming, by implication or otherwise, a partnership, a corporation, or other business organization. This Agreement is not subject to the Bayh-Dole Act, 35 U.S.C. §§ 200- 12.

B. The Parties agree that the sole purpose of this Agreement is for the development of an FDA approved next generation electroporation device and array for DNA Vaccine delivery of INO-4800 against COVID-19, with demonstrated capability to be produced at a large scale, as well as full automation for production of the device arrays, (hereinafter referred to as the "Prototype Project"). The Awardee shall develop the Prototype as described in the Awardee's Statement of Work (SOW), which is incorporated herein and attached hereto as Appendix A. For purposes of clarity, this Agreement does not contemplate Government use of the Prototype while it is an investigational device. Any subsequent Government purchase of the Prototype or the FDA-cleared device, including a follow-on contracting action under 10 USC 2371b(f), shall specify the terms of Government use, which shall be conducted

under Inovio's regulatory filings or under the terms of the FDA's clearance and consistent with the product labeling. No further use is permitted without Inovio's explicit prior written consent, whereby any such permitted use shall be negotiated by the parties and subject to a future agreement.

C. The prototype will be deemed successful where the Awardee's efforts meet the key technical requirements and are sufficient to meet an FDA compliant final report(s) that supports the completion of a human clinical trial(s). Follow on production pursuant to 10 USC 2371b is anticipated to be [***], which the Parties agree to negotiate such terms in good faith pursuant to a separate agreement.

ARTICLE 2. Term and Termination.

A. Term: The Term of this Agreement commences upon the Effective Date and extends through final payment. This Agreement is anticipated to end [***], subject to completion of the project(s). A transaction for a prototype project is complete upon the written determination of the appropriate official for the matter in question that efforts conducted under a Prototype OT: (1) met the key technical goals of a project, or (2) accomplished a particularly favorable or unexpected result that justifies the completion of the prototype.

B. Termination for Convenience: The Government may terminate this Agreement for any or no reason by providing at least thirty (30) calendar days' prior written notice to the Awardee. The Government and Awardee will negotiate in good faith a reasonable and timely adjustment of all outstanding issues between the Parties as a result of termination by the Government for convenience, consistent with the terms of this Agreement.

C. Termination for Cause: If the Awardee materially fails to comply with the provisions of this Agreement, the Other Transaction Agreement Officer (OTAO), after issuance of a cure notice and failure of the Awardee to cure the defect within ten (10) business days or the time allowed by the OTAO after Awardee's receipt of the cure notice, whichever is longer, may take one or more of the following actions as appropriate:

- i. temporarily withhold payments pending correction of the deficiency,
- ii. disallow all or part of the cost of the activity or action not in compliance,
- iii. wholly or partly suspend or terminate this Agreement,
- iv. withhold further funding,
- v. require Awardee to pay repurchase costs as defined in Article 2C1, Repurchase Against vi. Contractors Account, or
- vi. take any other legally available remedies.

1. Repurchase Against Contractors Account.

a. When the Prototype is still required after termination, the AO shall repurchase the same or a similar prototype against the Contractor's account as soon as practicable. The AO shall repurchase at as reasonable a price as practicable, considering the quality and delivery requirements. The AO may repurchase a quantity in excess of the undelivered quantity terminated for cause when the excess quantity is needed, but excess cost may not be charged against the

Contractor for more than the undelivered quantity terminated for cause (including variations in quantity). The AO will make a decision whether or not to repurchase before issuing the termination notice.

If repurchase is made at a price over the price of the Prototype terminated, the AO shall, after completion and final payment of the repurchase contract or agreement, make written demand on the Contractor for the total amount of the excess, giving consideration to any increases or decreases in other costs such as transportation, discounts, etc. If the Contractor fails to make payment, the AO shall follow the procedures in FAR subpart 32.6 for collecting contract debts due the Government.

b. If this Agreement is terminated for Cause, Awardee will grant the Government a non-exclusive, paid up, license to the Awardee and subawardee patents and documentation necessary for the purpose of developing the Prototype solely for use with the INO-4800 product for COVID-19 and shall only be conducted under Inovio's regulatory filings and solely for the pandemic period as applicable in the United States. No further use is permitted without Inovio's explicit prior written consent, whereby any such permitted use shall be negotiated by the parties and subject to a future agreement. The Awardee shall provide the Government or its designee with a non-exclusive, paid up, license to any patent, copyright, technical data or regulatory information held by the Awardee that relates to the technology to permit the Government to pursue commercialization of the technology with a third party solely for use with the INO-4800 product for COVID-19 and shall only be conducted under Inovio's regulatory filings and solely for the pandemic period as applicable in the United States. No further use is permitted without Inovio's explicit prior written consent, whereby any such permitted use shall be negotiated by the

parties and subject to a future agreement, on terms to be agreed between the Parties and subject to rights granted or held by third parties. The terms of this section and the obligations herein will be included in any exclusive license given by the Awardee to a third party for any intellectual property covered by this Agreement, on terms to be agreed between Awardee and such third party. This clause will survive the acquisition or merger of the Awardee by or with a third party.

Notwithstanding this Article 2.C, the Government's rights and Awardee's obligations under this paragraph will cease to exist if the Government terminates this Agreement for any reason other than for Awardee's failure to materially comply with the terms of this Agreement.

D. Survival: In the event of Termination, all rights, obligations, and duties hereunder, which by their nature or by their express terms extend beyond the expiration or termination of this Agreement, including but not limited to warranties, indemnifications, intellectual property (including rights to and protection of Intellectual Property and Proprietary Information), and product support obligations shall survive the expiration or termination of this Agreement.

ARTICLE 3. Project Management.

A. Program Governance: The Awardee is responsible for the overall management of the project development program and related program decisions. The Government will have continuous involvement with the Awardee. The Awardee shall provide access to project results in accordance with the Awardee's Project Timeline located in Appendix A.

B. Project Managers: The Awardee and the Government will each designate a Project Manager responsible for facilitating the communications, reporting, and meetings between the Parties. Each Party will also designate an alternate to the Project Manager, in case the primary Project Manager is unavailable. See Project Manager/Alternate Project Manager point of contact information for each respective party below:

Awardee Project Managers

Primary Project Manager:	Alternate Project Manager:

Government Project Managers (GPM)

Primary Project Manager:	Alternate Project Manager:
***	***
***	***
***	***

C. Key Personnel: The Awardee's organization shall be established with authority to effectively develop the Prototype. This organization shall become effective upon execution of this Agreement and its integrity shall be maintained until completion or acceptance of the effort by the Government. The key personnel listed in Appendix C are considered to be critical to the successful performance of this Agreement. Prior to replacing these key personnel, the Awardee shall provide written notification to the OTAO. The Awardee shall demonstrate that the qualifications of the proposed substitute personnel are generally equivalent to or better than the qualifications of the personnel being replaced.

D. Subaward Approval: Modifications to subawards and/or new subcontracts under this Agreement after the Effective Date that could reasonably impact the technical approach proposed and accepted by the Government require the approval of the OTAO prior to being executed.

E. The OTAO has assigned an Agreements Officer's Representative (AOR) for this agreement. The Awardee will receive a copy of the written designation outlining the roles and responsibilities of the AOR and specifying the extent of the AOR's authority to act on behalf of the OTAO. The AOR is not authorized to make any commitments or changes that will affect price, quality, quantity, delivery, or any other term or

condition of the contract.

ARTICLE 4. Agreement Administration.

In no event shall any understanding or agreement, modification, change order, or other matter in deviation from the terms of this Agreement between the Awardee and a person other than the OTAO be effective or binding upon the Government. All such actions must be formalized by a proper contractual document executed by the OTAO.

Government Representatives:

Other Transaction Agreements Officer [***]

[***]
[***]
[***]
[***]
[***]
[***]
[***]

Other Transaction Agreement Specialist [***]

[***]
[***]
[***]
[***]
[***]
[***]
[***]

Agreements Officer’s Representative [***]

[***]
[***]
[***]
[***]
[***]
[***]
[***]

Awardee Representatives:

[***]
[***]
[***]

ARTICLE 5. Performance Objectives and Changes.

- A. Statement of Work (SOW): The SOW, Appendix A, describes the scope of activities that will be undertaken by the Awardee to achieve the objective.
 - B. Recommendations for Modifications: At any time during the term of this Agreement, progress or results may indicate that a change in the SOW would be beneficial to the project objectives. Recommendations for modifications, including justifications to support any changes to the SOW, will be documented in a letter and submitted by Awardee to the GPM with a copy to the OTAO. This letter will detail the technical, chronological and financial impact, if any, of the proposed modification to the project. Any resultant modification is subject to the mutual agreement of the Parties. The Government is not obligated to pay for additional or revised costs unless and until this Agreement is formally revised by the OTAO and made part of this Agreement. Any modification to this Agreement to account for recommended changes in the SOW or Payable Milestones will be considered a supplemental agreement.
 - C. Review of Recommendations: The OTAO will be responsible for the review and verification of any recommendations to revise or otherwise modify the Agreement, the SOW, the milestone payments, or other proposed changes to the terms and conditions of this Agreement.
 - D. Minor Modifications: The Government may make minor or administrative Agreement modifications unilaterally (e.g., changes in the paying office or appropriation data, changes to Awardee personnel proposed by Awardee, etc.).
 - E. Amending the Agreement: The Government will be responsible for effecting all modifications to this Agreement, with the concurrence of the Awardee for modifications that are not minor or administrative. Administrative and material matters under this Agreement will be referred to OTAO.
-

- F. Modification Communications: No other communications, whether oral or in writing, that purport to change this Agreement are valid.
- G. Government Property: If applicable, terms and conditions applicable to Government Property shall be incorporated through Appendix D.
- E. Disputes: For any disagreement, claim, or dispute arising under this Agreement, the parties shall communicate with one another in good faith and in a timely and cooperative manner. Whenever disputes, disagreements, or misunderstandings arise, the parties shall attempt to resolve the issue by discussion and mutual agreement as soon as practicable. Failing resolution by mutual agreement, the aggrieved party shall request a resolution in writing from the OTAO. The OTAO will review the matter and render a decision in writing within sixty (60) calendar days. Thereafter, either party may pursue any right or remedy provided by law in a court of competent jurisdiction as authorized by 28 U.S.C. 1491. Alternately, the parties may agree by mutual consent to explore and establish an Alternate Disputes Resolution procedure to resolve this dispute. The Awardee shall proceed diligently with performance under this agreement pending resolution of the dispute.

ARTICLE 6. Inspection/Acceptance

- A. Inspection: The Government has the right to inspect and test all work called for by this Agreement, to the extent practicable at all places and times, including the period of performance, and in any event before acceptance. The Government may also inspect the premises of the Awardee or any subawardee engaged in performance. The Government shall perform inspections and tests in a manner that will not unduly delay the work. If the Government performs any inspection or test on the premises of the Awardee or a subawardee, the Awardee shall furnish and shall require subawardees to furnish, at no increase in price, all reasonable facilities and assistance for the safe and convenient performance of these duties. Except as otherwise provided in the Agreement, the Government shall bear the expense of Government inspections or tests made at other than the Awardee's or subawardee's premises.
- B. The Government shall inspect/accept or reject the work as promptly as practicable after completion/delivery, unless otherwise specified in the Agreement. Government failure to inspect and accept or reject the work shall not relieve the Awardee from responsibility, nor impose liability on the Government, for nonconforming work. Work is nonconforming when it is defective in material or workmanship or is otherwise not in conformity with Agreement requirements. The Government has the right to reject nonconforming work. Inspection/Acceptance of the Prototype performed should not exceed 90 days after completion
-

ARTICLE 7. Financial Matters

- A. This Agreement is an expenditure type Other Transaction Authority agreement. The payments provided under this Agreement are intended to compensate the Awardee on a cost basis for performance under this Agreement. The Awardee shall provide its best efforts to complete a prototype project based on the estimated cost. Payments are based on amounts generated from the Awardee's financial or cost records.
- B. Payment. Payments are based on amounts generated from the Awardee's financial or cost records. The Awardee shall be reimbursed for each element identified in the awarded cost proposal, executed and accomplished in accordance with the performance schedule set forth in Appendix B. The schedule is predicated upon the Government's fiscal year, which begins on October 1 of each year, and ends on September 30 of the subsequent calendar year.
- C. Obligation. Under no circumstances shall the Government's financial obligation exceed the amount obligated in this Agreement or by amendment to the Agreement. The amount of Government funds obligated by this Agreement and available for payment is set forth in the supplemental PD2 version of the agreement, and any subsequent modifications. The Government may incrementally fund this agreement.
- D. The Government is not obligated to provide payment to the Awardee for amounts in excess of the amount of obligated funds allotted by the Government.
- E. The Government shall pay the Awardee, upon submission of proper invoices, the costs stipulated in this Agreement for work delivered or rendered and accepted, less any deductions provided in this Agreement. Unless otherwise specified, payment shall be made upon acceptance of any portion of the work delivered or rendered for which a price is separately stated in the Agreement. Payments will be made within thirty (30) calendar days of receipt of a request for payment.
- F. Prior written approval by the OTAO, or the AOR, is required for all travel directly and identifiably funded by the Government under this agreement. The Awardee shall present to the OTAO or AOR, an itinerary for each planned trip, showing the name of the traveler, purpose of the trip, origin/destination, dates of travel, and estimated cost broken down by line item as far in advanced of the proposed travel as possible, but no less than two weeks before travel is planned to commence. In the event that emergency travel is required (e.g. in the event of an outbreak) that would make two weeks' notice impractical, travel requests may be submitted to the Government for an expedited
-

review. Emergency travel requests shall be labelled as such and shall include a brief summary of the emergency situation and rationale for expedited review.

G. WIDE AREA WORKFLOW PAYMENT INSTRUCTIONS (MAY 2013)

1. Definitions. As used in this clause--

Department of Defense Activity Address Code (DoDAAC) is a six position code that uniquely identifies a unit, activity, or organization.

Document type means the type of payment request or receiving report available for creation in Wide Area WorkFlow (WAWF).

Local processing office (LPO) is the office responsible for payment certification when payment certification is done external to the entitlement system.

2. Electronic invoicing. The WAWF system is the method to electronically process vendor payment requests and receiving reports, as authorized by DFARS 252.232- 7003, Electronic Submission of Payment Requests and Receiving Reports.

3. WAWF access. To access WAWF, the Awardee shall (i) have a designated electronic business point of contact in the System for Award Management at <https://www.acquisition.gov>; and (ii) be registered to use WAWF at <https://wawf.eb.mil/> following the step-by-step procedures for self-registration available at this website.

4. WAWF training. The Awardee should follow the training instructions of the WAWF Web-Based Training Course and use the Practice Training Site before submitting payment requests through WAWF. Both can be accessed by selecting the "Web Based Training" link on the WAWF home page at <https://wawf.eb.mil/>.

5. WAWF methods of document submission. Document submissions may be via Web entry, Electronic Data Interchange, or File Transfer Protocol.

6. WAWF payment instructions. The Awardee must use the following information when submitting payment requests and receiving reports in WAWF for this Agreement:

i. Document type. The Awardee shall use the following document type: Voucher

- ii. Inspection/acceptance location. The Awardee shall select the following inspection/acceptance location(s) in WAWF, as specified by the contracting officer.
- iii. Document routing. The Awardee shall use the information in the Routing Data Table below only to fill in applicable fields in WAWF when creating payment requests and receiving reports in the system.

Routing Data Table

<i>Field Name in WAWF</i>	<i>Data to be entered in WAWF</i>
[***]	[***]
[***]	[***]
[***]	[***]
[***]	[***]

- 7. Payment request and supporting documentation. The Awardee shall ensure a payment request includes appropriate contract line item and subline item descriptions of the work performed or supplies delivered, costs, fee (if applicable), and all relevant back-up documentation in support of each payment request.
- 8. WAWF email notifications. The Awardee shall enter the email address identified below in the "Send Additional Email Notifications" field of WAWF once a document is submitted in the system.

[***]
[***]
[***]

[***]
[***]

[***] [***]

[***] [***]

- 9. WAWF point of contact.
-

The Awardee may obtain clarification regarding invoicing in WAWF from the following contracting activity's WAWF point of contact.

For technical WAWF help, contact the WAWF helpdesk at 866-618-5988.
(End of Clause)

H. Comptroller General Access to Records: To the extent that the total Government payments under this Agreement exceed \$5,000,000, the Comptroller General, at its discretion, shall have access to and the right to examine records of any Party to the Agreement or any entity that participates in the performance of this Agreement that directly pertain to, and involve transactions relating to, the Agreement for a period of three

(3) years after final payment is made. This requirement shall not apply with respect to any Party to this Agreement or any entity that participates in the performance of the Agreement, or any subordinate element of such Party or entity, that has not entered into any other agreement (contract, grant, cooperative agreement, or "other transaction") that provides for audit access by a government entity in the year prior to the date of this Agreement. This paragraph only applies to any record that is created or maintained in the ordinary course of business or pursuant to a provision of law. The terms of this paragraph shall be included in all sub-agreements to the Agreement other than sub-agreements with a component of the U.S. Government. The Comptroller General may not examine records pursuant to a clause included in an agreement more than three years after the final payment is made by the United States under the agreement.

ARTICLE 8. Report and Data Requirements

A. Weekly Teleconferences and Communication

Awardee shall conduct weekly teleconferences with the Government throughout the performance of the Agreement to discuss tasks accomplished and direction for the upcoming tasks. The Government anticipates reducing the teleconferences once enrollment executes and again after completion of the trial. Awardee shall provide agendas and read-ahead material as required two days prior to the meetings and shall provide minutes of each meeting to the Government. Awardee shall include key subcontractors as attendees at these teleconferences when applicable. The Awardee shall provide meeting minutes within [***] after each formal scheduled meeting/teleconference conducted with JPEO EB.

B. Quarterly Progress Reports

The Awardee shall submit a Quarterly Progress report within [***] after the end of each quarter of performance. The Quarterly Progress report shall contain the technical progress made during the previous quarter and the updated resource loaded Integrated Master Schedule (IMS) in Microsoft Project format. The schedule update shall include the explanation for any changes in the schedule, and drivers for the changes, as applicable. The report should also address any concerns that would impact the performance, schedule, or cost planned for the effort. The Awardee shall report risk matrix

format to include risk mitigation strategies. Note: Any identified changes require formal notification to the OTAO in accordance with the Agreement provisions.

In addition, the Quarterly Progress Report shall contain regular status updates of all Intellectual Property (IP) license(s) related to the effort to ensure that all license(s) are in good standing as the project progresses. In the event of any change in IP license(s) status or potentially imminent change in status, the Awardee shall immediately contact the OTA and GPM in writing.

The Government will have [***] to respond to the report with any comments and the Awardee will have [***] to revise the deliverable or respond to those comments.

C. Quarterly Financial Status Report

The Awardee shall submit a Quarterly Financial Status Report no later than [***] after the end of each quarter of performance. The Government will have [***] to respond to the report with any comments and the Awardee will have [***] to revise the deliverable or respond to those comments. Reports will cover work performed every three (3) months for the duration of the Period of Performance (PoP).

In addition, the Quarterly Financial Status Report shall include quarterly expenditure forecasts with both the quarterly planned accrual and the cumulative total. Expenditure forecast submissions shall include analysis of the cost drivers for Estimate to Complete changes, if any, from the previous projection. The Awardee shall provide all submissions in Excel format, including all formulas.

D. Expenditure Forecasts

The Awardee shall submit the first expenditure forecast within thirty (30) calendar days after receiving the project award. An updated forecast shall be submitted within [***] of any project modifications that modify the PoP or the cost of the prototype. Expenditure forecast submissions shall include analysis of the cost drivers for Estimate to Complete changes, if any, from the previous projection. The Awardee shall provide all submissions in Excel format, including all formulas.

E. Final report

A Final Report shall be prepared at the end of the effort by the Awardee. The Final Report shall narrate a complete summary of the project execution and associated results obtained. The narration will include outstanding problems and their potential solutions, problems solved during the course of the agreement, and the solutions to the solved problems. The Final Report shall demonstrate how the prototype was developed and advanced.

The Awardee shall submit a Draft Final Report by the [***] following the end of the project. The Government shall provide comments to the Awardee by the [***] following receipt of the Awardee's Draft Final Report. The Awardee shall submit the Final Report on the [***] after receipt.

F. Ad Hoc Meetings

In addition to the monthly meetings and written quarterly program updates, additional ad hoc meetings to address specific issues or to convey time- sensitive updates or scientific data related to the program will be held.

G. Patents - Reporting of Subject Inventions

For purposes of this paragraph, "Subject Invention" is defined as any invention, discovery, or improvement of the Awardee, whether or not patentable, that are conceived of or first actually reduced to practice in the performance of work under this Agreement. The Awardee shall report any OTA Inventions in accordance with the terms and conditions of this Other Transaction Agreement (OTA).

H. All documentation submitted to the government must have quality oversight from an independent quality group not reporting to the executing management group (for example; clinical trials group, data management group, etc)

8. Miscellaneous Data Submissions

I. If applicable, the Awardee must submit to the Government all Point Papers, Briefings, Technical Performance Plans (TPP), Program Development Plans (PDP), Regulatory Strategy, Technology Transfer Report and Gap Analysis, Formulation Development, Feasibility and Optimization Reports, United States Army Medical Research and Material Command Animal Care and Use Review Office (USAMRMC ACURO) Approvals, Human Resources Operations Branch (HROB) Approvals, Technical Presentations and Publications, and any formal technical reports that have been prepared for eventual submission to FDA or other regulatory agencies. Examples include the following reports related to: pharmaceutical development, manufacturing development, manufacturing validation, completed batch records, certificates of analysis, analytical development and validation, drug substance and product stability, nonclinical testing, and clinical testing. Examples include clinical performance and clinical quality documentation.

J. Work Breakdown Structure

Three-level WBS with costs and schedule (top level is program, level two (2) is phase, level three (3) are major tasks). For WBS level two (2), show breakdown for labor, material, and other indirect costs.

WBS shall be updated annually or [***] after a Statement of Work modification. Government review/approval is [***] after receipt of first submittal. Provide changes to draft within [***] of such request. Provide final document within [***]

after approval of changes is received.

K. Integrated Master Schedule

The Awardee shall provide within [***] after project award an IMS in Microsoft Project format. Any updates to the IMS shall be included in the monthly progress reports.

Submission shall be [***] after the end of each month of performance. The Government will have [***] to respond to the report with any comments and the performer will have [***] to revise the deliverable or respond to those comments.

L. Incident Report.

The Awardee shall report any incident to the Government that could result in more than a one month delay in schedule from the most recent IMS critical path delivered to the Government. Telephonically contact the GPM within one day of incident. A written summary report shall be submitted within [***] of an incident, to include, what happened, what was the impact, if there are any available corrective actions and a time line for when the corrective actions would be in place.

M. Quality Agreement.

The Awardee shall submit a quality agreement within 90 days of award for Government review. Upon acceptance the agreement is to be executed by both parties. This document must flow down to all subawards.

ARTICLE 9. Most Favored Customer

A. For a period of six (6) years from the Effective Date, Awardee agrees that it shall not offer, sell or otherwise provide the production model of the Prototype to any entity at a price lower than that offered to the DoD. In the event that Awardee sells the production model of the Prototype at a lower unit price than that price sold to the DoD, Awardee shall immediately notify the OTAO in writing of the lower price. For prior purchases, the Awardee shall reimburse the DoD, the difference between the lower price sold to the other customer(s) and the price sold to the DoD multiplied by the number of items sold. Such reimbursement shall occur within [***] of the Awardee discovering that the lower price was given to another customer. Notwithstanding the foregoing, the parties may agree to apply the difference in price paid by the other customer(s) and DoD into additional quantities required by the DoD.

B. If Awardee develops a like product (commercialized version or derivative of the production model of the Prototype) with similar capability and intended application, but at a lower unit price ("Like Product") regardless of quantity, Awardee shall make the DoD aware of that similar product and the technical and price differences between that product and

the Prototype. Such notification shall be made to the OTAO in writing, of which email is an acceptable form, within [***] of such offering. Awardee agrees that no entity shall receive a lower price for any Like Product than the DoD for like purchase quantities..

ARTICLE 10. Confidential Information

(i) Definitions

(1) “Disclosing Party” means the Government or the Awardee who discloses Confidential Information as contemplated by the subsequent Paragraphs.

(2) “Receiving Party” means Government or the Awardee who receives Confidential Information disclosed by a Disclosing Party.

(3) “Confidential Information” means information and materials of a Disclosing Party which are designated as confidential or as a Trade Secret in writing by such Disclosing Party, whether by letter or by use of an appropriate stamp or legend, prior to or at the same time any such information or materials are disclosed by such Disclosing Party to the Receiving Party. Notwithstanding the foregoing, materials and other information which are orally, visually, or electronically disclosed by a Disclosing Party, or are disclosed in writing without an appropriate letter, stamp, or legend, shall constitute Confidential Information or a Trade Secret (as defined below) if such Disclosing Party, within thirty (30) calendar days after such disclosure, delivers to the Receiving Party a written document or documents describing the material or information and indicating that it is confidential or a Trade Secret, provided that any disclosure of information by the Receiving Party prior to receipt of such notice shall not constitute a breach by the Receiving Party of its obligations under this Paragraph. “Confidential Information” includes any information and materials considered a Trade Secret by the Awardee. “Trade Secret” means all forms and types of financial, business, scientific, technical, economic, or engineering or otherwise proprietary information, including, but not limited to, patterns, plans, compilations, program devices, formulas, designs, prototypes, methods, techniques, processes, procedures, programs, or codes, whether tangible or intangible, and whether or how stored, compiled, or memorialized physically, electronically, graphically, photographically, or in writing if –

(a) The Disclosing Party thereof has taken reasonable measures to keep such information secret; and

(b) The information derives independent economic value, actual or potential, from not being generally known to, and not being readily ascertainable through proper means by, the public.

B. Exchange of Information: The Government shall not be obligated to transfer Confidential Information independently developed by or on behalf of the Government absent an express written agreement between the Parties involved in the exchange providing the terms and conditions for such disclosure.

C. Authorized Disclosure: The Receiving Party agrees, to the extent permitted by law, that Confidential Information shall remain the property of the Disclosing Party (no one shall disclose unless they have the right to do so), and that, unless otherwise agreed to by the Disclosing Party, Confidential Information shall not be disclosed, divulged, or otherwise communicated by it to third parties or used by it for any purposes other than in connection with specified project efforts and the licenses granted in Article 11, Intellectual Property Rights, and Article 12, Data Rights, provided that the duty to protect such "Confidential Information" and "Trade Secrets" shall not extend to materials or information that:

- (a) Are received or become available without restriction to the Receiving Party under a proper, separate agreement,
- (b) Are not identified with a suitable notice or legend per Article 12 entitled "Confidential Information" herein,
- (c) Are lawfully in possession of the Receiving Party without such restriction to the Receiving Party at the time of disclosure thereof as demonstrated by prior written records,
- (d) Are or later become part of the public domain through no fault of the Receiving Party,
- (e) Are received by the Receiving Party from a third party having no obligation of confidentiality to the Disclosing Party that made the disclosure,
- (f) Are developed independently by the Receiving Party without use of Confidential Information as evidenced by written records,
- (g) Are required by law or regulation to be disclosed; provided, however, that the Receiving Party has provided written notice to the Disclosing Party promptly so as to enable such Disclosing Party to seek a protective order or otherwise prevent disclosure of such information.

D. Return of Proprietary Information: Upon the request of the Disclosing Party, the Receiving Party shall promptly return all copies and other tangible manifestations of the Confidential Information disclosed. As used

in this section, tangible manifestations include human readable media as well as magnetic and digital storage media.

E. Term: The obligations of the Receiving Party under this Article shall continue for a period of seven (7) years from conveyance of the Confidential Information.

F. The Government shall flow down the requirements of this Article 10 to their respective personnel, member entities, agents, and Awardees (including employees) at all levels, receiving such Confidential Information under this Agreement..

ARTICLE 11. Intellectual Property Rights

A. Background IP and Materials. The Awardee and the Government each retain any intellectual property (IP) rights to their own materials, data, technology, information, documents, or know-how—or potential rights, such as issued patents, patent applications, invention disclosures, or other written documentation—that exist prior to execution of this Agreement or are developed outside the scope of this Agreement (“Background IP”). Additionally, no party to the Agreement will enter into an agreement with any contract manufacturer or other third party whereby the third party will obtain rights in OTA Inventions or Study Data, as those terms are defined in this Agreement, absent the mutual consent of the parties to the awarded contract, however any party having an existing agreement with Inovio shall not be subject to this requirement.

B. Awardee’s Background IP. Awardee warrants that it has filed patent application(s) or is the assignee of issued patent(s) directed to a device previously provided to the Government and hereby incorporated as Attachment 1 which contain claims that are related to research contemplated under this Agreement. No license(s) to any patent applications or issued patents shall be granted under this Agreement to the Government, and the application(s) and any continuing applications (except for continuing applications pursuant to this agreement) identified to the Government are specifically excluded from the definitions of "OTA Invention" contained in this Agreement: Background

C. Patent Indemnity. The Awardee shall indemnify the Government and its officers, employees and agents against liability, including costs, for actual or alleged direct or contributory infringement of, or inducement to infringe, any United States or foreign patent, trademark or copyright, arising out of this Agreement, provided the Awardee is reasonably notified of such claims and proceedings.

D. Patent Prosecution. Awardee agrees to take responsibility for the preparation, filing, prosecution, and maintenance of any and all patents and patent applications listed as Awardee Background IP that are relevant to the work performed under this Agreement. Awardee shall keep the Government reasonably advised on the status of Awardee Background IP by providing an annual report on the status of Awardee Background IP. Prior to acting on a decision by Awardee to abandon or not file in any country a patent or patent application covering an OTA Invention, which is defined below, Awardee shall so inform the Government in a timely manner to allow Awardee to thoughtfully consider the Government's comments regarding such a proposed decision. Nothing in this ARTICLE shall restrict the Government in its preparation, filing, prosecution and maintenance of a patent or patent application covering an OTA Invention.

E. Patent Enforcement. Awardee will have the first option to enforce any patent rights covering an OTA Invention owned jointly by the Parties or solely by Awardee, at Awardee's expense. If Awardee chooses not to exercise this option, the Government may enforce patent rights covering a joint OTA Invention only with Awardee's prior written approval.

F. Ownership. Ownership of any invention, regardless of whether it is not patentable, or is patentable under U.S. patent law that is conceived or first reduced to practice under this Agreement ("OTA Invention") will follow inventorship in accordance with U.S. patent law. The Bayh-Dole Act, 35

U.S.C. §§ 200-212 does not apply to this Agreement and, as such, title to inventions will belong to the inventor or via assignment of ownership to the inventor-organization. The Parties represent and warrant that each inventor is obligated to assign and will assign his or her rights in any such inventions to his or her employing organization. If either an Awardee employee or a Government employee makes a sole OTA Invention, the entire rights to that OTA Invention will be respectively assigned to the Awardee or the Government. If an Awardee employee and a Government employee jointly make an OTA invention, it will be owned jointly by the Awardee and the Government. Ownership of inventions made in whole or in part with subawardee or collaborator employees, including employees of other components of the Government, will be determined solely pursuant to an agreement between the Awardee and the applicable subawardee or collaborator.

G. Patent Applications. The Parties will respectively have the option to file a patent application claiming any OTA Invention made solely by their respective employees. The Parties will consult with each other regarding the options for filing a patent application claiming a joint OTA Invention. Within thirty (30) calendar days of being notified of the discovery of an OTA invention or filing a patent application covering an OTA Invention, each Party will provide notice of such discovery or filing to the other Party. The Parties will reasonably cooperate with each other in the

preparation, filing, and prosecution of any patent application claiming an OTA Invention. Any Party filing a patent application will bear expenses associated with filing and prosecuting the application, as well as maintaining any patents that issue from the application, unless otherwise agreed by the Parties.

H. Licenses. Upon the Awardee's request, the Government agrees to enter into good faith negotiations with the Awardee regarding the Awardee's receipt of a nonexclusive commercialization license covering the Government's interest in any OTA Invention made in whole by a Government employee. Any OTA Invention made solely by an Awardee employee is subject to a nonexclusive, nontransferable, irrevocable, paid- up license for the Government to practice and have practiced the OTA Invention with "Unlimited rights," as this term is defined in DFARS 252.227-7013a)(16), as if this regulation were applicable to inventions, rather than technical data.

I. Executive Order No. 9424 of 18 February 1944 requires all executive Departments and agencies of the Government to forward through appropriate channels to the Commissioner of Patents and Trademarks, for recording, all Government interests in patents or applications for patents.

ARTICLE 12. Data Rights

A. All data generated in connection with the performance of this Agreement, or that arises out of the use of any materials or enabling technology provided or used by the Awardee in the performance of this Agreement, other Awardee materials or Awardee confidential information, whether conducted by the Government or the Awardee (collectively, the "Study Data"), shall be owned by the Awardee. The Government shall have the right to use, modify, reproduce, release, perform, display, or disclose data first produced in the performance of this Agreement within the Government and otherwise for "Unlimited rights," as this term is defined in DFARS 252.227-7013(a)(16). The Government may, under a separate agreement or by modification to this agreement, obtain any rights to use or disclose the Awardee's material or data to the extent that such material or data was produced outside the scope of this Agreement.

Notwithstanding the above, as a result of this Agreement, the Government shall obtain "Unlimited rights," as this term is defined in DFARS 252.227-7013(a)(16) specific to any data generated under this agreement.

B. The Awardee agrees to retain and maintain in good condition until seven (7) years after completion or termination of this Agreement, all data generated under this Agreement. In the event of exercise of the

Government's rights as potentially granted under paragraph 2.C, the Awardee agrees to deliver at no additional cost to the Government, all data, in Awardee's possession and developed under this Agreement, necessary to develop the Prototype within sixty (60) calendar days from the date of the written request.

C. Marking of Data: The Awardee will mark any data delivered under this Agreement with the following legend:

"Use, duplication, or disclosure is subject to the restrictions as stated in Agreement No. [***] between the Government and the Awardee."

Any rights that the Awardee or the Government may have in data delivered under this Agreement, whether arising under this Agreement or otherwise, will not be affected by Awardee's failure to mark data pursuant to this Article.

D. All Technical Data and Software (each term as defined under DFARS 252.227- 7013) which shall be delivered under this Agreement with less than unlimited rights shall be identified in reasonable specificity and particular rights granted (Government Purpose, Limited or Restricted (all as defined in DFARS 252.227-7013)) prior to entering into the Agreement. All other Technical Data and Software developed under funding of this agreement shall be delivered with unlimited rights as provided for within this Article.

ARTICLE 13. Regulatory Rights

A. This Agreement includes research with an investigational drug, biologic or medical device that is regulated by the U.S. Food and Drug Administration (FDA) and requires FDA pre-market approval or clearance before commercial marketing may begin. It is expected this Agreement will result in the FDA clearance and commercialization of product(s) as set forth in this agreement (the "Technology"). The Awardee will serve as the Sponsor of the Regulatory Application (an Investigational New Drug Application (IND), Investigational Device Exemption (IDE), New Drug Application (NDA), Biologics License Application (BLA), Premarket Approval Application (PMA), or 510(k) Pre-Market Notification Filing (510(k)) or another regulatory filing submitted to FDA) that controls research under this agreement. The Sponsor of the Regulatory Application to FDA (as the terms "sponsor" and "applicant" are defined or used in at 21 CFR §§3.2(c), 312.5, 600.3(t), 812.2(b), 812 Subpart C, or 814.20) has certain standing before the FDA that entitles it to exclusive communications related to the Regulatory Application.

B. The Senior Director Medical Regulatory (SDMR) is the JPEO-CBRND and DTRA-JSTO representative for all regulatory and quality activities. The Awardee shall coordinate with the SDMR prior to communicating or meeting

with the FDA, or other regulatory authorities, as appropriate. .

C. The Awardee shall invite the SDMR to all FDA meetings and regulatory discussions applicable to this OTA Project.

1. With respect to any products under this Agreement regulated by the FDA for which the Awardee serves as Sponsor, the Awardee agrees to the following:

- i. The Awardee shall provide to the Government all data, including top- line summaries and key conclusions from all studies, supporting the regulatory filing and commercial approval to the extent that such data, summaries, and conclusions are funded under this Agreement. In addition, the Awardee will offer the Government the opportunity to review and provide comments on a final draft of regulatory submissions which include data funded under this Agreement. The Government will review any such submissions promptly upon receipt. The Awardee shall reasonably consider any comments provided by the Government, and prior to submission shall provide notification to the Government of any additional edits or revisions. The Awardee shall keep the Government reasonably apprised of planned FDA meetings and post-meeting outcomes relating to activities funded under this Agreement.
- ii. Communications. The Awardee shall provide the Government with all communications and summaries thereof, both formal and informal, to or from FDA regarding the regulatory submissions subject to this Agreement and ensure that the Government representatives are invited to participate in any formal Sponsor meetings with the FDA. The Awardee shall use its best efforts to ensure that the Government representatives are invited to participate in any informal Sponsor meetings with the FDA so long as the Awardee has 48 hour advance notice of such Sponsor meeting from the FDA prior to the scheduled meeting time.
- iii. Non-compliance with section (C)(1)(i) or (C)(1)(ii) may result in termination of the agreement.

2. Product Development Failure. Certain product development failures may trigger certain remedies in Section (3) below for the Government advanced developer funding the development of the work in this Agreement. This remedy is not available to the Government for any cause outside of the following:

- i. if this agreement is terminated for nonperformance; or
-

- ii. the Contractor gives notice, required to be submitted to the Government no later than 30 business days, of any formal management decision to terminate this product development effort pre-market or to file for Federal bankruptcy protection.

3. If any of the product development failures listed in section (b) occur, the Awardee, upon the request of the Government:

- i. shall transfer possession, ownership and sponsorship or holdership of any Regulatory Application submitted solely for approval of the Technology (including any associated expedited review designation, priority review voucher, or marketing exclusivity eligibility or award), regulatory correspondence, and supporting regulatory information related to the Technology to the Government or its designee;
- ii. shall provide DoD or its designee with a letter (“Reference Letter”) providing permission to reference any Regulatory Application submitted to the FDA for a combination drug-device product that includes the Technology;
- iii. shall inform FDA of the transfer of sponsorship or holdership of the Regulatory Application transferred under section (c)(i) above or the Reference Letter issued under section (c)(ii) above; and
- iv. shall negotiate in good faith a non-exclusive license, at customary industry rates and under reasonable terms and conditions, to any patent, copyright or other intellectual property owned or controlled by the Awardee, developed prior to or outside the scope of this agreement, or any technical data that is necessary for the Government to pursue commercialization of this technology with a third party for sale to the Government or otherwise.

D. Awardee shall submit to the Government, within thirty (30) days of contract award, a fully executed sponsor authorization letter enabling FDA to disclose information to the JPEO-CBRND and its government support contractors related to the Technology under Public Law 115-92. A Template of the letter is available upon request. JPEO-CBRND shall submit the executed letter to the FDA only if the Technology becomes a DoD medical product priority under Public Law 115-92.

E. This Article 13 will survive the acquisition or merger of the Awardee by or with a third party. This Article will also be included in any subcontracts/sub agreements relating to the development of the Technology. This Article will survive the expiration of this agreement.

ARTICLE 14. Foreign Access to Data.

Export Compliance: The Parties will comply with any applicable U.S. export control statutes or regulations in performing this Agreement.

ARTICLE 15. Scientific Publications and Press Releases.

A. The Parties shall jointly agree on a publication plan for the Study Data derived from studies executed under this Agreement. This publication plan will identify key new Data to be disclosed or presented and the target date for finalizing any related scientific abstract or manuscript. As part of its Quarterly Program Reviews, the Awardee will share the publication plan with the Government.

B. The Parties will jointly develop each abstract or manuscript and agree on the authorship and the content of the final draft to be submitted; provided that authorship for each abstract and manuscript will be determined based on whether a particular individual made a significant contribution to the conceptualization, design, execution, or interpretation of a research study, as authorship is defined in the fifth edition of the Guidelines and Policies for the Conduct of Research in the Intramural Research Program at NIH, available at: https://oir.nih.gov/sites/default/files/uploads/sourcebook/documents/ethical_conduct/guidelines-conduct_research.pdf.

C. Prior to submission for publication, the Parties shall provide drafts of proposed publications to the authors of such publications for review and comment, and shall provide copies to non-authors for viewing purposes. Review periods are ten (10) business days for abstracts, or less than ten (10) business days if agreed by Project Managers and in order to meet publication submission deadlines. Review periods are twenty (20) calendar days for manuscripts. Contributing parties shall be appropriately accredited in any publication.

D. The Parties will jointly agree on whether to issue one or more press releases related to the resulting Data. If all Parties agree that one or both Parties will issue a press release, each Party will also have the right to review and agree on the content in advance of its publication. Other parties, if any, contributing to the studies, will have review rights and will be appropriately accredited in the press release. For data generated in studies executed by Awardee outside the scope of this Agreement, the Awardee, at its sole discretion, may issue a press release related to such data.

ARTICLE 16. Miscellaneous Clauses.

A. No Consent. Nothing in the terms of this Agreement constitutes express or implied Government authorization and consent for Awardee or its

subawardee(s) to utilize, manufacture or practice inventions covered by United States or foreign patents in the performance of work under this Agreement.

B. Patent Infringement. Each Party will advise the other Party promptly and in reasonable written detail, of each claim or lawsuit of patent infringement based on the performance of this Agreement. When requested by either Party, all evidence and information in possession of the Party pertaining to such claim or lawsuit will be provided to the other at no cost to the requesting Party.

C. Limitation of Liability. In no event will either Party be liable to the other Party or any third party claiming through such Party for any indirect, incidental, consequential or punitive damages, or claims for lost profits, arising under or relating to this Agreement, whether based in contract, tort or otherwise, even if the other Party has been advised of the possibility of such damages.

D. Disclosure of Information. Subject to Article 10, the Awardee shall not release to anyone outside the Awardee's organization any unclassified information, regardless of medium (e.g., film, tape, document), pertaining to any part of this Agreement or any program related to this Agreement, unless (i) the OTAO has given prior written approval or (ii) the information is otherwise in the public domain before the date of release. For purposes of this clause, Awardee's Organization includes entities identified as Collaborators in Appendix A Table 1.

E. Force Majeure. Neither Party will be liable to the other Party for failure or delay in performing its obligations hereunder if such failure or delay arises from circumstances beyond the control and without the fault or negligence of the Party (a Force Majeure event). Examples of such circumstances are: authorized acts of the government in either its sovereign or contractual capacity, war, insurrection, freight embargos, fire, flood, or strikes. The Party asserting Force Majeure as an excuse must take reasonable steps to minimize delay or damages caused by unforeseeable events.

F. Severability. If any provision of this Agreement, or the application of any such provision to any person or set of circumstances, is determined to be invalid, unlawful, void or unenforceable to any extent, the remainder of this Agreement, and the application of such provision to persons or circumstances other than those as to which it is determined to be invalid, unlawful, void or unenforceable, will not be impaired or otherwise affected and will continue to be valid and enforceable to the fullest extent permitted by law.

Choice of Law. This Agreement and the resolution of disputes hereunder will be governed, construed, and interpreted by the statutes, regulations, and/or legal precedent applicable to the Government of the United States of America. Unless explicitly stated, the Parties do not intend that this Agreement be subject to the Federal Acquisition Regulation either directly or indirectly or by operation of law. When a specific FAR requirement is incorporated by reference in this

Agreement, the text of the clause alone will apply without application or incorporation of other provisions of these regulations.

Order of Precedence. In the event of a conflict between the terms of this Agreement and the attachments incorporated herein, the conflict shall be resolved by giving precedence in descending order as follows: (i) the Articles of this Agreement, and the Appendices to the Agreement.

CERTAIN CONFIDENTIAL PORTIONS OF THIS EXHIBIT HAVE BEEN OMITTED AND REPLACED WITH “[***]”. SUCH IDENTIFIED INFORMATION HAS BEEN EXCLUDED FROM THIS EXHIBIT BECAUSE IT (I) IS NOT MATERIAL AND (II) WOULD LIKELY CAUSE COMPETITIVE HARM TO THE COMPANY IF DISCLOSED.

AWARD/CONTRACT		1. THIS CONTRACT IS A RATED ORDER UNDER DPAS (15 CFR 700)		RATING		PAGE OF PAGES 1 [***]	
2. CONTRACT (Proc. [***]) NO. [***]		3. EFFECTIVE DATE 18 Jun 2020		4. REQUISITION/PURCHASE REQUEST/PROJECT NO. [***]			
5. ISSUED BY CODE W6QK ACC-APG NATICK 110 THOMAS JOHNSON DR SUITE #240 FREDERICK MD 21702		W911QY		6. ADMINIST ERED BY (If other than Item 5) CODE			
				See Item 5			
7. NAME AND ADDRESS OF CONTRACTOR (No., street, city, county, state and zip code) INOVIO PHARMACEUTICALS, INC. [***] 660 W GERMANTOWN PIKE STE 110 PLYMOUTH MEETING PA 19462-1111				8. DELIVERY [] FOB ORIGIN [X] OTHER (See below)			
				9. DISCOUNT FOR PROMPT PAYMENT			
CODE 43MD0		FACILITY CODE		10. SUBMIT INVOICES 1 (4 copies unless otherwise specified) TO THE ADDRESS SHOWN IN:		ITEM Block 12	
11. SHIP TO/MARK FOR CODE				12. PAYMENT WILL BE MADE BY CODE		[***]	
				DEFENSE FINANCE AND ACCOUNTING SERVICE DFAS-INDY VP GFEB5 8899 E 56TH STREET INDIANAPOLIS IN 46249-3800			
See Schedule							
13. AUTHORITY FOR USING OTHER THAN FULL AND OPEN COMPETITION: [X] 10 U.S.C. 2304(c)(2) [] 41 U.S.C. 253(c)()				14. ACCOUNTING AND APPROPRIATION DATA See Schedule			
15A. ITEM NO.	15B. SUPPLIES/ SERVICES		15C. QUANTITY	15D. UNIT	15E. UNIT PRICE	15F. AMOUNT	
	SEE SCHEDULE						
15G. TO TAL AMOUNT OF CONTRACT \$16,570,397.00							

16. TABLE OF CONTENTS							
(X)	SEC.	DESCRIPTION	PAGE(S)	(X)	SEC.	DESCRIPTION	PAGE(S)
PART I - THE SCHEDULE				PART II - CONTRACT CLAUSES			
X	A	SOLICITATION/ CONTRACT FORM	1	X	I	CONTRACT CLAUSES	9 - 23
X	B	SUPPLIES OR SERVICES AND PRICES/ COSTS	2 - 4	PART III – LIST OF DOCUMENTS, EXHIBITS AND OTHER ATTACH.			
	C	DESCRIPTION/ SPECS./ WORK STATEMENT			J	LIST OF ATTACHMENTS	
X	D	PACKAGING AND MARKING	5	PART IV - REPRESENTATIONS AND INSTRUCTIONS			
X	E	INSPECTION AND ACCEPTANCE	6		K	REPRESENTATIONS, CERTIFICATIONS AND OTHER STATEMENTS OF OFFERORS	
X	F	DELIVERIES OR PERFORMANCE	7				
X	G	CONTRACT ADMINISTRATION DATA	8		L	INSTRS., CONDS., AND NOTICES TO OFFERORS	
	H	SPECIAL CONTRACT REQUIREMENTS			M	EVALUATION FACTORS FOR AWARD	
<u>CONTRACTING OFFICE R WILL COMPLETE ITEM 17 (SEALED-BID OR NEGOTIATED PROCUREMENT) OR 18 (SEALED-BID PROCUREMENT) AS APPLICABLE</u>							
17. <input checked="" type="checkbox"/> CONTRACTOR'S NEGOTIATED AGREEMENT <u>Contractor is required to sign this document and return copies to issuing office.</u> Contractor agrees to furnish and deliver all items or perform all the services set forth or otherwise identified above and on any continuation sheets for the consideration stated herein. The rights and obligations of the parties to this contract shall be subject to and governed by the following documents: (a) this award/contract, (b) the solicitation, if any, and (c) such provisions, representations, certifications, and specifications, as are attached or incorporated by reference herein. (Attachments are listed herein.)				18. <input type="checkbox"/> SEALED-BID AWARD (Contractor is not required to sign this document.) Your bid on Solicitation Number _____ including the additions or changes made by you which additions or changes are set forth in full above, is hereby accepted as to the terms listed above and on any continuation sheets. This award consummates the contract which consists of the following documents: (a) the Government's solicitation and your bid, and (b) this award/contract. No further contractual document is necessary. (Block 18 should be checked only when awarding a sealed-bid contract.)			
19A. NAME AND TITLE OF SIGNER (Type or print)				20A. NAME OF CONTRACTING OFFICER			
				TEL: EMAIL:			
19B. NAME OF CONTRACTOR		19C. DATE SIGNED		20B. UNITED STATES OF AMERICA			20C. DATE SIGNED
BY _____ (Signature of person authorized to sign)				BY _____ (Signature of Contracting Officer)			

AUTHORIZED FOR LOCAL REPRODUCTION
Previous edition is NOT usable

Section B - Supplies or Services and Prices

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
1	<p>CELLECTRA 2000 Devices and Accessories FFP</p> <p>The Government is purchasing Cellectra 2000 Devices and Accessories to be used to inject the INO-4800 vaccine, provided by Inovio, into Phase 3 COVID-19 clinical trial subject being performed under Inovio's IND. Upon Completion of the Phase 3 trials, Inovio shall ship the devices and remaining accessories to the Government. The Government shall use any device and/or accessory only for use with INO-4800 for COVID-19 and shall only be conducted under Inovio's regulatory filings. No further use is permitted without Inovio's explicit prior written consent. Equipment costing for this award does not reflect expected final commercial pricing and is based on a direct cost for labor and materials plus an indirect cost rate only.</p> <p>PURCHASE REQUEST NUMBER: [***]</p>				\$[***]

NET AMT \$[***]

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0001AA	[***] [***] \$[***] \$[***]				
	[***]				
	[***]				
	[***]				

NET AMT \$[***]

[***]

[***]

\$[***]

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT	***	***	\$***	\$***

NET AMT \$***

\$***

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT	***	***	\$***	\$***

NET AMT \$***

\$***



ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
]	***]	***]		\$]	\$***]
	***]				
	***]				
	***]				
	***]				

NET AMT \$***]

***]
***]

\$***]

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
]		***]	***]	\$]	\$***]
	***]				
	***]				
	***]				
	***]				
	***]				

NET AMT \$***]

***]
***]

\$***]

Section D - Packaging and Marking

PRESERVATION AND PACKING

The Contractor shall provide its standard preservation and packing in all shipments.

INSPECTION AND ACCEPTANCE TERMS

Supplies/services will be inspected/accepted at:

CLIN INSPECT AT

INSPECT BY

ACCEPT AT

ACCEPT BY

[illegible]

DELIVERY INFORMATION

CLIN DELIVERY DATE QUANTITY SHIP TO ADDRESS DODAAC / CAGE

*** *** *** *** ***

*** *** ***

*** *** ***

*** *** ***

*** *** ***

*** *** ***

ACCOUNTING AND APPROPRIATION DATA

AA: 09720202021013000018170552520255 S.0074658.1.1.8.1 6100.9000021001 COST CODE: AHPDD
AMOUNT: \$[***]

ACRN	CLIN/SLIN	CIN	AMOUNT
[***]	[***]	[***]	\$[***]
	[***]	[***]	\$[***]
	[***]	[***]	\$[***]
	[***]	[***]	\$[***]
	[***]	[***]	\$[***]

Section I - Contract Clauses

CLAUSES INCORPORATED BY REFERENCE

52.203-12	Limitation On Payments To Influence Certain Federal Transactions
52.204-19	Incorporation by Reference of Representations and Certifications.
52.204-21	Basic Safeguarding of Covered Contractor Information Systems
52.204-23	Prohibition on Contracting for Hardware, Software, and Services Developed or Provided by Kaspersky Lab and Other Covered Entities.
52.204-25	Prohibition on Contracting for Certain Telecommunications and Video Surveillance Services or Equipment.
52.209-10	Prohibition on Contracting With Inverted Domestic Corporations

JUN 2020 DEC 2014 JUN 2016 JUL 2018

AUG 2019 NOV 2015

52.211-8 Time of Delivery JUN 1997
52.211-8 Alt I Time of Delivery (Jun 1997) Alternate I APR 1984
52.211-17 Delivery of Excess Quantities SEP 1989
52.216-18 Ordering OCT 1995
52.216-19 Order Limitations OCT 1995
52.216-20 Definite Quantity OCT 1995 52.222-1 Notice To The Government Of Labor Disputes FEB 1997 52.223-6 Drug-Free Workplace MAY 2001 52.232-39 Unenforceability of Unauthorized Obligations JUN 2013

52.232-40 Providing Accelerated Payments to Small Business Subcontractors

DEC 2013

52.233-3 Protest After Award AUG 1996 52.233-4 Applicable Law for Breach of Contract Claim OCT 2004 52.243-1 Changes--Fixed Price AUG 1987
52.246-2 Inspection Of Supplies--Fixed Price AUG 1996
52.246-16 Responsibility For Supplies APR 1984
52.247-1 Commercial Bill Of Lading Notations FEB 2006
52.247-34 F.O.B. Destination NOV 1991
52.249-8 Default (Fixed-Price Supply & Service) APR 1984
52.249-14 Excusable Delays APR 1984

252.203-7000 Requirements Relating to Compensation of Former DoD Officials

SEP 2011

252.203-7002 Requirement to Inform Employees of Whistleblower Rights SEP 2013 252.203-7003 Agency Office of the Inspector General AUG 2019
252.204-7000 Disclosure Of Information OCT 2016

252.204-7002 Payment For Contract Line or Subline Items Not Separately Priced

APR 2020

252.204-7003 Control Of Government Personnel Work Product APR 1992
252.204-7006 Billing Instructions OCT 2005

252.204-7012 Safeguarding Covered Defense Information and Cyber
Incident Reporting

DEC 2019

252.204-7015 Notice of Authorized Disclosure of Information for Litigation MAY 2016 Support

252.204-7018 Prohibition on the Acquisition of Covered Defense
Telecommunications Equipment or Services

DEC 2019

252.205-7000 Provision Of Information To Cooperative Agreement Holders DEC 1991

252.209-7004	Subcontracting With Firms That Are Owned or Controlled By MAY 2019 The Government of a Country that is a State Sponsor of Terrorism
252.211-7003	Item Unique Identification and Valuation MAR 2016
252.211-7005	Substitutions for Military or Federal Specifications and NOV 2005 Standards
252.217-7027	Contract Definitization DEC 2012
252.217-7028	Over And Above Work DEC 1991
252.222-7006	Restrictions on the Use of Mandatory Arbitration Agreements DEC 2010
252.225-7012	Preference For Certain Domestic Commodities DEC 2017
252.225-7025	Restriction on Acquisition of Forgings DEC 2009
252.225-7041	Correspondence in English JUN 1997
252.225-7048	Export-Controlled Items JUN 2013
252.232-7010	Levies on Contract Payments DEC 2006
252.232-7017	Accelerating Payments to Small Business Subcontractors-- APR 2020 Prohibition on Fees and Consideration
252.243-7001	Pricing Of Contract Modifications DEC 1991
252.243-7002	Requests for Equitable Adjustment DEC 2012
252.244-7000	Subcontracts for Commercial Items JUN 2013

CLAUSES INCORPORATED BY FULL TEXT

52.212-4 CONTRACT TERMS AND CONDITIONS-- COMMERCIAL ITEMS (OCT 2018)

- (a) Inspection/Acceptance. The Contractor shall only tender for acceptance those items that conform to the requirements of this contract. The Government reserves the right to inspect or test any supplies or services that have been tendered for acceptance. The Government may require repair or replacement of nonconforming supplies or reperformance of nonconforming services at no increase in contract price. If repair/replacement or reperformance will not correct the defects or is not possible, the Government may seek an equitable price reduction or adequate consideration for acceptance of nonconforming supplies or services. The Government must exercise its post- acceptance rights (1) within a reasonable time after the defect was discovered or should have been discovered; and (2) before any substantial change occurs in the condition of the item, unless the change is due to the defect in the item.
- (b) Assignment. The Contractor or its assignee may assign its rights to receive payment due as a result of performance of this contract to a bank, trust company, or other financing institution, including any Federal lending agency in accordance with the Assignment of Claims Act (31 U.S.C. 3727). However, when a third party makes payment (e.g., use of the Governmentwide commercial purchase card), the Contractor may not assign its rights to receive payment under this contract.
- (c) Changes. Changes in the terms and conditions of this contract may be made only by written agreement of the parties.
- (d) Disputes. This contract is subject to 41 U.S.C. chapter 71, Contract Disputes", as amended (41 U.S.C. 601-613). Failure of the parties to this contract to reach agreement on any request for equitable adjustment, claim, appeal or action arising under or relating to this contract shall be a dispute to be resolved in accordance with the clause at FAR 52.233-1, Disputes, which is incorporated herein by reference. The Contractor shall proceed diligently with performance of this contract, pending final resolution of any dispute arising under the contract.
- (e) Definitions. The clause at FAR 52.202-1, Definitions, is incorporated herein by reference.
-

(f) Excusable delays. The Contractor shall be liable for default unless nonperformance is caused by an occurrence beyond the reasonable control of the Contractor and without its fault or negligence such as, acts of God or the public

enemy, acts of the Government in either its sovereign or contractual capacity, fires, floods, epidemics, quarantine restrictions, strikes, unusually severe weather, and delays of common carriers. The Contractor shall notify the Contracting Officer in writing as soon as it is reasonably possible after the commencement or any excusable delay, setting forth the full particulars in connection therewith, shall remedy such occurrence with all reasonable dispatch and shall promptly give written notice to the Contracting Officer of the cessation of such occurrence.

(g) Invoice.

(1) The Contractor shall submit an original invoice and three copies (or electronic invoice, if authorized) to the address designated in the contract to receive invoices. An invoice must include--

(i) Name and address of the Contractor;

(ii) Invoice date and number;

(iii) Contract number, line item number and, if applicable, the order number;

(iv) Description, quantity, unit of measure, unit price and extended price of the items delivered;

(v) Shipping number and date of shipment, including the bill of lading number and weight of shipment if shipped on Government bill of lading;

(vi) Terms of any discount for prompt payment offered;

(vii) Name and address of official to whom payment is to be sent;

(viii) Name, title, and phone number of person to notify in event of defective invoice; and

(ix) Taxpayer Identification Number (TIN). The Contractor shall include its TIN on the invoice only if required elsewhere in this contract.

(x) Electronic funds transfer (EFT) banking information.

(A) The Contractor shall include EFT banking information on the invoice only if required elsewhere in this contract.

(B) If EFT banking information is not required to be on the invoice, in order for the invoice to be a proper invoice, the Contractor shall have submitted correct EFT banking information in accordance with the applicable solicitation provision, contract clause (e.g., 52.232-33, Payment by Electronic Funds Transfer—System for Award Management, or 52.232-34, Payment by Electronic Funds Transfer--Other Than System for Award Management), or applicable agency procedures.

(C) EFT banking information is not required if the Government waived the requirement to pay by EFT.

(2) Invoices will be handled in accordance with the Prompt Payment Act (31 U.S.C. 3903) and Office of Management and Budget (OMB) prompt payment regulations at 5 CFR part 1315.

(h) Patent indemnity. The Contractor shall indemnify the Government and its officers, employees and agents against liability, including costs, for actual or alleged direct or contributory infringement of, or inducement to infringe, any United States or foreign patent, trademark or copyright, arising out of the performance of this contract, provided the Contractor is reasonably notified of such claims and proceedings.

(i) Payment.--

(1) Items accepted. Payment shall be made for items accepted by the Government that have been delivered to the delivery destinations set forth in this contract.

- (2) Prompt payment. The Government will make payment in accordance with the Prompt Payment Act (31 U.S.C. 3903) and prompt payment regulations at 5 CFR part 1315.
- (3) Electronic Funds Transfer (EFT). If the Government makes payment by EFT, see 52.212-5(b) for the appropriate EFT clause.
- (4) Discount. In connection with any discount offered for early payment, time shall be computed from the date of the invoice. For the purpose of computing the discount earned, payment shall be considered to have been made on the date which appears on the payment check or the specified payment date if an electronic funds transfer payment is made.
- (5) Overpayments. If the Contractor becomes aware of a duplicate contract financing or invoice payment or that the Government has otherwise overpaid on a contract financing or invoice payment, the Contractor shall--
- (i) Remit the overpayment amount to the payment office cited in the contract along with a description of the overpayment including the--
 - (A) Circumstances of the overpayment (e.g., duplicate payment, erroneous payment, liquidation errors, date(s) of overpayment);
 - (B) Affected contract number and delivery order number, if applicable;
 - (C) Affected line item or subline item, if applicable; and
 - (D) Contractor point of contact.
 - (ii) Provide a copy of the remittance and supporting documentation to the Contracting Officer.
- (6) Interest.
- (i) All amounts that become payable by the Contractor to the Government under this contract shall bear simple interest from the date due until paid unless paid within 30 days of becoming due. The interest rate shall be the interest rate established by the Secretary of the Treasury as provided in 41 U.S.C. 7109, which is applicable to the period in which the amount becomes due, as provided in (i)(6)(v) of this clause, and then at the rate applicable for each six-month period as fixed by the Secretary until the amount is paid.
 - (ii) The Government may issue a demand for payment to the Contractor upon finding a debt is due under the contract.
 - (iii) Final decisions. The Contracting Officer will issue a final decision as required by 33.211 if--
 - (A) The Contracting Officer and the Contractor are unable to reach agreement on the existence or amount of a debt within 30 days;
 - (B) The Contractor fails to liquidate a debt previously demanded by the Contracting Officer within the timeline specified in the demand for payment unless the amounts were not repaid because the Contractor has requested an installment payment agreement; or
 - (C) The Contractor requests a deferment of collection on a debt previously demanded by the Contracting Officer (see 32.607-2).
 - (iv) If a demand for payment was previously issued for the debt, the demand for payment included in the final decision shall identify the same due date as the original demand for payment.
-

(v) Amounts shall be due at the earliest of the following dates:

(A) The date fixed under this contract.

(B) The date of the first written demand for payment, including any demand for payment resulting from a default termination.

(vi) The interest charge shall be computed for the actual number of calendar days involved beginning on the due date and ending on--

(A) The date on which the designated office receives payment from the Contractor;

(B) The date of issuance of a Government check to the Contractor from which an amount otherwise payable has been withheld as a credit against the contract debt; or

(C) The date on which an amount withheld and applied to the contract debt would otherwise have become payable to the Contractor.

(vii) The interest charge made under this clause may be reduced under the procedures prescribed in 32.608-2 of the Federal Acquisition Regulation in effect on the date of this contract.

(j) Risk of loss. Unless the contract specifically provides otherwise, risk of loss or damage to the supplies provided under this contract shall remain with the Contractor until, and shall pass to the Government upon:

(1) Delivery of the supplies to a carrier, if transportation is f.o.b. origin; or

(2) Delivery of the supplies to the Government at the destination specified in the contract, if transportation is f.o.b. destination.

(k) Taxes. The contract price includes all applicable Federal, State, and local taxes and duties.

(l) Termination for the Government's convenience. The Government reserves the right to terminate this contract, or any part hereof, for its sole convenience. In the event of such termination, the Contractor shall immediately stop all work hereunder and shall immediately cause any and all of its suppliers and subcontractors to cease work. Subject to the terms of this contract, the Contractor shall be paid a percentage of the contract price reflecting the percentage of the work performed prior to the notice of termination, plus reasonable charges the Contractor can demonstrate to the satisfaction of the Government using its standard record keeping system, have resulted from the termination. The Contractor shall not be required to comply with the cost accounting standards or contract cost principles for this purpose. This paragraph does not give the Government any right to audit the Contractor's records. The Contractor shall not be paid for any work performed or costs incurred which reasonably could have been avoided.

(m) Termination for cause. The Government may terminate this contract, or any part hereof, for cause in the event of any default by the Contractor, or if the Contractor fails to comply with any contract terms and conditions, or fails to provide the Government, upon request, with adequate assurances of future performance. In the event of termination for cause, the Government shall not be liable to the Contractor for any amount for supplies or services not accepted, and the Contractor shall be liable to the Government for any and all rights and remedies provided by law. If it is determined that the Government improperly terminated this contract for default, such termination shall be deemed a termination for convenience.

(n) Title. Unless specified elsewhere in this contract, title to items furnished under this contract shall pass to the Government upon acceptance, regardless of when or where the Government takes physical possession.

(o) Warranty. The Contractor warrants and implies that the items delivered hereunder are merchantable and fit for use for the particular purpose described in this contract.

(p) Limitation of liability. Except as otherwise provided by an express warranty, the Contractor will not be liable to the Government for consequential damages resulting from any defect or deficiencies in accepted items.

(q) Other compliances. The Contractor shall comply with all applicable Federal, State and local laws, executive orders, rules and regulations applicable to its performance under this contract.

(r) Compliance with laws unique to Government contracts. The Contractor agrees to comply with 31 U.S.C. 1352 relating to limitations on the use of appropriated funds to influence certain Federal contracts; 18 U.S.C. 431 relating to officials not to benefit; 40 U.S.C. chapter 37, Contract Work Hours and Safety Standards; 41 U.S.C. chapter 87, Kickbacks; 41 U.S.C. 4712 and 10 U.S.C. 2409 relating to whistleblower protections; 49 U.S.C. 40118, Fly American; and 41 U.S.C. chapter 21 relating to procurement integrity.

(s) Order of precedence. Any inconsistencies in this solicitation or contract shall be resolved by giving precedence in the following order: (1) the schedule of supplies/services; (2) The Assignments, Disputes, Payments, Invoice, Other Compliances, Compliance with Laws Unique to Government Contracts, and Unauthorized Obligations paragraphs of this clause; (3) the clause at 52.212-5; (4) addenda to this solicitation or contract, including any license agreements for computer software; (5) solicitation provisions if this is a solicitation; (6) other paragraphs of this clause; (7) the Standard Form 1449; (8) other documents, exhibits, and attachments; and (9) the specification.

(t) Reserved.

(u) Unauthorized Obligations.

(1) Except as stated in paragraph (u)(2) of this clause, when any supply or service acquired under this contract is subject to any End User License Agreement (EULA), Terms of Service (TOS), or similar legal instrument or agreement, that includes any clause requiring the Government to indemnify the Contractor or any person or entity for damages, costs, fees, or any other loss or liability that would create an Anti-Deficiency Act violation (31 U.S.C. 1341), the following shall govern:

(i) Any such clause is unenforceable against the Government.

(ii) Neither the Government nor any Government authorized end user shall be deemed to have agreed to such clause by virtue of it appearing in the EULA, TOS, or similar legal instrument or agreement. If the EULA, TOS, or similar legal instrument or agreement is invoked through an "I agree" click box or other comparable mechanism (e.g., "click-wrap" or "browse-wrap" agreements), execution does not bind the Government or any Government authorized end user to such clause.

(iii) Any such clause is deemed to be stricken from the EULA, TOS, or similar legal instrument or agreement.

(2) Paragraph (u)(1) of this clause does not apply to indemnification by the Government that is expressly authorized by statute and specifically authorized under applicable agency regulations and procedures.

(v) Incorporation by reference. The Contractor's representations and certifications, including those completed electronically via the System for Award Management (SAM), are incorporated by reference into the contract.

(End of Clause)

(a) The Contractor shall comply with the following Federal Acquisition Regulation (FAR) clauses, which are incorporated in this contract by reference, to implement provisions of law or Executive orders applicable to acquisitions of commercial items:

(1) 52.203-19, Prohibition on Requiring Certain Internal Confidentiality Agreements or Statements (JAN 2017) (section 743 of Division E, Title VII, of the Consolidated and Further Continuing Appropriations Act, 2015 (Pub. L. 113-235) and its successor provisions in subsequent appropriations acts (and as extended in continuing resolutions)).

(2) 52.204-23, Prohibition on Contracting for Hardware, Software, and Services Developed or Provided by Kaspersky Lab and Other Covered Entities (Jul 2018) (Section 1634 of Pub. L. 115-91).

(3) 52.204-25, Prohibition on Contracting for Certain Telecommunications and Video Surveillance Services or Equipment. (AUG 2019) (Section 889(a)(1)(A) of Pub. L. 115-232).

(4) 52.209-10, Prohibition on Contracting with Inverted Domestic Corporations (Nov 2015). (5) 52.233-3, Protest After Award (AUG 1996) (31 U.S.C. 3553).

(6) 52.233-4, Applicable Law for Breach of Contract Claim (OCT 2004) (Public Laws 108-77 and 108-78 (19 U.S.C. 3805 note)).

(b) The Contractor shall comply with the FAR clauses in this paragraph (b) that the Contracting Officer has indicated as being incorporated in this contract by reference to implement provisions of law or Executive orders applicable to acquisitions of commercial items: (Contracting Officer check as appropriate.)

___ (1) 52.203-6, Restrictions on Subcontractor Sales to the Government (JUN 2020), with Alternate I (Oct 1995) (41 U.S.C. 4704 and 10 U.S.C. 2402).

X (2) 52.203-13, Contractor Code of Business Ethics and Conduct (JUN 2020) (41 U.S.C. 3509).

___ (3) 52.203-15, Whistleblower Protections under the American Recovery and Reinvestment Act of 2009 (JUN 2010) (Section 1553 of Pub. L. 111-5). (Applies to contracts funded by the American Recovery and Reinvestment Act of 2009.)

X (4) 52.204-10, Reporting Executive Compensation and First-Tier Subcontract Awards (JUN 2020) (Pub. L. 109- 282) (31 U.S.C. 6101 note).

___ (5) [Reserved]

___ (6) 52.204-14, Service Contract Reporting Requirements (Oct 2016) (Pub. L. 111-117, section 743 of Div. C).

___ (7) 52.204-15, Service Contract Reporting Requirements for Indefinite-Delivery Contracts (Oct 2016) (Pub. L. 111-117, section 743 of Div. C).

___ (8) 52.209-6, Protecting the Government's Interest When Subcontracting with Contractors Debarred, Suspended, or Proposed for Debarment. (JUN 2020) (31 U.S.C. 6101 note).

X (9) 52.209-9, Updates of Publicly Available Information Regarding Responsibility Matters (OCT 2018) (41 U.S.C. 2313).

___ (10) [Reserved]

___ (11)(i) 52.219-3, Notice of HUBZone Set-Aside or Sole-Source Award (MAR 2020) (15 U.S.C. 657a).

___(ii) Alternate I (MAR 2020) of 52.219-3.

___(12)(i) 52.219-4, Notice of Price Evaluation Preference for HUBZone Small Business Concerns (MAR 2020) (if the offeror elects to waive the preference, it shall so indicate in its offer) (15 U.S.C. 657a).

___(ii) Alternate I (MAR 2020) of 52.219-4.

___(13) [Reserved]

___(14)(i) 52.219-6, Notice of Total Small Business Set-Aside (MAR 2020) (15 U.S.C. 644).

___(ii) Alternate I (MAR 2020).

___(15)(i) 52.219-7, Notice of Partial Small Business Set-Aside (MAR 2020) (15 U.S.C. 644).

___(ii) Alternate I (MAR 2020) of 52.219-7.

X (16) 52.219-8, Utilization of Small Business Concerns (OCT 2018) (15 U.S.C. 637(d)(2) and (3)).

___(17)(i) 52.219-9, Small Business Subcontracting Plan (JUN 2020) (15 U.S.C. 637(d)(4)).

___(ii) Alternate I (NOV 2016) of 52.219-9.

___(iii) Alternate II (NOV 2016) of 52.219-9.

___(iv) Alternate III (JUN 2020) of 52.219-9.

___(v) Alternate IV (JUN 2020) of 52.219-9.

___(18) 52.219-13, Notice of Set-Aside of Orders (MAR 2020) (15 U.S.C. 644(r)).

___(19) 52.219-14, Limitations on Subcontracting (MAR 2020) (15 U.S.C. 637(a)(14)).

___(20) 52.219-16, Liquidated Damages—Subcontracting Plan (Jan 1999) (15 U.S.C. 637(d)(4)(F)(i)).

___(21) 52.219-27, Notice of Service-Disabled Veteran-Owned Small Business Set-Aside (MAR 2020) (15 U.S.C. 657f).

X (22) (i) 52.219-28, Post Award Small Business Program Rerepresentation (MAR 2020) (15 U.S.C. 632(a)(2)).

___(ii) Alternate I (MAR 2020) of 52.219-28.

___(23) 52.219-29, Notice of Set-Aside for, or Sole Source Award to, Economically Disadvantaged Women-Owned Small Business (EDWOSB) Concerns (MAR 2020) (15 U.S.C. 637(m)).

___(24) 52.219-30, Notice of Set-Aside for, or Sole Source Award to, Women-Owned Small Business Concerns Eligible Under the Women-Owned Small Business Program (MAR 2020) (15 U.S.C. 637(m)).

___(25) 52.219-32, Orders Issued Directly Under Small Business Reserves (MAR 2020) (15 U.S.C. 644(r)).

___(26) 52.219-33, Nonmanufacturer Rule (MAR 2020) (15 U.S.C. 637(a)(17)).

X (27) 52.222-3, Convict Labor (JUN 2003) (E.O. 11755).

X (28) 52.222-19, Child Labor—Cooperation with Authorities and Remedies (JAN 2020) (E.O. 13126).

X (29) 52.222-21, Prohibition of Segregated Facilities (APR 2015).

X (30)(i) 52.222-26, Equal Opportunity (SEPT 2016) (E.O. 11246).

__ (ii) Alternate I (FEB 1999) of 52.222-26.

X (31)(i) 52.222-35, Equal Opportunity for Veterans (JUN 2020) (38 U.S.C. 4212).

__ (ii) Alternate I (JUL 2014) of 52.222-35.

X (32)(i) 52.222-36, Equal Opportunity for Workers with Disabilities (JUN 2020) (29 U.S.C. 793).

__ (ii) Alternate I (JUL 2014) of 52.222-36.

X (33) 52.222-37, Employment Reports on Veterans (JUN 2020) (38 U.S.C. 4212).

X (34) 52.222-40, Notification of Employee Rights Under the National Labor Relations Act (DEC 2010) (E.O. 13496).

X (35)(i) 52.222-50, Combating Trafficking in Persons (JAN 2019) (22 U.S.C. chapter 78 and E.O. 13627).

__ (ii) Alternate I (MAR 2015) of 52.222-50 (22 U.S.C. chapter 78 and E.O. 13627).

X (36) 52.222-54, Employment Eligibility Verification (OCT 2015). (E. O. 12989). (Not applicable to the acquisition of commercially available off-the-shelf items or certain other types of commercial items as prescribed in 22.1803.)

__ (37)(i) 52.223-9, Estimate of Percentage of Recovered Material Content for EPA–Designated Items (MAY 2008) (42 U.S.C. 6962(c)(3)(A)(ii)). (Not applicable to the acquisition of commercially available off-the-shelf items.)

__ (ii) Alternate I (MAY 2008) of 52.223-9 (42 U.S.C. 6962(i)(2)(C)). (Not applicable to the acquisition of commercially available off-the-shelf items.)

__ (38) 52.223-11, Ozone-Depleting Substances and High Global Warming Potential Hydrofluorocarbons (JUN 2016) (E.O. 13693).

__ (39) 52.223-12, Maintenance, Service, Repair, or Disposal of Refrigeration Equipment and Air Conditioners (JUN 2016) (E.O. 13693).

__ (40) (i) 52.223-13, Acquisition of EPEAT® Registered Imaging Equipment (JUN 2014) (E.O.s 13423 and 13514).

__ (ii) Alternate I (OCT 2015) of 52.223-13.

__ (41)(i) 52.223-14, Acquisition of EPEAT® Registered Televisions (JUN 2014) (E.O.s 13423 and 13514).

__ (ii) Alternate I (JUN 2014) of 52.223-14.

__ (42) 52.223-15, Energy Efficiency in Energy-Consuming Products (DEC 2007) (42 U.S.C. 8259b).

__ (43)(i) 52.223-16, Acquisition of EPEAT®-Registered Personal Computer Products (OCT 2015) (E.O.s 13423 and 13514).

__ (ii) Alternate I (JUN 2014) of 52.223-16.

X (44) 52.223-18, Encouraging Contractor Policies to Ban Text Messaging While Driving (JUN 2020) (E.O. 13513).

__(45) 52.223-20, Aerosols (JUN 2016) (E.O. 13693).

__(46) 52.223-21, Foams (JUN 2016) (E.O. 13693).

__(47)(i) 52.224-3, Privacy Training (JAN 2017) (5 U.S.C. 552a).

__(ii) Alternate I (JAN 2017) of 52.224-3.

__(48) 52.225-1, Buy American--Supplies (MAY 2014) (41 U.S.C. chapter 83).

__(49) (i) 52.225-3, Buy American--Free Trade Agreements--Israeli Trade Act (MAY 2014) (41 U.S.C. chapter 83, 19 U.S.C. 3301 note, 19 U.S.C. 2112 note, 19 U.S.C. 3805 note, 19 U.S.C. 4001 note, Pub. L. 103-182, 108-77, 108-78, 108-286, 108-302, 109-53, 109-169, 109-283, 110-138, 112-41, 112-42, and 112-43.

__(ii) Alternate I (MAY 2014) of 52.225-3.

__(iii) Alternate II (MAY 2014) of 52.225-3.

__(iv) Alternate III (MAY 2014) of 52.225-3.

__(50) 52.225-5, Trade Agreements (OCT 2019) 19 U.S.C. 2501, et seq., 19 U.S.C. 3301 note).

X (51) 52.225-13, Restrictions on Certain Foreign Purchases (JUN 2008) (E.O.'s, proclamations, and statutes administered by the Office of Foreign Assets Control of the Department of the Treasury).

__(52) 52.225-26, Contractors Performing Private Security Functions Outside the United States (OCT 2016) (Section 862, as amended, of the National Defense Authorization Act for Fiscal Year 2008; 10 U.S.C. 2302 Note).

__(53) 52.226-4, Notice of Disaster or Emergency Area Set-Aside (NOV 2007) (42 U.S.C. 5150

__(54) 52.226-5, Restrictions on Subcontracting Outside Disaster or Emergency Area (NOV 2007) (42 U.S.C. 5150).

__(55) 52.229-12, Tax on Certain Foreign Procurements (JUN 2020).

__(56) 52.232-29, Terms for Financing of Purchases of Commercial Items (FEB 2002) (41 U.S.C. 4505, 10 U.S.C. 2307(f)).

__(57) 52.232-30, Installment Payments for Commercial Items (JAN 2017) (41 U.S.C. 4505, 10 U.S.C. 2307(f)).

X (58) 52.232-33, Payment by Electronic Funds Transfer—System for Award Management (OCT 2018) (31 U.S.C. 3332).

__(59) 52.232-34, Payment by Electronic Funds Transfer—Other than System for Award Management (JUL 2013) (31 U.S.C. 3332).

__(60) 52.232-36, Payment by Third Party (MAY 2014) (31 U.S.C. 3332).

X (61) 52.239-1, Privacy or Security Safeguards (AUG 1996) (5 U.S.C. 552a).

X (62) 52.242-5, Payments to Small Business Subcontractors (JAN 2017)(15 U.S.C. 637(d)(13)).

___(63)(i) 52.247-64, Preference for Privately Owned U.S.-Flag Commercial Vessels (FEB 2006) (46 U.S.C. Appx. 1241(b) and 10 U.S.C. 2631).

___(ii) Alternate I (APR 2003) of 52.247-64.

___(iii) Alternate II (FEB 2006) of 52.247-64.

(c) The Contractor shall comply with the FAR clauses in this paragraph (c), applicable to commercial services, that the Contracting Officer has indicated as being incorporated in this contract by reference to implement provisions of law or Executive orders applicable to acquisitions of commercial items: (Contracting Officer check as appropriate.)

___(1) 52.222-41, Service Contract Labor Standards (AUG 2018) (41 U.S.C. chapter 67).

___(2) 52.222-42, Statement of Equivalent Rates for Federal Hires (MAY 2014) (29 U.S.C. 206 and 41 U.S.C. chapter 67).

___(3) 52.222-43, Fair Labor Standards Act and Service Contract Labor Standards--Price Adjustment (Multiple Year and Option Contracts) (AUG 2018) (29 U.S.C. 206 and 41 U.S.C. chapter 67).

___(4) 52.222-44, Fair Labor Standards Act and Service Contract Labor Standards--Price Adjustment (MAY 2014) (29 U.S.C. 206 and 41 U.S.C. chapter 67).

___(5) 52.222-51, Exemption from Application of the Service Contract Labor Standards to Contracts for Maintenance, Calibration, or Repair of Certain Equipment--Requirements (MAY 2014) (41 U.S.C. chapter 67).

___(6) 52.222-53, Exemption from Application of the Service Contract Labor Standards to Contracts for Certain Services--Requirements (MAY 2014) (41 U.S.C. chapter 67).

___(7) 52.222-55, Minimum Wages Under Executive Order 13658 (DEC 2015) (E.O. 13658).

___(8) 52.222-62, Paid Sick Leave Under Executive Order 13706 (JAN 2017) (E.O. 13706).

___(9) 52.226-6, Promoting Excess Food Donation to Nonprofit Organizations (JUN 2020) (42 U.S.C. 1792).

(d) Comptroller General Examination of Record. The Contractor shall comply with the provisions of this paragraph

(d) if this contract was awarded using other than sealed bid, is in excess of the simplified acquisition threshold, as defined in FAR 2.101, on the date of award of this contract, and does not contain the clause at 52.215-2, Audit and Records--Negotiation.

(1) The Comptroller General of the United States, or an authorized representative of the Comptroller General, shall have access to and right to examine any of the Contractor's directly pertinent records involving transactions related to this contract.

(2) The Contractor shall make available at its offices at all reasonable times the records, materials, and other evidence for examination, audit, or reproduction, until 3 years after final payment under this contract or for any shorter period specified in FAR Subpart 4.7, Contractor Records Retention, of the other clauses of this contract. If this contract is completely or partially terminated, the records relating to the work terminated shall be made available for 3 years after any resulting final termination settlement. Records relating to appeals under the disputes clause or to litigation or the settlement of claims arising under or relating to this contract shall be made available until such appeals, litigation, or claims are finally resolved.

(3) As used in this clause, records include books, documents, accounting procedures and practices, and other data, regardless of type and regardless of form. This does not require the Contractor to create or maintain any record that the Contractor does not maintain in the ordinary course of business or pursuant to a provision of law.

- (e) (1) Notwithstanding the requirements of the clauses in paragraphs (a), (b), (c), and (d) of this clause, the Contractor is not required to flow down any FAR clause, other than those in this paragraph (e)(1) in a subcontract for commercial items. Unless otherwise indicated below, the extent of the flow down shall be as required by the clause—
- (i) 52.203-13, Contractor Code of Business Ethics and Conduct (JUN 2020) (41 U.S.C. 3509).
- (ii) 52.203-19, Prohibition on Requiring Certain Internal Confidentiality Agreements or Statements (JAN 2017) (section 743 of Division E, Title VII, of the Consolidated and Further Continuing Appropriations Act, 2015 (Pub. L. 113-235) and its successor provisions in subsequent appropriations acts (and as extended in continuing resolutions)).
- (iii) 52.204-23, Prohibition on Contracting for Hardware, Software, and Services Developed or Provided by Kaspersky Lab and Other Covered Entities (Jul 2018) (Section 1634 of Pub. L. 115-91).
- (iv) 52.204-25, Prohibition on Contracting for Certain Telecommunications and Video Surveillance Services or Equipment. (AUG 2019) (Section 889(a)(1)(A) of Pub. L. 115-232).
- (v) 52.219-8, Utilization of Small Business Concerns (Oct 2018) (15 U.S.C. 637(d)(2) and (3)), in all subcontracts that offer further subcontracting opportunities. If the subcontract (except subcontracts to small business concerns) exceeds the applicable threshold specified in FAR 19.702(a) on the date of subcontract award, the subcontractor must include 52.219-8 in lower tier subcontracts that offer subcontracting opportunities.
- (vi) 52.222-21, Prohibition of Segregated Facilities (Apr 2015).
- (vii) 52.222-26, Equal Opportunity (Sep 2016) (E.O. 11246).
- (viii) 52.222-35, Equal Opportunity for Veterans (JUN 2020) (38 U.S.C. 4212).
- (ix) 52.222-36, Equal Opportunity for Workers with Disabilities (JUN 2020) (29 U.S.C. 793).
- (x) 52.222-37, Employment Reports on Veterans (JUN 2020) (38 U.S.C. 4212).
- (xi) 52.222-40, Notification of Employee Rights Under the National Labor Relations Act (Dec 2010) (E.O. 13496). Flow down required in accordance with paragraph (f) of FAR clause 52.222-40.
- (xii) 52.222-41, Service Contract Labor Standards (Aug 2018), (41 U.S.C. chapter 67).
- (xiii) (A) 52.222-50, Combating Trafficking in Persons (JAN 2019) (22 U.S.C. chapter 78 and E.O. 13627).
- (B) Alternate I (March 2, 2015) of 52.222-50 (22 U.S.C. chapter 78 and E.O. 13627).
- (xiv) 52.222-51, Exemption from Application of the Service Contract Labor Standards to Contracts for Maintenance, Calibration, or Repair of Certain Equipment--Requirements (May 2014) (41 U.S.C. chapter 67.)
- (xv) 52.222-53, Exemption from Application of the Service Contract Labor Standards to Contracts for Certain Services--Requirements (May 2014) (41 U.S.C. chapter 67)
- (xvi) 52.222-54, Employment Eligibility Verification (Oct 2015) (E. O. 12989).
- (xvii) 52.222-55, Minimum Wages Under Executive Order 13658 (Dec 2015) (E.O. 13658).
- (xviii) [52.222-62](#), Paid Sick Leave Under Executive Order 13706 (Jan 2017) (E.O. 13706).
- (xix) (A) [52.224-3](#), Privacy Training (Jan 2017) ([5 U.S.C. 552a](#)).
-

(B) Alternate I (Jan 2017) of [52.224-3](#).

(xx) 52.225-26, Contractors Performing Private Security Functions Outside the United States (Oct 2016) (Section 862, as amended, of the National Defense Authorization Act for Fiscal Year 2008; 10 U.S.C. 2302 Note).

(xxi) 52.226-6, Promoting Excess Food Donation to Nonprofit Organizations. (JUN 2020) (42 U.S.C. 1792). Flow down required in accordance with paragraph (e) of FAR clause 52.226-6.

(xxii) 52.247-64, Preference for Privately-Owned U.S. Flag Commercial Vessels (Feb 2006) (46 U.S.C. Appx 1241(b) and 10 U.S.C. 2631). Flow down required in accordance with paragraph (d) of FAR clause 52.247-64.

(2) While not required, the Contractor may include in its subcontracts for commercial items a minimal number of additional clauses necessary to satisfy its contractual obligations.

(End of clause)

52.252-2 CLAUSES INCORPORATED BY REFERENCE (FEB 1998)

This contract incorporates one or more clauses by reference, with the same force and effect as if they were given in full text. Upon request, the Contracting Officer will make their full text available. Also, the full text of a clause may be accessed electronically at this/these address(es):

[Insert one or more Internet addresses]

(End of clause)

252.232-7006 WIDE AREA WORKFLOW PAYMENT INSTRUCTIONS (DEC 2018)

(a) Definitions. As used in this clause—

“Department of Defense Activity Address Code (DoDAAC)” is a six position code that uniquely identifies a unit, activity, or organization.

“Document type” means the type of payment request or receiving report available for creation in Wide Area WorkFlow (WAWF).

“Local processing office (LPO)” is the office responsible for payment certification when payment certification is done external to the entitlement system.

“Payment request” and “receiving report” are defined in the clause at 252.232-7003, Electronic Submission of Payment Requests and Receiving Reports.

(b) Electronic invoicing. The WAWF system provides the method to electronically process vendor payment requests and receiving reports, as authorized by Defense Federal Acquisition Regulation Supplement (DFARS) 252.232- 7003, Electronic Submission of Payment Requests and Receiving Reports.

(c) WAWF access. To access WAWF, the Contractor shall—

(1) Have a designated electronic business point of contact in the System for Award Management at <https://www.sam.gov>; and

(2) Be registered to use WAWF at <https://wawf.eb.mil/> following the step-by-step procedures for self-registration available at this web site.

(d) WAWF training. The Contractor should follow the training instructions of the WAWF Web-Based Training Course and use the Practice Training Site before submitting payment requests through WAWF. Both can be accessed by selecting the “Web Based Training” link on the WAWF home page at <https://wawf.eb.mil/>.

(e) WAWF methods of document submission. Document submissions may be via web entry, Electronic Data Interchange, or File Transfer Protocol.

(f) WAWF payment instructions. The Contractor shall use the following information when submitting payment requests and receiving reports in WAWF for this contract or task or delivery order:

(1) Document type. The Contractor shall submit payment requests using the following document type(s):

(i) For cost-type line items, including labor-hour or time-and-materials, submit a cost voucher.

(ii) For fixed price line items—

(A) That require shipment of a deliverable, submit the invoice and receiving report specified by the Contracting Officer.

COMBO INVOICE AND RECEIVING REPORT

(B) For services that do not require shipment of a deliverable, submit either the Invoice 2in1, which meets the requirements for the invoice and receiving report, or the applicable invoice and receiving report, as specified by the Contracting Officer.

(iii) For customary progress payments based on costs incurred, submit a progress payment request.

(iv) For performance based payments, submit a performance based payment request.

(v) For commercial item financing, submit a commercial item financing request.

(2) Fast Pay requests are only permitted when Federal Acquisition Regulation (FAR) 52.213-1 is included in the contract.

[Note: The Contractor may use a WAWF “combo” document type to create some combinations of invoice and receiving report in one step.]

(3) Document routing. The Contractor shall use the information in the Routing Data Table below only to fill in applicable fields in WAWF when creating payment requests and receiving reports in the system.

Routing Data Table*

Field Name in WAWF	Data to be entered in WAWF
***	***
***	***
***	***
***	***
***	***
***	***

(4) Payment request. The Contractor shall ensure a payment request includes documentation appropriate to the type of payment request in accordance with the payment clause, contract financing clause, or Federal Acquisition Regulation 52.216-7, Allowable Cost and Payment, as applicable.

(5) Receiving report. The Contractor shall ensure a receiving report meets the requirements of DFARS Appendix F.

(g) WAWF point of contact.

(1) The Contractor may obtain clarification regarding invoicing in WAWF from the following contracting activity's WAWF point of contact.

(2) Contact the WAWF helpdesk at 866-618-5988, if assistance is needed.

(End of clause)

**Certification of CEO Pursuant to
Securities Exchange Act Rules 13a-15(e) and 15d-15(e)
as Adopted Pursuant to
Section 302 of the Sarbanes-Oxley Act of 2002**

I, J. Joseph Kim, certify that:

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

Date: August 10, 2020

/s/ J. JOSEPH KIM

J. Joseph Kim
President, Chief Executive Officer and Director (Principal Executive Officer)

**Certification of CFO Pursuant to
Securities Exchange Act Rules 13a-15(e) and 15d-15(e)
as Adopted Pursuant to
Section 302 of the Sarbanes-Oxley Act of 2002**

I, Peter Kies, certify that:

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

Date: August 10, 2020

/s/ PETER KIES

Peter Kies
Chief Financial Officer (Principal Financial and Accounting Officer)

**Certification Pursuant to
18 U.S.C. Section 1350,
As Adopted Pursuant to
Section 906 of the Sarbanes-Oxley Act of 2002**

In connection with the quarterly report of Inovio Pharmaceuticals, Inc. (the “Company”) on Form 10-Q for the quarter ending June 30, 2020, as filed with the Securities and Exchange Commission on the date hereof (the “Report”), each of the undersigned, in the capacities and on the date indicated below, hereby certifies, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that to his knowledge:

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

Date: August 10, 2020

/s/ J. JOSEPH KIM

J. Joseph Kim
President, Chief Executive Officer and Director
(Principal Executive Officer)

Date: August 10, 2020

/s/ PETER KIES

Peter Kies
Chief Financial Officer
(Principal Financial and Accounting Officer)

The foregoing certification is being furnished solely pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 and is not filed with the Securities and Exchange Commission as part of the Form 10-Q or as a separate disclosure document and is not incorporated by reference into any filing of Inovio Pharmaceuticals, Inc. under the Securities Act of 1933, as amended, or the Securities Exchange Act of 1934, as amended, irrespective of any general incorporation language contained in such filing. A signed original of this written statement required by Section 906 has been provided to the Company and will be retained by the Company and furnished to the Securities and Exchange Commission or its staff upon request.