Table of Contents

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

FORM 10-Q

(Mark One)

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

For the quarterly period ended March 31, 2011

or

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

For the transition period from to

Commission file number: 001-14895

AVI BIOPHARMA, INC.
(Exact name of registrant as specified in its charter)

Oregon	**93-0797222**
(State or other jurisdiction of incorporation or organization)	**(I.R.S. Employer Identification Number)**
3450 Monte Villa Parkway, Suite 101 Bothell, Washington	**98021**
(Address of principal executive offices)	**(Zip Code)**

Registrant's telephone number, including area code: (425) 354-5038

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

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

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

Large accelerated filer	☐	Accelerated filer	☒
Non-accelerated filer	☐ (Do not check if a smaller reporting company)	Smaller Reporting Company	☐

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

Indicate the number of shares outstanding of each of the issuer's classes of common stock, as of the latest practicable date.

Common Stock with $0.0001 par value	**135,564,651**
(Class)	(Outstanding as of May 1, 2011)

Table of Contents

AVI BIOPHARMA, INC.
FORM 10-Q
INDEX

PART I — FINANCIAL INFORMATION

Item 1. Financial Statements.

AVI BIOPHARMA, INC.
(A Development Stage Company)
BALANCE SHEETS
(unaudited)
(in thousands, except per share data)

	March 31, 2011	December 31, 2010
Assets		
Current Assets:		
Cash and cash equivalents	$ 23,283	$ 33,589
Accounts receivable	13,576	3,224
Other current assets	1,636	1,025
Total Current Assets	38,495	37,838
Property held for sale	1,965	1,965
Property and Equipment, net of accumulated depreciation and amortization of $15,150 and $14,963	2,111	2,070
Patent Costs, net of accumulated amortization of $1,790 and $1,742	4,074	3,980
Other assets	386	123
Total Assets	$ 47,031	$ 45,976
Liabilities and Shareholders' Equity		
Current Liabilities:		
Accounts payable	$ 6,484	$ 1,311
Accrued employee compensation	2,088	2,015
Long-term debt, current portion	82	81
Warrant valuation	31,193	39,111
Deferred revenue	3,304	3,304
Other liabilities	69	35
Total Current Liabilities	43,220	45,857
Commitments and Contingencies	—	—
Long-term debt, non-current portion	1,821	1,842
Other long-term liabilities	1,070	1,094
Shareholders' Equity (Deficit):		
Preferred stock, $.0001 par value, 20,000,000 shares authorized; none issued and outstanding	—	—
Common stock, $.0001 par value, 200,000,000 shares authorized; 112,561,377 and 112,352,452 issued and outstanding	11	11
Additional paid-in capital	306,722	304,818
Deficit accumulated during the development stage	(305,813)	(307,646)
Total Shareholders' Equity (Deficit)	920	(2,817)
Total Liabilities and Shareholders' Equity (Deficit)	$ 47,031	$ 45,976

See accompanying notes to financial statements.

AVI BIOPHARMA, INC.
(A Development Stage Company)
STATEMENTS OF OPERATIONS
(unaudited)
(in thousands, except per share amounts)

	Three months ended March 31,		July 22, 1980 (Inception) through
	2011	2010	March 31, 2011
Revenues from license fees, grants and research contracts	$ 14,296	$ 1,205	$ 103,525
Operating expenses:			
Research and development	14,801	6,096	281,205
General and administrative	5,026	2,844	93,428
Acquired in-process research and development	—	—	29,461
Operating loss	(5,531)	(7,735)	(300,569)
Other income (loss):			
Interest income and other, net	90	42	8,672
(Increase) decrease on warrant valuation	7,274	7,109	(778)
Realized gain on sale of short-term securities—available-for-sale	—	—	3,863
Write-down of short-term securities—available-for-sale	—	—	(17,001)
	7,364	7,151	(5,244)
Net income (loss)	$ 1,833	$ (584)	$ (305,813)
Net income (loss) per share - basic	$ 0.02	$ (0.01)	
Net income (loss) per share - diluted	$ 0.02	$ (0.01)	
Weighted average number of common shares outstanding for computing basic income (loss) per share (in thousands)	112,482	110,429	
Weighted average number of common shares outstanding for computing diluted income (loss) per share (in thousands)	121,285	110,429	

See accompanying notes to financial statements.

AVI BIOPHARMA, INC.
(A Development Stage Company)
STATEMENTS OF CASH FLOWS
(unaudited)
(in thousands)

	Three months ended March 31,		For the Period July 22, 1980 (Inception) through March 31, 2011
	2011	2010	
Cash flows from operating activities:			
Net income (loss)	$ 1,833	$ (584)	$ (305,813)
Adjustments to reconcile net income (loss) to net cash flows used in operating activities:			
Depreciation and amortization	239	347	19,384
Loss on disposal of assets	26	189	2,107
Realized gain on sale of short-term securities—available-for-sale	—	—	(3,863)
Write-down of short-term securities—available-for-sale	—	—	17,001
Impairment charge on real estate owned	—	—	1,336
Stock-based compensation	1,145	426	27,011
Conversion of interest accrued to common stock	—	—	8
Acquired in-process research and development	—	—	29,461
(Gain) loss on warrant liability	(7,274)	(7,109)	778
(Increase) decrease in accounts receivable, other current assets and other assets	(11,226)	334	(15,337)
Net increase in accounts payable, accrued employee compensation, and other liabilities	5,191	85	11,326
Net cash used in operating activities	(10,066)	(6,312)	(216,601)
Cash flows from investing activities:			
Purchase of property and equipment	(227)	(207)	(18,928)
Patent costs	(109)	(297)	(8,474)
Purchase of marketable securities	—	(1)	(112,993)
Sale of marketable securities	—	—	117,724
Acquisition costs	—	—	(2,389)
Net cash used in investing activities	(336)	(505)	(25,060)
Cash flows from financing activities:			
Proceeds from sale of common stock, warrants, and partnership units, net of offering costs, and exercise of options and warrants	116	—	265,614
Repayments of long-term debt	(20)	(20)	(284)
Buyback of common stock pursuant to rescission offering	—	—	(289)
Withdrawal of partnership net assets	—	—	(177)
Issuance of convertible debt	—	—	80
Net cash provided by (used in) financing activities	96	(20)	264,944
Increase (decrease) in cash and cash equivalents	(10,306)	(6,837)	23,283
Cash and cash equivalents:			
Beginning of period	33,589	48,275	—
End of period	$ 23,283	$ 41,438	$ 23,283
SUPPLEMENTAL DISCLOSURE OF CASH FLOW INFORMATION:			
Cash paid during the year for interest	$ 23	$ 19	$ 422
SUPPLEMENTAL SCHEDULE OF NONCASH INVESTING ACTIVITIES AND FINANCING ACTIVITIES:			
Short-term securities—available-for-sale received in connection with the private offering	$ —	$ —	$ 17,897
Issuance of common stock and warrants in satisfaction of liabilities	$ 644	$ —	$ 1,188
Issuance of common stock for building purchase	$ —	$ —	$ 750
Assumption of long-term debt for building purchase	$ —	$ —	$ 2,200
Issuance of common stock for Ercole assets	$ —	$ —	$ 8,075
Assumption of liabilities for Ercole assets	$ —	$ —	$ 2,124

See accompanying notes to financial statements.

AVI BIOPHARMA, INC.
NOTES TO FINANCIAL STATEMENTS
(Unaudited)

Note 1. Basis of Presentation

The accompanying unaudited condensed consolidated financial statements reflect the accounts of AVI BioPharma, Inc. (the "Company") and its consolidated subsidiaries. The accompanying unaudited condensed consolidated balance sheet data as of December 31, 2010 was derived from audited financial statements not included in this report. The accompanying unaudited condensed consolidated financial statements were prepared in conformity with accounting principles generally accepted in the United States of America ("GAAP") and the rules and regulations of the U.S. Securities and Exchange Commission ("SEC") pertaining to interim financial statements. Accordingly, they do not include all of the information and footnotes required by GAAP for complete financial statements.

Management has determined that the Company operates one segment: the development of pharmaceutical products on its own behalf or in collaboration with others.

The accompanying unaudited condensed consolidated financial statements reflect all adjustments that are, in the opinion of management, necessary for a fair presentation of the financial position, results of operations and cash flows for the interim periods. The accompanying unaudited condensed consolidated financial statements should be read in conjunction with the financial statements and the notes thereto included in the Company's annual report on Form 10-K for the year ended December 31, 2010. The results of operations for the interim periods presented are not necessarily indicative of the results to be expected for the full year.

Reclassifications

Certain prior year amounts have been reclassified to conform to current year presentation. These changes did not have a significant impact on the Company's net income, assets, liabilities, shareholders' equity (deficit) or cash flows.

Estimates and Uncertainties

The preparation of financial statements in conformity with GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and the disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenue and expenses during the reporting period. Actual results could differ from those estimates.

Commitments and Contingencies

As of the date of this report, the Company is not a party to any material legal proceedings with respect to itself, its subsidiaries, or any of its material properties. In the normal course of business, the Company may from time to time be named as a party to various legal claims, actions and complaints, including matters involving employment, intellectual property, effects from the use of therapeutics utilizing its technology, or others. It is impossible to predict with certainty whether any resulting liability would have a material adverse effect on the Company's financial position, results of operations or cash flows.

In May 2011, the Company entered into an agreement for the provision of professional services. Pursuant to the terms of the agreement, the Company will make payments totaling $1.2 million over approximately the next 12 months.

Note 2. Fair Value Measurements

The Company measures at fair value certain financial assets and liabilities in accordance with a hierarchy of valuation techniques based on whether the inputs to those valuation techniques are observable or unobservable. Observable inputs reflect market data obtained from independent sources, while unobservable inputs reflect the Company's market assumptions. There are three levels of inputs that may be used to measure fair-value:

- Level 1 — quoted prices for identical instruments in active markets;
- Level 2 — quoted prices for similar instruments in active markets, quoted prices for identical or similar instruments in markets that are not active, and model-derived valuations in which all significant inputs and significant value drivers are observable in active markets; and
- Level 3 — valuations derived from valuation techniques in which one or more significant value drivers are unobservable.

The Company's assets and liabilities measured at fair value on a recurring basis consisted of the following as of the date indicated:

	Fair Value Measurement as of March 31, 2011			
	Total	Level 1	Level 2	Level 3
		(in thousands)		
Cash and cash equivalents	$ 23,283	$ 23,283	$ —	$ —
Total assets	$ 23,283	$ 23,283	$ —	$ —

	Fair Value Measurement as of March 31, 2011			
	Total	Level 1	Level 2	Level 3
		(in thousands)		
Warrants	$ 31,193	$ —	$ —	$ 31,193
Total liabilities	$ 31,193	$ —	$ —	$ 31,193

	Fair Value Measurement as of December 31, 2010			
	Total	Level 1	Level 2	Level 3
		(in thousands)		
Cash and cash equivalents	$33,589	$33,589	$ —	$ —
Total assets	$33,589	$33,589	$ —	$ —

	Fair Value Measurement as of December 31, 2010			
	Total	Level 1	Level 2	Level 3
		(in thousands)		
Warrants	$39,111	$ —	$ —	$39,111
Total liabilities	$39,111	$ —	$ —	$39,111

A reconciliation of the change in value of the Company's warrants for the three months ended March 31, 2011 is as follows:

	Fair Value Measurements Using Significant Unobservable Inputs (Level 3) (in thousands)
Balance at December 31, 2010	$ 39,111
Change in value of warrants	(7,274)
Reclassification upon exercise of warrants	(644)
Balance at March 31, 2011	$ 31,193

A reconciliation of the change in value of the Company's warrants for the three months ended March 31, 2010 is as follows:

	Fair Value Measurements Using Significant Unobservable Inputs (Level 3) (in thousands)
Balance at December 31, 2009	$ 27,609
Change in value of warrants	(7,109)
Balance at March 31, 2010	$ 20,500

See Note 6 — "Warrants" for additional information related to the determination of fair value of the warrants.

The carrying amounts reported in the balance sheets for cash, accounts receivable, accounts payable, and other current monetary assets and liabilities approximate fair value because of the immediate or short-term maturity of these financial instruments.

Note 3. Accounts Receivable

Accounts receivable are stated at invoiced amount and do not bear interest as they are due within 12 months. Because a majority of accounts receivable are from the U.S. government and historically no amounts have been written off, an allowance for doubtful accounts receivable is not considered necessary. The accounts receivable balance included $8.7 million and $0.5 million of receivables that were unbilled at March 31, 2011 and 2010, respectively.

Note 4. U.S. Government Contracts

In the periods presented, substantially all of the revenue generated by the Company was derived from research contracts with the U.S. government. The Company recognizes revenues from U.S. government research contracts during the period in which the related expenditures are incurred and present these revenues and related expenses gross in the consolidated financial statements. As of March 31, 2011, the Company had contracts with the U.S. government pursuant to which it is entitled to receive up to an aggregate of $152.3 million for development of its product candidates, of which $90.4 million had been billed or recognized as revenue and $61.9 million of which relates to development that has not yet been completed and has not been billed. The following is a description of such contracts.

January 2006 Agreements (Ebola and Marburg Host Factors, Dengue, Anthrax and Ricin)

In January 2006, the final version of the 2006 defense appropriations act was enacted, which act included an allocation of $11.0 million to fund the Company's ongoing defense-related programs under four different contracts, all of which were executed in 2007, and the last of which expired in October 2010. Net of government administrative costs, it was anticipated that the Company would receive up to $9.8 million under this allocation. The Company's technology is expected to be used to continue developing RNA-based drugs against Ebola and Marburg viruses. As of March 31, 2011, the Company has recognized revenue of $9.7 million with respect to these contracts and the Company does not expect to receive any additional funds under these contracts.

November 2006 Agreement (Ebola, Marburg and Junín Viruses)

In November 2006, the Company entered into a two-year research contract with the U.S. Defense Threat Reduction Agency ("DTRA") pursuant to which the Company was entitled to $28.0 million to fund development of the Company's antisense therapeutic candidates for Ebola, Marburg and Junín hemorrhagic viruses. In May 2009, this contract was amended to extend the term of the contract until November 2009 and to increase funding by $5.9 million to an aggregate of $33.9 million. In September 2009, the contract was amended again to extend the term of the contract to February 2011 and to increase funding by an additional $11.5 million to an aggregate of $45.4 million. In November 2010, the Company and DTRA agreed that the key activities under this contract had been completed and that further activities under this contract would cease and this contract would be deemed concluded. As of March 31, 2011, the Company had recognized revenue of $38.4 million with respect to this contract and the Company does not expect further significant revenue.

May 2009 Agreement (H1N1/Influenza)

In May 2009, the Company entered into a contract with DTRA to develop swine flu drugs. Under this contract, DTRA will pay up to $4.1 million to the Company for the work involving the application of the Company's proprietary PMO and PMO *plus*™ antisense chemistry and the Company plans to conduct preclinical development of at least one drug candidate and demonstrate that it is effective by testing it on animals. In March 2010, the contract was amended to include testing against additional influenza strains including H5N1 (avian flu), Tamiflu ®-resistant H1N1 (swine flu) and H3N2 (seasonal flu) and funding increased by $4.0 million to an aggregate of $8.1 million. As of March 31, 2011, the Company has recognized revenue of $7.0 million with respect to this contract and does not expect to receive additional significant revenue in 2011.

June 2010 Agreement (H1N1/Influenza)

On June 4, 2010, the Company entered into a contract with the DTRA to advance the development of AVI-7100, which was previously designated AVI-7367 and which has been renumbered by the Company, as a medical countermeasure against the pandemic H1N1 influenza virus in cooperation with the Transformational Medical Technologies program ("TMT") of the U.S. Department of Defense ("DoD"). The contract originally provided for funding of up to $18.0 million (which was reduced to $17.7 million in March 2011 when the contract was definitized) to advance the development of AVI-7100, including studies enabling an Investigational New Drug ("IND") application with the U.S. Food and Drug Administration ("FDA"), the development of an intranasal delivery formulation, and the funding of the entry into a Phase I clinical trial to obtain human safety data to support potential use under an Emergency Use Authorization. In April 2011, the contract was amended to remove clinical studies from the scope of work and to add *in vitro* broad spectrum strain investigation, additional formulation work related to intranasal delivery and an intravenous compatibility study. As a result of this amendment, the amount of funding under the contract decreased to an aggregate of $13.1 million. As of March 31, 2011, the Company has recognized revenue of $11.1 million with respect to this contract and expects to receive the remaining funding under this contract in 2011.

July 2010 Agreement (Ebola and Marburg)

On July 14, 2010, the Company was awarded a new contract with the DoD Chemical and Biological Defense Program through the U.S. Army Space and Missile Defense Command for the advanced development of the Company's hemorrhagic fever virus therapeutic candidates, AVI-6002 and AVI-6003, for Ebola and Marburg viruses, respectively. The contract is funded as part of the TMT program, which was instigated to develop innovative platform-based solutions countering biological threats. The contract is structured into four segments for each therapeutic candidate with potential funding of up to approximately $291 million. Activity under the first segment began in July 2010 and provides for funding to the Company of up to approximately $80 million. Activities under the first segment include Phase I studies in healthy volunteers as well as preclinical studies, and are scheduled over an 18-month period.

After completion of the first segment, and each successive segment, TMT has the option to proceed to the next segment for either or both AVI-6002 and AVI-6003. If TMT exercises its options for all four segments, contract activities would include all clinical and licensure activities necessary to obtain FDA regulatory approval of each therapeutic candidate and would provide for a total funding award to the Company of up to approximately $291 million over a period of approximately six years. Under an earlier contract, the Company completed development activities that culminated in the opening of IND applications for both AVI-6002 and AVI-6003. As of March 31, 2011, the Company has recognized revenue of $21.7 million with respect to the July 2010 Agreement.

The following table sets forth the impact on revenue of each of the contracts with the U.S. government on the Company's results of operations for the three months ended March 31, 2011 and 2010.

	Three Months Ended March 31,	
	2011	2010
	(in thousands)	
January 2006 Agreements *(Ebola and Marburg host factor, Dengue, Anthrax and Ricin)*	$ —	$ 322
November 2006 Agreement *(Ebola, Marburg and Junín Viruses)*	—	545
May 2009 Agreement *(H1N1)*	67	258
June 2010 Agreement *(H1N1)*	2,324	—
July 2010 Agreement *(Ebola and Marburg)*	11,905	—
Other Agreements	—	80
Total	$14,296	$1,205

Note 5. Stock Compensation

Stock Options

The Company sponsors a 2002 Equity Incentive Plan (the "Plan") pursuant to which it may issue options to purchase its common stock to the Company's employees, directors and service providers. In general, stock options granted under the Plan prior to December 31, 2010 vest over a three year period, with one-third of the underlying shares vesting on each anniversary of grant, and have a ten year term. Beginning in January 2011, stock options granted under the Plan will vest over a four year period, with one-fourth of the underlying shares vesting on the first anniversary of the grant and 1/48th of the underlying shares vesting monthly thereafter, such that the underlying shares will be fully vested on the fourth anniversary of the grant. As of March 31, 2011, 2,069,183 shares of common stock remain available for future grant under the Plan.

A summary of the Company's stock option activity with respect to the three months ended March 31, 2011 follows:

Stock Options	Shares	Weighted Average Exercise Price	Weighted Average Remaining Contractual Term	Aggregate Intrinsic Value
Outstanding at December 31, 2010	8,490,055	$ 2.14		
Granted	2,655,000	2.27		
Exercised	—	—		
Canceled or expired	(55,708)	7.15		
Outstanding at March 31, 2011	11,089,347	$ 2.15	7.53	$ 2,924,000
Vested at March 31, 2011 and expected to vest	10,752,743	$ 2.15	7.47	$ 2,885,000
Exercisable at March 31, 2011	4,944,515	$ 2.53	5.49	$ 1,539,000

The weighted-average fair value per share of stock-based awards, including stock options and restricted stock grants, granted to employees during the three months ended March 31, 2011 and 2010 was $1.54 and $1.06, respectively. During the same periods, no stock options were exercised and the total grant date fair value of stock options that vested was $1,089,000 and $838,000, respectively.

Valuation Assumptions

Stock-based compensation costs are based on the fair value calculated from the Black-Scholes option-pricing model on the date of grant for stock options. The fair value of stock grants is amortized as compensation expense on a straight-line basis over the vesting period of the grants.

The fair values of stock options granted during the periods presented were measured on the date of grant using the Black-Scholes option-pricing model, with the following assumptions:

	Three Months Ended March 31,	
	2011	2010
Risk-free interest rate	2.38%	2.83%
Expected dividend yield	0%	0%
Expected lives	5.4 years	5.76 years
Expected volatility	81.6%	87.87%

The risk-free interest rate is estimated using an average of treasury bill interest rates at the time of grant that correlate to the prevailing interest rates for a period commensurate with the expected life. The expected dividend yield is zero as the Company has not paid any dividends to date and does not expect to pay dividends in the future. The expected lives are estimated using expected and historical exercise behavior. The expected volatility is estimated using historical calculated volatility of the Company's common stock over a period commensurate with the expected life. The amounts estimated according to the Black-Scholes option pricing model may not be indicative of the actual values realized upon the exercise of these options by the holders.

The Company is required to estimate potential forfeiture of stock grants and adjust compensation cost recorded accordingly. The estimate of forfeitures is adjusted over the requisite service period to the extent that actual forfeitures differ, or are expected to differ, from such estimates. Changes in estimated forfeitures are recognized through a cumulative catch-up in the period of change and impact the amount of stock compensation expense to be recognized in future periods.

Stock-based Compensation Expense

The amount of stock-based compensation expense recognized in the three months ended March 31, 2011 and 2010 related to stock options was $1,145,000 and $426,000, respectively. A summary of the stock based compensation expense recognized in the statement of operations is as follows:

	Three Months Ended	
	March 31, 2011	March 31, 2010
	(in thousands)	
Research and development	$ 373	$ 199
General and administrative	772	227
Total	$ 1,145	$ 426

As of March 31, 2011, there was $6,836,000 of total unrecognized compensation cost related to non-vested share-based compensation arrangements, including stock options and restricted stock, granted under the Plan. These costs are expected to be recognized over a weighted-average period of 2.6 years.

On January 10, 2011, in connection with her appointment as the Company's senior vice president and general counsel, the Company granted Effie Toshav an option to purchase 650,000 shares of the Company's common stock at an exercise price of $2.58 per share. These shares were granted outside the Plan. This option is exercisable at the rate of 25% of the shares on January 10, 2012 and 1/48th of the total granted shares on each monthly anniversary thereafter such that the option will be fully vested on January 10, 2015. The shares granted are included in the summary stock compensation table noted above in this Note 5.

Paul Medeiros, the Company's Senior Vice President of Business Development and Chief Business Officer, will cease to be an employee of the Company effective June 1, 2011. Pursuant to the terms of a separation and release agreement that the Company expects to enter into with Mr. Medeiros in connection with the termination of his employment, Mr. Medeiros will receive 12 months of his base compensation in a lump sum (an amount equal to $321,300) and all of his unvested stock options will vest on June 1, 2011 and be exercisable for a period of 180 days following June 1, 2011. As of March 31, 2011, the Company has

recorded a deferred liability for the salary and has recorded a charge of $288,000 for the stock compensation expense for the three months ending March 31, 2011.

Note 6. Warrants

Warrants issued in connection with the Company's December 2007, January 2009, and August 2009 financings are classified as liabilities due to their settlement terms. These warrants are non-cash liabilities; the Company is not required to expend any cash to settle these liabilities.

The fair value of these warrants was recorded on the balance sheet at issuance and the warrants are marked to market at each financial reporting period, with changes in the fair value recorded as a gain or loss in the statement of operations. The fair value of the warrants is determined using the Black-Scholes option-pricing model, which requires the use of significant judgment and estimates for the inputs used in the model. The following reflects the weighted-average assumptions for each of the periods indicated:

	Three Months Ended March 31,	
	2011	2010
Risk-free interest rate	0.8%-1.3%	0.1%-2.6%
Expected dividend yield	0%	0%
Expected lives	1.7-3.4 years	0.1-4.4 years
Expected volatility	71.4%-88.5%	62.3%-93.0%
Shares underlying warrants classified as liabilities	28,948,962	30,203,466
Shares underlying warrants classified as equity	255,895	2,129,530
Market value of stock at beginning of period	$ 2.12	$ 1.58
Market value of stock at end of period	$ 1.86	$ 1.18

The risk-free interest rate is estimated using an average of treasury bill interest rates at the valuation date that correlate to the prevailing interest rates over a period commensurate with the expected lives. The expected dividend yield is zero as the Company has not paid any dividends to date and does not expect to pay dividends in the future. The expected lives are based on the remaining contractual lives of the related warrants at the valuation date. The expected volatility is estimated using historical volatility of the Company's common stock, taking into account factors such as future events or circumstances that could impact volatility, over a period commensurate with the expected lives. The amounts estimated according to the Black-Scholes option pricing model may not be indicative of the actual values realized upon the exercise of these warrants by the holders.

The Company also has warrants that are classified as permanent equity; the fair value of the warrants was recorded as additional paid-in capital at the time of issuance and no further adjustments are made. For the three months ended March 31, 2011 and 2010, 255,895 and 2,129,530 shares, respectively, were underlying such warrants.

A summary of the Company's warrant activity with respect to the three months ended March 31, 2011 is as follows:

Warrants	Shares	Weighted Average Exercisable Price	Weighted Average Remaining Contractual Term
Outstanding at December 31, 2010	29,665,441	$ 1.58	
Granted	—	—	
Exercised	(460,584)	$ 1.39	
Canceled or expired	—	—	
Outstanding at March 31, 2011	29,204,857	$ 1.59	3.1

Note 7. Earnings Per Share

Basic net income (loss) per share is computed by dividing net income (loss) by the weighted-average number of common shares outstanding. Diluted net income (loss) per share is computed by dividing net income (loss) by the weighted-average number of common shares and dilutive common stock equivalent shares outstanding.

	Three Months Ended March 31,	
	2011	2010
	(in thousands, except per share data)	
Net income (loss)	$ 1,833	$ (584)
Weighted-average number of shares of common stock and common stock equivalents outstanding:		
Weighted-average number of common shares outstanding for computing basic earnings per share	112,482	110,429
Dilutive effect of warrants and stock options after application of the treasury stock method*	8,803	—
Weighted-average number of common shares outstanding for computing diluted earnings per share	121,285	110,429
Net income (loss) per share – basic	$ 0.02	$ (0.01)
Net income (loss) per share – diluted	$ 0.02	$ (0.01)

* Warrants and stock options to purchase 12,572,964 and 41,504,386 shares of common stock as of March 31, 2011 and 2010, respectively, were excluded from the net income (loss) per share calculation as their effect would have been anti-dilutive.

Note 8. Liquidity

Since its inception in 1980 through March 31, 2011 the Company has incurred losses of approximately $305.8 million, substantially all of which resulted from expenditures related to research and development, general and administrative charges and acquired in-process research and development resulting from two acquisitions. The Company has not generated any material revenue from product sales to date, and there can be no assurance that revenue from product sales will be achieved. The Company expects to incur operating losses over the next several years.

At March 31, 2011, cash and cash equivalents were $23.3 million, compared to $33.6 million at December 31, 2010. The Company's principal sources of liquidity have been equity financings and revenue from its U.S. government research contracts. The Company's principal uses of cash have been research and development expenses, general and administrative expenses and other working capital requirements.

In the periods presented, substantially all of the revenue generated by the Company was derived from research contracts with the U.S. government. As of March 31, 2011, the Company had contracts with the U.S. government pursuant to which it is entitled to receive up to an aggregate of $152.3 million for

development of its product candidates, of which $90.4 million had been recognized as revenue and $61.9 million of which relates to development that has not yet been completed and has not been billed. See Note 4 — "U.S. Government Contracts" for additional information.

In January and August 2009, the Company sold shares of its common stock and also issued warrants to purchase shares of its common stock in offerings registered under the Securities Act of 1933 (the "Securities Act"). See Note 9 — "Equity Financings" for more information.

In April 2011, the Company sold 23.0 million shares of its common stock at the price of $1.50 per share in an offering registered under the Securities Act. The offering generated gross proceeds of $34.5 million.

Note 9. Equity Financings

In January 2009, the Company sold approximately 14.2 million shares of its common stock and also issued warrants to purchase approximately 14.2 million shares of its common stock in an offering registered under the Securities Act. The offering generated net proceeds of approximately $15.5 million. The warrants issued to the investors in the offering have an exercise price of $1.16 per share and are exercisable at any time on or before July 30, 2014. In connection with the offering, the Company also issued to the placement agent a warrant to purchase approximately 427,000 shares of the Company's common stock at an exercise price of $1.45 per share. The warrant issued to the placement agent is exercisable on or before January 30, 2014.

In August 2009, the Company sold approximately 24.3 million shares of its common stock and also issued warrants to purchase approximately 9.7 million shares of its common stock in an offering registered under the Securities Act. The offering generated net proceeds of approximately $32.3 million. The warrants issued to the investors in the offering have an exercise price of $1.78 per share and are exercisable at any time on or before August 25, 2014. The warrants issued in connection with the January and August 2009 offerings are classified as a liability due to their settlement terms. Accordingly, the fair value of the warrants is recorded on the consolidated balance sheet as a liability, and such fair value is adjusted at each financial reporting period with the adjustment to fair value reflected in the consolidated statement of operations as described in greater detail in Note 6 — "Warrants." These warrants are non-cash liabilities; the Company is not required to expend any cash to settle these liabilities.

In April 2011, the Company sold 23.0 million shares of its common stock. See Note 12 — "Subsequent Events" for more information.

Note 10. Income Taxes

The Company has not recognized any liability for unrecognized tax benefits. There are no unrecognized tax benefits included in the balance sheet that would, if recognized, affect the effective tax rate.

The Company's policy is to recognize interest and/or penalties related to income tax matters in income tax expense. The Company had no accrual for interest or penalties on its balance sheet at March 31, 2011 or December 31, 2010, and has not recognized interest and/or penalties in the statement of operations for the three months ended March 31, 2011 or March 31, 2010.

At December 31, 2010, the Company had net deferred tax assets of approximately $109 million. The deferred tax assets are primarily composed of U.S. federal and state tax net operating loss carryforwards, U.S. federal and state research and development credit carryforwards, share-based compensation expense and intangibles. Due to uncertainties surrounding its ability to generate future taxable income to realize these

assets, a full valuation allowance has been established to offset its net deferred tax asset. Additionally, the Internal Revenue Code rules could limit the future use of its net operating loss and research and development credit carryforwards to offset future taxable income based on ownership changes and the value of the Company's stock.

Note 11. Recent Accounting Pronouncements

In January 2010, the Financial Accounting Standards Board ("FASB"), issued guidance to amend the disclosure requirements related to recurring and nonrecurring fair value measurements. Other than requiring additional disclosures, adoption of this new guidance did not have a material impact on the Company's financial statements.

In April 2010, the FASB issued guidance on applying the milestone method of revenue recognition for milestone payments for achieving specific performance measures when those payments are related to uncertain future events. The guidance is effective on a prospective basis to milestones achieved in fiscal years, and interim periods within those years, beginning January 1, 2011. The adoption of this new guidance did not have a material impact on the Company's financial statements.

Note 12. Subsequent Events

In April 2011, the Company sold 23.0 million shares of its common stock at the price of $1.50 per share in an offering registered under the Securities Act. The offering generated gross proceeds of $34.5 million.

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

This section should be read in conjunction with our condensed consolidated financial statements and related notes included in Part I, Item 1 of this Quarterly Report on Form 10-Q and the section contained in our Annual Report on Form 10-K for the year ended December 31, 2010 under the caption "Part II-Item 7—Management's Discussion and Analysis of Financial Condition and Results of Operations." This discussion contains certain forward-looking statements within the meaning of Section 27A of the Securities Act of 1933 and Section 21E of the Exchange Act. All statements other than historical or current facts, including, without limitation, statements about our business strategy, plans and objectives of management, and our future prospects, are forward-looking statements and are sometimes identified by such words as "believe," "expect," "anticipate," "may," "will," "should," "could," "would," "plan," "estimate," "project," "predict," and "potential," and words of similar import. These forward-looking statements include, but are not limited to, statements regarding:

- *our expectations regarding our ability to become a leading developer and marketer of RNA-based therapeutics;*

- *the efficacy, potency and utility of our product candidates in the treatment of rare and infectious diseases, and their potential to treat a broad number of human diseases;*
- *our expectations regarding the development and clinical benefits of our product candidates;*
- *our ability to initiate a Phase II clinical trial for eteplirsen in the first half of 2011 and a pivotal Phase III clinical trial for eteplirsen in the second half of 2012;*
- *the receipt of any required approval from the U.S. Food and Drug Administration, or FDA, or other regulatory approval for our products;*
- *the effect of regulation by FDA and other agencies;*
- *our ability to invalidate some or all of the claims covered by patents issued to competitors;*
- *the extent of protection that our patents provide and our pending patent applications may provide, if patents issue from such applications, to our technologies and programs;*
- *the impact of competitive products, product development, commercialization and technological difficulties;*
- *acceptance of our products, if introduced, in the marketplace;*
- *our expectations about funding from the government and other sources;*
- *our estimates regarding our future revenues, research and development expenses, other expenses, payments to third parties and growth in staffing levels; and*
- *our estimates regarding how long our existing cash and cash equivalents, exclusive of receipt of future proceeds pursuant to our contracts with the U.S. government, will be sufficient to finance our operations and statements about our future capital needs.*

These forward-looking statements are subject to certain risks and uncertainties that could cause actual results to differ materially from those anticipated in the forward-looking statements. Factors that might cause such a difference include, but are not limited to, those discussed in this Quarterly Report in Part II, Item 1A – "Risk Factors," and elsewhere in this Quarterly Report. These statements, like all statements in this Quarterly Report, speak only as of their date, and we undertake no obligation to update or revise these statements in light of future developments. In this report, "we," "our," "us," "AVI," and "Company" refers to AVI BioPharma, Inc.

Overview

We are a biopharmaceutical company focused on the discovery and development of unique RNA-based therapeutics for the treatment of both rare and infectious diseases. Applying our proprietary, highly-differentiated and innovative platform technologies, we are able to target a broad range of diseases and

disorders through distinct RNA-based mechanisms of action. We are primarily focused on rapidly advancing the development of our potentially disease-modifying Duchenne muscular dystrophy drug candidates with the intent to realize the product opportunities of such candidates and provide significant clinical benefits. We are also focused on developing therapeutics for the treatment of infectious diseases. By building on the research under our infectious disease programs funded by the U.S. government and leveraging our highly-differentiated, proprietary technology platforms, we are seeking to further develop our research and development competencies and capabilities and identify additional product candidates. We believe that our organizational capabilities will enable us to achieve these goals and become a leading developer and marketer of RNA-based therapeutics for the treatment of both rare and infectious diseases.

Our highly-differentiated RNA-based technologies work at the most fundamental level of biology and potentially could have a meaningful impact across a broad range of human diseases and disorders. Our lead program focuses on the development of disease modifying therapeutic candidates for Duchenne muscular dystrophy, or DMD, a rare genetic muscle wasting disease caused by the absence of dystrophin, a protein necessary for muscle function. Eteplirsen (the non-proprietary name assigned to AVI-4658) is our lead therapeutic candidate for DMD and is intended to target a substantial group of individuals with DMD. If we are successful in our development efforts, eteplirsen will address a severe unmet medical need. Data from 17 of the 19 individuals enrolled in our Phase Ib/II trial in the United Kingdom and treated systemically with eteplirsen demonstrated some generation of novel dystrophin, and one participant exhibited the first ever reported increase in dystrophin positive muscle fibers to greater than 50% of normal. Restoration of dystrophin expression and dystrophin positive fibers is believed to be critical for successful disease modifying treatment of individuals with DMD. We intend to initiate a Phase II trial for eteplirsen in the first half of 2011 with an objective of entering a pivotal trial in the second half of 2012.

We are also leveraging the capabilities of our RNA-based technology platforms to develop therapeutics for the treatment of infectious diseases. The U.S. Department of Defense, or DoD, has provided significant financial support for the development of therapeutics against Ebola, Marburg, Dengue and influenza viruses, as described in greater detail below.

We employ our highly-differentiated and innovative RNA-based technology platforms in both our DMD and infectious disease programs. The basis for our novel RNA-based therapeutics is our phosphorodiamidate-linked morpholino oligomer, or PMO, chemistries. By applying our technologies, we are able to target a broad range of diseases and disorders through distinct RNA-based mechanisms of action. Unlike other RNA-based therapeutics, our technologies can be used to selectively up-regulate or down-regulate the production of a target protein, or direct the expression of novel proteins involved in human diseases and disorders. We believe that these broad capabilities represent highly competitive RNA-based technology platforms and a strong intellectual property position, which we are leveraging to identify additional product candidates and explore various strategic opportunities. As of March 31, 2011, we owned or held exclusive or partially exclusive licenses to approximately 190 U.S. and corresponding foreign patents and 180 U.S. and corresponding foreign patent applications.

In April 2011, we sold 23.0 million shares of our common stock at $1.50 per share in an offering registered under the Securities Act of 1933, or the Securities Act. The offering generated gross proceeds of $34.5 million.

From our inception in 1980, we have devoted our resources primarily to fund our research and development efforts. As the result of new influenza, Ebola and Marburg U.S. government research contracts, we expect future revenues and research and development costs to increase. We have been unprofitable since inception and, other than government research contracts, limited interest, license fees, and grants, we have had no material revenue. We expect to continue to incur losses for the foreseeable future as we continue our

research and development efforts and seek to enter additional collaborative efforts. As of March 31, 2011, our accumulated deficit was $305.8 million.

Government Contracts

In the periods presented, substantially all of the revenue generated by our company was derived from research contracts with the U.S. government. As of March 31, 2011, we had contracts with the U.S. government pursuant to which we are entitled to receive up to an aggregate of $152.3 million for development of our product candidates, of which $90.4 million had been billed or recognized as revenue and $61.9 million of which relates to development that has not yet been completed and has not been billed or recognized as revenue. The following is a description of such contracts.

January 2006 Agreements (Ebola and Marburg Host Factors, Dengue, Anthrax and Ricin)

In January 2006, the final version of the 2006 defense appropriations act was enacted, which act included an allocation of $11.0 million to fund our ongoing defense-related programs under four different contracts, all of which were executed in 2007, and the last of which expired in October 2010. Net of government administrative costs, it was anticipated that we would receive up to $9.8 million under this allocation. Our technology is expected to be used to continue developing RNA-based drugs against Ebola and Marburg viruses. As of March 31, 2011, we have recognized revenue of $9.7 million with respect to these contracts and do not expect to receive any additional funds under these contracts.

November 2006 Agreement (Ebola, Marburg and Junín Viruses)

In November 2006, we entered into a two-year research contract with the U.S. Defense Threat Reduction Agency, or DTRA, pursuant to which we were entitled to $28.0 million to fund development of our antisense therapeutic candidates for Ebola, Marburg and Junín hemorrhagic viruses. In May 2009, this contract was amended to extend the term of the contract until November 2009 and to increase funding by $5.9 million to an aggregate of $33.9 million. In September 2009, the contract was amended again to extend the term of the contract to February 2011 and to increase funding by an additional $11.5 million to an aggregate of $45.4 million. In November 2010, we and DTRA agreed that the key activities under this contract had been completed and that further activities under this contract would cease and this contract would be deemed concluded. As of March 31, 2011, we had recognized revenue of $38.4 million with respect to this contract and do not expect further significant revenue.

May 2009 Agreement (H1N1/Influenza)

In May 2009, we entered into a contract with DTRA to develop swine flu drugs. Under this contract, DTRA will pay up to $4.1 million to us for the work involving the application of our proprietary PMO and PMO *plus*™ antisense chemistry and we plan to conduct preclinical development of at least one drug candidate and demonstrate that it is effective by testing it on animals. In March 2010, the contract was amended to include testing against additional influenza strains including H5N1 (avian flu), Tamiflu®-resistant H1N1 (swine flu) and H3N2 (seasonal flu) and funding increased by $4.0 million to an aggregate of $8.1 million. As of March 31, 2011, we have recognized revenue of $7.0 million with respect to this contract and do not expect to receive additional significant revenue in 2011.

June 2010 Agreement (H1N1/Influenza)

On June 4, 2010, we entered into a contract with the DTRA to advance the development of AVI-7100, which was previously designated AVI-7367 and which has been renumbered by us, as a medical

countermeasure against the pandemic H1N1 influenza virus in cooperation with the Transformational Medical Technologies program, or TMT, of the U.S. Department of Defense, or DoD. The contract originally provided for funding of up to $18.0 million (which was reduced to $17.7 million in March 2011 when the contract was definitized) to advance the development of AVI-7100, including studies enabling an Investigational New Drug, or IND, application with the U.S. Food and Drug Administration, or FDA, the development of an intranasal delivery formulation, and the funding of the entry into a Phase I clinical trial to obtain human safety data to support potential use under an Emergency Use Authorization. In April 2011, the contract was amended to remove clinical studies from the scope of work and to add *in vitro* broad spectrum strain investigation, additional formulation work related to intranasal delivery and an intravenous compatibility study. As a result of this amendment, the amount of funding under the contract decreased to an aggregate of $13.1 million. As of March 31, 2011, we have recognized revenue of $11.1 million with respect to this contract and expect to receive the remaining funding under this contract in 2011.

July 2010 Agreement (Ebola and Marburg)

On July 14, 2010, we were awarded a new contract with the DoD Chemical and Biological Defense Program through the U.S. Army Space and Missile Defense Command for the advanced development of our hemorrhagic fever virus therapeutic candidates, AVI-6002 and AVI-6003, for Ebola and Marburg viruses, respectively. The contract is funded as part of the TMT program, which was established to develop innovative platform-based solutions countering biological threats. The contract is structured into four segments for each therapeutic candidate with potential funding of up to approximately $291 million. Activity under the first segment began in July 2010 and provides for funding to us of up to approximately $80 million. Activities under the first segment include Phase I studies in healthy volunteers as well as preclinical studies, and are scheduled over an 18-month period.

After completion of the first segment, and each successive segment, TMT has the option to proceed to the next segment for either or both AVI-6002 and AVI-6003. If TMT exercises its options for all four segments, contract activities would include all clinical and licensure activities necessary to obtain FDA regulatory approval of each therapeutic candidate and would provide for a total funding award to us of up to approximately $291 million over a period of approximately six years. Under an earlier contract, we completed development activities that culminated in the opening of IND applications for both AVI-6002 and AVI-6003. As of March 31, 2011, we have recognized revenue of $21.7 million with respect to the July 2010 Agreement.

The following table sets forth the impact on revenue of each of the contracts with the U.S. government on our results of operations for the three months ended March 31, 2011 and 2010

	Three Months Ended March 31,	
	2011	2010
	(in thousands)	
January 2006 Agreements *(Ebola and Marburg host factor, Dengue, Anthrax and Ricin)*	$ —	$ 322
November 2006 Agreement *(Ebola, Marburg and Junín Viruses)*	—	545
May 2009 Agreement *(H1N1)*	67	258
June 2010 Agreement *(H1N1)*	2,324	—
July 2010 Agreement *(Ebola and Marburg)*	11,905	—
Other Agreements	—	80
Total	$14,296	$1,205

Key Financial Metrics

Revenue

Government Research Contract Revenue. In the periods presented, we have generated substantially all of our revenue from U.S. government research contracts. We recognize revenue from U.S. government research contracts during the period in which the related expenditures are incurred and present such revenue and related expense gross in the consolidated financial statements.

We defer recognition of non-refundable upfront fees if we have continuing performance obligations without which the technology, right, product or service conveyed in conjunction with the non-refundable fee has no utility to the licensee that is separate and independent of our performance under the other elements of the arrangement. In addition, if we have continuing involvement through research and development services that are required because our know-how and expertise related to the technology is proprietary to us, or can only be performed by us, then such up-front fees are deferred and recognized over the period of continuing involvement. As of March 31, 2011, we had deferred revenue of $3.3 million, which represents up-front fees received from third parties pursuant to certain contractual arrangements and will be recognized as performance obligations are satisfied.

As the result of recent new government research contracts for H1N1/Influenza, Ebola and Marburg, we expect future revenues to increase in the near term.

Expenses

Research and Development. Research and development expense consists of costs associated with research activities as well as costs associated with our product development efforts, conducting preclinical studies, and clinical trial and manufacturing costs.

Direct research and development expenses associated with our programs include clinical trial site costs, clinical manufacturing costs, costs incurred for consultants and other outside services, such as data management and statistical analysis support, and materials and supplies used in support of the clinical programs. Indirect costs of our clinical program include salaries, stock based compensation, and an allocation of our facility costs. As the result of recent new government research contracts for H1N1/Influenza, Ebola and Marburg, we expect future research and development costs to increase.

The amount and timing of future research and development expense will depend on our ability to obtain U.S. government awards to fund the advanced development of our antiviral therapeutic candidates. Without such funding, we would likely drastically reduce our spending in these areas. Future research and development expenses may also increase if our internal projects, such as DMD, enter later stage clinical development. Our research and development programs are at an early stage and may not result in any approved products. Product candidates that appear promising at early stages of development may not reach the market for a variety of reasons. Similarly, any of our product candidates may be found to be ineffective during clinical trials, may take longer to complete clinical trials than we have anticipated, may fail to receive necessary regulatory approvals, and may prove impracticable to manufacture in commercial quantities at reasonable cost and with acceptable quality.

As a result of these uncertainties and the other risks inherent in the drug development process, we cannot determine the duration and completion costs of current or future clinical stages of any of our product candidates. Similarly, we cannot determine when, if, or to what extent we may generate revenue from the commercialization and sale of any product candidate. The timeframe for development of any product

candidate, associated development costs, and the probability of regulatory and commercial success vary widely.

General and Administrative. General and administrative expense consists principally of salaries, benefits, stock-based compensation expense, and related costs for personnel in our executive, finance, legal, information technology, business development and human resource functions. Other general and administrative expenses include an allocation of our facility costs and professional fees for legal, consulting and accounting services.

Interest Income and Other, Net. Interest income and other, net, consists of interest on our cash, cash equivalents and short-term investments and rental income and other income. Our cash equivalents consist of money market investments. Interest expense includes interest paid on our mortgage loan related to the Corvallis property held for sale. Other income includes rental income on sublease facilities.

Change in Fair Value of Warrants. Warrants issued in connection with our December 2007 and January and August 2009 financings are classified as liabilities due to their settlement terms. These warrants are non-cash liabilities; we are not required to expend any cash to settle these liabilities. The fair market value of these warrants was recorded on the balance sheet at issuance and the warrants are marked to market each financial reporting period, with changes in the fair value recorded as a gain or loss in our statement of operations. The fair value of the warrants is determined using the Black-Scholes option-pricing model, which requires the use of significant judgment and estimates for the inputs used in the model. For more information, see Note 6 — "Warrants" of the unaudited condensed consolidated financial statements included elsewhere in this report.

Critical Accounting Policies and Estimates

The discussion and analysis of our financial condition and results of operations are based upon our condensed consolidated financial statements included elsewhere in this report. The preparation of our financial statements in accordance with accounting principles generally accepted in the United States, or GAAP, requires us to make estimates and judgments that affect the reported amounts of assets, liabilities, revenue and expenses and related disclosure of contingent assets and liabilities for the periods presented. Some of these judgments can be subjective and complex, and, consequently, actual results may differ from these estimates. For any given individual estimate or assumption we make, there may also be other estimates or assumptions that are reasonable. We believe that the estimates and judgments upon which we rely are reasonable based upon historical experience and information available to us at the time that we make these estimates and judgments. To the extent there are material differences between these estimates and actual results, our consolidated financial statements will be affected. Although we believe that our judgments and estimates are appropriate, actual results may differ from these estimates.

The policies that we believe are the most critical to aid the understanding of our financial results include:

- revenue recognition;
- impairment of long-lived assets;
- stock-based compensation; and
- accounting for and valuation of warrants classified as liabilities.

Our critical accounting policies and significant estimates are detailed in our annual report on Form 10-K filed with the Securities and Exchange Commission, or SEC, on March 15, 2011.

Results of Operations for the Three Months Ended March 31, 2011 and 2010

The following table sets forth selected consolidated statements of operations data for each of the periods indicated:

	Three Months Ended March 31,		
	2011	2010	% Change
	(In thousands, except per share amounts)		
Revenue:	$14,296	$ 1,205	1,086%
Expenses:			
Research and development	14,801	6,096	143%
General and administrative	5,026	2,844	77%
Operating loss	(5,531)	(7,735)	(28%)
Other income (loss):			
Interest income and other, net	90	42	114%
Decrease on warrant valuation	7,274	7,109	2%
Net income (loss)	$ 1,833	$ (584)	414%
Basic income (loss) per share	$ 0.02	$ (0.01)	
Diluted income (loss) per share	$ 0.02	$ (0.01)	

Revenue

Revenue for the three months ended March 31, 2011 increased by $13.1 million, or 1,086%, compared to the three months ended March 31, 2010 due to a $11.9 million increase in revenue from the July 2010 Ebola and Marburg and a $2.1 million total increase in the May 2009 and June 2010 H1N1 U.S. government research contracts offset, in part, by a $0.9 million lower revenue associated with the 2006 U.S. government research contracts.

Research and Development Expenses

Research and development expenses for the three months ended March 31, 2011 increased by $8.7 million, or 143%, compared to the three months ended March 31, 2010 due primarily to an $8.0 million increase in spending related to the July 2010 Ebola and Marburg agreements and a $1.2 million increase in spending related to the May 2009 and June 2010 H1N1 agreements, partially offset by $0.5 million decrease in spending on DMD and other research and development programs.

General and Administrative Expenses

General and administrative expenses for the three months ended March 31, 2011 increased by $2.2 million, or 77%, compared to the three months ended March 31, 2010. The significant increase in the three months ended March 31, 2011 is primarily due to $1.2 million in salaries and employee related costs from increased staff, $0.6 million in accrued severance and stock compensation expense related to the planned departure of a senior officer, $0.3 million increase in legal costs and $0.1 million in consulting costs.

Interest Income and Other, Net

Interest income and other, net, for the three months ended March 31, 2011 increased by 114% to $0.1 million compared to the three months ended March 31, 2010. The increase in interest income and other, net, for the three months ended March 31, 2011 compared to the three months ended March 31, 2010 was attributable to increased interest earnings on our invested cash.

Change in Fair Value of Warrant Liability

The changes in fair value of warrant liability for the three months ended March 31, 2011 compared to the three months ended March 31, 2010 was attributable to changes in our stock price. See "—Key Financial Metrics—Change in Fair Value of Warrants," "—Critical Accounting Policies—Warrant Liability," and Note 6 to the unaudited condensed consolidated financial statements included elsewhere in this report.

Net income (loss)

Net income for the three months ended March 31, 2011 increased by $2.4 million, compared to the net loss of $0.6 million for the three months ended March 31, 2010 due primarily due to the higher revenues attributed to the revenue from our agreements with the U.S. government and the change in warrant liability, offset in part by higher research and development costs and general and administration costs.

Liquidity and Capital Resources

At March 31, 2011, cash and cash equivalents were $23.3 million, compared to $33.6 million at December 31, 2010. Our principal sources of liquidity are equity financings and revenue from our U.S. government research contracts. Our principal uses of cash are research and development expenses, general and administrative expenses and other working capital requirements. Based on the factors described below, we believe that our currently available cash and cash equivalents, exclusive of receipt of future proceeds pursuant to our contracts with the U.S. government, are sufficient to finance our operations for at least the next 12 months.

Sources of Funds

Our primary source of revenue is from development of product candidates pursuant to our contracts with the U.S. government. Government funding is subject to the U.S. government's appropriations process and the U.S. government has the right under our contracts with them to terminate such contracts for convenience. If U.S. government funding is not received or is delayed, our results of operations could be materially and adversely affected and we may need to seek additional sources of capital. We do not generate any revenue from non-government, commercial sale of our pharmaceutical product candidates.

In April 2011, we sold 23.0 million shares of our common stock at $1.50 per share in an offering registered under the Securities Act of 1933, or the Securities Act. The offering generated net proceeds of approximately $32.0 million.

We will require additional capital from time to time in the future in order to continue the development of products and to expand our product portfolio. We expect to seek additional financing primarily from, but not limited to, the sale and issuance of equity or debt securities. We cannot assure you that financing will be available when and as needed or that, if available, the financings will be on favorable or acceptable terms. If we are unable to obtain additional financing when and if we require, it would have a material adverse effect

on our business and results of operations. To the extent we issue additional equity securities, our existing shareholders could experience substantial dilution.

We have never generated material commercial revenue from the sale of products and cannot offer any assurances that we will be able to do so in the future.

Uses of Funds

From inception in 1980 through the date of this report, our accumulated deficit is $305.8 million. Our principal uses of cash have been research and development expenses, general and administrative expenses, costs associated with the acquisition of in-process research and development and other working capital requirements.

Historical Trends

	Three Months Ended March 31,	
	2011	2010
	(in thousands)	
Cash provided by (used in):		
Operating activities	$(10,066)	$(6,312)
Investing activities	(336)	(505)
Financing activities	96	(20)
Decrease in cash and equivalents	$ (10,306)	$(6,837)

Operating Activities. We used $10.1 million of cash in operating activities for the three months ended March 31, 2011, an increase of $3.8 million compared to $6.3 million of cash used in operating activities for the three months ended March 31, 2010. The increase in net cash used in operating activities during the comparative periods was primarily attributable to an $11.6 million increase in accounts receivable and other current assets partially offset by a $5.1 million increase in accounts payable and other liabilities and $2.7 million of cash generated by higher revenues from government contracts as compared to the quarter ended March 31, 2010.

Investing Activities. We used $0.3 million of cash in investing activities for the three months ended March 31, 2011, a decrease of $0.2 million compared to $0.5 million of cash used in investing activities for the three months ended March 31, 2010. The fluctuation was attributable to decreased spending on patents.

Financing Activities. Financing activities provided $0.1 million of cash primarily due to warrant exercises offset by a debt repayment for the three months ended March 31, 2011. Cash used by financing activities for the three months ended March 31, 2010 was attributable to debt repayments.

Our future expenditures and capital requirements depend on numerous factors, most of which are difficult to project beyond the short term. These requirements include our ability to meet the requirements of our U.S. government research projects, the progress of our research and development programs and our pre-clinical and clinical trials, the time and costs involved in obtaining regulatory approvals, the cost of filing, prosecuting, defending and enforcing any patent claims and other intellectual property rights, competing technological and market developments, our ability to establish collaborative arrangements and the terms of any such arrangements, and the costs associated with commercialization of our products. Our cash requirements are expected to continue to increase as we advance our research, development and commercialization programs.

Contractual Obligations and Contingencies

In our continuing operations, we have entered into long-term contractual arrangements from time to time for our facilities, the provision of goods and services, and acquisition of technology access rights, among others. The following table presents contractual obligations arising from these arrangements as of March 31, 2011:

	Payments Due by Period				
	Total	Less than 1 Year	1-3 Years	3-5 Years	More than 5 Years
			(in thousands)		
Operating leases — premises	$17,589	$2,429	$4,323	$3,301	$7,536
Royalty payments	$ 1,256	$ 100	$ 160	$ 390	$ 606

In May 2011, we entered into an agreement for the provision of professional services. Pursuant to the terms of the agreement, we will make payments totaling $1.2 million over approximately the next 12 months. The table above excludes these amounts.

Off Balance Sheet Arrangements

During the periods presented, we did not have any relationships with unconsolidated entities or financial partnerships, such as entities often referred to as structured finance or special purpose entities, which would have been established for the purpose of facilitating off-balance sheet arrangements or for another contractually narrow or limited purpose.

Recent Accounting Pronouncements

See Note 11 to the unaudited condensed consolidated financial statements contained in Part I, Item 1 of this report.

Item 3. Quantitative and Qualitative Disclosures about Market Risk .

Interest Rate Sensitivity

We had cash and cash equivalents of $23.3 million and $33.6 million at March 31, 2011 and December 31, 2010, respectively. We do not enter into investments for trading or speculative purposes; our cash equivalents are invested in money market accounts. We believe that we do not have any material exposure to changes in the fair value of these assets in the near term due to extremely low rates of investment interest and to the short term nature of our cash and cash equivalents. Future declines in interest rates, however, would reduce investment income, but are not likely to be a material source of revenue to our company in the foreseeable future. A 0.01% decline in interest rates, occurring January 1, 2011 and sustained throughout the period ended March 31, 2011, would result in a decline in investment income of approximately $2,000 for that same period.

Item 4. Controls and Procedures.

Evaluation of Disclosure Controls and Procedures

We carried out an evaluation as of the end of period covered by this report, under the supervision and with the participation of our management, including our chief executive officer and our chief financial officer, of our disclosure controls and procedures as defined in Rules 13a-15(e) and 15d-15(e) under the Securities Exchange Act of 1934, as amended, or the Exchange Act. The purpose of this evaluation was to determine whether as of the evaluation date our disclosure controls and procedures were effective to provide reasonable assurance that the information we are required to disclose in our filings with the Securities and Exchange Commission, or SEC, under the Exchange Act (i) is recorded, processed, summarized and reported within the

time periods specified in the SEC's rules and forms and (ii) accumulated and communicated to our management, including our chief executive officer and our chief financial officer, as appropriate to allow timely decisions regarding required disclosure. Based on that evaluation, management has concluded that as of March 31, 2011, our disclosure controls and procedures were effective.

Changes in Internal Control Over Financial Reporting

There have been no changes in our internal control over financial reporting during the quarter ended March 31, 2011 that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

PART II — OTHER INFORMATION

Item 1. Legal Proceedings.

As of the date of this report, we are not a party to any material legal proceedings with respect to us, our subsidiaries, or any of our material properties. In the normal course of business, we may from time to time be named as a party to various legal claims, actions and complaints, including matters involving employment, intellectual property, effects from the use of drugs utilizing our technology, or others. It is impossible to predict with certainty whether any resulting liability would have a material adverse effect on our financial position, results of operations or cash flows.

Item 1A. Risk Factors.

Set forth below and elsewhere in this report and in other documents we file with the SEC are descriptions of risks and uncertainties that could cause actual results to differ materially from the results contemplated by the forward-looking statements contained in this report. Because of the following factors, as well as other variables affecting our operating results, past financial performance should not be considered a reliable indicator of future performance and investors should not use historical trends to anticipate results or trends in future periods. The risks and uncertainties described below are not the only ones facing us. Other events that we do not currently anticipate or that we currently deem immaterial also affect our results of operations and financial condition.

Risks Relating to Our Business

Our product candidates are at an early stage of development, and it is possible that none of our product candidates will ever become commercial products.

Our product candidates are in relatively early stages of development. These product candidates will require significant further development, financial resources and personnel to obtain regulatory approval and develop into commercially viable products, if at all. Currently, eteplirsen in DMD, AVI-6002 in Ebola and AVI-6003 in Marburg are in clinical trials, we have an open IND for AVI-7100 in influenza, and the rest of our product candidates are in preclinical development. We expect that much of our effort and many of our expenditures over the next several years will be devoted to development activities associated with eteplirsen in Duchenne muscular dystrophy, or DMD, AVI-6002 in Ebola, AVI-6003 in Marburg and AVI-7100 in influenza. With

current resources, we may be restricted or delayed in our ability to develop other clinical and preclinical product candidates.

Our ability to commercialize any of our product candidates, including eteplirsen, depends on first receiving required regulatory approvals, and it is possible that we may never receive regulatory approval for any of our product candidates based on an inability to adequately demonstrate the safety and effectiveness of our product candidates, lack of funding, changes in the regulatory landscape or other reasons. Even if a product candidate receives regulatory approval, the resulting product may not gain market acceptance among physicians, patients, healthcare payers and the medical community. Assuming that any of our product candidates receives the required regulatory approvals, commercial success will depend on a number of factors, including:

- establishment and demonstration of clinical efficacy and safety to the medical community;
- cost-effectiveness of the product;
- the availability of adequate reimbursement by third parties, including governmental payors such as the Medicare and Medicaid programs, managed care organizations, and private health insurers;
- the product's potential advantage over alternative treatment methods;
- whether the product can be produced in commercial quantities at acceptable costs;
- marketing and distribution support for the product; and
- any exclusivities applicable to the product.

Although we have been granted orphan status for two of our product candidates to date, we are not guaranteed to receive orphan exclusivity based on that status and would not enjoy such exclusivity in the event that another entity could get approval of the same product for the same indication before we receive approval. Furthermore, pediatric exclusivity only applies if another product with exclusivity has not received regulatory approval, so if another regulatory exclusivity or patent protection exists for the product once it is approved, we would not receive the benefit of any pediatric exclusivity.

If we are unable to develop and commercialize any of our product candidates, if development is delayed or if sales revenue from any product candidate that receives marketing approval is insufficient, we may never reach sustained profitability.

If we are unable to obtain or maintain required regulatory approvals, we will not be able to commercialize our product candidates, our ability to generate revenue will be materially impaired and our business will not be successful.

The research, testing, manufacturing, labeling, approval, selling, marketing and distribution of drug products are subject to extensive regulation by the FDA in the United States, and other regulatory authorities in other countries, with regulations differing from country to country. Marketing of our product candidates in the United States or foreign countries is not permitted until we obtain marketing approval from the FDA or other foreign regulatory authorities, and we may never receive regulatory approval for the commercial sale of any of our product candidates. Obtaining marketing approval is a lengthy, expensive and uncertain process and approval is never assured. We have never prepared or filed the applications necessary to gain regulatory approvals. Further, the FDA and other foreign regulatory agencies have substantial discretion in the approval

process, and determining when or whether regulatory approval will be obtained for any product candidate we develop. In this regard, even if we believe the data collected from clinical trials of our product candidates are promising, such data may not be sufficient to support approval by the FDA or any other foreign regulatory authority. In addition, the FDA or their advisors may disagree with our interpretations of data from preclinical studies and clinical trials. Regulatory agencies may approve a product candidate for fewer conditions than requested or may grant approval subject to the performance of post-approval studies for a product candidate. Similarly, regulatory agencies may not approve the labeling claims that are necessary or desirable for the successful commercialization of our product candidates.

In addition, changes in regulatory requirements and guidance may occur and we may need to amend clinical trial protocols or other approval strategies to reflect these changes. Amendments may require us to resubmit our clinical trial protocols to IRBs for reexamination, which may impact the costs, timing or successful completion of a clinical trial. Changes in our approval strategies may require additional studies that were not originally planned. Due to these and other factors, such as the fact that a product utilizing our RNA-based technologies has never been approved by any regulatory authority, our current product candidates or any of our other future product candidates could take a significantly longer time to gain regulatory approval than we expect or may never gain regulatory approval, which could delay or eliminate any potential product revenue by delaying or terminating the potential commercialization of our product candidates.

If we receive regulatory approval for our product candidates, we will also be subject to ongoing FDA obligations and oversight, including adverse event reporting requirements, marketing restrictions and, potentially, other post-marketing obligations, all of which may result in significant expense and limit our ability to commercialize such products. The FDA's policies may also change and additional government regulations may be enacted that could prevent or delay regulatory approval of our product candidates or further restrict or regulate post-approval activities. We cannot predict the likelihood, nature or extent of adverse government regulation that may arise from future legislation or administrative action, either in the United States, or abroad. If we are not able to maintain regulatory compliance, we may be subject to civil and criminal penalties, we may not be permitted to market our products and our business could suffer. Any delay in, or failure to, receive or maintain regulatory approval for any of our product candidates could harm our business and prevent us from ever generating meaningful revenues or achieving profitability. We will need to obtain regulatory approval from authorities in foreign countries to market our product candidates in those countries. We have not filed for regulatory approval to market our product candidates in any foreign jurisdiction. Approval by one regulatory authority does not ensure approval by regulatory authorities in other jurisdictions. If we fail to obtain approvals from foreign jurisdictions, the geographic market for our product candidates would be limited.

Our clinical trials may fail to demonstrate acceptable levels of safety and efficacy of our product candidates, which could prevent or significantly delay their regulatory approval.

To obtain the requisite regulatory approvals to market and sell any of our product candidates, we must demonstrate, through extensive preclinical and clinical studies that the product candidate is safe and effective in humans. Ongoing and future clinical trials of our product candidates may not show sufficient safety or efficacy to obtain regulatory approvals.

Phase I clinical trials generally are not designed to test the efficacy of a product candidate but rather are designed to test safety, to study pharmacokinetics and pharmacodynamics and to understand the product candidate's side effects at various doses and dosing schedules in healthy volunteers. Delays in establishing the appropriate dosage levels can lead to delays in the overall clinical development of a product candidate. As of the date of this report, we do not believe that we have identified a consistently effective dose of eteplirsen for individuals with DMD. We are expeditiously moving to start a U.S.-based clinical trial for eteplirsen at

higher doses in the first half of 2011 to further explore and identify a more consistently effective dose that may be more appropriate for future clinical trials and that can serve as a basis for approval by governmental regulatory authorities; however, we cannot assure you that these efforts will be successful. If a consistently effective dose is found in the U.S. based clinical trial, we will expect to engage in discussions with regulatory authorities about the design and subsequent execution of any further studies which may be required. Regulatory authorities might require more extensive clinical trials than anticipated and conforming to any guidance regulatory authorities provide does not guarantee receipt of marketing approval, even if we believe our clinical trials are successful. Such additional clinical trials might include an open label "extension study" for all participants who have previously received eteplirsen, as well as other participants (e.g., non-ambulatory participants) and any additional placebo-controlled "pivotal" study or studies. If we are not able to establish an optimal dosage in this trial we may need to conduct additional dose-ranging trials before conducting our pivotal trials of the product.

Furthermore, success in preclinical and early clinical trials does not ensure that later larger-scale trials will be successful nor does it predict final results. Acceptable results in early trials may not be reproduced in later trials. For example, pivotal trials for eteplirsen and AVI-7100 will likely involve a larger number of participants to achieve statistical significance, will be expensive and will take a substantial amount of time to complete. As a result, we may conduct lengthy and expensive clinical trials of our product candidates, only to learn that the product candidate is not an effective treatment or is not superior to existing approved therapies, or has an unacceptable safety profile, which could prevent or significantly delay regulatory approval for such product candidate.

The Animal Rule is a new and seldom-used approach to seeking approval of a new drug and may not be a viable pathway for seeking approval of our infectious disease product candidates.

We plan to develop the therapeutic product candidates to treat Ebola and Marburg viruses in the United States using the Animal Rule mechanism. There is no guarantee that the FDA will agree to this approach to the development of our infectious disease product candidates, and if they do not we will have to take a more traditional approach to the development of these products, which may not be possible given ethical considerations and other limitations associated with these deadly diseases. Pursuant to the Animal Rule, the sponsor of a drug product must demonstrate efficacy in animal models and safety in humans. No animal model is established as predicting human outcomes in the prevention or treatment of any filovirus disease. We have yet to demonstrate the predictive value of our animal studies to the FDA's satisfaction. If we fail to do so, we will have to demonstrate efficacy of AVI-6002 and AVI-6003 through adequate well-controlled trials in humans in order to obtain regulatory approval of these products in the United States, which will greatly add to the time and expense required to commercialize these products. Furthermore, the Animal Rule mechanism has become available only relatively recently and has been infrequently used. We do not have any experience successfully navigating this approach to drug approval. The Animal Rule approach has yet to be well tested generally and is currently under evaluation by the FDA. Even if the Animal Rule represents a viable approach to seeking approval of these products, it may present challenges for gaining final regulatory approval for these product candidates, including an extended timeline to approval and less predictable study requirements.

We rely on U.S. government contracts to support several important research and development programs and substantially all of our revenue. If the U.S. government fails to fund such programs on a timely basis or at all, or such contracts are terminated, the results of our operations would be materially and adversely affected.

We rely on U.S. government contracts and awards to fund several of our development programs, including those for the Ebola, Marburg and influenza viruses and for substantially all of our current revenue.

The funding of U.S. government programs is subject to Congressional appropriations. Congress generally appropriates funds on a fiscal year basis even though a program may extend over several fiscal years. Consequently, programs are often only partially funded initially and additional funds are committed only as Congress makes further appropriations. If appropriations for one of our programs become unavailable or are reduced or delayed, our contracts may be terminated or adjusted by the government, which could have a negative impact on our future revenue under such contract or subcontract. From time to time, when a formal appropriation bill has not been signed into law before the end of the U.S. government's fiscal year, Congress may pass a continuing resolution that authorizes agencies of the U.S. government to continue to operate, generally at the same funding levels from the prior year, but does not authorize new spending initiatives, during a certain period. During such a period, or until the regular appropriation bills are passed, delays can occur in government procurement due to lack of funding and such delays can affect our operations during the period of delay.

In addition, U.S. government contracts generally also permit the government to terminate the contract, in whole or in part, without prior notice, at the government's convenience or for default based on performance. If one of our contracts is terminated for convenience, we would generally be entitled to payments for our allowable costs and would receive some allowance for profit on the work performed. If one of our contracts is terminated for default, we would generally be entitled to payments for our work that has been completed to that point. A termination arising out of our default could expose us to liability and have a negative impact on our ability to obtain future contracts. Furthermore, if we fail to satisfy certain performance or deliverable requirements or to adhere to development timelines, revenues associated with the satisfaction of such requirements or timelines may not be realized.

The termination of one or more of these government contracts, whether due to lack of funding, for convenience, or otherwise, or the occurrence of delays or product failures in connection with one or more of these contracts, could negatively impact our financial condition. Furthermore, we can give no assurance that we would be able to procure new U.S. government contracts to offset the revenue lost as a result of termination of any of our existing contracts. Even if our contracts are not terminated and are completed, there is no assurance that we will receive future government contracts.

Our U.S. government contracts may be terminated and we may be liable for penalties under a variety of procurement rules and regulations and changes in government regulations or practices could adversely affect our profitability, cash balances or growth prospects.

We must comply with laws and regulations relating to the formation, administration and performance of U.S. government contracts, which affect how we do business with our customers. Such laws and regulations may potentially impose added costs on our business and our failure to comply with them may lead to penalties and the termination of our U.S. government contracts. Some significant regulations that affect us include:

- the Federal Acquisition Regulation and supplements, which regulate the formation, administration and performance of U.S. government contracts;
- the Truth in Negotiations Act, which requires certification and disclosure of cost and pricing data in connection with contract negotiations; and
- the Cost Accounting Standards, which impose accounting requirements that govern our right to reimbursement under certain cost-based government contracts.

Our contracts with the U.S. government are subject to periodic review and investigation. If such a review or investigation identifies improper or illegal activities, we may be subject to civil or criminal penalties or administrative sanctions, including the termination of contracts, forfeiture of profits, the

triggering of price reduction clauses, suspension of payments, fines and suspension or debarment from doing business with U.S. government agencies. We could also suffer harm to our reputation if allegations of impropriety were made against us, which would impair our ability to win awards of contracts in the future or receive renewals of existing contracts.

In addition, U.S. government agencies routinely audit and review their contractors' performance on contracts, cost structure, pricing practices and compliance with applicable laws, regulations and standards. They also review the adequacy of, and a contractor's compliance with, its internal control systems and policies, including the contractor's purchasing, property, estimating, compensation and management information systems. Such audits may result in adjustments to our contract costs, and any costs found to be improperly allocated will not be reimbursed. We have recorded contract revenues for the periods presented in this report based upon costs we expect to realize upon final audit; however, we do not know the outcome of any future audits and adjustments and, if future audit adjustments exceed our estimates, our results of operations could be adversely affected. Additionally, we may be required to enter into agreements and subcontracts with third parties, including suppliers, consultants and other third party contractors in order to satisfy our contractual obligations pursuant to our agreements with the U.S. government. Negotiating and entering into such arrangements can be time-consuming and we may not be able to reach agreement with such third parties. Any such agreement also has to be compliant with the terms of our government grants. Any delay or inability to enter into such arrangements or entering into such arrangements in a manner that is non-compliant with the terms of our grants, may result in violations of our contracts with the U.S. government.

Clinical trials for our product candidates are expensive and time consuming, may take longer than we expect or may not be completed at all, and their outcomes are uncertain.

We have completed a Phase Ib/II clinical trial for eteplirsen in the UK and announced results in October 2010. We expect to commence additional trials of eteplirsen and other product candidates in the future, including the initiation of a Phase II trial in eteplirsen in the first half of 2011. Each of our clinical trials requires the investment of substantial planning, expense and time and the timing of the commencement, continuation and completion of these clinical trials may be subject to significant delays relating to various causes, including scheduling conflicts with participating clinicians and clinical institutions, difficulties in identifying and enrolling participants who meet trial eligibility criteria, failure of participants to complete the clinical trial, delay or failure to obtain IRB or regulatory approval to conduct a clinical trial at a prospective site, unexpected adverse events and shortages of available drug supply. Participant enrollment is a function of many factors, including the size of the relevant population, the proximity of participants to clinical sites, the eligibility criteria for the trial, the existence of competing clinical trials and the availability of alternative or new treatments. We depend on medical institutions and clinical research organizations, or CROs, to conduct our clinical trials in compliance with Good Clinical Practice, or GCP, and to the extent they fail to enroll participants for our clinical trials, fail to conduct the study to GCP standards or are delayed for a significant time in the execution of our trials, including achieving full enrollment, we may be affected by increased costs, program delays or both, which may harm our business. In addition, we conduct clinical trials in foreign countries which may subject us to further delays and expenses as a result of increased drug shipment costs, additional regulatory requirements and the engagement of foreign CROs, as well as expose us to risks associated with less experienced clinical investigators who are unknown to the FDA, and different standards of medical care. Foreign currency transactions insofar as changes in the relative value of the U.S. dollar to the foreign currency where the trial is being conducted may impact our actual costs. In addition, for some programs (e.g., DMD and Ebola and Marburg infections) there are currently no approved drugs to compare against and an agreement about how to measure efficacy has yet to be reached with the FDA and then demonstrated.

Clinical trials must be conducted in accordance with FDA or other applicable foreign government guidelines and are subject to oversight by the FDA, other foreign governmental agencies and IRBs at the medical institutions where the clinical trials are conducted. In addition, clinical trials must be conducted with supplies of our product candidates produced under cGMP and other requirements in foreign countries, and may require large numbers of participants. The FDA or other foreign governmental agencies or we ourselves could delay, suspend or halt our clinical trials of a product candidate for numerous reasons, including:

- deficiencies in the trial design;
- deficiencies in the conduct of the clinical trial, including failure to conduct the clinical trial in accordance with regulatory requirements or clinical protocols;
- deficiencies in the clinical trial operations or trial sites resulting in the imposition of a clinical hold;
- the product candidate may have unforeseen adverse side effects, including fatalities, or a determination may be made that a clinical trial presents unacceptable health risks;
- the time required to determine whether the product candidate is effective may be longer than expected;
- fatalities or other adverse events arising during a clinical trial that may not be related to clinical trial treatments;
- the product candidate may appear to be no more effective than current therapies;
- the quality or stability of the product candidate may fall below acceptable standards;
- our inability to produce or obtain sufficient quantities of the product candidate to complete the trials;
- our inability to reach 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;
- our inability to obtain IRB approval to conduct a clinical trial at a prospective site;
- our inability to obtain regulatory approval to conduct a clinical trial;
- lack of adequate funding to continue the clinical trial, including the occurrence of unforeseen costs due to enrollment delays, requirements to conduct additional trials and studies and increased expenses associated with the services of our CROs and other third parties;
- our inability to recruit and enroll individuals to participate in clinical trials for reasons including competition from other clinical trial programs for the same or similar indications; or
- our inability to retain participants 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.

In addition, we may experience significant setbacks in advanced clinical trials, even after promising results in earlier trials, such as unexpected adverse events that occur when our product candidates are combined with other therapies and drugs or given to larger populations, which often occur in later-stage clinical trials. In addition, clinical results are frequently susceptible to varying interpretations that may delay, limit or prevent regulatory approvals. Also, patient advocacy groups and parents of trial participants may demand additional clinical trials or continued access to drug even if our interpretation of clinical results received thus far leads us to determine that additional clinical trials or continued access are unwarranted. Any disagreement with patient advocacy groups or parents of trial participants may require management's time and attention and may result in legal proceedings being instituted against us, which could be expensive, time-consuming and distracting, and may result in delay of the program. Negative or inconclusive results or adverse medical events, including participant fatalities that may be attributable to our product candidates, during a clinical trial may necessitate it to be redesigned, repeated or terminated. Further, some of our clinical trials may be overseen by an independent data safety monitoring board, or DSMB, and the DSMB may determine to delay or suspend one or more of these trials due to safety or futility findings based on events occurring during a clinical trial.

We historically have incurred net losses since our inception and we may not achieve or sustain profitability.

We had net income of $1.8 million for the three months ended March 31, 2011, but incurred a net loss of $32.2 million for the year ended December 31, 2010. As of March 31, 2011, our accumulated deficit was $305.8 million. Our losses have resulted principally from expenses incurred in research and development of our technology and products and from general and administrative expenses that we have incurred while building our business infrastructure. We expect to continue to incur significant operating losses in the future as we continue our research and development efforts and seek to obtain regulatory approval of our products. Our ability to achieve profitability depends on our ability to raise additional capital, partner one or more programs, complete development of our products, obtain regulatory approvals and market our products. It is uncertain when, if ever, we will become profitable.

We will need additional funds to conduct our planned research and development efforts. If we fail to continue to attract significant capital or fail to enter into strategic relationships, we may be unable to continue to develop our product candidates.

We will require additional capital from time to time in the future in order to continue the development of product candidates in our pipeline and to expand our product portfolio. The actual amount of funds that we will need will be determined by many factors, some of which are beyond our control. These factors include the success of our research and development efforts, the status of our pre-clinical and clinical testing, costs relating to securing regulatory approvals and the costs and timing of obtaining new patent rights, regulatory changes and competitive and technological developments in the market. An unforeseen change in these factors, or others, might increase our need for additional capital.

We would expect to seek additional financing from the sale and issuance of equity or debt securities, and we cannot predict that financing will be available when and as we need financing or that, if available, the financing terms will be commercially reasonable. If we are unable to obtain additional financing when and if we require, or on commercially reasonable terms, it would have a material adverse effect on our business and results of operations.

If we are able to consummate such financings, the trading price of our common stock could be adversely affected and/or the terms of such financings may adversely affect the interests of our existing shareholders. To the extent we issue additional equity securities, our existing shareholders could experience

substantial dilution in their economic and voting rights. For example, in connection with our December 2007, January 2009, August 2009 and April 2011 financings, we sold an aggregate of 72.2 million shares of our common stock and issued warrants to purchase an additional 29.7 million shares of our common stock.

Further, we may also enter into relationships with pharmaceutical or biotechnology companies to perform research and development with respect to our RNA-based technologies, research programs or to conduct clinical trials and to market our product candidates. We currently do not have a strategic relationship with a third party to perform research or development using our RNA-based technologies or assist us in funding the continued development and commercialization of any of our programs or drug candidates other than that with the U.S. government. If we are unable to enter into partnerships or strategic relationships with respect to our technologies or any of our programs or drug candidates on favorable terms it may impede our ability to discover, develop and commercialize product candidates.

We currently rely on third-party manufacturers and other third parties for production of our drug products and our dependence on these manufacturers may impair the advancement of our research and development programs and the development of our product candidates.

We do not currently have the internal ability to manufacture the product candidates that we need to conduct our clinical trials and we rely upon a limited number of manufacturers to supply our product candidates. We may also need to rely on manufacturers for the production of our product candidates to support our research and development programs. In addition, we rely on other third parties to perform additional steps in the manufacturing process, including filling and labeling of vials and storage of our product candidates. For the foreseeable future, we expect to continue to rely on contract manufacturers and other third parties to produce, fill vials and store sufficient quantities of our product candidates for use in our research and development programs and clinical trials. For example, for our Ebola and Marburg hemorrhagic fever virus development programs, we have entered into supply agreements with two multinational manufacturing firms for the production of the API for Ebola and Marburg therapeutics. There is a limited number of companies that can produce PMO in the quantities and with the quality and purity that we require for our development efforts. If we are required to seek alternative supply arrangements, the resulting delays and potential inability to find a suitable replacement could materially and adversely impact our business.

Our product candidates require precise high-quality manufacturing. The failure to achieve and maintain high quality standards, including failure to detect or control anticipated or unanticipated manufacturing errors could result in patient injury or death or product recalls. Contract drug manufacturers often encounter difficulties involving production yields, quality control and quality assurance and shortages of qualified personnel. If our contract manufacturers or other third parties fail to deliver our product candidates for our research and development programs and for clinical use on a timely basis, with sufficient quality, and at commercially reasonable prices, and we fail to find replacement manufacturers or to develop our own manufacturing capabilities, we may be required to delay or suspend clinical trials, research and development programs or otherwise discontinue development and production of our product candidates. In addition, we depend on outside vendors for the supply of raw materials used to produce our product candidates. If the third-party suppliers were to cease production or otherwise fail to supply us with quality raw materials and we are unable to contract on acceptable terms for these raw materials with alternative suppliers, our ability to have our product candidates manufactured and to conduct preclinical testing and clinical trials of our product candidates would be adversely affected.

We do not yet have all of the agreements necessary for the supply of our product candidates in quantities sufficient for commercial sale and we may not be able to establish or maintain sufficient commercial manufacturing arrangements on commercially reasonable terms. Securing commercial quantities of our product candidates from contract manufacturers will require us to commit significant capital and

resources. We may also be required to enter into long-term manufacturing agreements that contain exclusivity provisions and/or substantial termination penalties. In addition, contract manufacturers have a limited number of facilities in which our product candidates can be produced and any interruption of the operation of those facilities due to events such as equipment malfunction or failure or damage to the facility by natural disasters could result in the cancellation of shipments, loss of product in the manufacturing process or a shortfall in available product candidates.

Our contract manufacturers are required to produce our clinical product candidates under current Good Manufacturing Practice, or cGMP, conditions in order to meet acceptable standards for our clinical trials. If such standards change, the ability of contract manufacturers to produce our product candidates on the schedule we require for our clinical trials may be affected. In addition, contract manufacturers may not perform their obligations under their agreements with us or may discontinue their business before the time required by us to successfully produce and market our product candidates. We and our contract manufacturers are subject to periodic unannounced inspection by the FDA and corresponding state and foreign authorities to ensure strict compliance with cGMP and other applicable government regulations and corresponding foreign standards. We do not have control over a third-party manufacturer's compliance with these regulations and standards. Any difficulties or delays in our contractors' manufacturing and supply of product candidates or any failure of our contractors to maintain compliance with the applicable regulations and standards could increase our costs, cause us to lose revenue, make us postpone or cancel clinical trials, prevent or delay regulatory approval by the FDA and corresponding state and foreign authorities, prevent the import and/or export of our product candidates, or cause our products to be recalled or withdrawn.

We may not be able to successfully scale-up manufacturing of our product candidates in sufficient quality and quantity, which would delay or prevent us from developing our product candidates and commercializing resulting approved drug products, if any.

To date, our product candidates have been manufactured in small quantities for preclinical studies and early stage clinical trials. In order to conduct larger or late-stage scale clinical trials for a product candidate and for commercialization of the resulting drug product if that product candidate is approved for sale, we will need to manufacture it in larger quantities. We may not be able to successfully increase the manufacturing capacity for any of our product candidates, whether in collaboration with third-party manufacturers or on our own, in a timely or cost-effective manner or at all. If a contract manufacturer makes improvements in the manufacturing process for our product candidates, we may not own, or may have to share, the intellectual property rights to those improvements. Significant scale-up of manufacturing may require additional validation studies, which are costly and which the FDA must review and approve. In addition, quality issues may arise during those scale-up activities because of the inherent properties of a product candidate itself or of a product candidate in combination with other components added during the manufacturing and packaging process, or during shipping and storage of the finished product or active pharmaceutical ingredients. If we are unable to successfully scale-up manufacture of any of our product candidates in sufficient quality and quantity, the development of that product candidate and regulatory approval or commercial launch for any resulting drug products may be delayed or there may be a shortage in supply, which could significantly harm our business.

We rely on third parties to provide services in connection with our preclinical and clinical development programs. The inadequate performance by or loss of any of these service providers could affect our product candidate development.

Several third parties provide services in connection with our preclinical and clinical development programs, including in vitro and in vivo studies, assay and reagent development, immunohistochemistry, toxicology, pharmacokinetics, clinical assessments, data monitoring and management and statistical analysis

and other outsourced activities. If these service providers do not adequately perform the services for which we have contracted or cease to continue operations and we are not able to quickly find a replacement provider or we lose information or items associated with our product candidates, our development programs may be delayed.

Our RNA-based, or antisense, technology has not been incorporated into a commercial product and is still at a relatively early stage of development.

Our RNA-based platforms, utilizing proprietary antisense technology, have not been incorporated into a commercial product and are still at a relatively early stage of development. This antisense technology is used in all of our therapeutic candidates, including eteplirsen. We are conducting toxicology, pharmacology, pharmacokinetics and other preclinical studies and, although we have initiated clinical trials for eteplirsen, additional preclinical studies may be required for eteplirsen and before other product candidates enter human clinical trials. For example, we noted unexpected toxicology findings in the kidney as part of our series of preclinical studies for AVI-5038, our preclinical PPMO drug candidate for DMD that is based on a different chemistry, derived from the PMO chemistry used in eteplirsen. Based on those findings, we conducted additional preclinical work to help clarify the therapeutic index of AVI-5038, but have not yet alleviated the toxicity problem. In addition, preclinical models to study participant toxicity and activity of compounds are not necessarily predictive of toxicity or efficacy of these compounds in the treatment of human disease and there may be substantially different results in clinical trials from the results obtained in preclinical studies. Any failures or setbacks utilizing our antisense technology, including adverse effects resulting from the use of this technology in humans, could have a detrimental impact on our internal product candidate pipeline and our ability to maintain and/or enter into new corporate collaborations regarding these technologies, which would negatively affect our business and financial position.

We intend to increase the size of our workforce and if we fail to manage our growth effectively, our growth prospects and operating results could be adversely affected.

Our ability to perform our U.S. government contracts, growth prospects and operating results depend on highly-skilled personnel to conduct research and product development activities and we intend to recruit, hire and retain additional personnel in the near term. Competition for qualified personnel in our industry, particularly those with experience with either rare or infectious diseases that we target, or may target in the future, is intense. In addition, we expect to meet some of our short-term personnel needs by engaging contractors who may be difficult to retain if they are offered permanent positions with other companies. If we are unable to attract, assimilate or retain such personnel or manage our growth effectively, our continued growth, expansion and ability to advance our proprietary programs and perform our U.S. government contracts would be adversely affected.

If we lose our key personnel or are unable to attract and retain additional qualified personnel, our future growth and ability to compete would suffer.

We are highly dependent on the efforts and abilities of the principal members of our senior management. Additionally, we have scientific personnel with significant and unique expertise in RNA-based therapeutics and related technologies. The loss of the services of any one of the principal members of our managerial or scientific staff may prevent us from achieving our business objectives.

In addition, the competition for qualified personnel in the biotechnology field is intense, and our future success depends upon our ability to attract, retain and motivate highly-skilled scientific, technical and managerial employees. In order to develop and commercialize our products successfully, we will be required to expand our workforce and our management ranks. We face intense competition for qualified individuals

from numerous pharmaceutical and biotechnology companies, as well as academic and other research institutions. To the extent we are not able to attract and retain these individuals on favorable terms, our business may be harmed.

Recent changes in our executive leadership and any similar changes in the future may serve as a significant distraction for our management and employees.

As previously disclosed, on April 20, 2010 we entered into a settlement agreement with a shareholder group that had sought a special meeting of our shareholders to replace certain members of our board of directors. In connection with such settlement agreement, among other things, we experienced changes in our executive leadership, including the resignation in April 2010 of our former president and chief executive officer, Dr. Leslie Hudson. Following Dr. Hudson's departure, our board of directors appointed J. David Boyle II, our chief financial officer, to serve as interim chief executive officer and president.

In December 2010, our board of directors appointed Christopher Garabedian, a member of the board of directors, to serve as our president and chief executive officer beginning in January 2011. In connection with Mr. Garabedian's appointment, Mr. Boyle returned to the chief financial officer position. Additionally, in January 2011, Effie Toshav was hired as our Senior Vice President and General Counsel and effective May 2011 we hired Peter Linsley, Ph.D. as our Senior Vice President and Chief Scientific Officer. Such changes, or any other future changes in our executive leadership, including the recently announced departures of Mr. Paul Medeiros, our Senior Vice President of Business Development and Chief Business Officer, and Dr. Graham Johnson, our Senior Vice President of Preclinical Development and Research, may disrupt our operations as we adjust to the reallocation of responsibilities and assimilate new leadership and, potentially, differing perspectives on our strategic direction. If the transition in executive leadership is not smooth, the resulting disruption could negatively affect our operations and impede our ability to execute our strategic plan.

Asserting, defending and maintaining our intellectual property rights could be challenging and costly, and our failure to do so could harm our ability to compete and impair the outcome of our operations. The pharmaceutical, biotechnology and academic environments are highly competitive and competing intellectual property could limit our ability to protect our products.

Our success will depend in significant part on our existing 190 patents (domestic and foreign) issued or licensed to us and 180 (domestic and foreign) pending patent applications and our ability to obtain additional patents and licenses in the future. We license patents from other parties for certain complementary technologies.

We cannot be certain that pending patent applications will result in patents being issued in the United States or foreign countries. In addition, the patents that have been or will be issued may not afford meaningful protection for our technology and products. Competitors may develop products similar to ours that do not conflict with our patents. Pharmaceutical research and development is highly competitive; others may file patents first that cover our products or technology. We are aware of a European patent to which Prosensa has rights that may provide the basis for Prosensa or other parties that have rights to the patent to assert that our drug eteplirsen infringes on such patent. We are currently opposing this patent in the Opposition Division of the European Patent Office and believe that we may be able to invalidate some or all of the claims in this patent. Final resolution of this opposition proceeding may take a number of years. Because this proceeding is ongoing, the outcome cannot be predicted or determined as of the date of this report.

Our success will also depend partly on our ability to operate without infringing upon the proprietary rights of others as well as our ability to prevent others from infringing on our proprietary rights. We may be required at times to take legal action to protect our proprietary rights and, despite our best efforts, we may be sued for infringing on the patent rights of others. We have not received any communications or other indications from owners of related patents or others that such persons believe our products or technology may infringe on their patents. Patent litigation is costly and, even if we prevail, the cost of such litigation could adversely affect our financial condition. If we do not prevail, in addition to any damages we might have to pay, we could be required to stop the infringing activity or obtain a license. If any patent related to our products or technology issues, and if our activities are determined to be covered by such a patent, we cannot assure you that we will be able to obtain or maintain a license, which could have a material adverse effect on our business, financial condition, operating results and ability to obtain and/or maintain our strategic business relationships.

Others may challenge our patents and, as a result, our patents could be narrowed or invalidated. The patent position of pharmaceutical and biotechnology firms, as well as academia, is generally highly uncertain, involves complex legal and factual questions, and has recently been the subject of much litigation. No consistent policy has emerged from the U.S. Patent and Trademark Office, or USPTO, or the courts regarding the breadth of claims allowed or the degree of protection afforded under biotechnology patents. In addition, there is a substantial backlog of pharmaceutical and biotechnology patent applications at the USPTO and the approval or rejection of patents may take several years.

To help protect our proprietary rights in unpatented trade secrets, we require our employees, consultants and advisors to execute confidentiality agreements and invention assignment agreements. However, such agreements may not provide us with adequate protection if confidential information is used or disclosed improperly. In addition, in some situations these agreements may conflict with, or be subject to, the rights of third parties with whom our employees, consultants or advisors have prior employment or consulting relationships. Further, others may independently develop substantially equivalent proprietary information and techniques, or otherwise gain access to our trade secrets.

Our research collaborators may publish data and information to which we have rights. If we cannot maintain the confidentiality of our technology and other confidential information in connection with our collaborations, then our ability to receive patent protection or protect our proprietary information may be impaired.

We face intense competition and rapid technological change, which may result in others discovering, developing or commercializing competing products before or more successfully than we do.

The biotechnology and pharmaceutical industries are highly competitive and subject to significant and rapid technological change. We are aware of many pharmaceutical and biotechnology companies that are actively engaged in research and development in areas related to antisense technology and other RNA technologies or that are developing alternative approaches to or therapeutics for the disease indications on which we are focused. Some of these competitors are developing or testing product candidates that now, or may in the future, compete directly with our product candidates. For example, we believe that companies including Alnylam Pharmaceuticals, Isis Pharmaceuticals, and Santaris share a focus on RNA-based drug discovery and development. Competitors with respect to our exon skipping DMD program, or eteplirsen, include Prosensa and GlaxoSmithKline, or GSK, and other companies such as Acceleron have also been working on DMD programs.

A European based clinical trial evaluating the systemic administration of the Prosensa/GSK lead DMD drug candidate started several months before the start of our similar clinical trial. Prosensa/GSK also

recently announced that the FDA lifted the partial clinical hold on the IND for its lead DMD drug candidate allowing Prosensa/GSK to proceed with longer term clinical studies of its lead DMD drug candidate, including a randomized placebo controlled study in patients in the U.S. The Prosensa/GSK drug candidate may, or may not, prove to be safer or more efficacious than our product candidate and it could gain marketing approval before our product candidate. This might affect our ability to successfully complete a clinical development program or market eteplirsen once approved. This competition may also extend to other exon skipping drugs for DMD limiting our ability to gain market share. We also face significant competition with respect to our influenza program from many different companies, including large biopharmaceutical companies that have both marketed products like Tamiflu ® and other products in various stages of development.

Other potential competitors include large, fully integrated pharmaceutical companies and more established biotechnology companies that have significantly greater resources and expertise in research and development, manufacturing, testing, obtaining regulatory approvals and marketing. Also, academic institutions, government agencies and other public and private research organizations conduct research, seek patent protection and establish collaborative arrangements for research, development, manufacturing and marketing. It is possible that these competitors will succeed in developing technologies that are more effective than our product candidates or that would render our technology obsolete or noncompetitive. Our competitors may, among other things:

- develop safer or more effective products;
- implement more effective approaches to sales and marketing;
- develop less costly products;
- obtain quicker regulatory approval;
- have access to more manufacturing capacity;
- develop products that are more convenient and easier to administer;
- form more advantageous strategic alliances; or
- establish superior proprietary positions.

We may be subject to clinical trial claims and our insurance may not be adequate to cover damages.

We currently have no products that have been approved for commercial sale; however, the current and future use of our product candidates by us and our corporate collaborators in clinical trials, and the sale of any approved products in the future, may expose us to liability claims. These claims might be made directly by consumers or healthcare providers or indirectly by pharmaceutical companies, our corporate collaborators or others selling such products. We may experience financial losses in the future due to product liability claims. We have obtained limited general commercial liability insurance coverage for our clinical trials. We intend to expand our insurance coverage to include the sale of commercial products if we obtain marketing approval for any of our product candidates. However, we may not be able to maintain insurance coverage at a reasonable cost or in sufficient amounts to protect us against all losses. If a successful product liability claim or series of claims is brought against us for uninsured liabilities or in excess of insured liabilities, our assets may not be sufficient to cover such claims and our business operations could be impaired.

Our operations involve the use of hazardous materials, and we must comply with environmental laws, which can be expensive, and may affect our business and operating results.

Our research and development activities involve the use of hazardous materials, including organic and inorganic solvents and reagents. Accordingly, we are subject to federal, state, and local laws and regulations governing the use, storage, handling, manufacturing, exposure to, and disposal of these hazardous materials. In addition, we are subject to environmental, health and workplace safety laws and regulations, including those governing laboratory procedures, exposure to blood-borne pathogens, and the handling of biohazardous materials. Although we believe that our activities conform in all material respects with such environmental laws, there can be no assurance that violations of these laws will not occur in the future as a result of human error, accident, equipment failure, or other causes. Liability under environmental, health and safety laws can be joint and several and without regard to fault or negligence. The failure to comply with past, present, or future laws could result in the imposition of substantial fines and penalties, remediation costs, property damage and personal injury claims, loss of permits or a cessation of operations, and any of these events could harm our business and financial conditions. We expect that our operations will be affected by other new environmental and health and workplace safety laws on an ongoing basis, and although we cannot predict the ultimate impact of any such new laws, they may impose greater compliance costs or result in increased risks or penalties, which could harm our business.

Risks Related to Our Common Stock

Provisions of our articles of incorporation, bylaws and Oregon corporate law might deter acquisition bids for us that might be considered favorable and prevent or frustrate any attempt to replace or remove the then current management and board of directors.

Certain provisions of our articles of incorporation and bylaws may make it more difficult for a third party to acquire control of us or effect a change in our board of directors and management. These provisions include:

- classification of our board of directors into two classes, with one class elected each year;
- prohibition of cumulative voting of shares in the election of directors;
- prohibition of shareholder actions by less than unanimous written consent;
- express authorization of the board of directors to make, alter or repeal our bylaws;
- advance notice requirements for nominations for election to our board or for proposing matters that can be acted upon by shareholders at shareholder meetings; and

- the ability of our board of directors to authorize the issuance of undesignated preferred stock, the terms and rights of which may be established and shares of which may be issued without shareholder approval, including rights superior to the rights of the holders of common stock.

In addition, the Oregon Control Share Act and Business Combination Act may limit parties that acquire a significant amount of voting shares from exercising control over us for specific periods of time. These provisions could discourage, delay or prevent a transaction involving a change of control, even if doing so would benefit our shareholders. These provisions also could discourage proxy contests and make it more difficult for shareholders to elect directors of their choosing or cause us to take other corporate actions, such as replacing or removing management or members of our board of directors.

Our stock price is volatile and may fluctuate due to factors beyond our control.

The market prices for, and trading volumes of, securities of biotechnology companies, including our securities, have been historically volatile. The market has from time to time experienced significant price and volume fluctuations unrelated to the operating performance of particular companies. The market price of our common stock may fluctuate significantly due to a variety of factors, including:

- positive or negative results of testing and clinical trials by ourselves, strategic partners, or competitors;
- delays in entering into strategic relationships with respect to development and/or commercialization of our product candidates or entry into strategic relationships on terms that are not deemed to be favorable to our company;
- technological innovations or commercial product introductions by ourselves or competitors;
- changes in government regulations;
- developments concerning proprietary rights, including patents and litigation matters;
- public concern relating to the commercial value or safety of any of our products;
- financing or other corporate transactions;
- comments by securities analysts;
- the perception that shares of our common stock may be delisted from The NASDAQ Stock Market; or
- general market conditions in our industry or in the economy as a whole.

In addition, the stock market has recently experienced extreme price and volume fluctuations that have often been unrelated or disproportionate to the operating performance of individual companies. Broad market and industry factors may seriously affect the market price of companies' stock, including ours, regardless of actual operating performance. In addition, in the past, following periods of volatility in the overall market and the market price of a particular company's securities, securities class action litigation has

often been instigated against these companies. Such litigation, if instigated against us, could result in substantial costs and a diversion of our management's attention and resources.

Our common stock is listed on The NASDAQ Global Market and we may not be able to maintain that listing, which may make it more difficult for investors to sell shares of our common stock.

Our common stock is listed on The NASDAQ Global Market. The NASDAQ Global Market has several quantitative and qualitative requirements with which companies must comply in order to maintain this listing, including a $1.00 minimum bid price per share and $50 million minimum value of listed securities. In the past our stock price has traded near, and at times below, the $1.00 minimum bid price required for continued listing on NASDAQ. For example, the trading price for our common stock was $0.99 as recently as May 11, 2009. Although NASDAQ in the past has provided relief from the $1.00 minimum bid price requirement as a result of the weakness in the stock market, it may not do so in the future. If we fail to maintain compliance with NASDAQ's listing standards, and our common stock becomes ineligible for listing on The NASDAQ Stock Market the liquidity and price of our common stock would be adversely affected.

If our common stock was delisted, the price of our stock and the ability of our shareholders to trade in our stock would be adversely affected. In addition, we would be subject to a number of restrictions regarding the registration of our stock under U.S. federal securities laws, and we would not be able to allow our employees to exercise their outstanding options, which could adversely affect our business and results of operations. If we are delisted in the future from The NASDAQ Global Market, there may be other negative implications, including the potential loss of confidence by actual or potential collaboration partners, suppliers and employees and the loss of institutional investor interest in our company.

We expect our quarterly operating results to fluctuate in future periods, which may cause our stock price to fluctuate or decline.

Our quarterly operating results have fluctuated in the past, and we believe they will continue to do so in the future. Some of these fluctuations may be more pronounced than they were in the past as a result of the issuance of warrants to purchase 29.7 million shares of our common stock by us in December 2007 and January and August 2009. Each of these warrants is classified as a derivative liability. Accordingly, the fair value of the warrants is recorded on our consolidated balance sheet as a liability, and such fair value is adjusted at each financial reporting date with the adjustment to fair value reflected in our consolidated statement of operations. The fair value of the warrants is determined using the Black-Scholes option valuation model. Fluctuations in the assumptions and factors used in the Black-Scholes model can result in adjustments to the fair value of the warrants reflected on our balance sheet and, therefore, our statement of operations. Due to the classification of such warrants and other factors, quarterly results of operations are difficult to forecast, and period-to-period comparisons of our operating results may not be predictive of future performance. In one or more future quarters, our results of operations may fall below the expectations of securities analysts and investors. In that event, the market price of our common stock could decline. In addition, the market price of our common stock may fluctuate or decline regardless of our operating performance.

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

On January 10, 2011, in connection with her appointment as our senior vice president and general counsel, we granted Effie Toshav an option to purchase 650,000 shares of our common stock at a strike price of $2.58 per share. These shares were granted outside of our 2002 Equity Incentive Plan. This option is exercisable at the rate of 25% of the shares on January 10, 2012 and 1/48th of the total granted shares on each monthly anniversary thereafter such that the option will be fully vested on January 10, 2015. The shares

granted are included in the summary stock option activity table in Note 5 to the accompanying unaudited condensed consolidated financial statements. The option was granted to Ms. Toshav in reliance on the exemption from the registration requirements of the Securities Act provided by Section 4(2) thereof.

Item 3. Defaults Upon Senior Securities.

None.

Item 4. (Removed and Reserved).

Item 5. Other Information.

None.

Item 6. Exhibits.

		Incorporated by Reference to Filings Indicated				
Exhibit No	Exhibit Description	Form	File No.	Exhibit	Filing Date	Filed Herewith
10.1	Executive Employment Agreement dated January 10, 2011 by and between AVI BioPharma, Inc. and Effie Toshav.					X
10.2	Stand Alone Stock Option Grant between AVI BioPharma, Inc. and Effie Toshav dated January 10, 2011.					X
10.3†	Modification No. PZ0001 to Contract Number HDTRA1-10-C-0079 between Defense Threat Reduction Agency and AVI BioPharma, Inc. effective March 3, 2011.					X
10.4	Executive Employment Agreement dated March 29, 2011 by and between AVI BioPharma, Inc. and Peter S. Linsley, Ph.D.					X
31.1	Certification of the Company's President and Chief Executive Officer, Christopher Garabedian, pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.					X
31.2	Certification of the Company's Chief Financial Officer, J. David Boyle II, pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.					X
32.1	Certification of the Company's President and Chief Executive Officer, Christopher Garabedian, pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.					X
32.2	Certification of the Company's Chief Financial Officer, J. David Boyle II, pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.					X

† Portions of this exhibit are omitted and were filed separately with the Securities and Exchange Commission pursuant to an application requesting confidential treatment.

SIGNATURES

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

Date: May 10, 2011

AVI BIOPHARMA, INC.

By: /s/ CHRISTOPHER GARABEDIAN
Christopher Garabedian
President and Chief Executive Officer

EXHIBIT INDEX

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EXHIBIT 10.1

AVI BIOPHARMA, INC.

EXECUTIVE EMPLOYMENT AGREEMENT

This Employment Agreement (the "**Agreement**") is entered into as of January 10, 2011 (the "**Effective Date**") by and between AVI BioPharma, Inc. (the "**Company**"), and Effie Toshav ("**Executive**").

1. Duties and Scope of Employment.

(a) Positions and Duties. As of January 10, 2011 (the "**Start Date**"), Executive will serve as the Company's Senior Vice President and General Counsel. Executive will report to the Chief Executive Officer of the Company and render such business and professional services in the performance of her duties as will reasonably be assigned to him by the Company's Chief Executive Officer.

(b) Obligations. During the Employment Term, Executive will perform her duties faithfully and to the best of her ability and will devote her full business efforts and time to the Company. For the duration of the Employment Term, Executive agrees not to actively engage in any other employment, occupation or consulting activity for any direct or indirect remuneration without the prior approval of the Board.

2. At-Will Employment. The parties agree that Executive's employment with the Company will be "at-will" employment and may be terminated at any time with or without Cause or notice. Executive understands and agrees that neither her job performance nor promotions, commendations, bonuses or the like from the Company give rise to or in any way serve as the basis for modification, amendment, or extension, by implication or otherwise, of her employment with the Company. However, as described in this Agreement, Executive may be entitled to severance benefits depending on the circumstances of Executive's termination of employment with the Company.

3. Term of Agreement. Subject to Section 2 above, this Agreement will have an initial term of two (2) years, commencing on the Effective Date (the "**Employment Term**"). Unless the Company provides at least 90 days' prior written notice of non-renewal prior to the end of an Employment Term, an Employment Term will be extended for an additional two (2) years commencing on the day immediately following the most recently completed Employment Term. If notice of non-renewal is delivered in accordance herewith, at the end of the then current Employment Term, the Agreement will expire in accordance with its terms. Non-renewal at the end of the Employment Term shall not constitute termination without Cause or give Executive an opportunity to terminate her employment for Good Reason; however Executive will be entitled to receive continuing payments of severance pay at a rate equal to Executive's Base Salary, as then in effect, for six (6) months from the date of the end of the Employment Term, which will be paid in accordance with the Company's regular payroll procedures. Notwithstanding anything herein to the contrary, if, during the Employment Term, the Company experiences a Change of Control, the

Employment Term shall be extended to the end of the Change of Control Period (as defined in Section 8(b) below).

4. Compensation.

(a) Base Salary. During the Employment Term, the Company will pay Executive an annual salary of $335,000 as compensation for her services (the "**Base Salary**"). The Base Salary will be paid periodically in accordance with the Company's normal payroll practices and be subject to the usual, required withholdings. Executive's salary will be subject to review and adjustments will be made based upon the Company's normal performance review practices.

(b) Target Bonus. Executive will be eligible to receive a target annual bonus of thirty percent (30%) of Executive's Base Salary, less applicable withholdings, upon achievement of performance objectives to be determined by the Board in its sole discretion (the " **Target Bonus**"). The maximum bonus Executive will be eligible to receive is forty-five percent (45%) of her Base Salary. The Target Bonus, or any portion thereof, will be paid as soon as practicable after the Board determines that the Target Bonus has been earned, but in no event shall the Target Bonus be paid after the later of (i) the fifteenth (15th) day of the third (3rd) month following the close of the Company's fiscal year in which the Target Bonus is earned and (ii) March 15 following the calendar year in which the Target Bonus is earned.

(c) Stock Option. Following the Effective Date, it will be recommended that Executive be granted a stock option to purchase 650,000 shares at an exercise price equal to the fair market value on the date of grant (the " **Option**"). Subject to the accelerated vesting provisions set forth herein, the Option will vest as to twenty-five percent (25%) of the shares subject to the Option on the first anniversary of the Start Date, and as to 1/48th of the shares subject to the Option monthly anniversary thereafter on the same day of the month as the Start Date (and if there is no corresponding day, the last day of the month), so that the Option will be fully vested and exercisable four (4) years from the Start Date, subject to Executive continuing to provide services to the Company through the relevant vesting dates. The Option will be subject to the terms, definitions and provisions of the Company's 2002 Equity Incentive Plan (the " **Equity Plan**") and the stock option agreement by and between Executive and the Company (the " **Option Agreement**"), both of which documents are incorporated herein by reference.

5. Employee Benefits. During the Employment Term, Executive will be entitled to participate in the employee benefit plans currently and hereafter maintained by the Company of general applicability to other executive officers of the Company. The Company reserves the right to cancel or change the benefit plans and programs it offers to its employees at any time.

6. Vacation. Executive will be entitled to paid vacation in accordance with the Company's vacation policy, with the timing and duration of specific days off mutually and reasonably agreed to by the parties hereto.

7. Business Expenses. The Company will reimburse Executive for reasonable travel, entertainment or other business expenses incurred by Executive in the furtherance of, or in connection with, the performance of Executive's duties hereunder, in accordance with the Company's expense reimbursement policy as in effect from time to time.

8. Severance.

(a) Termination for other than Cause, Death or Disability Apart from a Change of Control . If prior to a Change of Control or after twelve (12) months following a Change of Control, the Company (or any parent or subsidiary or successor of the Company) terminates Executive's employment with the Company other than for Cause, death or disability after providing at least thirty (30) days advance notice to Executive, or the Executive resigns from such employment for Good Reason as a result of clause (iv) of such term, then, subject to Section 9, Executive will be entitled to

(i) receive continuing payments of severance pay at a rate equal to Executive's Base Salary, as then in effect, for twelve (12) months from the date of such termination, which will be paid in accordance with the Company's regular payroll procedures;

(ii) accelerated vesting as to 50% of Executive's outstanding and unvested equity awards; and

(iii) an extension of the post-termination exercise period applicable to Executive's outstanding options to one hundred and eighty (180) days following the date of Executive's termination of employment.

(b) Termination for other than Cause, Death or Disability or Resignation by Executive for Good Reason upon or within Twelve Months Following a Change of Control. If upon or within twelve (12) months following a Change of Control (the " **Change of Control Period**"), the Company (or any parent or subsidiary or successor of the Company) terminates Executive's employment with the Company other than for Cause, death or disability after providing at least thirty (30) days advance notice to Executive, or the Executive resigns from such employment for Good Reason, then, subject to Section 9, Executive will be entitled to

(i) receive continuing payments of severance pay at a rate equal to Executive's Base Salary, as then in effect, for twenty-four (24) months from the date of such termination, which will be paid in accordance with the Company's regular payroll procedures;

(ii) accelerated vesting as to 100% of Executive's outstanding and unvested equity awards; and

(iii) an extension of the post-termination exercise period applicable to Executive's outstanding options to one hundred and eighty (180) days following the date of Executive's termination of employment.

(c) Termination for Cause, Death or Disability; Resignation without Good Reason . If Executive's employment with the Company (or any parent or subsidiary or successor of the Company) terminates voluntarily by Executive (except upon resignation for Good Reason during the Change of Control Period), for Cause by the Company or due to Executive's death or disability, then

(i) all vesting will terminate immediately with respect to Executive's outstanding equity awards;

(ii) all payments of compensation by the Company to Executive hereunder will terminate immediately (except as to amounts already earned); and

(iii) Executive will only be eligible for severance benefits in accordance with the Company's established policies, if any, as then in effect.

(d) Exclusive Remedy. In the event of a termination of Executive's employment with the Company (or any parent or subsidiary or successor of the Company), the provisions of this Section 8 are intended to be and are exclusive and in lieu of any other rights or remedies to which Executive or the Company may otherwise be entitled, whether at law, tort or contract, in equity, or under this Agreement. Executive will be entitled to no severance or other benefits upon termination of employment with respect to acceleration of award vesting, extension of the option exercise period, or severance pay other than those benefits expressly set forth in this Section 8.

9. Conditions to Receipt of Severance; No Duty to Mitigate .

(a) Separation Agreement and Release of Claims . The receipt of any severance pursuant to Section 8(a) or (b) will be subject to Executive signing and not revoking a separation agreement and release of claims in a form reasonably satisfactory to the Company (the " **Release**") and provided that such Release becomes effective and irrevocable no later than sixty (60) days following the termination date (such deadline, the " **Release Deadline**"). No severance will be paid or provided until the Release becomes effective. If the Release does not become effective by the Release Deadline, Executive forfeits her right to any severance or similar payment under the Agreement. In the event Executive's termination of employment occurs at a time during the calendar year where it would be possible for the Release to become effective in the calendar year following the calendar year in which her termination of employment occurs, then any severance that would be deferred in accordance with the paragraph below will be paid on the first payroll date to occur during the calendar year following the calendar year in which such termination of employment occurs, or such later time as required by (i) the payment schedule applicable to each payment or benefit, (ii) the date the Release becomes effective, or (iii) Section 9(c) below.

(b) Non-Competition; Non-Solicitation. The receipt of any severance benefits pursuant to Section 8(a) or (b) will be subject to Executive not violating the provisions of Sections 13 and 14. In the event Executive breaches the provisions of Sections 13 and/or 14, or otherwise materially breaches this Agreement, all continuing payments and benefits to which Executive may otherwise be entitled pursuant to Section 8(a) or (b), as applicable, will immediately cease.

(c) Section 409A.

(i) Notwithstanding anything to the contrary in this Agreement, no severance pay or benefits to be paid or provided to Executive, if any, pursuant to this Agreement that, when considered together with any other severance payments or separation benefits, are considered deferred compensation under Code Section 409A, and the final regulations and any guidance promulgated thereunder (" **Section 409A**") (together, the "**Deferred Payments**") will be paid or otherwise provided until Executive has a "separation from service" within the meaning of Section 409A. Similarly, no severance payable to Executive, if any, pursuant to this Agreement that otherwise would be exempt from Section 409A pursuant to Treasury Regulation Section 1.409A-

1(b)(9) will be payable until Executive has a "separation from service" within the meaning of Section 409A.

(ii) Any severance payments or benefits under this Agreement that would be considered Deferred Payments will be paid on, or, in the case of installments, will not commence until, the sixtieth (60th) day following Executive's separation from service, or, if later, such time as required by Section 9(c)(iii). Except as required by Section 9(c)(iii), any installment payments that would have been made to Executive during the sixty (60) day period immediately following Executive's separation from service but for the preceding sentence will be paid to Executive on the sixtieth (60th) day following Executive's separation from service and the remaining payments shall be made as provided in this Agreement.

(iii) Notwithstanding anything to the contrary in this Agreement, if Executive is a "specified employee" within the meaning of Section 409A at the time of Executive's termination (other than due to death), then the Deferred Payments that are payable within the first six (6) months following Executive's separation from service, will become payable on the first payroll date that occurs on or after the date six (6) months and one (1) day following the date of Executive's separation from service. All subsequent Deferred Payments, if any, will be payable in accordance with the payment schedule applicable to each payment or benefit. Notwithstanding anything herein to the contrary, if Executive dies following Executive's separation from service, but prior to the six (6) month anniversary of the separation from service, then any payments delayed in accordance with this paragraph will be payable in a lump sum as soon as administratively practicable after the date of Executive's death and all other Deferred Payments will be payable in accordance with the payment schedule applicable to each payment or benefit. Each payment and benefit payable under this Agreement is intended to constitute a separate payment for purposes of Section 1.409A-2(b)(2) of the Treasury Regulations.

(iv) Any amount paid under this Agreement that satisfies the requirements of the "short-term deferral" rule set forth in Section 1.409A-1(b)(4) of the Treasury Regulations will not constitute Deferred Payments for purposes of clause (i) above.

(v) Any amount paid under this Agreement that qualifies as a payment made as a result of an involuntary separation from service pursuant to Section 1.409A-1(b)(9)(iii) of the Treasury Regulations that does not exceed the Section 409A Limit (as defined below) will not constitute Deferred Payments for purposes of clause (i) above.

(vi) The foregoing provisions are intended to comply with the requirements of Section 409A so that none of the severance payments and benefits to be provided hereunder will be subject to the additional tax imposed under Section 409A, and any ambiguities herein will be interpreted to so comply. The Company and Executive agree to work together in good faith to consider amendments to this Agreement and to take such reasonable actions which are necessary, appropriate or desirable to avoid imposition of any additional tax or income recognition prior to actual payment to Executive under Section 409A.

(d) Confidential Information Agreement. Executive's receipt of any payments or benefits under Section 8 will be subject to Executive continuing to comply with the terms of Confidential Information Agreement (as defined in Section 12).

(e) No Duty to Mitigate. Executive will not be required to mitigate the amount of any payment contemplated by this Agreement, nor will any earnings that Executive may receive from any other source reduce any such payment.

10. Definitions.

(a) Cause. For purposes of this Agreement, "**Cause**" is defined as (i) an act of dishonesty made by Executive in connection with Executive's responsibilities as an employee, (ii) Executive's conviction of, or plea of nolo contendere to, a felony or any crime involving fraud, embezzlement or any other act of moral turpitude; (iii) Executive's gross misconduct; (iv) Executive's unauthorized use or disclosure of any proprietary information or trade secrets of the Company or any other party to whom Executive owes an obligation of nondisclosure as a result of Executive's relationship with the Company; (v) Executive's willful breach of any obligations under any written agreement or covenant with the Company; or (vi) Executive's continued failure to perform her employment duties after Executive has received a written demand of performance from the Company which specifically sets forth the factual basis for the Company's belief that Executive has not substantially performed her duties and has failed to cure such non-performance to the Company's satisfaction within ten (10) business days after receiving such notice.

(b) Change of Control. For purposes of this Agreement, "**Change of Control**" of the Company is defined as:

(i) any "person" (as such term is used in Sections 12(d) and 13(d) of the Securities Exchange Act of 1934, as amended) is or becomes the "beneficial owner" (as defined in Rule 13d-3 under said Act), directly or indirectly, of securities of the Company representing more than 50% of the total voting power represented by the Company's then outstanding voting securities; or

(ii) the date of the consummation of a merger or consolidation of the Company with any other corporation that has been approved by the stockholders of the Company, other than a merger or consolidation which would result in the voting securities of the Company outstanding immediately prior thereto continuing to represent (either by remaining outstanding or by being converted into voting securities of the surviving entity or its parent) at least fifty percent (50%) of the total voting power represented by the voting securities of the Company or such surviving entity or its parent outstanding immediately after such merger or consolidation; or

(iii) the date of the consummation of the sale or disposition by the Company of all or substantially all the Company's assets.

Notwithstanding the foregoing provisions of this definition, a transaction will not be deemed a Change of Control unless the transaction qualifies as a "change in control event" within the meaning of Section 409A.

(c) Code. For purposes of this Agreement, "**Code**" means the Internal Revenue Code of 1986, as amended.

(d) Good Reason. For the purposes of this Agreement, "**Good Reason**" means the termination by Executive upon the occurrence of any of the below described events. Executive

must provide notice to the Company of the existence of such event within ninety (90) days of the first occurrence of such event, and the Company will have thirty (30) days to remedy the condition, in which case no Good Reason shall exist. If the Company fails to remedy the condition within such thirty (30) day period, Executive must terminate employment within two (2) years of the first occurrence of such event. The events which constitute a Good Reason termination are: (i) the assignment of a different title or change that results in a material reduction in Executive's duties or responsibilities; (ii) a material reduction by the Company in Executive's base compensation, other than a reduction in her Base Salary that is part of a general salary reduction affecting employees generally and provided the reduction is not greater, percentage-wise, than the reduction affecting other employees generally or failure to provide an annual increase in base compensation commensurate with other executives; provided, however, in determining whether to provide an annual increase in base compensation commensurate with an annual increase provided to other executives, the Company may take into account factors such as market levels of compensation, Executive's overall performance, and other factors reasonably considered by the Company's compensation committee and/or Board, so long as such determination is not made in bad faith with the intent to discriminate against Executive; (iii) relocation of Executive's principal place of business of greater than seventy-five (75) miles from its then location; or (iv) Executive is required to report to any person other than the Chief Executive Officer of the Company or Board.

(e) Section 409A Limit. For purposes of this Agreement, "**Section 409A Limit**" will mean two (2) times the lesser of: (i) Executive's annualized compensation based upon the annual rate of pay paid to Executive during the Executive's taxable year preceding the Executive's taxable year of her or her separation from service as determined under Treasury Regulation Section 1.409A-1(b)(9)(iii)(A)(1) and any Internal Revenue Service guidance issued with respect thereto; or (ii) the maximum amount that may be taken into account under a qualified plan pursuant to Section 401(a)(17) of the Internal Revenue Code for the year in which Executive's separation from service occurred.

11. Limitation on Payments. In the event that the severance and other benefits provided for in this Agreement or otherwise payable to Executive (i) constitute "parachute payments" within the meaning of Section 280G of the Code and (ii) but for this Section 11, would be subject to the excise tax imposed by Section 4999 of the Code, then Executive's severance benefits will be either:

(a) delivered in full, or

(b) delivered as to such lesser extent which would result in no portion of such severance benefits being subject to the excise tax under Section 4999 of the Code,

whichever of the foregoing amounts, taking into account the applicable federal, state and local income taxes and the excise tax imposed by Section 4999, results in the receipt by Executive on an after-tax basis, of the greatest amount of severance benefits, notwithstanding that all or some portion of such severance benefits may be taxable under Section 4999 of the Code. If a reduction in the severance and other benefits constituting "parachute payments" is necessary so that no portion of such severance benefits is subject to the excise tax under Section 4999 of the Code, the reduction shall occur in the following order: (1) reduction of the cash severance payments; (2) cancellation of accelerated vesting of equity awards; and (3) reduction of continued employee benefits. In the event that acceleration of vesting of equity award compensation is to be reduced, such acceleration of

vesting shall be cancelled in the reverse order of the date of grant of Executive's equity awards. If two or more equity awards are granted on the same date, each award will be reduced on a pro-rata basis. In no event shall the Executive have any discretion with respect to the ordering of payment reductions.

Unless the Company and Executive otherwise agree in writing, any determination required under this Section 11 will be made in writing by the independent public accountants who are primarily used by the Company immediately prior to the Change of Control, the Company's legal counsel or such other person or entity to which the parties mutually agree (the " **Firm**"), whose determination will be conclusive and binding upon Executive and the Company for all purposes. For purposes of making the calculations required by this Section 11, the Firm may make reasonable assumptions and approximations concerning applicable taxes and may rely on reasonable, good faith interpretations concerning the application of Sections 280G and 4999 of the Code. The Company and Executive will furnish to the Firm such information and documents as the Firm may reasonably request in order to make a determination under this Section 11. The Company will bear all costs the Firm may reasonably incur in connection with any calculations contemplated by this Section 11.

12. Confidential Information. Executive agrees to enter into the confidential information agreement attached hereto (the **"Confidential Information Agreement"**) upon commencing employment hereunder.

13. Non-Competition. During the term of her employment with the Company and until the later of: the date Executive terminates her employment with the Company and the date Executive no longer receives the severance benefits provided in Section 8(a)(i) or 8(b)(i), as applicable, Executive will not, either directly or indirectly, (a) serve as an advisor, agent, consultant, director, employee, officer, partner, proprietor or otherwise of, (b) have any ownership interest in (except for passive ownership of one percent (1%) or less of any entity whose securities have been registered under the Securities Act of 1933, as amended, or Section 11 of the Securities Exchange Act of 1934, as amended) or (c) participate in the organization, financing, operation, management or control of, any business (i) that is in competition with the Company's business as conducted by the Company at any time during the course of Executive's employment with the Company and (ii) on which Executive worked or about which Executive learned, during her employment, information or knowledge not generally known or available outside the Company, or information or physical material entrusted to the Company by third parties, including, but not limited to inventions, during Executive's employment or consultancy with the Company, confidential knowledge, copyrights, product ideas, techniques, processes, formulas, object codes, biological materials, mask works and/or any other information of any type relating to documentation, laboratory notebooks, data, schematics, algorithms, flow charts, mechanisms, research, manufacture, improvements, assembly, installation, marketing, forecasts, sales, pricing, customers, the salaries, duties, qualifications, performance levels and terms of compensation of other employees, and/or cost or other financial data concerning any of the foregoing or the Company and its operations.

14. Non-Solicitation. During the term of her employment with the Company and until the date two (2) years after the termination of Executive's employment with the Company for any reason, Executive agrees not, either directly or indirectly, to solicit, induce, attempt to solicit, recruit, or encourage any employee of the Company (or any parent or subsidiary of the Company) to leave her employment either for Executive or for any other entity or person. Executive represents that he

(a) is familiar with the foregoing covenant not to solicit, and (b) is fully aware of her obligations hereunder, including, without limitation, the reasonableness of the length of time, scope and geographic coverage of these covenants.

15. Assignment. This Agreement will be binding upon and inure to the benefit of (a) the heirs, executors and legal representatives of Executive upon Executive's death and (b) any successor of the Company. Any such successor of the Company will be deemed substituted for the Company under the terms of this Agreement for all purposes. For this purpose, "**successor**" means any person, firm, corporation or other business entity which at any time, whether by purchase, merger or otherwise, directly or indirectly acquires all or substantially all of the assets or business of the Company. None of the rights of Executive to receive any form of compensation payable pursuant to this Agreement may be assigned or transferred except by will or the laws of descent and distribution. Any other attempted assignment, transfer, conveyance or other disposition of Executive's right to compensation or other benefits will be null and void.

16. Notices. All notices, requests, demands and other communications called for hereunder will be in writing and will be deemed given (a) on the date of delivery if delivered personally, (b) one (1) day after being sent by a well established commercial overnight service, or (c) four (4) days after being mailed by registered or certified mail, return receipt requested, prepaid and addressed to the parties or their successors at the following addresses, or at such other addresses as the parties may later designate in writing:

If to the Company:

AVI BioPharma, Inc.
Attn: Chief Executive Officer
3450 Monte Villa Parkway, Suite 101
Bothell, WA 98021

If to Executive:

at the last residential address known by the Company.

17. Severability. In the event that any provision hereof becomes or is declared by a court of competent jurisdiction to be illegal, unenforceable or void, this Agreement will continue in full force and effect without said provision.

18. Arbitration.

(a) General. In consideration of Executive's service to the Company, her promise to arbitrate all employment related disputes and Executive's receipt of the compensation, pay raises and other benefits paid to Executive by the Company, at present and in the future, Executive agrees that any and all controversies, claims, or disputes with anyone (including the Company and any employee, officer, director, stockholder or benefit plan of the Company in their capacity as such or otherwise) arising out of, relating to, or resulting from Executive's service to the Company under this Agreement or otherwise or the termination of Executive's service with the Company, including any breach of this Agreement, shall be subject to binding arbitration under the Arbitration Rules set

forth in the Revised Code of Washington Chapter 7.04 (the "**Rules**") and pursuant to Washington law. Disputes which Executive agrees to arbitrate, and thereby agrees to waive any right to a trial by jury, include any statutory claims under state or federal law, including, but not limited to, claims under Title VII of the Civil Rights Act of 1964, the Americans with Disabilities Act of 1990, the Age Discrimination in Employment Act of 1967, the Older Workers Benefit Protection Act, claims of harassment, discrimination or wrongful termination. Executive further understands that this Agreement to arbitrate also applies to any disputes that the Company may have with Executive.

(b) Procedure. Executive agrees that any arbitration will be administered by the American Arbitration Association (" **AAA**") and that a neutral arbitrator will be selected in a manner consistent with its National Rules for the Resolution of Employment Disputes. The arbitration proceedings will allow for discovery according to the rules set forth in the *National Rules for the Resolution of Employment Disputes* or the *Washington Code of Civil Procedure.* Executive agrees that the arbitrator shall have the power to decide any motions brought by any party to the arbitration, including motions for summary judgment and/or adjudication and motions to dismiss and demurrers, prior to any arbitration hearing. Executive agrees that the arbitrator shall issue a written decision on the merits with findings of fact and conclusions of law. Executive also agrees that the arbitrator shall have the power to award any remedies, including attorneys' fees and costs, available under applicable law. Executive understands the Company will pay for any administrative or hearing fees charged by the arbitrator or AAA except that, for any filing fees associated with any arbitration Executive initiates, Executive shall pay an amount equal to the filing fees Executive would have paid had he/she filed a complaint in a court of law. Executive agrees that the arbitrator shall administer and conduct any arbitration in a manner consistent with the Rules and that to the extent that the AAA's National Rules for the Resolution of Employment Disputes conflict with the Rules, the Rules shall take precedence.

(c) Remedy. Except as provided by the Rules, arbitration shall be the sole, exclusive and final remedy for any dispute between Executive and the Company. Accordingly, except as provided for by the Rules, neither Executive nor the Company will be permitted to pursue court action regarding claims that are subject to arbitration. Notwithstanding, the arbitrator will not have the authority to disregard or refuse to enforce any lawful Company policy, and the arbitrator shall not order or require the Company to adopt a policy not otherwise required by law which the Company has not adopted.

(d) Availability of Injunctive Relief. In addition to the right under the Rules to petition the court for provisional relief, Executive agrees that any party may also petition the court for injunctive relief where either party alleges or claims a violation of this Agreement or the PIIA or any other agreement regarding trade secrets, confidential information, non-competition, non-solicitation or non-disparagement. In the event either party seeks injunctive relief, the prevailing party shall be entitled to recover reasonable costs and attorneys' fees.

(e) Administrative Relief. Executive understands that this Agreement does not prohibit Executive from pursuing an administrative claim with a local, state or federal administrative body such as the Washington State Human Rights Commission, Equal Employment Opportunity Commission or the workers' compensation board. This Agreement does, however, preclude Executive from pursuing court action regarding any such claim.

(f) Voluntary Nature of Agreement. Executive acknowledges and agrees that Executive is executing this Agreement voluntarily and without any duress or undue influence by the Company or anyone else. Executive further acknowledges and agrees that Executive has carefully read this Agreement and that Executive has asked any questions needed for Executive to understand the terms, consequences and binding effect of this Agreement and fully understands it, including that ***EXECUTIVE IS WAIVING EXECUTIVE'S RIGHT TO A JURY TRIAL***. Finally, Executive agrees that Executive has been provided an opportunity to seek the advice of an attorney of Executive's choice before signing this Agreement.

19. Integration. This Agreement, together with the Equity Plan, Option Agreement and the Confidential Information Agreement represents the entire agreement and understanding between the parties as to the subject matter herein and supersedes all prior or contemporaneous agreements whether written or oral. With respect to stock options or other equity awards granted on or after the date of this Agreement, the acceleration of vesting provisions provided herein will apply to such stock options and other equity awards except to the extent otherwise explicitly provided in the applicable stock option or equity award agreement. This Agreement may be modified only by agreement of the parties by a written instrument executed by the parties that is designated as an amendment to this Agreement.

20. Waiver of Breach. The waiver of a breach of any term or provision of this Agreement, which must be in writing, will not operate as or be construed to be a waiver of any other previous or subsequent breach of this Agreement.

21. Headings. All captions and section headings used in this Agreement are for convenient reference only and do not form a part of this Agreement.

22. Tax Withholding. All payments made pursuant to this Agreement will be subject to withholding of applicable taxes.

23. Governing Law. This Agreement will be governed by the laws of the State of Washington (with the exception of its conflict of laws provisions).

24. Acknowledgment. Executive acknowledges that he has had the opportunity to discuss this matter with and obtain advice from her private attorney, has had sufficient time to, and has carefully read and fully understands all the provisions of this Agreement, and is knowingly and voluntarily entering into this Agreement.

25. Counterparts. This Agreement may be executed in counterparts, and each counterpart will have the same force and effect as an original and will constitute an effective, binding agreement on the part of each of the undersigned.

IN WITNESS WHEREOF, each of the parties has executed this Agreement, in the case of the Company by their duly authorized officers, as of the day and year first above written.

COMPANY:

AVI BIOPHARMA, INC.

By: /s/ Christopher Garabedian Date: January 8, 2011

Title: President and CEO

EXECUTIVE:

/s/ Effie Toshav Date: January 5, 2011

EFFIE TOSHAV

[SIGNATURE PAGE TO EXECUTIVE EMPLOYMENT AGREEMENT]

EXHIBIT 10.2

AVI BIOPHARMA, INC.

STAND ALONE STOCK OPTION GRANT

NOTICE OF GRANT OF STOCK OPTION

This grant (the "Option") shall be governed by this Notice of Grant of Stock Option (the "Notice of Grant") and the Terms and Conditions of Stock Option Grant (the "Terms and Conditions"), attached hereto as Exhibit A (together, the "Agreement"). Terms not otherwise defined in the Notice of Grant shall be defined in the Terms and Conditions of Stock Option Grant.

Participant:	Effie Toshav
Address:	
	Seattle, Washington

Participant has been granted an Option to purchase Common Stock of the Company, subject to the terms and conditions of this Agreement, as follows:

Date of Grant	January 10, 2011
Vesting Commencement Date	January 10, 2011
Number of Shares Granted	650,000
Exercise Price per Share	$2.58
Total Exercise Price	$1,677,000.00
Type of Option	Nonstatutory Stock Option
Term/Expiration Date	10 years/January 10, 2021

Vesting Schedule:

Subject to accelerated vesting as set forth below or in the Agreement, this Option will be exercisable, in whole or in part, in accordance with the following schedule:

Twenty-five percent (25%) of the Shares subject to the Option will vest on the one (1) year anniversary of the Vesting Commencement Date, and one forty-eighth (1/48th) of the Shares subject to the Option will vest each month thereafter on the same day of the month as the Vesting Commencement Date (and if there is no corresponding day, on the last day of the month), subject to Participant continuing to be a Service Provider through each such date.

Accelerated Vesting and Extended Post-Termination Exercise Period:

Termination for other than Cause, Death or Disability Apart from a Change of Control. If prior to a Change of Control or after twelve (12) months following a Change of Control, the Company (or any parent or subsidiary or successor of the Company) terminates Participant's employment with the Company other than for Cause, death or disability after providing at least thirty (30) days advance notice to Participant, or Participant resigns from such employment for Good Reason as a result of clause (iv) of such term, then, subject to Section 9 of the Employment Agreement, Participant will be entitled to accelerated vesting as to 50% of any unvested Shares subject to the Option and an extension of the post-termination exercise period applicable to the Option to one hundred and eighty (180) days following the date of Participant's termination of employment (but in no event beyond the Term/Expiration Date).

Termination for other than Cause, Death or Disability or Resignation by Participant for Good Reason upon or within Twelve Months Following a Change of Control. If upon a Change of Control or within the Change of Control Period, the Company (or any parent or subsidiary or successor of the Company) terminates Participant's employment with the Company other than for Cause, death or disability after providing at least thirty (30) days advance notice to Participant, or Participant resigns from such employment for Good Reason, then, subject to Section 9 of the Employment Agreement, Participant will be entitled to accelerated vesting as to 100% of any unvested Shares subject to the Option and an extension of the post-termination exercise period applicable to the Option to one hundred and eighty (180) days following the date of Participant's termination of employment (but in no event beyond the Term/Expiration Date).

Termination for Cause, Death or Disability; Resignation without Good Reason. If Participant's employment with the Company (or any parent or subsidiary or successor of the Company) terminates voluntarily by Participant (except upon resignation for Good Reason during the Change of Control Period), for Cause by the Company or due to Participant's death or disability, then all vesting will terminate immediately with respect to the Option.

Termination Period:

This Option will be exercisable for three (3) months after Participant ceases to be a Service Provider, unless (i) such termination is due to Participant's death or Disability, in which case this Option will be exercisable for twelve (12) months after Participant ceases to be a Service Provider, or (ii) such termination is by the Company for Cause, in which case this Option will be exercisable for twenty-four (24) hours after Participant ceases to be a Service Provider. Notwithstanding the foregoing sentence, in no event may this Option be exercised after the Term/Expiration Date as provided above and may be subject to earlier termination as provided in Section 14(c) of the Terms and Conditions.

[signature page to follow]

By Participant's signature and the signature of the Company's representative below, Participant and the Company agree that this Option is granted under and governed by the terms and conditions of this Agreement. Participant has reviewed this Agreement in their entirety, has had an opportunity to obtain the advice of counsel prior to executing this Agreement and fully understands all provisions of the Agreement. Participant hereby agrees to accept as binding, conclusive and final all decisions or interpretations of the Administrator upon any questions relating to the Agreement. Participant further agrees to notify the Company upon any change in the residence address indicated below.

PARTICIPANT	AVI BIOPHARMA, INC.
/s/ Effie Toshav	/s/ Christopher Garabedian
Signature	By
Effie Toshav	Chief Executive Officer
Print Name	Title

Address:

[signature page of the E. Toshav notice of stock option grant]

EXHIBIT A

TERMS AND CONDITIONS OF STOCK OPTION GRANT

1. Definitions. As used herein, the following definitions shall apply:

(a) "Administrator" means the Committee as will have administrative authority under this Agreement, in accordance with Section 4 of the Terms and Conditions.

(b) "Affiliate" means any corporation or any other entity (including, but not limited to, partnerships and joint ventures) controlling, controlled by, or under common control with the Company.

(c) "Applicable Laws" means the requirements relating to the administration of equity-based awards under U.S. state corporate laws, U.S. federal and state securities laws, the Code, any stock exchange or quotation system on which the Common Stock is listed or quoted and the applicable laws of any foreign country or jurisdiction that may apply to this Option.

(d) "Award Transfer Program" means any program instituted by the Administrator that would permit Participants the opportunity to transfer for value the Option to a financial institution or other person or entity approved by the Administrator.

(e) "Board" means the Board of Directors of the Company.

(f) "Cause" is defined as (i) an act of dishonesty made by Participant in connection with Participant's responsibilities as an employee, (ii) Participant's conviction of, or plea of nolo contendere to, a felony or any crime involving fraud, embezzlement or any other act of moral turpitude; (iii) Participant's gross misconduct; (iv) Participant's unauthorized use or disclosure of any proprietary information or trade secrets of the Company or any other party to whom Participant owes an obligation of nondisclosure as a result of Participant's relationship with the Company; (v) Participant's willful breach of any obligations under any written agreement or covenant with the Company; or (vi) Participant's continued failure to perform her employment duties after Participant has received a written demand of performance from the Company which specifically sets forth the factual basis for the Company's belief that Participant has not substantially performed her duties and has failed to cure such non-performance to the Company's satisfaction within ten (10) business days after receiving such notice.

(g) "Change of Control" means the occurrence of any of the following events:

(i) any "person" (as such term is used in Sections 12(d) and 13(d) of the Exchange Act) is or becomes the "beneficial owner" (as defined in Rule 13d-3 under the Exchange Act), directly or indirectly, of securities of the Company representing more than 50% of the total voting power represented by the Company's then outstanding voting securities; or

(ii) the date of the consummation of a merger or consolidation of the Company with any other corporation that has been approved by the shareholders of the Company, other than a merger or consolidation which would result in the voting securities of the

Company outstanding immediately prior thereto continuing to represent (either by remaining outstanding or by being converted into voting securities of the surviving entity or its parent) at least fifty percent (50%) of the total voting power represented by the voting securities of the Company or such surviving entity or its parent outstanding immediately after such merger or consolidation; or

(iii) the date of the consummation of the sale or disposition by the Company of all or substantially all the Company's assets.

For purposes of this definition, persons will be considered to be acting as a group if they are owners of a corporation that enters into a merger, consolidation, purchase or acquisition of stock, or similar business transaction with the Company.

Notwithstanding the foregoing, a transaction shall not be deemed a Change of Control unless the transaction qualifies as a "change in control event" within the meaning of Section 409A of the Code, as it has been and may be amended from time to time, and any proposed or final Treasury Regulations and Internal Revenue Service guidance that has been promulgated or may be promulgated thereunder from time to time.

Further and for the avoidance of doubt, a transaction shall not constitute a Change of Control if: (i) its sole purpose is to change the state of the Company's incorporation, or (ii) its sole purpose is to create a holding company that shall be owned in substantially the same proportions by the persons who held the Company's securities immediately before such transaction.

(h) "Change of Control Period" means the period of time within twelve (12) months following a Change of Control.

(i) "Code" means the Internal Revenue Code of 1986, as amended. Reference to a specific section of the Code or Treasury Regulation thereunder will include such section or regulation, any valid regulation or other official applicable guidance promulgated under such section, and any comparable provision of any future legislation or regulation amending, supplementing or superseding such section or regulation.

(j) "Committee" means the Compensation Committee of the Board.

(k) "Common Stock" means the common stock of the Company.

(l) "Company" means AVI BioPharma, Inc., an Oregon corporation, or any successor thereto.

(m) "Consultant" means any person, including an advisor, engaged by the Company or a Parent or a Subsidiary to render services to such entity other than as an Employee.

(n) "Director" means a member of the Board.

(o) "Disability" means total and permanent disability as defined in Section 22(e)(3) of the Code, provided that the Administrator in its discretion may determine

whether a permanent and total disability exists in accordance with uniform and non-discriminatory standards adopted by the Administrator from time to time.

(p) "Employee" means any person, including Officers and Directors, employed by the Company or any Parent or Subsidiary of the Company. Neither service as a Director nor payment of a director's fee by the Company will be sufficient to constitute "employment" by the Company.

(q) "Employment Agreement" means the Executive Employment Agreement by and between the Company and Participant, effective January 10, 2011.

(r) "Exchange Act" means the Securities Exchange Act of 1934, as amended.

(s) "Exchange Program" means a program under which (i) the Option is surrendered or cancelled in exchange another stock option (which may have higher or lower exercise prices and different terms), equity awards of a different type, and/or cash, (ii) Participant would have the opportunity to transfer for value the Option to a financial institution or other person or entity selected by the Administrator, and/or (iii) the exercise price of the Option is reduced or increased. The Administrator will determine the terms and conditions of any Exchange Program in its sole discretion.

(t) "Fair Market Value" means, as of any date, the value of Common Stock determined as follows:

(i) If the Common Stock is listed on any established stock exchange or a national market system, including without limitation the Nasdaq Global Market, the Nasdaq Global Select Market or the Nasdaq Capital Market, its Fair Market Value shall be the closing sales price for such stock (or, if no closing sales price was reported on that date, as applicable, on the last trading date such closing sales price is reported) as quoted on such exchange or system on the day of determination, as reported in *The Wall Street Journal* or such other source as the Administrator deems reliable;

(ii) If the Common Stock is regularly quoted by a recognized securities dealer but selling prices are not reported, its Fair Market Value shall be the mean between the high bid and low asked prices for the Common Stock on the day of determination (or, if no bids and asks were reported on that date, as applicable, on the last trading date such bids and asks are reported); or

(iii) In the absence of an established market for the Common Stock, the Fair Market Value will be determined in good faith by the Administrator.

(u) "Good Reason" means the termination by Participant upon the occurrence of any of the below described events. Participant must provide notice to the Company of the existence of such event within ninety (90) days of the first occurrence of such event, and the Company will have thirty (30) days to remedy the condition, in which case no Good Reason shall exist. If the Company fails to remedy the condition within such thirty (30) day period, Participant must terminate employment within two (2) years of the first occurrence of such event. The events which constitute a Good Reason termination are: (i) the assignment of a different title or change that results in a

material reduction in Participant's duties or responsibilities; (ii) a material reduction by the Company in Participant's base compensation, other than a reduction in her base salary that is part of a general salary reduction affecting employees generally and provided the reduction is not greater, percentage-wise, than the reduction affecting other employees generally or failure to provide an annual increase in base compensation commensurate with other executives; provided, however, in determining whether to provide an annual increase in base compensation commensurate with an annual increase provided to other executives, the Company may take into account factors such as market levels of compensation, Participant's overall performance, and other factors reasonably considered by the Company's compensation committee and/or Board, so long as such determination is not made in bad faith with the intent to discriminate against Participant; (iii) relocation of Participant's principal place of business of greater than seventy-five (75) miles from its then location; or (iv) Participant is required to report to any person other than the Chief Executive Officer of the Company or Board.

(v) "Incentive Stock Option" means an Option that by its terms qualifies and is otherwise intended to qualify as an incentive stock option within the meaning of Section 422 of the Code and the regulations promulgated thereunder.

(w) "Nonstatutory Stock Option" means an Option that by its terms does not qualify or is not intended to qualify as an Incentive Stock Option.

(x) "Officer" means a person who is an officer of the Company within the meaning of Section 16 of the Exchange Act and the rules and regulations promulgated thereunder.

(y) "Option" means the stock option set forth in the Notice of Grant.

(z) "Outside Director" means a Director who is not an Employee.

(aa) "Parent" means a "parent corporation," whether now or hereafter existing, as defined in Section 424(e) of the Code.

(bb) "Participant" means the holder of the Option.

(cc) "Service Provider" means an Employee, Director or Consultant.

(dd) "Share" means a share of the Common Stock, as adjusted in accordance with Section 14(a) of the Terms and Conditions.

(ee) "Subsidiary" means a "subsidiary corporation", whether now or hereafter existing, as defined in Section 424(f) of the Code.

2. Grant of Option. The Company hereby grants to the Participant named in the Notice of Grant the Option to purchase the number of Shares, as set forth in the Notice of Grant, at the exercise price per Share set forth in the Notice of Grant (the "Exercise Price"), subject to all of the terms and conditions in this Agreement.

3. Vesting Schedule. The Option awarded by this Agreement will vest in accordance with the vesting provisions set forth in the Notice of Grant. Shares scheduled to vest on a certain date or upon the occurrence of a certain condition will not vest in Participant in accordance with any of the provisions of this Agreement, unless Participant will have been continuously a Service Provider from the Date of Grant until the date such vesting occurs.

4. Authority of the Administrator.

(a) Powers of the Administrator. Subject to the provisions of this Agreement, the Administrator will have the authority, in its discretion:

(i) to determine the terms and conditions of any, and to institute any Exchange Program;

(ii) to construe and interpret the terms of the Agreement and the Option;

(iii) to prescribe, amend and rescind rules and regulations relating to the Agreement, including rules and regulations relating to sub-plans established for the purpose of satisfying applicable foreign laws or for qualifying for favorable tax treatment under applicable foreign laws;

(iv) to modify or amend the Option (subject to Section(s) 4(d)(i) and 21 of the Terms and Conditions), including but not limited to the discretionary authority to extend the post-termination exercisability period of the Option and to extend the maximum term of the Option;

(v) to allow Participant to satisfy withholding tax obligations in such manner as prescribed in Section 7 of the Terms and Conditions;

(vi) to allow a Participant to defer the receipt of the payment of cash or the delivery of Shares that would otherwise be due to such Participant under the Option pursuant to such procedures as the Administrator may determine; and

(vii) to make all other determinations deemed necessary or advisable for administering the Agreement.

(b) Effect of Administrator's Decision. The Administrator's decisions, determinations and interpretations will be final and binding on the Participant and any other holders of Shares subject to the Option.

(c) No Liability. Under no circumstances shall the Company, its Affiliates, the Administrator, or the Board incur liability for any indirect, incidental, consequential or special damages (including lost profits) of any form incurred by any person, whether or not foreseeable and regardless of the form of the act in which such a claim may be brought, with respect to the Agreement or the Company's, its Affiliates', the Administrator's or the Board's roles in connection with the Agreement.

(d) Limitations.

(i) Prohibition Against Repricing. Notwithstanding Section 4(a)(iv), the Administrator may not modify or amend the Option to reduce the exercise price of the after it has been granted (except for adjustments made pursuant to Section 14), and neither may the Administrator cancel the outstanding Option and immediately replace it with any other award with a lower exercise price, unless such action is approved by shareholders prior to such action being taken.

(ii) Buyout Provisions. The Administrator may at any time offer to buy out for a payment in cash an Option previously granted based on such terms and conditions as the Administrator will establish and communicate to the Participant at the time that such offer is made. Notwithstanding anything contained in this Section 4(d)(ii) to the contrary, the Administrator shall not be allowed to authorize the buyout of an underwater Option without the prior consent of the Company's shareholders.

5. Exercise of Option.

(a) Right to Exercise. This Option may be exercised only within the term set out in the Notice of Grant, and may be exercised during such term only in accordance with the terms of this Agreement.

(b) Method of Exercise. This Option is exercisable by delivery of an exercise notice, in the form attached as Exhibit B (the "Exercise Notice") or in a manner and pursuant to such procedures as the Administrator may determine, which will state the election to exercise the Option, the number of Shares in respect of which the Option is being exercised (the "Exercised Shares"), and such other representations and agreements as may be required by the Company pursuant to the provisions of the Agreement. The Exercise Notice will be completed by Participant and delivered to the Company. The Exercise Notice will be accompanied by payment of the aggregate Exercise Price as to all Exercised Shares together with any applicable tax withholding. This Option will be deemed to be exercised upon receipt by the Company of such fully executed Exercise Notice accompanied by the aggregate Exercise Price.

(c) Termination of Relationship as a Service Provider. If a Participant ceases to be a Service Provider, the Participant may exercise her Option within such period of time as is specified in the Notice of Grant to the extent that the Option is vested on the date of termination (but in no event later than the expiration of the term of such Option as set forth in the Notice of Grant). Unless otherwise provided by the Administrator, if on the date of termination the Participant is not vested as to her entire Option, the Shares covered by the unvested portion of the Option will forfeit. If after termination the Participant does not exercise her Option within the time specified by the Administrator, the Option will terminate, and the Shares covered by such Option will forfeit.

6. Method of Payment. Payment of the aggregate Exercise Price will be by any of the following, or a combination thereof, at the election of Participant:

(a) cash;

(b) check;

(c) consideration received by the Company under a formal cashless exercise program adopted by the Company in connection with the Agreement; or

(d) surrender of other Shares which have a Fair Market Value on the date of surrender equal to the aggregate Exercise Price of the Exercised Shares, provided that accepting such Shares, in the sole discretion of the Administrator, will not result in any adverse accounting consequences to the Company.

7. Tax Obligations.

(a) Withholding of Taxes. Notwithstanding any contrary provision of this Agreement, no certificate representing the Shares will be issued to Participant, unless and until satisfactory arrangements (as determined by the Administrator) will have been made by Participant with respect to the payment of income, employment and other taxes which the Company determines must be withheld with respect to such Shares. To the extent determined appropriate by the Company in its discretion, it will have the right (but not the obligation) to satisfy any tax withholding obligations by reducing the number of Shares otherwise deliverable to Participant. If Participant fails to make satisfactory arrangements for the payment of any required tax withholding obligations hereunder at the time of the Option exercise, Participant acknowledges and agrees that the Company may refuse to honor the exercise and refuse to deliver the Shares if such withholding amounts are not delivered at the time of exercise.

(b) Code Section 409A. Under Code Section 409A, an option that vests after December 31, 2004 (or that vested on or prior to such date but which was materially modified after October 3, 2004) that was granted with a per Share exercise price that is determined by the Internal Revenue Service (the "IRS") to be less than the Fair Market Value of a Share on the date of grant (a "Discount Option") may be considered "deferred compensation." A Discount Option may result in (i) income recognition by Participant prior to the exercise of the option, (ii) an additional twenty percent (20%) federal income tax, and (iii) potential penalty and interest charges. The Discount Option may also result in additional state income, penalty and interest charges to the Participant. Participant acknowledges that the Company cannot and has not guaranteed that the IRS will agree that the per Share exercise price of this Option equals or exceeds the Fair Market Value of a Share on the Date of Grant in a later examination. Participant agrees that if the IRS determines that the Option was granted with a per Share exercise price that was less than the Fair Market Value of a Share on the date of grant, Participant will be solely responsible for Participant's costs related to such a determination.

8. Rights as Shareholder. Neither Participant nor any person claiming under or through Participant will have any of the rights or privileges of a shareholder of the Company in respect of any Shares deliverable hereunder unless and until certificates representing such Shares will have been issued, recorded on the records of the Company or its transfer agents or registrars, and delivered to Participant. After such issuance, recordation and delivery, Participant will have all the rights of a shareholder of the Company with respect to voting such Shares and receipt of dividends and distributions on such Shares.

9. Compliance With Code Section 409A. The Option will be designed and operated in such a manner that it is either exempt from the application of, or comply with, the requirements of Code Section 409A such that the grant, payment, settlement or deferral will not be subject to the additional tax or interest applicable under Code Section 409A, except as otherwise determined in the sole discretion of the Administrator. The Agreement is intended to meet the requirements of Code Section 409A and will be construed and interpreted in accordance with such intent, except as otherwise determined in the sole discretion of the Administrator. To the extent that the Option or payment, or the settlement or deferral thereof, is subject to Code Section 409A the Option will be granted, paid, settled or deferred in a manner that will meet the requirements of Code Section 409A, such that the grant, payment, settlement or deferral will not be subject to the additional tax or interest applicable under Code Section 409A.

10. Leaves of Absence/Transfer Between Locations. Unless the Administrator provides otherwise and except as required by Applicable Laws, vesting of the Option granted hereunder will be suspended during any unpaid leave of absence. A Participant will not cease to be an Employee in the case of (i) any leave of absence approved by the Company or (ii) transfers between locations of the Company or between the Company, its Parent, or any Subsidiary.

11. No Guarantee of Continued Service. PARTICIPANT ACKNOWLEDGES AND AGREES THAT THE VESTING OF SHARES PURSUANT TO THE VESTING SCHEDULE HEREOF IS EARNED ONLY BY CONTINUING AS A SERVICE PROVIDER AT THE WILL OF THE COMPANY (OR THE PARENT OR SUBSIDIARY EMPLOYING OR RETAINING PARTICIPANT) AND NOT THROUGH THE ACT OF BEING HIRED, BEING GRANTED THIS OPTION OR ACQUIRING SHARES HEREUNDER. PARTICIPANT FURTHER ACKNOWLEDGES AND AGREES THAT THIS AGREEMENT, THE TRANSACTIONS CONTEMPLATED HEREUNDER AND THE VESTING SCHEDULE SET FORTH HEREIN DO NOT CONSTITUTE AN EXPRESS OR IMPLIED PROMISE OF CONTINUED ENGAGEMENT AS A SERVICE PROVIDER FOR THE VESTING PERIOD, FOR ANY PERIOD, OR AT ALL, AND WILL NOT INTERFERE IN ANY WAY WITH PARTICIPANT'S RIGHT OR THE RIGHT OF THE COMPAN (OR THE PARENT OR SUBSIDIARY EMPLOYING OR RETAINING PARTICIPANT) TO TERMINATE PARTICIPANT'S RELATIONSHIP AS A SERVICE PROVIDER AT ANY TIME, WITH OR WITHOUT CAUSE.

12. Address for Notices. Any notice to be given to the Company under the terms of this Agreement will be addressed to the Company at AVI BioPharma, Inc., 3450 Monte Villa Parkway, Bothell, WA 98021, or at such other address as the Company may hereafter designate in writing.

13. Non-Transferability of Option.

(a) This Option may not be transferred in any manner otherwise than by will or by the laws of descent or distribution and may be exercised during the lifetime of Participant only by Participant.

(b) Notwithstanding anything to the contrary in the Agreement, in no event will the Administrator have the right to determine and implement the terms and conditions of any Award Transfer Program without shareholder approval.

14. Adjustments; Dissolution or Liquidation; Merger or Change of Control .

(a) Adjustments. In the event that any dividend or other distribution (whether in the form of cash, Shares, other securities, or other property), recapitalization, stock split, reverse stock split, reorganization, merger, consolidation, split-up, spin-off, combination, repurchase, or exchange of Shares or other securities of the Company, or other change in the corporate structure of the Company affecting the Shares occurs, the Administrator, in order to prevent diminution or enlargement of the benefits or potential benefits intended to be made available under the Agreement, will adjust the number, class, and price of Shares covered by the Option.

(b) Dissolution or Liquidation. In the event of the proposed dissolution or liquidation of the Company, the Administrator will notify each Participant as soon as practicable prior to the effective date of such proposed transaction. To the extent it has not been previously exercised, the Option will terminate immediately prior to the consummation of such proposed action.

(c) Change of Control. Subject to the terms of the Employment Agreement, in the event of a merger or Change of Control, the Option will be treated as the Administrator determines without a Participant's consent, including, without limitation, that (i) the Option will be assumed, or substantially equivalent awards will be substituted, by the acquiring or succeeding corporation (or an affiliate thereof) with appropriate adjustments as to the number and kind of shares and prices; (ii) upon written notice to a Participant, that the Participant's Option will terminate upon or immediately prior to the consummation of such merger or Change of Control; (iii) the Option will vest and become exercisable, realizable, or payable, in whole or in part prior to or upon consummation of such merger or Change of Control, and, to the extent the Administrator determines, terminate upon or immediately prior to the effectiveness of such merger of Change of Control; (iv) (A) the termination of the Option in exchange for an amount of cash and/or property, if any, equal to the amount that would have been attained upon the exercise of the Option or realization of the Participant's rights as of the date of the occurrence of the transaction (and, for the avoidance of doubt, if as of the date of the occurrence of the transaction the Administrator determines in good faith that no amount would have been attained upon the exercise of the Option or realization of the Participant's rights, then the Option may be terminated by the Company without payment), or (B) the replacement of the Option with other rights or property selected by the Administrator in its sole discretion; or (v) any combination of the foregoing.

In the event that the successor corporation does not assume or substitute for the Option (or portion thereof), the Participant will fully vest in and have the right to exercise all of her outstanding Options that are not assumed or substituted for, including Shares as to which the Option would not otherwise be vested or exercisable. In addition, if the Option is not assumed or substituted for in the event of a Change of Control, the Administrator will notify the Participant in writing or electronically that the Option will be fully vested and exercisable for a period of time determined by the Administrator in its sole discretion, and the Option will terminate upon the expiration of such period.

For the purposes of this subsection 14(c), the Option will be considered assumed if, following the merger or Change of Control, the Option confers the right to purchase or receive, for each Share subject to the Option immediately prior to the merger or Change of Control, the

consideration (whether stock, cash, or other securities or property) received in the merger or Change of Control by holders of Common Stock for each Share held on the effective date of the transaction (and if holders were offered a choice of consideration, the type of consideration chosen by the holders of a majority of the outstanding Shares); provided, however, that if such consideration received in the merger or Change of Control is not solely common stock of the successor corporation or its Parent, the Board may, with the consent of the successor corporation, provide for the consideration to be received upon the exercise of the Option, for each Share subject to the Option, to be solely common stock of the successor corporation or its Parent equal in fair market value to the per share consideration received by holders of Common Stock in the merger or Change of Control.

Notwithstanding anything in this subsection (c) to the contrary, if a payment under the Agreement is subject to Section 409A of the Code and if the change of control definition contained in the Agreement does not comply with the definition of "change in control" for purposes of a distribution under Section 409A of the Code, then any payment of an amount that is otherwise accelerated under this Section will be delayed until the earliest time that such payment would be permissible under Section 409A of the Code without triggering any penalties applicable under Section 409A of the Code.

15. Date of Grant. The date of grant of the Option will be, for all purposes, the date on which the Administrator makes the determination granting the Option, or such other later date as is determined by the Administrator. Notice of the determination will be provided to each Participant within a reasonable time after the date of such grant.

16. Binding Agreement. Subject to the limitation on the transferability of this grant contained herein, this Agreement will be binding upon and inure to the benefit of the heirs, legatees, legal representatives, successors and assigns of the parties hereto.

17. Additional Conditions to Issuance of Stock. If at any time the Company will determine, in its discretion, that the listing, registration or qualification of the Shares upon any securities exchange or under any state or federal law, or the consent or approval of any governmental regulatory authority is necessary or desirable as a condition to the issuance of Shares to Participant (or her estate), such issuance will not occur unless and until such listing, registration, qualification, consent or approval will have been effected or obtained free of any conditions not acceptable to the Company. The Company will make all reasonable efforts to meet the requirements of any such state or federal law or securities exchange and to obtain any such consent or approval of any such governmental authority. Assuming such compliance, for income tax purposes the Exercised Shares will be considered transferred to Participant on the date the Option is exercised with respect to such Exercised Shares.

18. Electronic Delivery. The Company may, in its sole discretion, decide to deliver any documents related to Options awarded under the Agreement or future options that may be awarded under the Agreement by electronic means or request Participant's consent to participate by electronic means. Participant hereby consents to receive such documents by electronic delivery and agrees to participate through any on-line or electronic system established and maintained by the Company or another third party designated by the Company.

19. Captions. Captions provided herein are for convenience only and are not to serve as a basis for interpretation or construction of this Agreement.

20. Agreement Severable. In the event that any provision in this Agreement will be held invalid or unenforceable, such provision will be severable from, and such invalidity or unenforceability will not be construed to have any effect on, the remaining provisions of this Agreement.

21. Entire Agreement. This Agreement constitutes the entire agreement of the parties with respect to the subject matter hereof and supersedes in their entirety all prior undertakings and agreements of the Company and Participant with respect to the subject matter hereof, and may not be modified adversely to Participant's interest except by means of a writing signed by the Company and Participant. Notwithstanding anything to the contrary in this Agreement, the Company reserves the right to revise this Agreement as it deems necessary or advisable, in its sole discretion and without the consent of Participant, to comply with Code Section 409A or to otherwise avoid imposition of any additional tax or income recognition under Section 409A of the Code in connection to this Option.

22. Acknowledgment. By accepting this Option, Participant expressly warrants that he or she has received an Option pursuant to this Agreement, and has received, read and understood a description of the Agreement.

23. Governing Law. This Agreement will be governed by the laws of the State of Oregon, without giving effect to the conflict of law principles thereof. For purposes of litigating any dispute that arises under this Option or this Agreement, the parties hereby submit to and consent to the jurisdiction of the State of Oregon, and agree that such litigation will be conducted in the state courts of Oregon, or the federal courts for the United States for the District of Oregon, and no other courts, where this Option is made and/or to be performed.

EXHIBIT B

AVI BIOPHARMA, INC.

STAND-ALONE STOCK OPTION GRANT

EXERCISE NOTICE

AVI BioPharma, Inc.
3450 Monte Villa Parkway
Bothell, WA 98021

Attention: _____

Exercise of Option. Effective as of today, _____, _____, the undersigned ("Purchaser") hereby elects to purchase _____ shares (the "Shares") of the Common Stock of AVI BioPharma, Inc. (the "Company") under and pursuant to the Stand Alone Stock Option Agreement dated _____ (the "Agreement"). The purchase price for the Shares will be $ _____, as required by the Agreement.

Delivery of Payment. Purchaser herewith delivers to the Company the full purchase price of the Shares and any required tax withholding to be paid in connection with the exercise of the Option.

Representations of Purchaser. Purchaser acknowledges that Purchaser has received, read and understood the Agreement and agrees to abide by and be bound by their terms and conditions.

Rights as Shareholder. Until the issuance (as evidenced by the appropriate entry on the books of the Company or of a duly authorized transfer agent of the Company) of the Shares, no right to vote or receive dividends or any other rights as a shareholder will exist with respect to the Shares subject to the Option, notwithstanding the exercise of the Option. The Shares so acquired will be issued to Purchaser as soon as practicable after exercise of the Option. No adjustment will be made for a dividend or other right for which the record date is prior to the date of issuance, except as provided in Section 14 of the Agreement.

Tax Consultation. Purchaser understands that Purchaser may suffer adverse tax consequences as a result of Purchaser's purchase or disposition of the Shares. Purchaser represents that Purchaser has consulted with any tax consultants Purchaser deems advisable in connection with the purchase or disposition of the Shares and that Purchaser is not relying on the Company for any tax advice.

Entire Agreement; Governing Law. The Agreement are incorporated herein by reference. This Exercise Notice and the Agreement constitute the entire agreement of the parties with respect to the subject matter hereof and supersede in their entirety all prior undertakings and agreements of the

Company and Purchaser with respect to the subject matter hereof, and may not be modified adversely to the Purchaser's interest except by means of a writing signed by the Company and Purchaser. This Agreement is governed by the internal substantive laws, but not the choice of law rules, of Oregon.

Submitted by:	Accepted by:
PURCHASER	AVI BIOPHARMA, INC.
Signature	By
Print Name	Its
Address:	
	Date Received

Exhibit 10.3

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT	1. CONTRACT ID CODE	PAGE OF PAGES
	S	1 35

2. AMENDMENT/MODIFICATION NO.	3. EFFECTIVE DATE	4. REQUISITION/PURCHASE REQ. NO.	5. PROJECT NO. *(if applicable)*
PZ0001	03-Mar-2011	CBM 100019095Z	

6. ISSUED BY	CODE	7. ADMINISTERED BY *(If other than Item 6)*	CODE
HDTRA 1		S4801A	

DEFENSE THREAT REDUCTION AGENCY/BE-BC
8725 JOHN J. KINGMAN ROAD, MSC 6201
FORT BELVOIR VA 22060-6201

DCMA SEATTLE
CORPORATE CAMPUS EAST III, 3009 112TH AVE
BELLVUE WA 98004-8019

8. NAME AND ADDRESS OF CONTRACTOR *(No. street, county, State and ZIP Code)*

AVI BIOPHARMA, INC.
J. DAVID BOYLE II
4574 SW RESEARCH WAY STE 200
CORVALLIS OR 97333-1299

CODE 49WU1 FACILITY CODE

(X) 9A. AMENDMENT OF SOLICITATION NO.

☐ 9B. DATED *(SEE ITEM 11)*

☒ 10A. MODIFICATION OF CONTRACT/ORDER NO. HDTRA1-10-C-0079

10B. DATED *(SEE ITEM 13)* 04-Jun-2010

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

☐ The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers ☐ is extended, ☐ is not extended.

Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods:

(a) By completing items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment your desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA *(If required)*

13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

CHECK ONE	
☐	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: *(Specify authority)* THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
☐	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES *(such as changes in paying* office, *appropriation date, etc)* SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43. 103(b).
☒	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF: DFARS 252.217-7027, Contract Definitization (10USC2304(c)(2))
☐	D. OTHER *(Specify type of modification and authority)*

E. IMPORTANT: Contractor ☐ is not, ☒ is required to sign this document and return 1 copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION *(Organized by* UCF *section headings, including solicitation/contract subject matter where feasible.)*

Modification Control Number: nuckolsb11171

The purpose of this modification is to definitize Letter Contract HDTRA1-10-C-0079, dated June 4, 2010 and change costs to reflect those agreed upon.

Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER *(Type or print)*	16A. NAME AND TITLE OF CONTRACTING OFFICER *(Type or print)*
J. David Boyle II — SVP & CFO	VICTOR E. CRAMER - Contracting Officer

15B. CONTRACTOR/OFFEROR	15C. DATE SIGNED	16B. UNITED STATES OF AMERICA	16C. DATE SIGNED
/s/ J. David Boyle II		/s/ Victor E. Cramer	
(Signature of person authorized to sign)	03/03/2011	*(Signature of Contracting Officer)*	03-Mar-2011

NSN 7540-01-152-8070
Previous edition unusable

STANDARD FORM 30 (REV. 10-83)
Prescribed by GSA FAR (48 CFR) 53.243

† DESIGNATES PORTIONS OF THIS DOCUMENT THAT HAVE BEEN OMITTED PURSUANT TO A REQUEST FOR CONFIDENTIAL TREATMENT FILED SEPARATELY WITH THE COMMISSION

SECTION SF 30 BLOCK 14 CONTINUATION PAGE

SUMMARY OF CHANGES

SECTION A - SOLICITATION/CONTRACT FORM

The total cost of this contract was decreased by $258,170.60 from $18,000,000.00 to $17,741,829.40.

The vendor signature required has changed from not required to required.

The number of award copies required 1 has been added.

SECTION B - SUPPLIES OR SERVICES AND PRICES

Global Changes

CLIN 0001 – CLIN 0002

The contract type has changed from COST to CPFF.

CLIN 0001

The CLIN extended description has changed from The Contractor shall perform the tasks in accordance with the Statement of Work entitled “AVI BioPharma Project - H1N1 Countermeasure Development” dated 19 May 2010 to The Contractor shall perform the tasks in accordance with the Statement of Work entitled “AVI BioPharma Project - H1N1 Countermeasure Development” dated 17 June 2010.

The estimated/max cost has decreased by $[†] from $18,000,000.00 to $[†].

The fixed fee $[†] has been added.

The total cost of this line item has decreased by $258,170.60 from $18,000,000.00 to $17,741,829.40.

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0001			Lot		$17,741,829.40
	Non-personal services				
	CPFF				
	The Contractor shall perform the tasks in accordance with the Statement of Work entitled “AVI BioPharma Project - H1N1 Countermeasure Development” dated 17 June 2010.				
	FOB: Destination				
	PURCHASE REQUEST NUMBER: CBM100019095Z				
				ESTIMATED COST	$ [†]
				FIXED FEE	$ [†]
				TOTAL EST COST + FEE	$17,741,829.40

SUBCLIN 000101

† DESIGNATES PORTIONS OF THIS DOCUMENT THAT HAVE BEEN OMITTED PURSUANT TO A REQUEST FOR CONFIDENTIAL TREATMENT FILED SEPARATELY WITH THE COMMISSION

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
000101					$ [†]
	Funding				
	CPFF				
	FOB: Destination				
				ESTIMATED COST	$ [†]
				FIXED FEE	$ [†]
				TOTAL EST COST + FEE	$ [†]
	ACRN AA				$ [†]
	CIN: 000000000000000000000000000000				

CLIN 0002

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0002					NSP
	CDRLs				
	CPFF				
	The contractor shall deliver the data in accordance with the CDRLs in Exhibit A.				
	This Clin applies to Clins 0001.				
	FOB: Destination				
				ESTIMATED COST	$ [†]
				FIXED FEE	$ [†]
				TOTAL EST COST + FEE	$ [†]

SECTION D - PACKAGING AND MARKING

The following have been added by full text:

252.247-9001 PACKAGING AND MARKING

(a) All data contained in Exhibit A, Contract Data Requirements List (CDRL), DD Form 1423 delivered under this contract shall be delivered using best commercial practices to meet the packaging requirements of the carrier and to insure delivery, to the addressees specified on the Data Item Cover Sheet, at destination and in accordance with applicable security requirements.

(b) All data and correspondence submitted to the Contracting Officer shall reference the Contract Number, the CDRL number, and the date submitted. A copy of all correspondence sent to the Contracting Officer's Representative (COR) or Project Manager shall be simultaneously provided to the Contracting Officer.

SECTION E - INSPECTION AND ACCEPTANCE

The following have been modified:

252.246-9000 INSPECTION AND ACCEPTANCE (JUL 2007)

† DESIGNATES PORTIONS OF THIS DOCUMENT THAT HAVE BEEN OMITTED PURSUANT TO A REQUEST FOR CONFIDENTIAL TREATMENT FILED SEPARATELY WITH THE COMMISSION

Government inspection and acceptance of data is specified on the Contract Data Requirements List, DD Form 1423. In accordance with FAR 52.246-8, inspection and acceptance for all work performed at any and all times under this contract shall be the responsibility of the:

__X__ Contracting Officer's Representative (COR) or Project Manager (PM). The Wide Area Work Flow (WAWF) Acceptor DoDDAC is located in DTRA 252.201-9000 *Project Manager* or DTRA 252.201-9002 *Contracting Officer's Representative.*

_____ Administrative Contracting Officer (ACO). The WAWF Acceptor DoDAAC can be found in the "Administered By" block on page 1 of the contract.

(End of Clause)

SECTION F - DELIVERIES OR PERFORMANCE

The following have been added by reference:

52.242-15 Alt I	Stop-Work Order (Aug 1989) - Alternate I	APR 1984
52.247-34	F.O.B. Destination	NOV 1991

The following have been added by full text:

DEFINITIZATION/FINAL DELIVERY

This Supplemental Agreement is issued to definitize and supersede Letter Contract HDTRA1-10-C-0079, and constitutes full settlement of all claims and adjustments arising under the Letter Contract, except that any costs incurred thereunder shall be considered to have been made under this definitive modification. The referenced Letter Contract obligated $[†] to this contract. Modification P00002 obligated an additional $[†] to this contract. This Supplemental Agreement PZ0001 obligates $[†] for a total amount obligated on this contract of $[†]. The period of performance of this contract is from June 4, 2010 to June 3, 2011.

SECTION G - CONTRACT ADMINISTRATION DATA

The following have been added by full text:

252.216-9005 PROFIT OR FEE ON TRAVEL COSTS (JUL 2008)

Travel shall not be a profit or fee bearing cost element.

(End of clause)

252.232-9000 CONTRACT FUNDING PROFILE (OCT 1998)

Subject to FAR Clause 52.232-22, Limitation of Funds, the amount of $[†] is obligated for work to be performed during the period beginning with contract award and continuing through fund expenditure. Additional incremental funding planned, but not obligated, is:

FY11 $[†]

(End of clause)

252.232-9001 PRICES/COST

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a. Subject to the provisions of the Clauses of this Contract entitled LIMITATION OF FUNDS, ALLOWABLE COST AND PAYMENT, and FIXED FEE, the total allowable cost under this Contract shall not exceed $[†], which is the total estimated cost of the Contractor's performance hereunder, exclusive of fixed fee. In addition, the Government shall pay the Contractor a fixed fee of $[†] for the performance of this Contract. It is understood and agreed that the Government's obligation is limited to INCREMENTAL FUNDING in the amount of $[†]. Within this amount ($[†]), the fixed fee shall bear the same relationship to the total fixed fee, as the costs incurred bear to the total estimated cost.

b. Interim payment vouchers may be submitted for provisional payment pursuant to the Clauses of this Contract entitled ALLOWABLE COST AND PAYMENT and FIXED FEE.

252.232-9007 PAYMENT INFORMATION IN CENTRAL CONTRACTOR REGISTRATION (CCR) DATABASE

This contract contains FAR clause 52.204-7, Central Contractor Registration. All contractors must be registered in the CCR database prior to award, during performance, and through final payment of any contract, except for awards to foreign vendors for work to be performed outside the United States.

The Contractor is responsible for the accuracy and completeness of the data within the CCR, and for any liability resulting from the Government's reliance on inaccurate or incomplete data. In addition to the contractor's requirement to confirm on an annual basis that its information in the CCR database is accurate and complete, the contractor's information in the CCR database must be updated whenever changes occur to the contractor's remit-to data (e.g., account number, vendor name and address, etc.) and the paying office notified of any changes. The contractor's failure to maintain accurate information in the CCR database could result in payment delays for which the Government shall not be liable.

252.242-9003 ASSIGNMENT OF CONTRACT ADMINISTRATION SERVICES (CAS) FUNCTIONS (AUG 2009)

a. The contract administration functions stated in FAR 42.302(a) are assigned to: See Page 1, Section A, Block 6 of this contract.

b. Notwithstanding that assignment, in accordance with FAR 42.202(b)(2), the following functions are determined to be best performed by the PCO and are retained by the DTRA Contracting Office:

(1) FAR 42.302(a)(3) Conduct Postaward orientation conferences.

(2) FAR 42.302(a)(20) Perform Postaward Security Administration.

(3) FAR 42.302(a)(40) Perform engineering surveillance to assess compliance with contractual terms for schedule, cost, and technical performance in the areas of design, development, and production.

(4) FAR 42.302(a)(51) In accordance with FAR 52.244-2, consent to the placement of subcontracts which have experimental, developmental, or research work as one of its purposes.

(5) Approval or disapproval of the data items listed on Exhibit A, DD Form 1423, Contract Data Requirements List.

(END OF CLAUSE)

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SECTION H - SPECIAL CONTRACT REQUIREMENTS

The following have been added by full text:

252.223-9002 PROTECTION OF HUMAN SUBJECTS (AUG 2010)

All research under this contract involving human subjects must be conducted in accordance with 32 CFR 219, 10 USC 980, and DoDD 3216.02, as well as other applicable federal and state regulations. Contractors must be cognizant of and abide by the additional restrictions and limitations imposed on the DoD regarding research involving human subjects, specifically as regards vulnerable populations (32 CFR 219 modifications to subparts B¬D of 45 CFR 46), recruitment of military research subjects (32 CFR 219), and surrogate consent (10 USC 980). Defense Threat Reduction Agency (DTRA) Directive 3216.01 establishes the DTRA Human Subjects Protection Program, sets forth the policies, defines the applicable terms, and delineates the procedures necessary to ensure DTRA compliance with federal and DoD regulations and legislation governing human subject research. The regulations mandate that all DoD activities, components, and agencies protect the rights and welfare of human subjects of study in DoD-supported research, development, test and evaluation, and related activities hereafter referred to as “research”. The requirement to comply with the regulations applies to new starts and to continuing research.

The DTRA directive requires that research using human subjects may not begin or continue until the Defense Threat Reduction Agency’s Research Oversight Board (ROB) has reviewed and approved the proposed protocol. Contractors and subcontractors are required to submit a valid federal assurance for their organization (institution, laboratory, facility) that has been issued by either DoD or the Department of Health and Human Services, and documentation of review of proposed protocols by the local Institutional Review Board (IRB) to include consent forms for any planned research using human subjects to the DTRA ROB for its review through the contracting officer’s representative (if assigned) or the contracting officer. The ROB review is separate from, and in addition to, local IRB review.

Written approval to begin research or subcontract for the use of human subjects under the proposed protocol will be provided in writing from the DTRA ROB, through the contracting officer. A copy of this approval shall be maintained by both the contractor and the government. Any proposed modifications or amendments to the approved protocol or consent forms must be submitted to the local IRB and the DTRA ROB for review and approval. Examples of modifications/amendments to the protocol include but are not limited to:

1) a change of the Principal Investigator
2) changes in duration or intensity of exposure to some stimulus or agent
3) changes in the information requested of volunteers, or changes to the use of specimens or data collected
4) changes in perceived or measured risks or benefits to volunteers that require changes to the study

Research pursuant to such modifications or amendments shall not be initiated without IRB and ROB approval except when necessary to eliminate apparent and immediate hazards to the subject(s).

Research projects lasting more than one year require IRB review at least annually, or more frequently as required by the responsible IRB. ROB review and approval is required annually. The contractor or subcontractor must provide documentation of continued IRB review of protocols for ROB review and approval in accordance with the Contract Data Requirements List. Research must not continue without renewed ROB approval unless necessary to eliminate apparent and immediate hazards to the subject(s).

Non-compliance with any provision of this clause may result in withholding of payments under the contract pursuant to the contract’s payments clause(s) and/or contract termination pursuant to the contract’s

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termination clause(s). The government shall not be responsible for any costs incurred for research involving human subjects prior to protocol approval by the ROB.

252.235-9001 PROHIBITION OF USE OF LABORATORY ANIMALS (JULY 2010) (DTRA)

The contractor shall obtain approval from the US Army Medical Research and Material Command (MRMC), Animal Care and Use Review Office (ACURO) prior to conducting research on live nonhuman vertebrates. Studies involving non-human primates, dogs, cats, or marine mammals will require a site visit by an ACURO laboratory animal veterinarian as a condition of approval. DoD may also conduct site visits involving research on other animals when deemed appropriate. The animal research facility is responsible for notifying the DoD sponsor if Association for the Assessment and Accreditation of Laboratory Animal Care accreditation is lost or the facility is under USDA inspection. DoD also has the right to a site inspection under these circumstances.

The contractor (including subcontractors) is expressly forbidden to use laboratory animals in any manner whatsoever without the express written approval of MRMC ACURO.

The contractor shall complete the ACURO Animal Use Appendix for Research Involving Animals found at the following web site: https://mrmc-www.army.mil/index.cfm?pageid=Research_Protections.acuro_AnimalAppendix. Submit the completed ACURO appendix, contact information, the DTRA contract number and a copy of the contract for processing to the email address listed at the ACURO website. Once ACURO approves the effort, the contractor will receive written approval to begin animal use from the US Army MRMC ACURO by separate email. The contractor shall promptly provide a copy of the approval to the contracting officer and contracting officer representative. After approval, changes or protocol amendments must be submitted to and approved by ACURO before implementation.

The contractor, or subcontractors as appropriate, shall submit the most recent U.S. Department of Agriculture Animal Care Inspection Report annually in accordance with the CDRL.

Non-compliance with any provision of this clause may result in the termination of the contract.

(End of Clause)

The following have been modified:

252.201-9002 CONTRACTING OFFICER'S REPRESENTATIVE (MAY 2007)

a. The Contracting Officer's Representative (COR) for this contract is:

__X__ See Separate Letter
Transformational Medical Technologies (TMT)
Defense Threat Reduction Agency
8725 John J. Kingman Rd, MS 6201
Fort Belvoir VA 22060-6201
WAWF Acceptor DoDAAC: HDTRA1

_____ _____
Defense Threat Reduction Agency/
1680 Texas St SE
Kirtland AFB NM 87117-5669

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Telephone number (505) ____-____
e-mail address @abq.dtra.mil.
WAWF Acceptor DoDAAC: HDTRA2

b. The COR will act as the Contracting Officer's Representative for technical matters providing technical direction and discussion as necessary with respect to the specification/statement of work and monitoring the progress and quality of the Contractor's performance. The COR is NOT an Administrative Contracting Officer (ACO) and does not have the authority to take any action, either directly or indirectly that would change the pricing, quality, quantity, place of performance, delivery schedule, or any other terms and conditions of the contract, or to direct the accomplishment of effort, which goes beyond the scope of the specifications/statement of work in the contract.

c. When, in the opinion of the contractor, the COR requests effort outside the existing scope of the contract, the contractor shall promptly notify the Contracting Officer in writing. No action shall be taken by the contractor under such direction until the Contracting Officer has issued a modification to the contract or has otherwise resolved the issue.

The following have been deleted:

252.201-9001	Contracting Office Point of Contact (POC)	AUG 2001
252.204-9000	DTRA - Mailing Addresses/ Instructions	NOV 2004

SECTION I - CONTRACT CLAUSES

The following have been added by reference:

52.202-1	Definitions	JUL 2004
52.203-3	Gratuities	APR 1984
52.203-5	Covenant Against Contingent Fees	APR 1984
52.203-6	Restrictions On Subcontractor Sales To The Government	SEP 2006
52.203-7	Anti-Kickback Procedures	OCT 2010
52.203-8	Cancellation, Rescission, and Recovery of Funds for Illegal or Improper Activity	JAN 1997
52.203-10	Price Or Fee Adjustment For Illegal Or Improper Activity	JAN 1997
52.203-12	Limitation On Payments To Influence Certain Federal Transactions	OCT 2010
52.203-13	Contractor Code of Business Ethics and Conduct	APR 2010
52.203-14	Display of Hotline Poster(s)	DEC 2007
52.204-4	Printed or Copied Double-Sided on Recycled Paper	AUG 2000
52.204-7	Central Contractor Registration	APR 2008
52.204-10	Reporting Executive Compensation and First-Tier Subcontract Awards	JUL 2010
52.209-6	Protecting the Government's Interest When Subcontracting With Contractors Debarred, Suspended, or Proposed for Debarment	SEP 2006
52.209-9	Updates of Publicly Available Information Regarding Responsibility Matters	JAN 2011
52.215-2	Audit and Records—Negotiation	OCT 2010
52.215-8	Order of Precedence—Uniform Contract Format	OCT 1997

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52.215-10	Price Reduction for Defective Certified Cost or Pricing Data	OCT 2010
52.215-12	Subcontractor Certified Cost or Pricing Data	OCT 2010
52.215-15	Pension Adjustments and Asset Reversions	OCT 2010
52.215-17	Waiver of Facilities Capital Cost of Money	OCT 1997
52.215-18	Reversion or Adjustment of Plans for Postretirement Benefits(PRB) Other than Pensions	JUL 2005
52.215-19	Notification of Ownership Changes	OCT 1997
52.215-21	Requirements for Certified Cost or Pricing Data or Information Other Than Certified Cost or Pricing Data—Modifications	OCT 2010
52.215-23	Limitations on Pass-Through Charges	OCT 2009
52.216-8	Fixed Fee	MAR 1997
52.219-8	Utilization of Small Business Concerns	MAY 2004
52.219-28	Post-Award Small Business Program Rerepresentation	APR 2009
52.222-3	Convict Labor	JUN 2003
52.222-21	Prohibition Of Segregated Facilities	FEB 1999
52.222-26	Equal Opportunity	MAR 2007
52.222-35	Equal Opportunity For Special Disabled Veterans, Veterans of the Vietnam Era, and Other Eligible Veterans	SEP 2010
52.222-36	Affirmative Action For Workers With Disabilities	OCT 2010
52.222-37	Employment Reports on Veterans	SEP 2010
52.222-40	Notification of Employee Rights Under the National Labor Relations Act	DEC 2010
52.222-50	Combating Trafficking in Persons	FEB 2009
52.222-54	Employment Eligibility Verification	JAN 2009
52.223-6	Drug-Free Workplace	MAY 2001
52.223-14	Toxic Chemical Release Reporting	AUG 2003
52.223-18	Contractor Policy to Ban Text Messaging While Driving	SEP 2010
52.225-13	Restrictions on Certain Foreign Purchases	JUN 2008
52.227-1 Alt I	Authorization And Consent (Dec 2007) - Alternate I	APR 1984
52.227-2	Notice And Assistance Regarding Patent And Copyright Infringement	DEC 2007
52.227-11 Alt II	Patent Rights—Ownership by the Contractor (Dec 2007) - Alternate II	DEC 2007
52.228-7	Insurance—Liability To Third Persons	MAR 1996
52.232-9	Limitation On Withholding Of Payments	APR 1984
52.232-17	Interest	OCT 2010
52.232-20	Limitation Of Cost	APR 1984
52.232-23 Alt I	Assignment of Claims (Jan 1986) - Alternate I	APR 1984
52.232-25 Alt I	Prompt Payment (Oct 2008) Alternate I	FEB 2002
52.232-33	Payment by Electronic Funds Transfer—Central Contractor Registration	OCT 2003
52.233-1 Alt I	Disputes (Jul 2002) - Alternate I	DEC 1991
52.233-3 Alt I	Protest After Award (Aug 1996) - Alternate I	JUN 1985
52.233-4	Applicable Law for Breach of Contract Claim	OCT 2004
52.242-1	Notice of Intent to Disallow Costs	APR 1984
52.242-3	Penalties for Unallowable Costs	MAY 2001
52.242-4	Certification of Final Indirect Costs	JAN 1997
52.242-13	Bankruptcy	JUL 1995

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52.243-2 Alt V	Changes—Cost-Reimbursement (Aug 1987) - Alternate V	APR 1984
52.244-5	Competition In Subcontracting	DEC 1996
52.244-6	Subcontracts for Commercial Items	OCT 2010
52.245-1	Government Property	AUG 2010
52.245-9	Use And Charges	AUG 2010
52.246-8	Inspection Of Research And Development Cost Reimbursement	MAY 2001
52.246-25	Limitation Of Liability—Services	FEB 1997
52.249-6	Termination (Cost Reimbursement)	MAY 2004
52.251-1	Government Supply Sources	AUG 2010
52.253-1	Computer Generated Forms	JAN 1991
252.203-7000	Requirements Relating to Compensation of Former DoD Officials	JAN 2009
252.203-7001	Prohibition On Persons Convicted of Fraud or Other Defense-Contract-Related Felonies	DEC 2008
252.203-7002	Requirement to Inform Employees of Whistleblower Rights	JAN 2009
252.203-7003	Agency Office of the Inspector General	SEP 2010
252.204-7000	Disclosure Of Information	DEC 1991
252.204-7003	Control Of Government Personnel Work Product	APR 1992
252.204-7004 Alt A	Central Contractor Registration (52.204-7) Alternate A	SEP 2007
252.204-7008	Export-Controlled Items	APR 2010
252.205-7000	Provision Of Information To Cooperative Agreement Holders	DEC 1991
252.209-7004	Subcontracting With Firms That Are Owned or Controlled By The Government of a Terrorist Country	DEC 2006
252.211-7003	Item Identification and Valuation	SEP 2010
252.211-7007	Reporting of Government-Furnished Equipment in the DoD Item Unique Identification (IUID) Registry	NOV 2008
252.215-7000	Pricing Adjustments	DEC 1991
252.215-7002	Cost Estimating System Requirements	DEC 2006
252.222-7006	Restrictions on the Use of Mandatory Arbitration Agreements	DEC 2010
252.225-7004	Report of Intended Performance Outside the United States and Canada—Submission after Award	OCT 2010
252.225-7004	Report of Intended Performance Outside the United States and Canada—Submission after Award	OCT 2010
252.225-7006	Quarterly Reporting of Actual Contract Performance Outside the United States	OCT 2010
252.225-7012	Preference For Certain Domestic Commodities	JUN 2010
252.226-7001	Utilization of Indian Organizations and Indian-Owned Economic Enterprises, and Native Hawaiian Small Business Concerns	SEP 2004
252.227-7014	Rights in Noncommercial Computer Software and Noncommercial Computer Software Documentation	JUN 1995
252.227-7016	Rights in Bid or Proposal Information	JUN 1995
252.227-7019	Validation of Asserted Restrictions—Computer Software	JUN 1995
252.227-7027	Deferred Ordering Of Technical Data Or Computer Software	APR 1988
252.227-7030	Technical Data—Withholding Of Payment	MAR 2000

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252.227-7037	Validation of Restrictive Markings on Technical Data	SEP 1999
252.227-7039	Patents—Reporting Of Subject Inventions	APR 1990
252.231-7000	Supplemental Cost Principles	DEC 1991
252.232-7003	Electronic Submission of Payment Requests and Receiving Reports	MAR 2008
252.232-7010	Levies on Contract Payments	DEC 2006
252.235-7002	Animal Welfare	DEC 1991
252.235-7010	Acknowledgment of Support and Disclaimer	MAY 1995
252.235-7011	Final Scientific or Technical Report	NOV 2004
252.243-7002	Requests for Equitable Adjustment	MAR 1998
252.244-7000	Subcontracts for Commercial Items and Commercial Components (DoD Contracts)	AUG 2009
252.245-7002	Reporting Loss of Government Property	FEB 2011
252.247-7023	Transportation of Supplies by Sea	MAY 2002
252.247-7024	Notification Of Transportation Of Supplies By Sea	MAR 2000
252.251-7000	Ordering From Government Supply Sources	NOV 2004

The following have been added by full text:

52.216-7 ALLOWABLE COST AND PAYMENT (DEC 2002)

(a) Invoicing.

(1) The Government will make payments to the Contractor when requested as work progresses, but (except for small business concerns) not more often than once every 2 weeks, in amounts determined to be allowable by the Contracting Officer in accordance with Federal Acquisition Regulation (FAR) subpart 31.2 in effect on the date of this contract and the terms of this contract. The Contractor may submit to an authorized representative of the Contracting Officer, in such form and reasonable detail as the representative may require, an invoice or voucher supported by a statement of the claimed allowable cost for performing this contract.

(2) Contract financing payments are not subject to the interest penalty provisions of the Prompt Payment Act. Interim payments made prior to the final payment under the contract are contract financing payments, except interim payments if this contract contains Alternate I to the clause at 52.232-25.

(3) The designated payment office will make interim payments for contract financing on the 30th day after the designated billing office receives a proper payment request.

In the event that the Government requires an audit or other review of a specific payment request to ensure compliance with the terms and conditions of the contract, the designated payment office is not compelled to make payment by the specified due date.

(b) Reimbursing costs. (1) For the purpose of reimbursing allowable costs (except as provided in subparagraph (b)(2) of the clause, with respect to pension, deferred profit sharing, and employee stock ownership plan contributions), the term “costs” includes only—

(i) Those recorded costs that, at the time of the request for reimbursement, the Contractor has paid by cash, check, or other form of actual payment for items or services purchased directly for the contract;

(ii) When the Contractor is not delinquent in paying costs of contract performance in the ordinary course of business, costs incurred, but not necessarily paid, for—

(A) Supplies and services purchased directly for the contract and associated financing payments to subcontractors, provided payments determined due will be made—

(1) In accordance with the terms and conditions of a subcontract or invoice; and

(2) Ordinarily within 30 days of the submission of the Contractor's payment request to the Government;

(B) Materials issued from the Contractor's inventory and placed in the production process for use on the contract;

(C) Direct labor;

(D) Direct travel;

(E) Other direct in-house costs; and

(F) Properly allocable and allowable indirect costs, as shown in the records maintained by the Contractor for purposes of obtaining reimbursement under Government contracts; and

(iii) The amount of financing payments that have been paid by cash, check, or other forms of payment to subcontractors.

(2) Accrued costs of Contractor contributions under employee pension plans shall be excluded until actually paid unless—

(i) The Contractor's practice is to make contributions to the retirement fund quarterly or more frequently; and

(ii) The contribution does not remain unpaid 30 days after the end of the applicable quarter or shorter payment period (any contribution remaining unpaid shall be excluded from the Contractor's indirect costs for payment purposes).

(3) Notwithstanding the audit and adjustment of invoices or vouchers under paragraph (g) of this clause, allowable indirect costs under this contract shall be obtained by applying indirect cost rates established in accordance with paragraph (d) of this clause.

(4) Any statements in specifications or other documents incorporated in this contract by reference designating performance of services or furnishing of materials at the Contractor's expense or at no cost to the Government shall be disregarded for purposes of cost-reimbursement under this clause.

(c) Small business concerns. A small business concern may receive more frequent payments than every 2 weeks.

(d) Final indirect cost rates. (1) Final annual indirect cost rates and the appropriate bases shall be established in accordance with Subpart 42.7 of the Federal Acquisition Regulation (FAR) in effect for the period covered by the indirect cost rate proposal.

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(2)(i) The Contractor shall submit an adequate final indirect cost rate proposal to the Contracting Officer (or cognizant Federal agency official) and auditor within the 6-month period following the expiration of each of its fiscal years. Reasonable extensions, for exceptional circumstances only, may be requested in writing by the Contractor and granted in writing by the Contracting Officer. The Contractor shall support its proposal with adequate supporting data.

(ii) The proposed rates shall be based on the Contractor's actual cost experience for that period. The appropriate Government representative and the Contractor shall establish the final indirect cost rates as promptly as practical after receipt of the Contractor's proposal.

(3) The Contractor and the appropriate Government representative shall execute a written understanding setting forth the final indirect cost rates. The understanding shall specify (i) the agreed-upon final annual indirect cost rates, (ii) the bases to which the rates apply, (iii) the periods for which the rates apply, (iv) any specific indirect cost items treated as direct costs in the settlement, and (v) the affected contract and/or subcontract, identifying any with advance agreements or special terms and the applicable rates. The understanding shall not change any monetary ceiling, contract obligation, or specific cost allowance or disallowance provided for in this contract. The understanding is incorporated into this contract upon execution.

(4) Failure by the parties to agree on a final annual indirect cost rate shall be a dispute within the meaning of the Disputes clause.

(5) Within 120 days (or longer period if approved in writing by the Contracting Officer) after settlement of the final annual indirect cost rates for all years of a physically complete contract, the Contractor shall submit a completion invoice or voucher to reflect the settled amounts and rates.

(6)(i) If the Contractor fails to submit a completion invoice or voucher within the time specified in paragraph (d)(5) of this clause, the Contracting Officer may—

(A) Determine the amounts due to the Contractor under the contract; and

(B) Record this determination in a unilateral modification to the contract.

(ii) This determination constitutes the final decision of the Contracting Officer in accordance with the Disputes clause.

(e) Billing rates. Until final annual indirect cost rates are established for any period, the Government shall reimburse the Contractor at billing rates established by the Contracting Officer or by an authorized representative (the cognizant auditor), subject to adjustment when the final rates are established. These billing rates—

(1) Shall be the anticipated final rates; and

(2) May be prospectively or retroactively revised by mutual agreement, at either party's request, to prevent substantial overpayment or underpayment.

(f) Quick-closeout procedures. Quick-closeout procedures are applicable when the conditions in FAR 42.708(a) are satisfied.

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(g) Audit. At any time or times before final payment, the Contracting Officer may have the Contractor's invoices or vouchers and statements of cost audited. Any payment may be (1) Reduced by amounts found by the Contracting Officer not to constitute allowable costs or (2) Adjusted for prior overpayments or underpayments.

(h) Final payment. (1) Upon approval of a completion invoice or voucher submitted by the Contractor in accordance with paragraph (d)(4) of this clause, and upon the Contractor's compliance with all terms of this contract, the Government shall promptly pay any balance of allowable costs and that part of the fee (if any) not previously paid.

(2) The Contractor shall pay to the Government any refunds, rebates, credits, or other amounts (including interest, if any) accruing to or received by the Contractor or any assignee under this contract, to the extent that those amounts are properly allocable to costs for which the Contractor has been reimbursed by the Government. Reasonable expenses incurred by the Contractor for securing refunds, rebates, credits, or other amounts shall be allowable costs if approved by the Contracting Officer. Before final payment under this contract, the Contractor and each assignee whose assignment is in effect at the time of final payment shall execute and deliver—

(i) An assignment to the Government, in form and substance satisfactory to the Contracting Officer, of refunds, rebates, credits, or other amounts (including interest, if any) properly allocable to costs for which the Contractor has been reimbursed by the Government under this contract; and

(ii) A release discharging the Government, its officers, agents, and employees from all liabilities, obligations, and claims arising out of or under this contract, except—

(A) Specified claims stated in exact amounts, or in estimated amounts when the exact amounts are not known;

(B) Claims (including reasonable incidental expenses) based upon liabilities of the Contractor to third parties arising out of the performance of this contract; provided, that the claims are not known to the Contractor on the date of the execution of the release, and that the Contractor gives notice of the claims in writing to the Contracting Officer within 6 years following the release date or notice of final payment date, whichever is earlier; and

(C) Claims for reimbursement of costs, including reasonable incidental expenses, incurred by the Contractor under the patent clauses of this contract, excluding, however, any expenses arising from the Contractor's indemnification of the Government against patent liability.

(End of clause)

52.222-2 PAYMENT FOR OVERTIME PREMIUMS (JUL 1990)

(a) The use of overtime is authorized under this contract if the overtime premium cost does not exceed $[†] or the overtime premium is paid for work —

(1) Necessary to cope with emergencies such as those resulting from accidents, natural disasters, breakdowns of production equipment, or occasional production bottlenecks of a sporadic nature;

(2) By indirect-labor employees such as those performing duties in connection with administration, protection, transportation, maintenance, standby plant protection, operation of utilities, or accounting;

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(3) To perform tests, industrial processes, laboratory procedures, loading or unloading of transportation conveyances, and operations in flight or afloat that are continuous in nature and cannot reasonably be interrupted or completed otherwise; or

(4) That will result in lower overall costs to the Government.

(b) Any request for estimated overtime premiums that exceeds the amount specified above shall include all estimated overtime for contract completion and shall—

(1) Identify the work unit; e.g., department or section in which the requested overtime will be used, together with present workload, staffing, and other data of the affected unit sufficient to permit the Contracting Officer to evaluate the necessity for the overtime;

(2) Demonstrate the effect that denial of the request will have on the contract delivery or performance schedule;

(3) Identify the extent to which approval of overtime would affect the performance or payments in connection with other Government contracts, together with identification of each affected contract; and

(4) Provide reasons why the required work cannot be performed by using multishift operations or by employing additional personnel.

* Insert either “zero” or the dollar amount agreed to during negotiations. The inserted figure does not apply to the exceptions in paragraph (a)(1) through (a)(4) of the clause.

(End of clause)

52.232-22 LIMITATION OF FUNDS (APR 1984)

(a) The parties estimate that performance of this contract will not cost the Government more than (1) the estimated cost specified in the Schedule or, (2) if this is a cost-sharing contract, the Government’s share of the estimated cost specified in the Schedule. The Contractor agrees to use its best efforts to perform the work specified in the Schedule and all obligations under this contract within the estimated cost, which, if this is a cost-sharing contract, includes both the Government’s and the Contractor’s share of the cost.

(b) The Schedule specifies the amount presently available for payment by the Government and allotted to this contract, the items covered, the Government’s share of the cost if this is a cost-sharing contract, and the period of performance it is estimated the allotted amount will cover. The parties contemplate that the Government will allot additional funds incrementally to the contract up to the full estimated cost to the Government specified in the Schedule, exclusive of any fee. The Contractor agrees to perform, or have performed, work on the contract up to the point at which the total amount paid and payable by the Government under the contract approximates but does not exceed the total amount actually allotted by the Government to the contract.

(c) The Contractor shall notify the Contracting Officer in writing whenever it has reason to believe that the costs it expects to incur under this contract in the next 60 days, when added to all costs previously incurred, will exceed 75 percent of (1) the total amount so far allotted to the contract by the Government or, (2) if this is a cost-sharing contract, the amount then allotted to the contract by the Government plus the Contractor’s corresponding share. The notice shall state the estimated amount of additional funds required to continue performance for the period specified in the Schedule.

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(d) Sixty days before the end of the period specified in the Schedule, the Contractor shall notify the Contracting Officer in writing of the estimated amount of additional funds, if any, required to continue timely performance under the contract or for any further period specified in the Schedule or otherwise agreed upon, and when the funds will be required.

(e) If, after notification, additional funds are not allotted by the end of the period specified in the Schedule or another agreed-upon date, upon the Contractor's written request the Contracting Officer will terminate this contract on that date in accordance with the provisions of the Termination clause of this contract. If the Contractor estimates that the funds available will allow it to continue to discharge its obligations beyond that date, it may specify a later date in its request, and the Contracting Officer may terminate this contract on that later date.

(f) Except as required by other provisions of this contract, specifically citing and stated to be an exception to this clause—

(1) The Government is not obligated to reimburse the Contractor for costs incurred in excess of the total amount allotted by the Government to this contract; and

(2) The Contractor is not obligated to continue performance under this contract (including actions under the Termination clause of this contract) or otherwise incur costs in excess of (i) the amount then allotted to the contract by the Government or, (ii) if this is a cost-sharing contract, the amount then allotted by the Government to the contract plus the Contractor's corresponding share, until the Contracting Officer notifies the Contractor in writing that the amount allotted by the Government has been increased and specifies an increased amount, which shall then constitute the total amount allotted by the Government to this contract.

(g) The estimated cost shall be increased to the extent that (1) the amount allotted by the Government or, (2) if this is a cost-sharing contract, the amount then allotted by the Government to the contract plus the Contractor's corresponding share, exceeds the estimated cost specified in the Schedule. If this is a cost-sharing contract, the increase shall be allocated in accordance with the formula specified in the Schedule.

(h) No notice, communication, or representation in any form other than that specified in subparagraph (f)(2) above, or from any person other than the Contracting Officer, shall affect the amount allotted by the Government to this contract. In the absence of the specified notice, the Government is not obligated to reimburse the Contractor for any costs in excess of the total amount allotted by the Government to this contract, whether incurred during the course of the contract or as a result of termination.

(i) When and to the extent that the amount allotted by the Government to the contract is increased, any costs the Contractor incurs before the increase that are in excess of (1) the amount previously allotted by the Government or, (2) if this is a cost-sharing contract, the amount previously allotted by the Government to the contract plus the Contractor's corresponding share, shall be allowable to the same extent as if incurred afterward, unless the Contracting Officer issues a termination or other notice and directs that the increase is solely to cover termination or other specified expenses.

(j) Change orders shall not be considered an authorization to exceed the amount allotted by the Government specified in the Schedule, unless they contain a statement increasing the amount allotted.

(k) Nothing in this clause shall affect the right of the Government to terminate this contract. If this contract is terminated, the Government and the Contractor shall negotiate an equitable distribution of all property produced or purchased under the contract, based upon the share of costs incurred by each.

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(l) If the Government does not allot sufficient funds to allow completion of the work, the Contractor is entitled to a percentage of the fee specified in the Schedule equalling the percentage of completion of the work contemplated by this contract.

(End of clause)

52.244-2 SUBCONTRACTS (OCT 2010)

(a) Definitions. As used in this clause—

Approved purchasing system means a Contractor's purchasing system that has been reviewed and approved in accordance with Part 44 of the Federal Acquisition Regulation (FAR).

Consent to subcontract means the Contracting Officer's written consent for the Contractor to enter into a particular subcontract.

Subcontract means any contract, as defined in FAR Subpart 2.1, entered into by a subcontractor to furnish supplies or services for performance of the prime contract or a subcontract. It includes, but is not limited to, purchase orders, and changes and modifications to purchase orders.

(b) When this clause is included in a fixed-price type contract, consent to subcontract is required only on unpriced contract actions (including unpriced modifications or unpriced delivery orders), and only if required in accordance with paragraph (c) or (d) of this clause.

(c) If the Contractor does not have an approved purchasing system, consent to subcontract is required for any subcontract that—

(1) Is of the cost-reimbursement, time-and-materials, or labor-hour type; or

(2) Is fixed-price and exceeds—

(i) For a contract awarded by the Department of Defense, the Coast Guard, or the National Aeronautics and Space Administration, the greater of the simplified acquisition threshold or 5 percent of the total estimated cost of the contract; or

(ii) For a contract awarded by a civilian agency other than the Coast Guard and the National Aeronautics and Space Administration, either the simplified acquisition threshold or 5 percent of the total estimated cost of the contract.

(d) If the Contractor has an approved purchasing system, the Contractor nevertheless shall obtain the Contracting Officer's written consent before placing the following subcontracts:

(e)(1) The Contractor shall notify the Contracting Officer reasonably in advance of placing any subcontract or modification thereof for which consent is required under paragraph (b), (c), or (d) of this clause, including the following information:

(i) A description of the supplies or services to be subcontracted.

(ii) Identification of the type of subcontract to be used.

(iii) Identification of the proposed subcontractor.

(iv) The proposed subcontract price.

(v) The subcontractor's current, complete, and accurate certified cost or pricing data and Certificate of Current Cost or Pricing Data, if required by other contract provisions.

(vi) The subcontractor's Disclosure Statement or Certificate relating to Cost Accounting Standards when such data are required by other provisions of this contract.

(vii) A negotiation memorandum reflecting—

(A) The principal elements of the subcontract price negotiations;

(B) The most significant considerations controlling establishment of initial or revised prices;

(C) The reason certified cost or pricing data were or were not required;

(D) The extent, if any, to which the Contractor did not rely on the subcontractor's certified cost or pricing data in determining the price objective and in negotiating the final price;

(E) The extent to which it was recognized in the negotiation that the subcontractor's certified cost or pricing data were not accurate, complete, or current; the action taken by the Contractor and the subcontractor; and the effect of any such defective data on the total price negotiated;

(F) The reasons for any significant difference between the Contractor's price objective and the price negotiated; and

(G) A complete explanation of the incentive fee or profit plan when incentives are used. The explanation shall identify each critical performance element, management decisions used to quantify each incentive element, reasons for the incentives, and a summary of all trade-off possibilities considered.

(2) The Contractor is not required to notify the Contracting Officer in advance of entering into any subcontract for which consent is not required under paragraph (c), (d), or (e) of this clause.

(f) Unless the consent or approval specifically provides otherwise, neither consent by the Contracting Officer to any subcontract nor approval of the Contractor's purchasing system shall constitute a determination—

(1) Of the acceptability of any subcontract terms or conditions;

(2) Of the allowability of any cost under this contract; or

(3) To relieve the Contractor of any responsibility for performing this contract.

(g) No subcontract or modification thereof placed under this contract shall provide for payment on a cost-plus-a-percentage-of-cost basis, and any fee payable under cost-reimbursement type subcontracts shall not exceed the fee limitations in FAR 15.404-4(c)(4)(i).

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(h) The Contractor shall give the Contracting Officer immediate written notice of any action or suit filed and prompt notice of any claim made against the Contractor by any subcontractor or vendor that, in the opinion of the Contractor, may result in litigation related in any way to this contract, with respect to which the Contractor may be entitled to reimbursement from the Government.

(i) The Government reserves the right to review the Contractor's purchasing system as set forth in FAR Subpart 44.3.

(j) Paragraphs (c) and (e) of this clause do not apply to the following subcontracts, which were evaluated during negotiations:

[†]
[†]
[†]
[†]
[†]
[†]
[†]
[†]
[†]

(End of clause)

52.249-14 EXCUSABLE DELAYS (APR 1984)

(a) Except for defaults of subcontractors at any tier, the Contractor shall not be in default because of any failure to perform this contract under its terms if the failure arises from causes beyond the control and without the fault or negligence of the Contractor. Examples of these causes are (1) acts of God or of the public enemy, (2) acts of the Government in either its sovereign or contractual capacity, (3) fires, (4) floods, (5) epidemics, (6) quarantine restrictions, (7) strikes, (8) freight embargoes, and (9) unusually severe weather. In each instance, the failure to perform must be beyond the control and without the fault or negligence of the Contractor. "Default" includes failure to make progress in the work so as to endanger performance.

(b) If the failure to perform is caused by the failure of a subcontractor at any tier to perform or make progress, and if the cause of the failure was beyond the control of both the Contractor and subcontractor, and without the fault or negligence of either, the Contractor shall not be deemed to be in default, unless—

(1) The subcontracted supplies or services were obtainable from other sources;

(2) The Contracting Officer ordered the Contractor in writing to purchase these supplies or services from the other source; and

(3) The Contractor failed to comply reasonably with this order.

(c) Upon request of the Contractor, the Contracting Officer shall ascertain the facts and extent of the failure. If the Contracting Officer determines that any failure to perform results from one or more of the causes above, the delivery schedule shall be revised, subject to the rights of the Government under the termination clause of this contract.

(End of clause)

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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):

http://farsite.hill.af.mil/

(End of clause)

252.201-9003 LIMITATION OF AUTHORITY (JUN 2009)

No person in the Government, other than a Contracting Officer, has the authority to provide direction to the Contractor, which alters the Contractor's obligations or changes this contract in any way. If any person representing the Government, other than a Contracting Officer, attempts to alter contract obligations, change the contract specifications/statement of work or tells the contractor to perform some effort which the Contractor believes to be outside the scope of this contract, the Contractor shall immediately notify the Procuring Contracting Officer (PCO). Contractor personnel shall not comply with any order or direction which they believe to be outside the scope of this contract unless the order or direction is issued by a Contracting Officer.

252.203-9000 Use of Senior Mentors (JUNE 2010)

(a) The use of senior mentors by the Defense Threat Reduction Agency (DTRA) enhances the readiness of the Agency across a wide range of strategic, operational, joint, functional, technical, management and development mission areas. The relevant prior service, joint force experience, and unique expertise of these senior consultants provide senior leadership with valuable insights and contribute to the continuous improvement of the Agencies' operations.

(b) For the purposes of this clause, Senior Mentor is defined as a retired flag, general or other military officers (O-6) or retired senior civilian official (Senior Executive Service (SES), Senior Level (SL), Scientific and Professional (ST)) who provides expert experience-based mentoring, teaching, training, advice, and recommendations to senior military officers, staffs and students as they participate in war games, warfighting courses, operational planning, operational exercises, and decision-making exercises.

(c) In accordance with Secretary of Defense Memorandum entitled "Policy on Senior Mentors" dated April 1, 2010, DTRA will hire all senior mentors as highly qualified experts (HQE) under 5 U.S.C. 9903. This policy balances the need for DTRA to secure the specialized knowledge required for these operational exercises with the need to hire such experts in a manner that promotes public trust and confidence.

(d) The Contractor shall not include the use of senior mentors in bids or proposals for services/supplies offered to DTRA.

(e) The Contractor shall include the substance of this clause in all subcontracts.

(End of Clause)

252.203-9004 ETIOLOGIC AGENTS—BIOLOGICAL DEFENSE RESEARCH PROGRAM (FEB 2008)

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5) For purpose of this contract etiologic agent—biological defense program is defined as: any viable microorganism, or its toxin which causes or may cause human disease, including those agents listed in 42 CFR 73, 9 CFR 121, and 7 CFR 331, of the Department of Health and Human Services and Department of Agriculture regulations, respectively, and any agent of biological origin that poses a degree of hazard to those agents and is further identified by the US Army. The contractor shall comply with the following when working with etiologic agents:

1. 29 Code of Federal Regulations 1910, Occupational Health and Safety;

2. US Department of Health and Human Services (DHHS) and US Department of Agriculture, Select Agent Program(s), 42 CFR 73, 9 CFR 121, and 7 CFR 331; and

3. DHHS Publication No. 93-8395, Biosafety in Microbiological and Biomedical Laboratories, latest edition.

6) Etiologic agents shall be packaged, labeled, shipped, and transported in accordance with applicable Federal, State, and local laws and regulations, to include:

1. 42 CFR 72 (Interstate Shipment of Etiologic Agents);

2. 49 CFR 172 and 173 (Department of Transportation);

3. 9 CFR 122 (USDA Restricted Animal Pathogens);

4. International Air Transport Association Dangerous Goods Regulations;

5. The United States Postal Service shall not be used for transportation of BDRP related etiologic agents; and

6. If performance is outside of the United States, any additional procedures required by the nation where the work is to be performed.

252.203-9005, Implementation of Contractor Code of Business Ethics and Conduct (Dec 2008)

In accordance with FAR clause 52.203-13, Contractor Code of Business Ethics and Conduct, the designated “agency Office of the Inspector General” is the DoD OIG at the following address:

Office of the Inspector General
United States Department of Defense
Investigative Policy and Oversight
Contractor Disclosure Program
400 Army Navy Drive, Suite 1037
Arlington, VA 22202-4704
Toll Free Telephone: 866-429-8011

252.204-9004 IMPLEMENTATION OF DISCLOSURE OF INFORMATION (JUN 2007)

In accordance with DFARS 252.204-7000 Disclosure of Information, any information to be released shall be submitted at least 45 days before the proposed release date, for security and policy review. Submit one copy to each below:

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(a) Office of Public Affairs, DTRA/DIR/COS/PA, 8725 John J. Kingman Dr, MS 6201, Ft Belvoir VA 22060-6201.

(b) Contracting Officer

(c) Program Manager

(d) Task Order Manager

(End of Clause)

252.209-9002 NON-GOVERNMENT SUPPORT PERSONNEL (JAN 2008)

The following companies may have access to contractor information, technical data or computer software that may be marked as proprietary or otherwise marked with restrictive legends: Suntiva LLC (contract specialist support); Systems Research and Analysis (SRA, managing JPRAS); ITT Corporation (DTRIAC Technical Engineering Services); Booz Allen Hamilton (Administrative Support) and The Tauri Group (Advisory and Assistance Services). Each contract contains organizational conflict of interest provisions and/or includes contractual requirements for non-disclosure of proprietary contractor information or data/software marked with restrictive legends. The contractor, by submitting a proposal or entering into this contract, is deemed to have consented to the disclosure of its information to Suntiva LLC, SRA, ITT Corporation, Booz Allen Hamilton and The Tauri Group under conditions and limitations described herein.

252.215-9004 KEY PERSONNEL (FEB 2000)

The personnel listed below are considered essential to the work being performed hereunder. Prior to removing, replacing, or diverting any of the specified individuals, the Contractor shall notify the Contracting Officer reasonably in advance and shall submit justification (including proposed substitutions) in sufficient detail to permit evaluation of the impact on this Contract. No deviation shall be made by the Contractor without the prior written consent of the Contracting Officer; provided, that the Contracting Officer may ratify in writing the change, such ratification shall constitute the consent of the Contracting Officer required by this paragraph. The personnel listed below may, with the consent of the contracting parties, be amended from time to time during the course of the Contract to either add or delete personnel as appropriate.

Principal Investigator

252.216-9003 CONSULTANTS (OCT 1998)

Services of consultants shall be at rates and for periods approved in advance by the Contracting Officer. Requests for approval shall be submitted to the Contracting Officer sufficiently in advance of the need to use a consultant under this Contract. The request shall include (a) a copy of the proposed consultant agreement, (b) a brief biography of the consultant, and (c) an indication of the area(s) in which consultant's expertise will be utilized and why it is essential for contract performance. In addition, significant deviations from the dollar amount approved for consultant services, or changes in the consultants to be utilized, must likewise be approved in advance upon submission of adequate justification.

252.227-7013 RIGHTS IN TECHNICAL DATA—NONCOMMERCIAL ITEMS. (NOV 1995)

(a) Definitions. As used in this clause:

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(1) Computer data base means a collection of data recorded in a form capable of being processed by a computer. The term does not include computer software.

(2) Computer program means a set of instructions, rules, or routines recorded in a form that is capable of causing a computer to perform a specific operation or series of operations.

(3) Computer software means computer programs, source code, source code listings, object code listings, design details, algorithms, processes, flow charts, formulae and related material that would enable the software to be reproduced, recreated, or recompiled. Computer software does not include computer data bases or computer software documentation.

(4) Computer software documentation means owner's manuals, user's manuals, installation instructions, operating instructions, and other similar items, regardless of storage medium, that explain the capabilities of the computer software or provide instructions for using the software.

(5) Detailed manufacturing or process data means technical data that describe the steps, sequences, and conditions of manufacturing, processing or assembly used by the manufacturer to produce an item or component or to perform a process.

(6) Developed means that an item, component, or process exists and is workable. Thus, the item or component must have been constructed or the process practiced. Workability is generally established when the item, component, or process has been analyzed or tested sufficiently to demonstrate to reasonable people skilled in the applicable art that there is a high probability that it will operate as intended. Whether, how much, and what type of analysis or testing is required to establish workability depends on the nature of the item, component, or process, and the state of the art. To be considered "developed," the item, component, or process need not be at the stage where it could be offered for sale or sold on the commercial market, nor must the item, component, or process be actually reduced to practice within the meaning of Title 35 of the United States Code.

(7) Developed exclusively at private expense means development was accomplished entirely with costs charged to indirect cost pools, costs not allocated to a government contract, or any combination thereof.

(i) Private expense determinations should be made at the lowest practicable level.

(ii) Under fixed-price contracts, when total costs are greater than the firm-fixed-price or ceiling price of the contract, the additional development costs necessary to complete development shall not be considered when determining whether development was at government, private, or mixed expense.

(8) Developed exclusively with government funds means development was not accomplished exclusively or partially at private expense.

(9) Developed with mixed funding means development was accomplished partially with costs charged to indirect cost pools and/or costs not allocated to a government contract, and partially with costs charged directly to a government contract.

(10) Form, fit, and function data means technical data that describes the required overall physical, functional, and performance characteristics (along with the qualification requirements, if applicable) of an item, component, or process to the extent necessary to permit identification of physically and functionally interchangeable items.

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(11) Government purpose means any activity in which the United States Government is a party, including cooperative agreements with international or multi-national defense organizations, or sales or transfers by the United States Government to foreign governments or international organizations. Government purposes include competitive procurement, but do not include the rights to use, modify, reproduce, release, perform, display, or disclose technical data for commercial purposes or authorize others to do so.

(12) Government purpose rights means the rights to—

(i) Use, modify, reproduce, release, perform, display, or disclose technical data within the Government without restriction; and

(ii) Release or disclose technical data outside the Government and authorize persons to whom release or disclosure has been made to use, modify, reproduce, release, perform, display, or disclose that data for United States government purposes.

(13) Limited rights means the rights to use, modify, reproduce, release, perform, display, or disclose technical data, in whole or in part, within the Government. The Government may not, without the written permission of the party asserting limited rights, release or disclose the technical data outside the Government, use the technical data for manufacture, or authorize the technical data to be used by another party, except that the Government may reproduce, release or disclose such data or authorize the use or reproduction of the data by persons outside the Government if reproduction, release, disclosure, or use is—

(i) Necessary for emergency repair and overhaul; or

(ii) A release or disclosure of technical data (other than detailed manufacturing or process data) to, or use of such data by, a foreign government that is in the interest of the Government and is required for evaluational or informational purposes;

(iii) Subject to a prohibition on the further reproduction, release, disclosure, or use of the technical data; and

(iv) The contractor or subcontractor asserting the restriction is notified of such reproduction, release, disclosure, or use.

(14) Technical data means recorded information, regardless of the form or method of the recording, of a scientific or technical nature (including computer software documentation). The term does not include computer software or data incidental to contract administration, such as financial and/or management information.

(15) Unlimited rights means rights to use, modify, reproduce, perform, display, release, or disclose technical data in whole or in part, in any manner, and for any purpose whatsoever, and to have or authorize others to do so.

(b) Rights in technical data. The Contractor grants or shall obtain for the Government the following royalty free, world-wide, nonexclusive, irrevocable license rights in technical data other than computer software documentation (see the Rights in Noncommercial Computer Software and Noncommercial Computer Software Documentation clause of this contract for rights in computer software documentation):

(1) Unlimited rights.

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The Government shall have unlimited rights in technical data that are—

(i) Data pertaining to an item, component, or process which has been or will be developed exclusively with Government funds;

(ii) Studies, analyses, test data, or similar data produced for this contract, when the study, analysis, test, or similar work was specified as an element of performance;

(iii) Created exclusively with Government funds in the performance of a contract that does not require the development, manufacture, construction, or production of items, components, or processes;

(iv) Form, fit, and function data;

(v) Necessary for installation, operation, maintenance, or training purposes (other than detailed manufacturing or process data);

(vi) Corrections or changes to technical data furnished to the Contractor by the Government;

(vii) Otherwise publicly available or have been released or disclosed by the Contractor or subcontractor without restrictions on further use, release or disclosure, other than a release or disclosure resulting from the sale, transfer, or other assignment of interest in the technical data to another party or the sale or transfer of some or all of a business entity or its assets to another party;

(viii) Data in which the Government has obtained unlimited rights under another Government contract or as a result of negotiations; or

(ix) Data furnished to the Government, under this or any other Government contract or subcontract thereunder, with-

(A) Government purpose license rights or limited rights and the restrictive condition(s) has/have expired; or

(B) Government purpose rights and the Contractor's exclusive right to use such data for commercial purposes has expired.

(2) Government purpose rights.

(i) The Government shall have government purpose rights for a five-year period, or such other period as may be negotiated, in technical data—

(A) That pertain to items, components, or processes developed with mixed funding except when the Government is entitled to unlimited rights in such data as provided in paragraphs (b)(ii) and (b)(iv) through (b)(ix) of this clause; or

(B) Created with mixed funding in the performance of a contract that does not require the development, manufacture, construction, or production of items, components, or processes.

(ii) The five-year period, or such other period as may have been negotiated, shall commence upon execution of the contract, subcontract, letter contract (or similar contractual instrument), contract modification, or option exercise that required development of the items, components, or processes or creation of the data described in

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paragraph (b)(2)(i)(B) of this clause. Upon expiration of the five-year or other negotiated period, the Government shall have unlimited rights in the technical data.

(iii) The Government shall not release or disclose technical data in which it has government purpose rights unless-

(A) Prior to release or disclosure, the intended recipient is subject to the non-disclosure agreement at 227.7103-7 of the Defense Federal Acquisition Regulation Supplement (DFARS); or

(B) The recipient is a Government contractor receiving access to the data for performance of a Government contract that contains the clause at DFARS 252.227-7025, Limitations on the Use or Disclosure of Government-Furnished Information Marked with Restrictive Legends.

(iv) The Contractor has the exclusive right, including the right to license others, to use technical data in which the Government has obtained government purpose rights under this contract for any commercial purpose during the time period specified in the government purpose rights legend prescribed in paragraph (f)(2) of this clause.

(3) Limited rights.

(i) Except as provided in paragraphs (b)(1)(ii) and (b)(1)(iv) through (b)(1)(ix) of this clause, the Government shall have limited rights in technical data—

(A) Pertaining to items, components, or processes developed exclusively at private expense and marked with the limited rights legend prescribed in paragraph (f) of this clause; or

(B) Created exclusively at private expense in the performance of a contract that does not require the development, manufacture, construction, or production of items, components, or processes.

(ii) The Government shall require a recipient of limited rights data for emergency repair or overhaul to destroy the data and all copies in its possession promptly following completion of the emergency repair/overhaul and to notify the Contractor that the data have been destroyed.

(iii) The Contractor, its subcontractors, and suppliers are not required to provide the Government additional rights to use, modify, reproduce, release, perform, display, or disclose technical data furnished to the Government with limited rights. However, if the Government desires to obtain additional rights in technical data in which it has limited rights, the Contractor agrees to promptly enter into negotiations with the Contracting Officer to determine whether there are acceptable terms for transferring such rights. All technical data in which the Contractor has granted the Government additional rights shall be listed or described in a license agreement made part of the contract. The license shall enumerate the additional rights granted the Government in such data.

(4) Specifically negotiated license rights.

The standard license rights granted to the Government under paragraphs (b)(1) through (b)(3) of this clause, including the period during which the Government shall have government purpose rights in technical data, may be modified by mutual agreement to provide such rights as the parties consider appropriate but shall not provide the Government lesser rights than are enumerated in paragraph (a)(13) of this clause. Any rights so negotiated shall be identified in a license agreement made part of this contract.

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(5) Prior government rights.

Technical data that will be delivered, furnished, or otherwise provided to the Government under this contract, in which the Government has previously obtained rights shall be delivered, furnished, or provided with the pre-existing rights, unless—

(i) The parties have agreed otherwise; or

(ii) Any restrictions on the Government's rights to use, modify, reproduce, release, perform, display, or disclose the data have expired or no longer apply.

(6) Release from liability.

The Contractor agrees to release the Government from liability for any release or disclosure of technical data made in accordance with paragraph (a)(13) or (b)(2)(iii) of this clause, in accordance with the terms of a license negotiated under paragraph (b)(4) of this clause, or by others to whom the recipient has released or disclosed the data and to seek relief solely from the party who has improperly used, modified, reproduced, released, performed, displayed, or disclosed Contractor data marked with restrictive legends.

(c) Contractor rights in technical data. All rights not granted to the Government are retained by the Contractor.

(d) Third party copyrighted data The Contractor shall not, without the written approval of the Contracting Officer, incorporate any copyrighted data in the technical data to be delivered under this contract unless the Contractor is the copyright owner or has obtained for the Government the license rights necessary to perfect a license or licenses in the deliverable data of the appropriate scope set forth in paragraph (b) of this clause, and has affixed a statement of the license or licenses obtained on behalf of the Government and other persons to the data transmittal document.

(e) Identification and delivery of data to be furnished with restrictions on use, release, or disclosure. (1) This paragraph does not apply to restrictions based solely on copyright.

(2) Except as provided in paragraph (e)(3) of this clause, technical data that the Contractor asserts should be furnished to the Government with restrictions on use, release, or disclosure are identified in an attachment to this contract (the Attachment). The Contractor shall not deliver any data with restrictive markings unless the data are listed on the Attachment.

(3) In addition to the assertions made in the Attachment, other assertions may be identified after award when based on new information or inadvertent omissions unless the inadvertent omissions would have materially affected the source selection decision. Such identification and assertion shall be submitted to the Contracting Officer as soon as practicable prior to the scheduled date for delivery of the data, in the following format, and signed by an official authorized to contractually obligate the Contractor: Identification and Assertion of Restrictions on the Government's Use, Release, or Disclosure of Technical Data.

The Contractor asserts for itself, or the persons identified below, that the Government's rights to use, release, or disclose the following technical data should be restricted—

Technical data to be Furnished With Restrictions \1/	Basis for Assertion \2/	Asserted Rights Category \3/	Name of Person Asserting Restrictions \4/

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(LIST) (LIST) (LIST) (LIST)

\1/ If the assertion is applicable to items, components or processes developed at private expense, identify both the data and each such items, component, or process.

\2/ Generally, the development of an item, component, or process at private expense, either exclusively or partially, is the only basis for asserting restrictions on the Government's rights to use, release, or disclose technical data pertaining to such items, components, or processes. Indicate whether development was exclusively or partially at private expense. If development was not at private expense, enter the specific reason for asserting that the Government's rights should be restricted.

\3/ Enter asserted rights category (e.g., government purpose license rights from a prior contract, rights in SBIR data generated under another contract, limited or government purpose rights under this or a prior contract, or specifically negotiated licenses).

\4/ Corporation, individual, or other person, as appropriate.

Date _____

_____
Printed Name and Title

_____
Signature

(End of identification and assertion)

(4) When requested by the Contracting Officer, the Contractor shall provide sufficient information to enable the Contracting Officer to evaluate the Contractor's assertions. The Contracting Officer reserves the right to add the Contractor's assertions to the Attachment and validate any listed assertion, at a later date, in accordance with the procedures of the Validation of Restrictive Markings on Technical Data clause of this contract.

(f) Marking requirements. The Contractor, and its subcontractors or suppliers, may only assert restrictions on the Government's rights to use, modify, reproduce, release, perform, display, or disclose technical data to be delivered under this contract by marking the deliverable data subject to restriction. Except as provided in paragraph (f)(5) of this clause, only the following legends are authorized under this contract: the government purpose rights legend at paragraph (f)(2) of this clause; the limited rights legend at paragraph (f)(3) of this clause; or the special license rights legend at paragraph (f)(4) of this clause; and/or a notice of copyright as prescribed under 17 U.S.C. 401 or 402.

(1) General marking instructions. The Contractor, or its subcontractors or suppliers, shall conspicuously and legibly mark the appropriate legend on all technical data that qualify for such markings. The authorized legends shall be placed on the transmittal document or storage container and, for printed material, each page of the printed material containing technical data for which restrictions are asserted. When only portions of a page of printed material are subject to the asserted restrictions, such portions shall be identified by circling, underscoring, with a note, or other appropriate identifier. Technical data transmitted directly from one computer or computer terminal to another shall contain a notice of asserted restrictions. Reproductions of

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technical data or any portions thereof subject to asserted restrictions shall also reproduce the asserted restrictions.

(2) Government purpose rights markings. Data delivered or otherwise furnished to the Government purpose rights shall be marked as follows:

Government Purpose Rights

Contract No. _____

Contractor Name _____

Contractor Address _____

_____

Expiration Date _____

The Government's rights to use, modify, reproduce, release, perform, display, or disclose these technical data are restricted by paragraph (b)(2) of the Rights in Technical Data—Noncommercial Items clause contained in the above identified contract. No restrictions apply after the expiration date shown above. Any reproduction of technical data or portions thereof marked with this legend must also reproduce the markings.

(End of legend)

(3) Limited rights markings. Data delivered or otherwise furnished to the Government with limited rights shall be marked with the following legend:

Limited Rights

Contract No. _____

Contractor Name _____

Contractor Address _____

_____

The Government's rights to use, modify, reproduce, release, perform, display, or disclose these technical data are restricted by paragraph (b)(3) of the Rights in Technical Data—Noncommercial Items clause contained in the above identified contract. Any reproduction of technical data or portions thereof marked with this legend must also reproduce the markings. Any person, other than the Government, who has been provided access to such data must promptly notify the above named Contractor.

(End of legend)

(4) Special license rights markings. (i) Data in which the Government's rights stem from a specifically negotiated license shall be marked with the following legend:

Special License Rights

The Government's rights to use, modify, reproduce, release, perform, display, or disclose these data are restricted by Contract No. _____ (Insert contract number) _____, License No. _____ (Insert license identifier) _____. Any reproduction of technical data or portions thereof marked with this legend must also reproduce the markings.

(End of legend)

(ii) For purposes of this clause, special licenses do not include government purpose license rights acquired under a prior contract (see paragraph (b)(5) of this clause).

(5) Pre-existing data markings. If the terms of a prior contract or license permitted the Contractor to restrict the Government's rights to use, modify, reproduce, release, perform, display, or disclose technical data deliverable under this contract, and those restrictions are still applicable, the Contractor may mark such data with the appropriate restrictive legend for which the data qualified under the prior contract or license. The marking procedures in paragraph (f)(1) of this clause shall be followed.

(g) Contractor procedures and records. Throughout performance of this contract, the Contractor and its subcontractors or suppliers that will deliver technical data with other than unlimited rights, shall—

(l) Have, maintain, and follow written procedures sufficient to assure that restrictive markings are used only when authorized by the terms of this clause; and

(2) Maintain records sufficient to justify the validity of any restrictive markings on technical data delivered under this contract.

(h) Removal of unjustified and nonconforming markings. (1) Unjustified technical data markings. The rights and obligations of the parties regarding the validation of restrictive markings on technical data furnished or to be furnished under this contract are contained in the Validation of Restrictive Markings on Technical Data clause of this contract. Notwithstanding any provision of this contract concerning inspection and acceptance, the Government may ignore or, at the Contractor's expense, correct or strike a marking if, in accordance with the procedures in the Validation of Restrictive Markings on Technical Data clause of this contract, a restrictive marking is determined to be unjustified.

(2) Nonconforming technical data markings. A nonconforming marking is a marking placed on technical data delivered or otherwise furnished to the Government under this contract that is not in the format authorized by this contract. Correction of nonconforming markings is not subject to the validation of Restrictive Markings on Technical Data clause of this contract. If the Contracting Officer notifies the Contractor of a nonconforming marking and the Contractor fails to remove or correct such marking within sixty (60) days, the Government may ignore or, at the Contractor's expense, remove or correct any nonconforming marking.

(i) Relation to patents. Nothing contained in this clause shall imply a license to the Government under any patent or be construed as affecting the scope of any license or other right otherwise granted to the Government under any patent.

(j) Limitation on charges for rights in technical data. (1) The Contractor shall not charge to this contract any cost, including, but not limited to, license fees, royalties, or similar charges, for rights in technical data to be delivered under this contract when—

(i) The Government has acquired, by any means, the same or greater rights in the data; or

(ii) The data are available to the public without restrictions.

(2) The limitation in paragraph (j)(1) of this clause—

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(i) Includes costs charged by a subcontractor or supplier, at any tier, or costs incurred by the Contractor to acquire rights in subcontractor or supplier technical data, if the subcontractor or supplier has been paid for such rights under any other Government contract or under a license conveying the rights to the Government; and

(ii) Does not include the reasonable costs of reproducing, handling, or mailing the documents or other media in which the technical data will be delivered.

(k) Applicability to subcontractors or suppliers. (1) The Contractor shall ensure that the rights afforded its subcontractors and suppliers under 10 U.S.C. 2320, 10 U.S.C. 2321, and the identification, assertion, and delivery processes of paragraph (e) of this clause are recognized and protected.

(2) Whenever any technical data for noncommercial items is to be obtained from a subcontractor or supplier for delivery to the Government under this contract, the Contractor shall use this same clause in the subcontract or other contractual instrument, and require its subcontractors or suppliers to do so, without alteration, except to identify the parties. No other clause shall be used to enlarge or diminish the Government's, the Contractor's, or a higher-tier subcontractor's or supplier's rights in a subcontractor's or supplier's technical data.

(3) Technical data required to be delivered by a subcontractor or supplier shall normally be delivered to the next higher-tier contractor, subcontractor, or supplier. However, when there is a requirement in the prime contract for data which may be submitted with other than unlimited rights by a subcontractor or supplier, then said subcontractor or supplier may fulfill its requirement by submitting such data directly to the Government, rather than through a higher-tier contractor, subcontractor, or supplier.

(4) The Contractor and higher-tier subcontractors or suppliers shall not use their power to award contracts as economic leverage to obtain rights in technical data from their subcontractors or suppliers. (5) In no event shall the Contractor use its obligation to recognize and protect subcontractor or supplier rights in technical data as an excuse for failing to satisfy its contractual obligations to the Government.

(End of clause)

252.235-7004 PROTECTION OF HUMAN SUBJECTS (JUL 2009) (a) Definitions. As used in this clause—

(1) Assurance of compliance means a written assurance that an institution will comply with requirements of 32 CFR Part 219, as well as the terms of the assurance, which the Human Research Protection Official determines to be appropriate for the research supported by the Department of Defense (DoD) component (32 CFR 219.103).

(2) Human Research Protection Official (HRPO) means the individual designated by the head of the applicable DoD component and identified in the component's Human Research Protection Management Plan as the official who is responsible for the oversight and execution of the requirements of this clause, although some DoD components may use a different title for this position.

(3) Human subject means a living individual about whom an investigator (whether professional or student) conducting research obtains data through intervention or interaction with the individual, or identifiable private information (32 CFR 219.102(f)). For example, this could include the use of human organs, tissue, and body fluids from individually identifiable living human subjects as well as graphic, written, or recorded information derived from individually identifiable living human subjects.

(4) Institution means any public or private entity or agency (32 CFR 219.102(b)).

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(5) Institutional Review Board (IRB) means a board established for the purposes expressed in 32 CFR Part 219 (32 CFR 219.102(g)).

(6) IRB approval means the determination of the IRB that the research has been reviewed and may be conducted at an institution within the constraints set forth by the IRB and by other institutional and Federal requirements (32 CFR 219.102(h)).

(7) Research means a systematic investigation, including research, development, testing, and evaluation, designed to develop or contribute to generalizable knowledge. Activities that meet this definition constitute research for purposes of 32 CFR Part 219, whether or not they are conducted or supported under a program that is considered research for other purposes. For example, some demonstration and service programs may include research activities (32 CFR 219.102(d)).

(b) The Contractor shall oversee the execution of the research to ensure compliance with this clause. The Contractor shall comply fully with 32 CFR Part 219 and DoD Directive 3216.02, applicable DoD component policies, 10 U.S.C. 980, and, when applicable, Food and Drug Administration policies and regulations.

(c) The Contractor shall not commence performance of research involving human subjects that is covered under 32 CFR Part 219 or that meets exemption criteria under 32 CFR 219.101(b), or expend funding on such effort, until and unless the conditions of either the following paragraph (c)(1) or (c)(2) have been met:

(1) The Contractor furnishes to the HRPO, with a copy to the Contracting Officer, an assurance of compliance and IRB approval and receives notification from the Contracting Officer that the HRPO has approved the assurance as appropriate for the research under the Statement of Work and also that the HRPO has reviewed the protocol and accepted the IRB approval for compliance with the DoD component policies. The Contractor may furnish evidence of an existing assurance of compliance for acceptance by the HRPO, if an appropriate assurance has been approved in connection with previous research. The Contractor shall notify the Contracting Officer immediately of any suspensions or terminations of the assurance.

(2) The Contractor furnishes to the HRPO, with a copy to the Contracting Officer, a determination that the human research proposed meets exemption criteria in 32 CFR 219.101(b) and receives written notification from the Contracting Officer that the exemption is determined acceptable. The determination shall include citation of the exemption category under 32 CFR 219.101(b) and a rationale statement. In the event of a disagreement regarding the Contractor's furnished exemption determination, the HRPO retains final judgment on what research activities or classes of research are covered or are exempt under the contract.

(d) DoD staff, consultants, and advisory groups may independently review and inspect the Contractor's research and research procedures involving human subjects and, based on such findings, DoD may prohibit research that presents unacceptable hazards or otherwise fails to comply with DoD procedures.

(e) Failure of the Contractor to comply with the requirements of this clause will result in the issuance of a stop-work order under Federal Acquisition Regulation clause 52.242-15 to immediately suspend, in whole or in part, work and further payment under this contract, or will result in other issuance of suspension of work and further payment for as long as determined necessary at the discretion of the Contracting Officer.

(f) The Contractor shall include the substance of this clause, including this paragraph (f), in all subcontracts that may include research involving human subjects in accordance with 32 CFR Part 219, DoD Directive 3216.02, and 10 U.S.C. 980, including research that meets exemption criteria under 32 CFR 219.101(b). This clause does not apply to subcontracts that involve only the use of cadaver materials.

(End of clause)

252.235-9000 SOURCES OF INFORMATION (JULY 2000)

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a. The results of the research to be delivered to the Government under this Contract shall embody the most recent reliable information in the field which is available to the Contractor from private and governmental sources, and the Contractor agrees to utilize all sources of such information available to it. In this connection, information in this field which is in the control of DTRA shall, with the consent of the Contracting Officer's Representative (COR) and under such safeguards and procedures as he/she may prescribe, be made available to the Contractor on request. Additionally, the Contractor is encouraged to make use of the resources available through the Defense Threat Reduction Information Analysis Center (DTRIAC), 1680 Texas Street, Southeast, Kirtland AFB, New Mexico 87117.

b. Reasonable assistance in obtaining access to information, or in obtaining permission to use Government or private facilities, will be given to the Contractor by DTRA. Specifically, the Contractor must register with the Defense Technical Information Center, ATTN: DTIC, 8725 John J. Kingman Road, Suite 0944, Fort Belvoir, VA 22060-6218, in accordance with Defense Logistics Agency (DLA) Regulation 4185.10, Certification and Registration for Access to DoD Defense Technical Information. DD Form 1540, the registration form, shall be forwarded to the DTRA Contracting Officer for approval (DFARS 35.010(b)).

(End of clause)

252.242-9000 CONTRACTOR PERFORMANCE ASSESSMENT REPORTING SYSTEM (CPARS)

1. As required by FAR Part 42.1503, and DTRA policy for the Contractor Performance Assessment Reporting System (CPARS) and Past Performance Automated Information System (PPAIS) effective July, 2001, the Government shall complete a CPAR each year of the period of performance of this contract. The contractor will have an opportunity to provide their comments in each CPAR before it is finalized. In accordance with DTRA CPARS policy the completed CPARs will be entered into the Department of Defense Past Performance Automated Information System (PPAIS), a retrieval system for source selection teams to access the CPARs of contractors' performance. The DTRA CPARS and PPAIS policy includes an explanation of the process and procedures that will be utilized under this contract. A copy is available for contractor reference via the DTRAlink (www.dtra.mil) by accessing Acquisition, How We Do Business.

2. The CPARs shall occur annually in accordance with the schedule established below:

(i) Initial CPAR: 12 months after contract start date (date performance begins)

TBD (by PCO)

(ii) Interim CPAR(s) will be performed annually on the anniversary of the contract start date according to the following schedule:

TBD (by PCO)

(iii) A Final CPAR will be completed upon contract termination, transfer of program management/contract management responsibility outside of DTRA, the delivery of the final end item on contract and/or the completion of the performance period.

(iv) An Out-of-Cycle CPAR may be required when there is a significant change in performance that alters the assessment in one or more evaluation area(s). An Out-of-Cycle CPAR is optional and shall be processed in accordance with Attachment _____

3. Each CPAR shall only cover the period elapsing from the last annual CPAR. The final CPAR shall not be used to summarize or "roll-up" the contractor's performance under the entire contract. Each annual CPAR and the final CPAR together will comprise a total picture of contractor performance.

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4. At the request of the Government, a verbal, informal review of the Contractor's performance may be held 3-6 months before the completion of the Interim or Final Evaluation periods. This review entails discussing any problems or areas of concern regarding the Contractor's performance to date. No written evaluation form or other formal documentation is required for this evaluation. It may be conducted with the Contractor by telephone, teleconference or face-to-face. This is designed to offer the Contractor an opportunity to correct known deficiencies or weaknesses prior to the formal written evaluation.

5. As set forth in DTRA CPARS policy, any disagreements between the Contractor and the Program Manager regarding the CPAR(s) that cannot be resolved shall be reviewed by the designated Reviewing Official prior to finalization of the CPAR.

6. Special Requirements for Indefinite Delivery Contracts (IDIQ and Requirements type), CPARs shall be processed (select one)

_____ for all existing orders (combined) at the time the CPAR is processed

_____ on an order-by-order basis

_____ on a grouped order basis

7. The policy and procedures set forth in this clause and DTRA CPARS policy are not subject to "Disputes" as described in FAR Part 33.

252.245-9000 Government Property (AUG 2009)

(a) In accordance with FAR 52.245-1(b), Property Management, and FAR 52.245-1(f), Contractor Plans and Systems, the Contractor shall have a system to manage (control, use, preserve, protect, repair and maintain) Government property in its possession.

(b) The Contract Data Requirements Lists (CDRLs) associated with the Property for this Contract are contained in Exhibit "A" and included in Section J of this contract. The spreadsheet required by the CDRL entitled "Master Government Property List (MGPL) will be incorporated in Section J of this contract.

(c) The Contractor shall provide to the Government an updated MGPL according to the CDRL.

(d) The Government Site Visits/Physical Inventory – The DTRA will annually verify the Property in the Possession of the Contractor. The Contactor's Point of Contact shall coordinate with the Program Manager/Contracting Officer Representative or DTRA Accountable Property Officer (APO) on prearranged site visits upon request.

(e) The Contractor shall annually conduct and provide to the DTRA a physical inventory report of ALL Government Property in its possession according to the Master Government Property List (Physical Inventory) CDRL.

(f) The physical inventory report shall be validated/confirmed via signature by both the Contractor's Property Administrator and the DTRA's Government Representative (i.e. COR, APO, etc.). Inventory discrepancies must be reported immediately to the Contracting Officer, COR/Program Manager and resolved by the DTRA APO.

(g) The Contractor shall provide all CDRL reports to the Government electronically in a spreadsheet using Microsoft Office Excel. Unless otherwise specified, the contractor shall submit all data through the IUID Registry.

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(End of Clause)

252.247-9000 GOVERNMENT CONTRACTOR TRAVEL (JUL 2007)

The Joint Travel Regulation (JTR), Appendix E, Part I.A.1.b., states invitational travel applies to individuals acting in a capacity that is related directly to, or in connection with, official DOD activities; however, this does not include a contractor's employee traveling in the performance of the contract. Appendix E, Part I.B.4. RESTRICTIONS, further states invitational travel must not be authorized for contractors. Appendix E, Part III states neither the JFTR nor the JTR may be used as official contractor travel regulations as they apply to uniformed personnel and Defense Department civilian employees and contain provisions, the use of which is illegal by contractors. The JTR can be viewed at https://secureapp2.hqda.pentagon.mil/perdiem

Discounts may be obtained for some travel related services (identified below); however, commercial vendors are under no obligation to extend Government rates for the Government's travel and transportation programs to contractors working on behalf of the Federal Government. Contractors must contact their Contracting Officer Representative (COR) to obtain a Government Contractor Official Travel Letter of Identification, signed by the authorizing Contracting Officer.

Contract City-Pair Air Passenger Transportation Program and Other Government Fares . Use of GSA contract city-pair air passenger fares is governed by GSA's contracts with the airlines and by the Defense Transportation Regulation (DOD 4500.9-R), Part I, Chapter 103. Use of other airfares reserved for Government employees on official business is governed by the airline fare structure and rules. Government contractors are not eligible to participate in the GSA city-pairs program for air passenger transportation services as of October 1, 1998.

Rail Service. Commercial passenger rail vendors may voluntarily offer discount rates to contractors traveling who are on official Government business at the vendor's discretion.

Lodging Programs. GSA and Services' lodging programs may voluntarily offer discount rates to contractors who are on official Government business at the vendor's discretion.

Car Rental Program. Military Surface Deployment and Distribution Command (SDDC) negotiates special rate agreements with car rental companies available to all Government employees and uniformed personnel while traveling on official Government business. Some commercial car rental companies may voluntarily offer similar discount rates to Government contractors at the vendor's discretion.

The following have been deleted:

52.216-23	Execution And Commencement Of Work	APR 1984
52.216-24	Limitation Of Government Liability	APR 1984
52.216-26	Payments Of Allowable Costs Before Definitization	DEC 2002
252.217-7027	Contract Definitization	OCT 1998

(End of Summary of Changes)

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AVI BioPharma Project - H1N1 Countermeasure Development

Original: 19 May 2010

Revision: 17 June 2010

Statement of Work

1. OBJECTIVE

Completion of the tasks described in this Statement of Work (SOW) will enable human clinical evaluation of the safety of AVI BioPharma's lead compound as a therapeutic against influenza, initially against H1N1 and potentially against H5N1 and H3N2 strains if the animal efficacy data are promising. The need for a broadly applicable influenza therapeutic is great given the emergence of multidrug resistant influenza strains. The urgency for such a therapeutic is linked to the capacity for influenza reassortants to acquire viral segments that will confer drug resistance. A resurgence of the 2009 pandemic causative H1N1 strain in a multidrug resistance form would leave many patients without adequate treatment.

2. SCOPE

This proposal builds on AVI BioPharma's novel RNA-based therapeutic platform in two critical areas. First the work builds on the experience with H1N1 influenza in the evaluation of AVI-7100 (previously designated as AVI-7367) for the purpose of inhibiting multiple serotypes of influenza viral growth and pathogenesis. Second the work expands the depth of understanding in the potential for relatively rapid response to emerging infectious diseases or to designed biological threats in the biological warfare setting. During the period of this proposal, AVI BioPharma will progress AVI-7100 from the remaining research phase activities, through IND-enabling preclinical studies, transfer manufacturing from the development to cGMP manufacturing facilities, and complete two Phase I human clinical safety trials in normal healthy volunteers.

3. BACKGROUND

The *Orthomyxoviridae* comprised of Influenza A, B and C are enveloped viruses with negative-sense, single stranded and segmented RNA genomes. Among this family the Influenza A viruses, containing 8 RNA segments, are capable of undergoing rapid and extensive "shifts" in antigenic composition through RNA segment reassortment between different strains resulting in a quantum genome change. Minor antigenic changes or "drift" also occur due to an accumulation of mutations in the coding regions of the different segments due to relatively low fidelity polymerase Influenza virus gains entry to cells through the binding of a hemagglutinin (HA) molecule

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to sialic acid residues on host cells. Humans express sialic acids on the cell surface linked as α 2,6 N-glycans while birds express the sialic acid linked through α 2,3 N-glycans. An avian virus that acquires the ability to bind α 2, 6-linked sialic acids by mutation or reassortment acquires the potential capability to infect human cells. Swine tissues express both forms of sialic acid enabling porcine cells to be co-infected with avian and human viruses. Swine adapted viruses can further recombine with human and avian viruses to produce triple reassortants such as the current swine-origin influenza A (H1N1) virus (S-OIV) with segments from pigs (HA, NP, NA, M and NS), human (PB1), and bird. (PB2 and PA)

The S-OIV pandemic emerged in 2009 resulting from the spread of a new strain of H1N1. As of 25th of April, worldwide more than 214 countries and overseas territories or communities have reported laboratory confirmed cases of pandemic influenza H1N1 2009, including over 17,919 deaths. Evidence of resistance to common treatments (oseltamivir) is emerging. The cumulative total for reports of antiviral resistant isolates of pandemic (H1N1) 2009 virus is 285. There have been no new cases reported since the situation update on 7 May 2010.

In the US the CDC developed a method to provide an estimated range of the total number of 2009 H1N1 cases, hospitalizations and deaths in the United States, as well as a breakdown of these estimates by age groups. This method uses data on influenza-associated hospitalizations collected through CDC's Emerging Infections Program, which conducts surveillance for laboratory-confirmed influenza-related hospitalizations in children and adults. Currently an estimated 60 million people were infected with H1N1 (range of 43 to 88 million cases) between April 2009 and March 13, 2010. The number of people hospitalized due to H1N1 during this period is estimated at 270,000 cases (range of 192, 000 to 398,000 cases). During this period an estimated 12,270 deaths were related to H1N1 (range of 8,720 to 18,050 cases).

The data by age provided in the updated estimates continues to confirm that people younger than 65 years of age are more severely affected by this disease relative to people 65 and older compared with seasonal flu. With seasonal influenza, about 60 percent of seasonal flu-related hospitalizations and 90 percent of flu-related deaths occur in people 65 years and older. With 2009 H1N1, approximately 90% of estimated hospitalizations and 87 percent of estimated deaths from April through March 13, 2009 occurred in people younger than 65 years old, based on this method.

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4. TASKS

The following eight tasks define the administrative, technical and operational activities to be performed.

TASK 1 – [†]:[†]

TASK 2 – [†]:[†]

[†]:[†]

[†]:[†]

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TASK 3. [†]

Task 3.1. [†].

[†]

[†]

[†]

Task 3.2 [†].

[†]

TASK 4: [†].

[†]

Task 4.1 [†].

[†]

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[†]

Task 4.2 & 4.3 [†].

[†]

[†]

[†]

TASK 5. [†].

[†]

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Task 5.1 [†].

[†]

Task 5.2 [†].

[†]

Task 5.3. [†].

[†]

[†]

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[†]

Task 5.4 [†]:[†]

[†]

[†]

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Task 5.5. [†]:[†]

[†]

[†]

Task 5.6 [†]:[†]

[†]

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[†]

TASKS 6. [†].

[†]

Task 6.1. [†]:

[†]

† DESIGNATES PORTIONS OF THIS DOCUMENT THAT HAVE BEEN OMITTED PURSUANT TO A REQUEST FOR CONFIDENTIAL TREATMENT FILED SEPARATELY WITH THE COMMISSION

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Task 6.2. [†].

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Task 6.3. [†]

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Task 6.4. [†]

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† DESIGNATES PORTIONS OF THIS DOCUMENT THAT HAVE BEEN OMITTED PURSUANT TO A REQUEST FOR CONFIDENTIAL TREATMENT FILED SEPARATELY WITH THE COMMISSION

TASK 7. [†].

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Task 7.1. [†].

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Task 7.2. [†].

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† DESIGNATES PORTIONS OF THIS DOCUMENT THAT HAVE BEEN OMITTED PURSUANT TO A REQUEST FOR CONFIDENTIAL TREATMENT FILED SEPARATELY WITH THE COMMISSION

TASK 8. [†].

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Task 8.1. [†]. [†]

Task 8.2 [†]. [†]

Task 9. [†].

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† DESIGNATES PORTIONS OF THIS DOCUMENT THAT HAVE BEEN OMITTED PURSUANT TO A REQUEST FOR CONFIDENTIAL TREATMENT FILED SEPARATELY WITH THE COMMISSION

Task 9.1. [†].

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Task 9.3. [†]. [†]

Task 9.4. [†]. [†]

† DESIGNATES PORTIONS OF THIS DOCUMENT THAT HAVE BEEN OMITTED PURSUANT TO A REQUEST FOR CONFIDENTIAL TREATMENT FILED SEPARATELY WITH THE COMMISSION

EXHIBIT 10.4

AVI BIOPHARMA, INC.

EXECUTIVE EMPLOYMENT AGREEMENT

This Employment Agreement (the "**Agreement**") is entered into as of March 29, 2011 (the "**Effective Date**") by and between AVI BioPharma, Inc. (the "**Company**"), and Peter S. Linsley, Ph.D. ("**Executive**").

1. Duties and Scope of Employment.

(a) Positions and Duties. As of May 1, 2011 (the "**Start Date**"), Executive will serve as the Company's Senior Vice President and Chief Scientific Officer. Executive will render such business and professional services in the performance of his duties as will reasonably be assigned to him by the Company's Chief Executive Officer.

(b) Obligations. During the Employment Term, Executive will perform his duties faithfully and to the best of his ability and will devote his full business efforts and time to the Company. For the duration of the Employment Term, Executive agrees not to actively engage in any other employment, occupation or consulting activity for any direct or indirect remuneration without the prior approval of the Company's Board of Directors (the " **Board**").

2. At-Will Employment. The parties agree that Executive's employment with the Company will be "at-will" employment and may be terminated at any time with or without Cause or notice. Executive understands and agrees that neither his job performance nor promotions, commendations, bonuses or the like from the Company give rise to or in any way serve as the basis for modification, amendment, or extension, by implication or otherwise, of his employment with the Company. However, as described in this Agreement, Executive may be entitled to severance benefits depending on the circumstances of Executive's termination of employment with the Company.

3. Term of Agreement. Subject to Section 2 above, this Agreement will have a term of two (2) years, commencing on the Effective Date (the "**Employment Term**"). At the end of the Employment Term, the Agreement may be renewed upon mutual agreement in writing by Executive and the Company, otherwise it will expire in accordance with its terms. Non-renewal at the end of the Employment Term shall not constitute termination without Cause or give Executive an opportunity to terminate his employment for Good Reason, even if a Good Reason event has occurred before the expiration of the Employment Term under this Agreement. Notwithstanding anything herein to the contrary, if, during the Employment Term, the Company experiences a Change of Control, the Employment Term shall be extended to the end of the Change of Control Period (as defined in Section 9(b) below).

4. Compensation.

(a) Base Salary. During the Employment Term, the Company will pay Executive an annual salary of $364,000 as compensation for his services (the "**Base Salary**"). The Base Salary will be paid periodically in accordance with the Company's normal payroll practices and be subject

to the usual, required withholdings. Executive's salary will be subject to review and adjustments will be made based upon the Company's normal performance review practices.

(b) Sign-on Bonus. Executive will receive a one-time sign-on bonus of $175,000 (the " **Sign-on Bonus**"), less applicable withholdings, payable in cash within thirty (30) days following the Start Date. Notwithstanding the foregoing, if, on or prior to the one (1) year anniversary of the Start Date, Executive terminates his employment with the Company for any reason, Executive must repay 100% of the Sign-on Bonus to the Company within sixty (60) days of Executive's termination of employment.

(c) Target Bonus. Executive will be eligible to receive a target annual bonus of thirty-five percent (35%) of Executive's Base Salary, less applicable withholdings, upon achievement of performance objectives to be determined by the Board in its sole discretion (the " **Target Bonus**"). The maximum bonus Executive will be eligible to receive is fifty-two and one half percent (52.5%) of his Base Salary. The Target Bonus, or any portion thereof, will be paid as soon as practicable after the Board determines that the Target Bonus has been earned, but in no event shall the Target Bonus be paid after the later of (i) the fifteenth (15th) day of the third (3rd) month following the close of the Company's fiscal year in which the Target Bonus is earned or (ii) March 15 following the calendar year in which the Target Bonus is earned.

(d) Stock Option. Following the Effective Date, it will be recommended that Executive be granted a stock option to purchase 800,000 shares at an exercise price equal to the fair market value on the date of grant (the " **Option**"). Subject to the accelerated vesting provisions set forth herein, the Option will vest as to twenty-five percent (25%) of the shares subject to the Option on the first anniversary of the Start Date, and as to 1/48th of the shares subject to the Option on each monthly anniversary thereafter on the same day of the month as the Start Date (and if there is no corresponding day, the last day of the month), so that the Option will be fully vested and exercisable four (4) years from the Start Date, subject to Executive continuing to provide services to the Company through the relevant vesting dates. The Option will be made as an "inducement" grant outside of the Company's 2002 Equity Incentive Plan and will be subject to the terms, definitions and provisions of a stock option agreement by and between Executive and the Company (the " **Option Agreement**"), which document is incorporated herein by reference.

5. Employee Benefits. During the Employment Term, Executive will be entitled to participate in the employee benefit plans currently and hereafter maintained by the Company of general applicability to other executive officers of the Company. The Company reserves the right to cancel or change the benefit plans and programs it offers to its employees at any time.

6. Vacation. Executive will be entitled to four weeks of paid vacation, which vacation shall be fully accrued as of the Start Date. Any additional paid vacation to which Executive may be entitled will be accrued in accordance with the Company's vacation policy. For all vacation days, the timing and duration of specific days off shall be mutually and reasonably agreed to by the parties hereto.

7. Relocation/Corporate Housing.

(a) The Company agrees to reimburse Executive up to a total of $30,000 for his (i) actual corporate housing expenses for housing for Executive and his family in the Seattle, WA metropolitan area and (ii) actual, documented reasonable expenses incurred in moving and relocating his family and household to the Seattle, WA metropolitan area, which may include any costs or expenses associated with Executive's (x) sale of his current residence, (y) shipment of personal effects to the Seattle, WA metropolitan area, or (z) the customary closing costs associated with the purchase of a residence in the Seattle, WA metropolitan area incurred by Executive during the relocation period; provided that any expenses incurred pursuant to Sections 7(a)(i) and (ii) must be incurred within six months of Executive's Start Date to be eligible for reimbursement pursuant to this Section 7(a). The Company shall not be responsible for grossing-up any funds received or paid on Executive's behalf for taxes. Executive will be responsible for withholding and paying applicable income taxes on taxable relocation funds received from the Company during the course of Executive's relocation. In addition, Executive agrees that he will submit all such reimbursable expenses to the Company with appropriate documentation no later than sixty (60) days after such expenses are incurred and the Company shall reimburse Executive promptly thereafter in accordance with the Company's expense reimbursement policy. Notwithstanding the prior sentence, to the extent such reimbursements are taxable to Executive under the Code, the Company hereby agrees that it will reimburse Executive for all such expenses by no later than March 15, 2012.

(b) If, on or prior to the one (1) year anniversary of the Start Date, Executive terminates his employment with the Company for any reason, Executive must repay 100% of the expense reimbursement paid by the Company to Executive under Section 7(a) above to the Company within sixty (60) days of Executive's termination of employment.

8. Business Expenses. The Company will reimburse Executive for reasonable travel, entertainment or other business expenses incurred by Executive in the furtherance of, or in connection with, the performance of Executive's duties hereunder, in accordance with the Company's expense reimbursement policy as in effect from time to time.

9. Severance.

(a) Termination for other than Cause, Death or Disability Apart from a Change of Control . If prior to a Change of Control or after twelve (12) months following a Change of Control, the Company (or any parent or subsidiary or successor of the Company) terminates Executive's employment with the Company other than for Cause, death or disability after providing at least thirty (30) days advance notice to Executive, then, subject to Section 10, Executive will be entitled to

(i) receive continuing payments of severance pay at a rate equal to Executive's Base Salary, as then in effect, for twelve (12) months from the date of such termination, which will be paid in accordance with the Company's regular payroll procedures;

(ii) accelerated vesting as to 50% of Executive's outstanding and unvested equity awards; and

(iii) an extension of the post-termination exercise period applicable to Executive's outstanding options to one hundred and eighty (180) days following the date of Executive's termination of employment.

(b) Termination for other than Cause, Death or Disability or Resignation by Executive for Good Reason upon or within Twelve Months Following a Change of Control. If upon or within twelve (12) months following a Change of Control (the " **Change of Control Period**"), the Company (or any parent or subsidiary or successor of the Company) terminates Executive's employment with the Company other than for Cause, death or disability after providing at least thirty (30) days advance notice to Executive, or the Executive resigns from such employment for Good Reason, then, subject to Section 10, Executive will be entitled to

(i) receive continuing payments of severance pay at a rate equal to Executive's Base Salary, as then in effect, for twenty-four (24) months from the date of such termination, which will be paid in accordance with the Company's regular payroll procedures;

(ii) accelerated vesting as to 100% of Executive's outstanding and unvested equity awards; and

(iii) an extension of the post-termination exercise period applicable to Executive's outstanding options to one hundred and eighty (180) days following the date of Executive's termination of employment.

(c) Termination for Cause, Death or Disability; Resignation without Good Reason . If Executive's employment with the Company (or any parent or subsidiary or successor of the Company) terminates voluntarily by Executive (except upon resignation for Good Reason during the Change of Control Period), for Cause by the Company or due to Executive's death or disability, then

(i) all vesting will terminate immediately with respect to Executive's outstanding equity awards;

(ii) all payments of compensation by the Company to Executive hereunder will terminate immediately (except as to amounts already earned); and

(iii) Executive will only be eligible for severance benefits in accordance with the Company's established policies, if any, as then in effect.

(d) Exclusive Remedy. In the event of a termination of Executive's employment with the Company (or any parent or subsidiary or successor of the Company), the provisions of this Section 9 are intended to be and are exclusive and in lieu of any other rights or remedies to which Executive or the Company may otherwise be entitled, whether at law, tort or contract, in equity, or under this Agreement. Executive will be entitled to no severance or other benefits upon termination of employment with respect to acceleration of award vesting, extension of the option exercise period, or severance pay other than those benefits expressly set forth in this Section 9.

10. Conditions to Receipt of Severance; No Duty to Mitigate .

(a) Separation Agreement and Release of Claims . The receipt of any severance pursuant to Section 9(a) or 9(b) will be subject to Executive signing and not revoking a separation agreement and release of claims in a form reasonably satisfactory to the Company (the " **Release**") and provided that such Release becomes effective and irrevocable no later than sixty (60) days

following the termination date (such deadline, the "**Release Deadline**"). No severance will be paid or provided until the Release becomes effective. If the Release does not become effective by the Release Deadline, Executive forfeits his right to any severance or similar payment under the Agreement. In the event Executive's termination of employment occurs at a time during the calendar year where it would be possible for the Release to become effective in the calendar year following the calendar year in which his termination of employment occurs, then any severance that would be deferred in accordance with the paragraph below will be paid on the first payroll date to occur during the calendar year following the calendar year in which such termination of employment occurs, or such later time as required by (i) the payment schedule applicable to each payment or benefit, (ii) the date the Release becomes effective, or (iii) Section 10(c) below.

(b) Non-Competition; Non-Solicitation. The receipt of any severance benefits pursuant to Section 9(a) or 9(b) will be subject to Executive not violating the provisions of Sections 14 and 15. In the event Executive breaches the provisions of Sections 14 and/or 15, or otherwise materially breaches this Agreement, all continuing payments and benefits to which Executive may otherwise be entitled pursuant to Section 9(a) or 9(b), as applicable, will immediately cease.

(c) Section 409A.

(i) Notwithstanding anything to the contrary in this Agreement, no severance pay or benefits to be paid or provided to Executive, if any, pursuant to this Agreement that, when considered together with any other severance payments or separation benefits, are considered deferred compensation under Code Section 409A, and the final regulations and any guidance promulgated thereunder (" **Section 409A**") (together, the "**Deferred Payments**") will be paid or otherwise provided until Executive has a "separation from service" within the meaning of Section 409A. Similarly, no severance payable to Executive, if any, pursuant to this Agreement that otherwise would be exempt from Section 409A pursuant to Treasury Regulation Section 1.409A-1(b)(9) will be payable until Executive has a "separation from service" within the meaning of Section 409A.

(ii) Any severance payments or benefits under this Agreement that would be considered Deferred Payments will be paid on, or, in the case of installments, will not commence until, the sixtieth (60th) day following Executive's separation from service, or, if later, such time as required by Section 10(c)(iii). Except as required by Section 10(c)(iii), any installment payments that would have been made to Executive during the sixty (60) day period immediately following Executive's separation from service but for the preceding sentence will be paid to Executive on the sixtieth (60th) day following Executive's separation from service and the remaining payments shall be made as provided in this Agreement.

(iii) Notwithstanding anything to the contrary in this Agreement, if Executive is a "specified employee" within the meaning of Section 409A at the time of Executive's termination (other than due to death), then the Deferred Payments that are payable within the first six (6) months following Executive's separation from service, will become payable on the first payroll date that occurs on or after the date six (6) months and one (1) day following the date of Executive's separation from service. All subsequent Deferred Payments, if any, will be payable in accordance with the payment schedule applicable to each payment or benefit. Notwithstanding anything herein to the contrary, if Executive dies following Executive's separation from service, but prior to the six

(6) month anniversary of the separation from service, then any payments delayed in accordance with this paragraph will be payable in a lump sum as soon as administratively practicable after the date of Executive's death and all other Deferred Payments will be payable in accordance with the payment schedule applicable to each payment or benefit. Each payment and benefit payable under this Agreement is intended to constitute a separate payment for purposes of Section 1.409A-2(b)(2) of the Treasury Regulations.

(iv) Any amount paid under this Agreement that satisfies the requirements of the "short-term deferral" rule set forth in Section 1.409A-1(b)(4) of the Treasury Regulations will not constitute Deferred Payments for purposes of clause (i) above.

(v) Any amount paid under this Agreement that qualifies as a payment made as a result of an involuntary separation from service pursuant to Section 1.409A-1(b)(9)(iii) of the Treasury Regulations that does not exceed the Section 409A Limit (as defined below) will not constitute Deferred Payments for purposes of clause (i) above.

(vi) The foregoing provisions are intended to comply with the requirements of Section 409A so that none of the severance payments and benefits to be provided hereunder will be subject to the additional tax imposed under Section 409A, and any ambiguities herein will be interpreted to so comply. The Company and Executive agree to work together in good faith to consider amendments to this Agreement and to take such reasonable actions which are necessary, appropriate or desirable to avoid imposition of any additional tax or income recognition prior to actual payment to Executive under Section 409A.

(d) Confidential Information Agreement. Executive's receipt of any payments or benefits under Section 9 will be subject to Executive continuing to comply with the terms of the Confidential Information Agreement (as defined in Section 13).

(e) No Duty to Mitigate. Executive will not be required to mitigate the amount of any payment contemplated by this Agreement, nor will any earnings that Executive may receive from any other source reduce any such payment.

11. Definitions.

(a) Cause. For purposes of this Agreement, "**Cause**" is defined as (i) an act of dishonesty made by Executive in connection with Executive's responsibilities as an employee; (ii) Executive's conviction of, or plea of nolo contendere to, a felony or any crime involving fraud, embezzlement or any other act of moral turpitude; (iii) Executive's gross misconduct; (iv) Executive's unauthorized use or disclosure of any proprietary information or trade secrets of the Company or any other party to whom Executive owes an obligation of nondisclosure as a result of Executive's relationship with the Company; (v) Executive's willful breach of any obligations under any written agreement or covenant with the Company; or (vi) Executive's continued failure to perform his employment duties after Executive has received a written demand of performance from the Company which specifically sets forth the factual basis for the Company's belief that Executive has not substantially performed his duties and has failed to cure such non-performance to the Company's satisfaction within ten (10) business days after receiving such notice.

(b) Change of Control. For purposes of this Agreement, "**Change of Control**" of the Company is defined as:

(i) any "person" (as such term is used in Sections 13(d) and 14(d) of the Securities Exchange Act of 1934, as amended) is or becomes the "beneficial owner" (as defined in Rule 13d-3 under said Act), directly or indirectly, of securities of the Company representing more than 50% of the total voting power represented by the Company's then outstanding voting securities; or

(ii) the date of the consummation of a merger or consolidation of the Company with any other corporation that has been approved by the shareholders of the Company, other than a merger or consolidation which would result in the voting securities of the Company outstanding immediately prior thereto continuing to represent (either by remaining outstanding or by being converted into voting securities of the surviving entity or its parent) at least fifty percent (50%) of the total voting power represented by the voting securities of the Company or such surviving entity or its parent outstanding immediately after such merger or consolidation; or

(iii) the date of the consummation of the sale or disposition by the Company of all or substantially all the Company's assets.

Notwithstanding the foregoing provisions of this definition, a transaction will not be deemed a Change of Control unless the transaction qualifies as a "change in control event" within the meaning of Section 409A.

(c) Code. For purposes of this Agreement, "**Code**" means the Internal Revenue Code of 1986, as amended.

(d) Good Reason. For the purposes of this Agreement, "**Good Reason**" means the termination by Executive upon the occurrence of any of the below described events. Executive must provide notice to the Company of the existence of such event within ninety (90) days of the first occurrence of such event, and the Company will have thirty (30) days to remedy the condition, in which case no Good Reason shall exist. If the Company fails to remedy the condition within such thirty (30) day period, Executive must terminate employment within two (2) years of the first occurrence of such event. The events which constitute a Good Reason termination are: (i) the assignment of a different title or change that results in a material reduction in Executive's duties or responsibilities; (ii) a material reduction by the Company in Executive's base compensation, other than a reduction in his Base Salary that is part of a general salary reduction affecting employees generally and provided the reduction is not greater, percentage-wise, than the reduction affecting other employees generally or failure to provide an annual increase in base compensation commensurate with other executives; provided, however, in determining whether to provide an annual increase in base compensation commensurate with an annual increase provided to other executives, the Company may take into account factors such as market levels of compensation, Executive's overall performance, and other factors reasonably considered by the Company's compensation committee and/or Board, so long as such determination is not made in bad faith with the intent to discriminate against Executive; or (iii) relocation of Executive's principal place of business of greater than seventy-five (75) miles from its then location.

(e) Section 409A Limit. For purposes of this Agreement, "**Section 409A Limit**" will mean two (2) times the lesser of: (i) Executive's annualized compensation based upon the annual rate of pay paid to Executive during the Executive's taxable year preceding the Executive's taxable year of his or her separation from service as determined under Treasury Regulation Section 1.409A-1(b)(9)(iii)(A)(1) and any Internal Revenue Service guidance issued with respect thereto; and (ii) the maximum amount that may be taken into account under a qualified plan pursuant to Section 401(a)(17) of the Internal Revenue Code for the year in which Executive's separation from service occurred.

12. Limitation on Payments. In the event that the severance and other benefits provided for in this Agreement or otherwise payable to Executive (i) constitute "parachute payments" within the meaning of Section 280G of the Code and (ii) but for this Section 12, would be subject to the excise tax imposed by Section 4999 of the Code, then Executive's severance benefits will be either:

(a) delivered in full, or

(b) delivered as to such lesser extent which would result in no portion of such severance benefits being subject to the excise tax under Section 4999 of the Code,

whichever of the foregoing amounts, taking into account the applicable federal, state and local income taxes and the excise tax imposed by Section 4999, results in the receipt by Executive on an after-tax basis, of the greatest amount of severance benefits, notwithstanding that all or some portion of such severance benefits may be taxable under Section 4999 of the Code. If a reduction in the severance and other benefits constituting "parachute payments" is necessary so that no portion of such severance benefits is subject to the excise tax under Section 4999 of the Code, the reduction shall occur in the following order: (1) reduction of the cash severance payments; (2) cancellation of accelerated vesting of equity awards; and (3) reduction of continued employee benefits. In the event that acceleration of vesting of equity award compensation is to be reduced, such acceleration of vesting shall be cancelled in the reverse order of the date of grant of Executive's equity awards. If two or more equity awards are granted on the same date, each award will be reduced on a pro-rata basis. In no event shall the Executive have any discretion with respect to the ordering of payment reductions.

Unless the Company and Executive otherwise agree in writing, any determination required under this Section 12 will be made in writing by the independent public accountants who are primarily used by the Company immediately prior to the Change of Control, the Company's legal counsel or such other person or entity to which the parties mutually agree (the "**Firm**"), whose determination will be conclusive and binding upon Executive and the Company for all purposes. For purposes of making the calculations required by this Section 12, the Firm may make reasonable assumptions and approximations concerning applicable taxes and may rely on reasonable, good faith interpretations concerning the application of Sections 280G and 4999 of the Code. The Company and Executive will furnish to the Firm such information and documents as the Firm may reasonably request in order to make a determination under this Section 12. The Company will bear all costs the Firm may reasonably incur in connection with any calculations contemplated by this Section 12.

13. Confidential Information. Executive agrees to enter into the confidential information agreement attached hereto (the " **Confidential Information Agreement**") upon commencing employment hereunder.

14. Non-Competition. During the term of his employment with the Company and until the later of: the date Executive terminates his employment with the Company and the date Executive no longer receives the severance benefits provided in Section 9(a)(i) or 9(b)(i), as applicable, Executive will not, either directly or indirectly, (a) serve as an advisor, agent, consultant, director, employee, officer, partner, proprietor or otherwise of, (b) have any ownership interest in (except for passive ownership of one percent (1%) or less of any entity whose securities have been registered under the Securities Act of 1933, as amended, or Section 12 of the Securities Exchange Act of 1934, as amended) or (c) participate in the organization, financing, operation, management or control of, any business (i) that is in competition with the Company's business as conducted by the Company at any time during the course of Executive's employment with the Company and (ii) on which Executive worked or about which Executive learned, during his employment, information or knowledge not generally known or available outside the Company, or information or physical material entrusted to the Company by third parties, including, but not limited to inventions, during Executive's employment or consultancy with the Company, confidential knowledge, copyrights, product ideas, techniques, processes, formulas, object codes, biological materials, mask works and/or any other information of any type relating to documentation, laboratory notebooks, data, schematics, algorithms, flow charts, mechanisms, research, manufacture, improvements, assembly, installation, marketing, forecasts, sales, pricing, customers, the salaries, duties, qualifications, performance levels and terms of compensation of other employees, and/or cost or other financial data concerning any of the foregoing or the Company and its operations.

15. Non-Solicitation. During the term of his employment with the Company and until the date two (2) years after the termination of Executive's employment with the Company for any reason, Executive agrees not, either directly or indirectly, to solicit, induce, attempt to solicit, recruit, or encourage any employee of the Company (or any parent or subsidiary of the Company) to leave his employment either for Executive or for any other entity or person. Executive represents that he (a) is familiar with the foregoing covenant not to solicit, and (b) is fully aware of his obligations hereunder, including, without limitation, the reasonableness of the length of time, scope and geographic coverage of these covenants.

16. Assignment. This Agreement will be binding upon and inure to the benefit of (a) the heirs, executors and legal representatives of Executive upon Executive's death and (b) any successor of the Company. Any such successor of the Company will be deemed substituted for the Company under the terms of this Agreement for all purposes. For this purpose, "**successor**" means any person, firm, corporation or other business entity which at any time, whether by purchase, merger or otherwise, directly or indirectly acquires all or substantially all of the assets or business of the Company. None of the rights of Executive to receive any form of compensation payable pursuant to this Agreement may be assigned or transferred except by will or the laws of descent and distribution. Any other attempted assignment, transfer, conveyance or other disposition of Executive's right to compensation or other benefits will be null and void.

17. Notices. All notices, requests, demands and other communications called for hereunder will be in writing and will be deemed given (a) on the date of delivery if delivered

personally, (b) one (1) day after being sent by a well established commercial overnight service, or (c) four (4) days after being mailed by registered or certified mail, return receipt requested, prepaid and addressed to the parties or their successors at the following addresses, or at such other addresses as the parties may later designate in writing:

If to the Company:

AVI BioPharma, Inc.
Attn: Chief Executive Officer
3450 Monte Villa Parkway, Suite 101
Bothell, WA 98021

If to Executive:

at the last residential address known by the Company.

18. Severability. In the event that any provision hereof becomes or is declared by a court of competent jurisdiction to be illegal, unenforceable or void, this Agreement will continue in full force and effect without said provision.

19. Arbitration.

(a) General. In consideration of Executive's service to the Company, his/her promise to arbitrate all employment related disputes and Executive's receipt of the compensation, pay raises and other benefits paid to Executive by the Company, at present and in the future, Executive agrees that any and all controversies, claims, or disputes with anyone (including the Company and any employee, officer, director, shareholder or benefit plan of the Company in their capacity as such or otherwise) arising out of, relating to, or resulting from Executive's service to the Company under this Agreement or otherwise or the termination of Executive's service with the Company, including any breach of this Agreement, shall be subject to binding arbitration under the Arbitration Rules set forth in the Revised Code of Washington Chapter 7.04 (the "**Rules**") and pursuant to Washington law. Disputes which Executive agrees to arbitrate, and thereby agrees to waive any right to a trial by jury, include any statutory claims under state or federal law, including, but not limited to, claims under Title VII of the Civil Rights Act of 1964, the Americans with Disabilities Act of 1990, the Age Discrimination in Employment Act of 1967, the Older Workers Benefit Protection Act, claims of harassment, discrimination or wrongful termination. Executive further understands that this Agreement to arbitrate also applies to any disputes that the Company may have with Executive.

(b) Procedure. Executive agrees that any arbitration will be administered by the American Arbitration Association (" **AAA**") and that a neutral arbitrator will be selected in a manner consistent with its National Rules for the Resolution of Employment Disputes. The arbitration proceedings will allow for discovery according to the rules set forth in the *National Rules for the Resolution of Employment Disputes* or the *Washington Code of Civil Procedure.* Executive agrees that the arbitrator shall have the power to decide any motions brought by any party to the arbitration, including motions for summary judgment and/or adjudication and motions to dismiss and demurrers, prior to any arbitration hearing. Executive agrees that the arbitrator shall issue a written decision on the merits with findings of fact and conclusions of law. Executive also agrees that the arbitrator

shall have the power to award any remedies, including attorneys' fees and costs, available under applicable law. Executive understands the Company will pay for any administrative or hearing fees charged by the arbitrator or AAA except that, for any filing fees associated with any arbitration Executive initiates, Executive shall pay an amount equal to the filing fees Executive would have paid had he/she filed a complaint in a court of law. Executive agrees that the arbitrator shall administer and conduct any arbitration in a manner consistent with the Rules and that to the extent that the AAA's National Rules for the Resolution of Employment Disputes conflict with the Rules, the Rules shall take precedence.

(c) Remedy. Except as provided by the Rules, arbitration shall be the sole, exclusive and final remedy for any dispute between Executive and the Company. Accordingly, except as provided for by the Rules, neither Executive nor the Company will be permitted to pursue court action regarding claims that are subject to arbitration. Notwithstanding, the arbitrator will not have the authority to disregard or refuse to enforce any lawful Company policy, and the arbitrator shall not order or require the Company to adopt a policy not otherwise required by law which the Company has not adopted.

(d) Availability of Injunctive Relief. In addition to the right under the Rules to petition the court for provisional relief, Executive agrees that any party may also petition the court for injunctive relief where either party alleges or claims a violation of this Agreement or the Confidential Information Agreement or any other agreement regarding trade secrets, confidential information, non-competition, non-solicitation or non-disparagement. In the event either party seeks injunctive relief, the prevailing party shall be entitled to recover reasonable costs and attorneys' fees.

(e) Administrative Relief. Executive understands that this Agreement does not prohibit Executive from pursuing an administrative claim with a local, state or federal administrative body such as the Washington State Human Rights Commission, Equal Employment Opportunity Commission or the workers' compensation board. This Agreement does, however, preclude Executive from pursuing court action regarding any such claim.

(f) Voluntary Nature of Agreement. Executive acknowledges and agrees that Executive is executing this Agreement voluntarily and without any duress or undue influence by the Company or anyone else. Executive further acknowledges and agrees that Executive has carefully read this Agreement and that Executive has asked any questions needed for Executive to understand the terms, consequences and binding effect of this Agreement and fully understands it, including that ***EXECUTIVE IS WAIVING EXECUTIVE'S RIGHT TO A JURY TRIAL***. Finally, Executive agrees that Executive has been provided an opportunity to seek the advice of an attorney of Executive's choice before signing this Agreement.

20. Integration. This Agreement, together with the Option Agreement and the Confidential Information Agreement represents the entire agreement and understanding between the parties as to the subject matter herein and supersedes all prior or contemporaneous agreements whether written or oral. With respect to stock options or other equity awards granted on or after the date of this Agreement, the acceleration of vesting provisions provided herein will apply to such stock options and other equity awards except to the extent otherwise explicitly provided in the applicable stock option or equity award agreement. This Agreement may be modified only by

agreement of the parties by a written instrument executed by the parties that is designated as an amendment to this Agreement.

21. Waiver of Breach. The waiver of a breach of any term or provision of this Agreement, which must be in writing, will not operate as or be construed to be a waiver of any other previous or subsequent breach of this Agreement.

22. Headings. All captions and section headings used in this Agreement are for convenient reference only and do not form a part of this Agreement.

23. Tax Withholding. All payments made pursuant to this Agreement will be subject to withholding of applicable taxes.

24. Governing Law. This Agreement will be governed by the laws of the State of Washington (with the exception of its conflict of laws provisions).

25. Acknowledgment. Executive acknowledges that he has had the opportunity to discuss this matter with and obtain advice from his private attorney, has had sufficient time to, and has carefully read and fully understands all the provisions of this Agreement, and is knowingly and voluntarily entering into this Agreement.

26. Counterparts. This Agreement may be executed in counterparts, and each counterpart will have the same force and effect as an original and will constitute an effective, binding agreement on the part of each of the undersigned.

[Signature Page Follows]

IN WITNESS WHEREOF, each of the parties has executed this Agreement, in the case of the Company by their duly authorized officers, as of the day and year first above written.

COMPANY:

AVI BIOPHARMA, INC.

By: /s/ Christopher Garabedian Date: March 29, 2011
Title: Chief Executive Officer

EXECUTIVE:

/s/ Peter S. Linsley Date: March 29, 2011
PETER S. LINSLEY, PH.D.

[SIGNATURE PAGE TO EXECUTIVE EMPLOYMENT AGREEMENT]

EXHIBIT 31.1

CERTIFICATION

I, Christopher Garabedian, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of AVI BioPharma, Inc., (the "Registrant");

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.

May 10, 2011

/s/ Christopher Garabedian

Christopher Garabedian
President and Chief Executive Officer

EXHIBIT 31.2

CERTIFICATION

I, J. David Boyle II, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of AVI BioPharma, Inc., (the "Registrant");

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.

May 10, 2011

/s/ J. David Boyle II

J. David Boyle II,
Senior Vice President and Chief Financial Officer

EXHIBIT 32.1

CERTIFICATION PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002
(18 U.S.C. SECTION 1350)

I, Christopher Garabedian, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that this Quarterly Report of AVI BioPharma, Inc. on Form 10-Q for the quarterly period ended March 31, 2011, fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934 and that information contained in such Quarterly Report on Form 10-Q fairly presents, in all material respects, the financial condition and results of operations of AVI BioPharma, Inc.

May 10, 2011

/s/ Christopher Garabedian

Christopher Garabedian,
President and Chief Executive Officer
(Principal Executive Officer)

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

This certification accompanies this Quarterly Report on Form 10-Q pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 and shall not, except to the extent required by such Act, be deemed filed by AVI BioPharma, Inc. for purposes of Section 18 of the Securities Exchange Act of 1934, as amended (the "Exchange Act"). Such certification will not be deemed to be incorporated by reference into any filing under the Securities Act of 1933, as amended, or the Exchange Act, except to the extent that AVI BioPharma, Inc. specifically incorporates it by reference.

EXHIBIT 32.2

CERTIFICATION PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002
(18 U.S.C. SECTION 1350)

I, J. David Boyle II, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that this Quarterly Report of AVI BioPharma, Inc. on Form 10-Q for the quarterly period ended March 31, 2011, fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934 and that information contained in such Quarterly Report on Form 10-Q fairly presents, in all material respects, the financial condition and results of operations of AVI BioPharma, Inc.

May 10, 2011

/s/ J. David Boyle II

J. David Boyle II,
Senior Vice President and Chief Financial Officer
(Principal Financial and Accounting Officer)

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

This certification accompanies this Quarterly Report on Form 10-Q pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 and shall not, except to the extent required by such Act, be deemed filed by AVI BioPharma, Inc. for purposes of Section 18 of the Securities Exchange Act of 1934, as amended (the "Exchange Act"). Such certification will not be deemed to be incorporated by reference into any filing under the Securities Act of 1933, as amended, or the Exchange Act, except to the extent that AVI BioPharma, Inc. specifically incorporates it by reference.