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 June 30, 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 (State or other jurisdiction of incorporation or organization)	**93-0797222** (I.R.S. Employer Identification No.)
3450 Monte Villa Parkway, Suite 101, Bothell, Washington (Address of principal executive offices)	**98021** (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 (Class)	**135,712,620** (Outstanding as of July 27, 2011)

AVI BIOPHARMA, INC.

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PART I — FINANCIAL INFORMATION

Item 1. Financial Statements.

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

	June 30, 2011	December 31, 2010
Assets		
Current Assets:		
Cash and cash equivalents	$ 54,188	$ 33,589
Accounts receivable	10,892	3,224
Other current assets	943	1,025
Total Current Assets	66,023	37,838
Property held for sale	1,965	1,965
Property and Equipment, net of accumulated depreciation and amortization of $15,338 and $14,963	2,363	2,070
Patent Costs, net of accumulated amortization of $1,845 and $1,742	4,459	3,980
Other assets	123	123
Total Assets	$ 74,933	$ 45,976
Liabilities and Shareholders' Equity (Deficit)		
Current Liabilities:		
Accounts payable	$ 10,975	$ 1,311
Accrued employee compensation	2,551	2,015
Long-term debt, current portion	83	81
Warrant valuation	19,940	39,111
Deferred revenue	3,304	3,304
Other liabilities	85	35
Total Current Liabilities	36,938	45,857
Commitments and Contingencies	—	—
Long-term debt, non-current portion	1,800	1,842
Other long-term liabilities	1,046	1,094
Shareholders' Equity (Deficit):		
Preferred stock, $.0001 par value, 20,000,000 shares authorized; none issued and outstanding	—	—
Common stock, $.0001 par value, 300,000,000 and 200,000,000 shares authorized; 135,685,068 and 112,352,452 issued and outstanding	14	11
Additional paid-in capital	339,669	304,818
Deficit accumulated during the development stage	(304,534)	(307,646)
Total Shareholders' Equity (Deficit)	35,149	(2,817)
Total Liabilities and Shareholders' Equity (Deficit)	$ 74,933	$ 45,976

See accompanying notes to financial statements.

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

	Three months ended June 30, 2011	Three months ended June 30, 2010	Six months ended June 30, 2011	Six months ended June 30, 2010	July 22, 1980 (Inception) through June 30, 2011
Revenues from license fees, grants and research contracts	$ 11,585	$ 3,997	$ 25,881	$ 5,201	$ 115,110
Operating expenses:					
Research and development	17,750	6,931	32,551	13,020	298,955
General and administrative	3,960	4,733	8,986	7,577	97,388
Acquired in-process research and development	—	—	—	—	29,461
Operating loss	(10,125)	(7,667)	(15,656)	(15,396)	(310,694)
Other non-operating (loss) income:					
Interest (expense) income and other, net	151	51	241	87	8,823
(Increase) decrease on warrant valuation	11,253	(9,040)	18,527	(1,931)	10,475
Realized gain on sale of short-term—securitiesavailable-for-sale	—	—	—	—	3,863
Write-down of short-term securities—available-for-sale	—	—	—	—	(17,001)
	11,404	(8,989)	18,768	(1,844)	6,160
Net income (loss) and comprehensive income (loss)	$ 1,279	$(16,656)	$ 3,112	$ (17,240)	$ (304,534)
Net income (loss) per share - basic	$ 0.01	$ (0.15)	$ 0.03	$ (0.16)	
Net income (loss) per share - diluted	$ 0.01	$ (0.15)	$ 0.02	$ (0.16)	
Weighted average number of common shares outstanding for computing basic income (loss) per share (in thousands)	134,090	110,383	123,346	110,404	
Weighted average number of common shares outstanding for computing diluted income (loss) per share (in thousands)	138,916	110,383	130,018	110,404	

See accompanying notes to financial statements.

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

	Six months ended June 30, 2011	2010	For the Period July 22, 1980 (Inception) through June 30, 2011
Cash flows from operating activities:			
Net income (loss) and comprehensive income (loss)	$ 3,112	$ (17,240)	$ (304,534)
Adjustments to reconcile net loss to net cash flows used in operating activities:			
Depreciation and amortization	490	698	19,635
Loss on disposal of assets	44	237	2,125
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	1,862	2,031	27,728
Conversion of interest accrued to common stock	—	—	8
Acquired in-process research and development	—	—	29,461
Increase (decrease) on warrant valuation	(18,527)	1,931	(10,475)
(Increase) decrease in:			
Accounts receivable and other current assets	(7,586)	(143)	(11,697)
Net increase in accounts payable, accrued employee compensation, and other liabilities	10,097	1,938	16,232
Net cash used in operating activities	(10,508)	(10,548)	(217,043)
Cash flows from investing activities:			
Purchase of property and equipment	(676)	(340)	(19,377)
Patent costs	(525)	(622)	(8,890)
Purchase of marketable securities	—	—	(112,993)
Sale of marketable securities	—	—	117,724
Acquisition costs	—	(3)	(2,389)
Net cash used in investing activities	(1,201)	(965)	(25,925)
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	32,348	19	297,846
Repayments of long-term debt	(40)	(39)	(304)
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	32,308	(20)	297,156
Increase (decrease) in cash and cash equivalents	20,599	(11,533)	54,188
Cash and cash equivalents:			
Beginning of period	33,589	48,275	—
End of period	$ 54,188	$ 36,742	$ 54,188
SUPPLEMENTAL DISCLOSURE OF CASH FLOW INFORMATION:			
Cash paid during the year for interest	$ 45	$ 47	$ 444
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	$ —	$ 1,189
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 in 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 (loss), 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.

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.

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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 June 30, 2011			
	Total	Level 1	Level 2	Level 3
	(in thousands)			
Cash and cash equivalents	$54,188	$54,188	$—	$ —
Total assets	$54,188	$54,188	$—	$ —

	Fair Value Measurement as of June 30, 2011			
	Total	Level 1	Level 2	Level 3
	(in thousands)			
Warrants	$19,940	$ —	$—	$19,940
Total liabilities	$19,940	$ —	$—	$19,940

	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 June 30, 2011 is as follows:

	Fair Value Measurements Using Significant Unobservable Inputs (Level 3)
	(in thousands)
Balance at March 31, 2011	$ 31,193
Change in value of warrants	(11,253)
Balance at June 30, 2011	$ 19,940

A reconciliation of the change in value of the Company's warrants for the six months ended June 30, 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	(18,527)
Reclassification upon exercise of warrants	(644)
Balance at June 30, 2011	$ 19,940

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 $4.6 million and $3.2 million of receivables that were unbilled at June 30, 2011 and December 31, 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 presents these revenues and related expenses gross in the consolidated financial statements. As of June 30, 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 $102.0 million had been billed or recognized as revenue and $50.3 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 June 30, 2011, the Company had recognized revenue of $9.7 million with respect to these contracts and the Company does not expect to receive any additional significant 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 June 30, 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, the Company was entitled to receive up to $4.1 million for work involving the application of the Company's proprietary PMO and PMO *plus*™ antisense chemistry. The Company used the funds from this contract to conduct preclinical development activities, including animal testing. 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 June 30, 2011, the Company had recognized revenue of $7.0 million with respect to this contract and does not expect to receive additional significant revenue.

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. The period of performance for this contract ended on June 3, 2011 and as of June 30, 2011, the Company had recognized revenue of $12.0 million with respect to this contract and does not expect to receive additional significant revenue.

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 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 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 June 30, 2011, the Company had recognized revenue of $32.3 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 and six months ended June 30, 2011 and 2010.

	Three Months Ended June 30,		Six Months Ended June 30,	
	2011	2010	2011	2010
	(in thousands)		(in thousands)	
January 2006 Agreements *(Ebola and Marburg host factor, Dengue, Anthrax and Ricin)*	$ —	$ 147	$ —	$ 468
November 2006 Agreement *(Ebola, Marburg and Junín Viruses)*	—	2,063	—	2,608
May 2009 Agreement *(H1N1)*	68	1,187	135	1,444
June 2010 Agreement *(H1N1)*	883	433	3,207	433
July 2010 Agreement *(Ebola and Marburg)*	10,585	—	22,490	—
Other Agreements	49	167	49	248
Total	$11,585	$3,997	$25,881	$5,201

Note 5. Stock Compensation

Stock Options

The Company sponsors a 2002 Equity Incentive Plan (the "2002 Plan") pursuant to which it may issue options to purchase its common stock to the Company's employees, directors and service providers. In June 2011, the 2002 Plan was replaced by the 2011 Equity Incentive Plan (the "2011 Plan" and, together with the 2002 Plan, the "Plans") following approval by the Company's shareholders.

In general, stock options granted under the 2002 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 2002 Plan vest over a four year period, with one-fourth of the underlying shares vesting on the first anniversary of the grant and 1/48 th 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 June 30, 2011, no shares of common stock remain available for future grant under the 2002 Plan.

In June 2011, the Company's shareholders approved the 2011 Plan. There will be no further grants under the 2002 Plan, but termination of the 2002 Plan will not affect outstanding awards previously issued pursuant to the 2002 Plan. The 2011 Plan allows for the grant of stock options, stock appreciation rights, restricted stock awards, restricted stock units, performance shares and performance units.

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In general, stock options granted under the 2011 Plan 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. The maximum aggregate number of shares that may be issued under the 2011 Plan is 15,072,457, including 2,072,457 shares reserved but not issued under the 2002 Plan. In addition, shares subject to outstanding awards under the 2002 Plan that expire or otherwise terminate without having been exercised in full, or are forfeited to or repurchased by the Company, will be available for issuance under the 2011 Plan, up to a maximum of 11,086,073 shares. As of June 30, 2011, 14,919,456 shares of common stock remain available for future grant under the 2011 Plan.

A summary of the Company's stock option activity with respect to the six months ended June 30, 2011 follows:

Stock Options	Underlying Shares	Weighted Average Exercise Price	Weighted Average Remaining Contractual Term	Aggregate Intrinsic Value
Outstanding at December 31, 2010	8,490,055	$ 2.14		
Granted	4,545,000	1.97		
Exercised	(123,691)	1.08		
Canceled or expired	(1,012,373)	2.51		
Outstanding at June 30, 2011	11,898,991	$ 2.06	7.51	$ 869,000
Vested at June 30, 2011 and expected to vest	11,491,000	$ 2.06	7.43	$ 861,000
Exercisable at June 30, 2011	5,104,566	$ 2.38	5.16	$ 592,000

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 June 30, 2011 and 2010 was $1.05 and $0.90, respectively, and during the six months ended June 30, 2011 and 2010 was $1.33 and $1.03, respectively. During the same periods, the total intrinsic value of stock options exercised was $70,000 and $4,000, respectively, and the total grant date fair value of stock options that vested was $1,807,000 and $2,288,000, 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 and Six Months Ended June 30,	
	2011	2010
Risk-free interest rate	1.9%-2.4%	1.9%-2.8%
Expected dividend yield	0%	0%
Expected lives	5.4-5.5 years	5.3-5.8 years
Expected volatility	80.9%-81.6%	83.3%-87.9%

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 June 30, 2011 and 2010 was $716,000 and $1,605,000, respectively. For the six months ended June 30, 2011 and 2010, stock-based compensation expense recognized was $1,862,000 and $2,031,000, respectively. A summary of the stock-based compensation expense recognized in the statement of operations is as follows:

	Three Months Ended	
	June 30, 2011	June 30, 2010
	(in thousands)	
Research and development	$ 359	$ 216
General and administrative	357	1,389
Total	$ 716	$ 1,605

The following are the stock-based compensation expense recognized in the Company's statements of operations for the six months ended June 30, 2011 and 2010:

	Six Months Ended	
	June 30, 2011	June 30, 2010
	(in thousands)	
Research and development	$ 732	$ 415
General and administrative	1,130	1,616
Total	$ 1,862	$ 2,031

As of June 30, 2011, there was $6,813,000 of total unrecognized compensation cost related to non-vested share-based compensation arrangements granted, including stock options and restricted stock. These costs are expected to be recognized over a weighted-average period of 2.84 years.

During the six months ended June 30, 2011, in connection with their appointments as officers of the Company, Ms. Effie Toshav, Dr. Peter Linsley and Dr. Edward Kaye were granted options to purchase 650,000, 800,000 and 850,000 shares, respectively, of the Company's common stock at exercise prices of $2.58, $1.76, and $1.38, respectively. These options were granted outside of the Plans and have vesting schedules consistent with the customary schedule under the 2011 Plan. The shares underlying these options are included in the summary stock compensation table noted above in this Note 5.

Paul Medeiros, the Company's former Senior Vice President of Business Development and Chief Business Officer, ceased to be an employee of the Company effective June 1, 2011. Pursuant to the terms of his employment agreement and a separation and release agreement that the Company entered into with Mr. Medeiros in connection with the termination of his employment, Mr. Medeiros received 12 months of his base compensation in a lump sum (an amount equal to $321,300) and all of his unvested stock options vested on June 1, 2011 and will be exercisable for a period of 180 days following June 1, 2011. During the six months ending June 30, 2011, the Company paid his cash severance and recorded a charge of $288,000 for the stock compensation expense.

Dr. Stephen Shrewsbury, the Company's former Senior Vice President and Chief Medical Officer, ceased to be an employee of the Company effective August 1, 2011. Pursuant to the terms of his employment agreement and a separation and release agreement that the Company entered into with Dr. Shrewsbury in connection with the termination of his employment, Dr. Shrewsbury will receive 12 months of his base compensation in a lump sum (an amount equal to $319,300) and all of his unvested stock options vested on August 1, 2011 and will be exercisable for a period of 180 days following August 1, 2011. As of June 30, 2011, the Company has recorded a liability for the salary of $319,300 and has recorded a charge of $288,000 for the acceleration of stock compensation expense for the six months ending June 30, 2011.

J. David Boyle II, the Company's former Senior Vice President and Chief Financial Officer, ceased to be an employee of the Company effective July 24, 2011, the expiration date of his employment agreement. Pursuant to the terms of a separation agreement and release that the Company entered into subsequent to June 30, 2011 with Mr. Boyle in connection with the separation of his employment, Mr. Boyle will receive a lump sum payment equal to $113,507, the vesting of 116,666 shares subject to Mr. Boyle's August 2008 option grant will be accelerated and the post-separation exercise period for options to purchase up to 593,333 shares of the Company's common stock will be extended until December 30, 2011. As of June 30, 2011, the Company has recorded a liability for $113,507 and has recorded a decrease of $25,000 for the stock compensation expense for the six months ending June 30, 2011.

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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 and Six Months Ended June 30,	
	2011	2010
Risk-free interest rate	0.5%-1.3%	0.1%-2.6%
Expected dividend yield	0%	0%
Expected lives	1.5-3.4 years	0.1-4.4 years
Expected volatility	55.3%-88.5%	62.3%-95.8%
Shares underlying warrants classified as liabilities	28,948,962	29,717,546
Market value of stock at beginning of year	$ 2.12	$ 1.58
Market value of stock at end of period	$ 1.43	$ 1.61

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. 255,895 shares were underlying such warrants for each of the three and six months ended June 30, 2011 and 2010.

A summary of the Company's warrant activity with respect to the six months ended June 30, 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 June 30, 2011	29,204,857	$ 1.59	2.8

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 June 30,	
	2011	2010
	(in thousands, except per share data)	
Net income (loss)	$ 1,279	$ (16,656)
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	134,090	110,383

Dilutive effect of warrants and stock options after application of the treasury stock method*	4,826	—
Weighted-average number of common shares outstanding for computing diluted earnings per share	138,916	110,383
Net income (loss) per share—basic	$ 0.01	$ (0.15)
Net income (loss) per share—diluted	$ 0.01	$ (0.15)

	Six Months Ended June 30,	
	2011	2010
	(in thousands, except per share data)	
Net income (loss)	$ 3,112	$ (17,240)
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	123,346	110,404
Dilutive effect of warrants and stock options after application of the treasury stock method*	6,672	—
Weighted-average number of common shares outstanding for computing diluted earnings per share	130,018	110,404
Net income (loss) per share—basic	$ 0.03	$ (0.16)
Net income (loss) per share—diluted	$ 0.02	$ (0.16)

* Warrants and stock options to purchase 13,509,380 and 39,335,409 shares of common stock for the six months ending June 30, 2011 and 2010, respectively, and 23,558,098 and 39,335,409 for the three months ending June 30, 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 June 30, 2011 the Company has incurred losses of approximately $304.5 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 June 30, 2011, cash and cash equivalents were $54.2 million, compared to $33.6 million at December 31, 2010. The Company's principal sources of liquidity and cash 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 June 30, 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 $102.0 million had been recognized as revenue and $50.3 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"). 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. See Note 9 — "Equity Financings" for more information.

Note 9. Equity Financings

In December 2007, the Company closed a private equity financing for net proceeds of $14.4 million with several institutional investors. In the private equity financing, the Company sold units consisting of one share of common stock, and one-half warrant to purchase a share of common stock for $1.90 per unit. A total of 10.7 million shares of common stock and warrants for the purchase of 5.3 million shares of common stock at $2.45 per share were sold. These warrants are currently exercisable and expire on December 18, 2012.

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 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 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 June 30, 2011 or December 31, 2010, and has not recognized interest and/or penalties in the statement of operations for the three and six months ended June 30, 2011.

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.

In April 2011, the FASB issued guidance to achieve common fair value measurement and disclosure requirements between GAAP and International Financial Reporting Standards. This guidance amends current fair value measurement and disclosure guidance to include increased transparency around valuation inputs and investment categorization. The guidance is effective for fiscal years and interim periods beginning after December 15, 2011. We do not believe our adoption of this new guidance in the first quarter of 2012 will have a material impact on the Company's financial statements.

In June 2011, the FASB issued guidance regarding presentation of other comprehensive income in the financial statements. This guidance will eliminate the option under GAAP to present other comprehensive income in the statement of changes in equity. Under the guidance, the Company will have the option to present the components of net income and comprehensive income in either one or two consecutive financial statements. The guidance is effective for fiscal years, and interim periods within those years, beginning after December 15, 2011. The adoption of this new guidance is not expected to have a material impact on the Company's financial statements.

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 August 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 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 August 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 June 30, 2011, we owned or controlled approximately 223 U.S. and corresponding foreign patents and 193 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 our June 2010 Ebola and Marburg U.S. government research contract, 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 June 30, 2011, our accumulated deficit was $304.5 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 June 30, 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 $102.0 million had been billed or recognized as revenue and $50.3 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 June 30, 2011, we had recognized revenue of $9.7 million with respect to these contracts and do not expect to receive any additional significant 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 June 30, 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)

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In May 2009, we entered into a contract with DTRA to develop swine flu drugs. Under this contract, we were entitled to receive up to $4.1 million for work involving the application of our proprietary PMO and PMOplus™ antisense chemistry. We used the funds from this contract to conduct preclinical development activities, including animal testing. 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 June 30, 2011, we had recognized revenue of $7.0 million with respect to this contract and do not expect to receive additional significant revenue.

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. The period of performance for this contract ended on June 3, 2011 and as of June 30, 2011, we had recognized revenue of $12.0 million with respect to this contract and do not expect to receive additional significant revenue.

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 June 30, 2011, we had recognized revenue of $32.3 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 and six months ended June 30, 2011 and 2010.

	Three Months Ended June 30,		Six Months Ended June 30,	
	2011	2010	2011	2010
	(in thousands)		(in thousands)	
January 2006 Agreements *(Ebola and Marburg host factor, Dengue, Anthrax and Ricin)*	$ —	$ 147	$ —	$ 468
November 2006 Agreement *(Ebola, Marburg and Junín Viruses)*	—	2,063	—	2,608
May 2009 Agreement *(H1N1)*	68	1,187	135	1,444
June 2010 Agreement *(H1N1)*	883	433	3,207	433
July 2010 Agreement *(Ebola and Marburg)*	10,585	—	22,490	—
Other Agreements	49	167	49	248
Total	$11,585	$3,997	$25,881	$5,201

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 June 30, 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 the July 2010 government research contract for 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 the July 2010 government research contracts for Ebola and Marburg, we expect future research and development cost 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 (Expense) and Other, Net. Interest income (expense) and other, net, consists of interest on our 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

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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 and Six Months Ended June 30, 2011 and 2010

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

	Three Months Ended June 30,		%	Six Months Ended June 30,		%
	2011	2010	Change	2011	2010	Change
	(In thousands, except per share amounts)			(In thousands, except per share amounts)		
Revenue:	$11,585	$ 3,997	190%	$ 25,881	$ 5,201	398%
Expenses:						
Research and development	17,750	6,931	156%	32,551	13,020	150%
General and administrative	3,960	4,733	(16%)	8,986	7,577	18%
Operating loss	(10,125)	(7,667)	32%	(15,656)	(15,396)	2%
Other income (loss):						
Interest (expense) income and other, net	151	51	196%	241	87	177%
(Increase) decrease on warrant valuation	11,253	(9,040)	224%	18,527	(1,931)	1,059%
Net income (loss)	$ 1,279	$(16,656)	108%	$ 3,112	$ (17,240)	118%
Basic income (loss) per share	$ 0.01	$ (0.15)		$ 0.03	$ (0.16)	
Diluted income (loss) per share	$ 0.01	$ (0.15)		$ 0.02	$ (0.16)	

Revenue

Revenue for the three months ended June 30, 2011 increased by $7.6 million, or 190%, compared to the three months ended June 30, 2010. The increase in revenue for the three months ended June 30, 2011 was due to a $10.5 million increase in revenue attributable to the July 2010 Ebola and Marburg agreement, offset in part by a $2.2 million decrease in revenue associated with the 2006 U.S. government research contracts and a $0.7 million total decrease in the May 2009 and June 2010 H1N1 U.S. government research contracts.

Revenue for the six months ended June 30, 2011 increased by $20.7 million, or 398%, compared to the six months ended June 30, 2010. The increase in revenue for the six months ended June 30, 2011 was primarily due to a $22.5 million increase in revenue attributable to the July 2010 Ebola and Marburg agreement and a $1.5 million total increase in the May 2009 and June 2010 H1N1 U.S. government research contracts, offset in part by a $3.1 million decrease in revenue associated with the 2006 U.S. government research contracts.

Research and Development Expenses

Research and development expenses for the three months ended June 30, 2011 increased by $10.9 million, or 156%, compared to the three months ended June 30, 2010. The increase for the three months ended June 30, 2011 was primarily due to a $6.0 million increase in spending related to the July 2010 Ebola and Marburg agreement, $2.5 million in spending for components of our drug substance, a $2.6 million increase in costs related to our DMD program and other non-government projects, $0.6 million for severance and stock compensation expense for our former chief medical officer, and a $0.3 million increase in spending related to the May 2009 and June 2010 H1N1 U.S. government research contracts, which was partially offset by a $1.1 million decrease in spending on the 2006 Junín contract.

Research and development expenses for the six months ended June 30, 2011 increased by $19.6 million, or 150%, compared to the six months ended June 30, 2010. The increase for the six months ended June 30, 2011 was primarily due to a $14.9 million increase in spending related to the July 2010 Ebola and Marburg agreement, $3.4 million in spending for components of our drug substance and other non-government projects, a $1.2 million increase in spending related to the May 2009 and June 2010 H1N1 U.S. government research contracts, a $1.1 million increase in costs related to our DMD program, and $0.6 million for severance and stock compensation expense for our former chief medical officer, which was partially offset by a $1.6 million decrease in spending on the 2006 Junín contract.

General and Administrative Expenses

General and administrative expenses for the three months ended June 30, 2011 decreased by $0.7 million, or 16%, compared to the three months ended June 30, 2010. The decrease in general and administrative expense is primarily due to the decrease in severance costs associated with the departure of the former chief executive officer of $2.6 million offset in part by a $1.4 million increase in salaries, severance, and employee related costs from increased staff, a $0.4 million increase in professional services cost, and a $0.1 million increase in costs for facilities.

General and administrative expenses for the six months ended June 30, 2011 increased by $1.4 million, or 18%, compared to the six months ended June 30, 2010. The increase in general and administrative expense is primarily due to a $3.2 million increase in salaries, severance, and employee related costs from increased staff, $0.5 million increase in professional services, a $0.2 million increase in legal costs and $0.1 million in increased costs for facilities. These increased general and administrative costs in the first six months of 2011 were partially offset by the $2.6 million in severance and stock compensation expense recognized in the first six months of 2010 for the departure of the former chief executive officer.

Interest (Expense) Income and Other, Net

Interest income and other, net, for the three and six months ended June 30, 2011 increased to approximately $0.2 million compared to the three and six months ended June 30, 2010. The increase in interest income and other, net, for the three and six months ended June 30, 2011 compared to the three and six months ended June 30, 2010 was attributable to increased interest earnings on our invested cash and cash equivalents.

Change in Fair Value of Warrant Liability

The changes in fair value of warrant liability for the three and six months ended June 30, 2011 compared to the three month and six months ended June 30, 2010 was primarily 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 June 30, 2011 was $1.3 million, compared to the net loss of $16.7 million for the three months ended June 30, 2010, a change of $18.0 million. Net income for the six months ended June 30, 2011 was $3.1 million, compared to the net loss of $17.2 million for the six months ended June 30, 2010, a change of $20.3 million. The increase in net income for the three and six months ended June 30, 2011 was due to the change in warrant liability.

Liquidity and Capital Resources

At June 30, 2011, cash and cash equivalents were $54.2 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 $32.1 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 $304.5 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

	Six Months Ended June 30, 2011	2010
	(in thousands)	
Cash provided by (used in):		
Operating activities	$(10,508)	$(10,548)
Investing activities	(1,201)	(965)
Financing activities	32,308	(20)
Increase (decrease) in cash and equivalents	$20,599	$(11,533)

Operating Activities. We used $10.5 million of cash in operating activities for the six months ended June 30, 2011, compared to $10.5 million of cash used in operating activities for the six months ended June 30, 2010. Cash from accounts receivable and other current assets decreased $7.4 million and was offset by an $8.2 million decrease in cash used from accounts payable, accrued employee compensation and other liabilities and a $0.8 million increase in all other cash used in operating activities.

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Investing Activities. We used $1.2 million of cash in investing activities for the six months ended June 30, 2011, an increase of $0.2 million compared to $1.0 million of cash used in investing activities for the six months ended June 30, 2010. The change was attributable to increased spending on equipment.

Financing Activities. Financing activities provided $32.3 million of cash primarily due to the April 2011 equity financing that generated net proceeds of $32.1 million (See Note 9 — “Equity Financings” to the unaudited condensed consolidated financial statements included elsewhere in this report for more information) and warrant exercises of $0.2 million for the six months ended June 30, 2011. Cash used by financing activities for the six months ended June 30, 2011 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 June 30, 2011:

	Payments Due by Period				
	Total	Less than 1 Year	1-3 Years	3-5 Years	More than 5 Years
			(in thousands)		
Long-term debt	$ 1,883	$ 83	$ 178	$ 301	$ 1,321
Operating leases	16,993	2,455	4,205	3,157	7,176
Royalty payments	1,256	100	160	390	606
Purchases	3,039	3,039	—	—	—
Total	$ 23,171	$ 5,677	$ 4,543	$ 3,848	$ 9,103

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 $54.2 million and $33.6 million at June 30, 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 June 30, 2011, would result in a decline in investment income of approximately $4,000 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 the period covered by this report, under the supervision and with the participation of our management, including (1) our chief executive officer and principal financial officer and (2) our principal accounting 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 principal financial officer and our principal accounting officer, as appropriate, to allow timely decisions regarding required disclosure. Based on that evaluation, management has concluded that as of June 30, 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 June 30, 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, AVI-6003 in Marburg and AVI-7100 in influenza are in clinical trials, 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 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 market approval. Further, application of the orphan drug regulations in the U.S. and Europe is uncertain and we cannot predict how the respective regulatory bodies will interpret and apply the regulations to our or our competitors' product candidates. If another product receives orphan drug status for an indication that we are targeting, and such product is approved for commercial sales before our product, regulators may interpret our product to be the same drug as the competing product and could prevent us from selling our product in the applicable territories. 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. As of the date of this report, we have not progressed to the point of preparing or filing 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 indications 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. Other factors may also impact our ability to commercialize our product candidates, including, for example, the fact that a therapeutic commercial product utilizing our RNA-based technologies has never been approved by any regulatory authority. Due to these factors, 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 August 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. Any such additional clinical trials required by regulatory authorities would increase our costs and delay commercialization of eteplirsen.

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 our infectious disease program may not meet the requirements for approval under this pathway.

In the United States, we plan to develop the therapeutic product candidates to treat Ebola and Marburg viruses using the Animal Rule regulatory 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 and Marburg 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, for our failure to perform, 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. For example, in June 2011, we submitted two responses to a request for proposal, or RFP, announced by the DoD seeking the full clinical development of our influenza drug candidate. One of our proposals was for prophylaxis and the other proposal was for treatment. We were subsequently informed by the DoD that our proposal for prophylaxis met the technical requirements for acceptance and will be considered for a contract award; however, our proposal for post-symptomatic treatment did not meet all of the technical requirements for acceptance and was removed from further consideration. There is no assurance that we will be awarded a contract for our prophylaxis proposal pursuant to this RFP as the number of contracts to be awarded is limited and we are aware of several other companies with competing technologies that responded to the RFP that may qualify for contract awards.

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 August 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 other 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 fail to conform to 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 that it 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. Any such delay, suspension, termination or request to repeat or redesign a trial could increase our costs and prevent or significantly delay our ability to commercialize our product candidates.

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

We had an operating loss of $15.7 million for the six months ended June 30, 2011, and incurred a net loss of $32.2 million for the year ended December 31, 2010. As of June 30, 2011, our accumulated deficit was $304.5 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 equity linked 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 our 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 and the components of our drug substance. 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. This might limit our ability to rapidly expand our programs or commercialize our products. If we are required to seek alternative supply arrangements, the resulting delays and potential inability to find suitable replacements or bring on-line new suppliers 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 therapeutic 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 therapeutic 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 AVI-6002, AVI-6003 and AVI-7100 and expect to start a Phase II clinical trial in eteplirsen in August 2011, additional preclinical studies may be required for these product candidates and before other product candidates enter human clinical trials. 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 oversee compliance with and execution of the terms of our U.S. government contracts and we intend to recruit, hire and retain additional personnel in the near term. Competition for qualified personnel with government contracting experience or with prior industry experience, 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. Also, failure to perform under our U.S. government contracts could result in a termination of the agreement, which would harm our business.

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, J. David Boyle II served as our interim president and chief executive officer until January 2011, when Christopher Garabedian, a member of our board of directors, was hired to serve as our president and chief executive officer. Since the beginning of 2011, there have been a number of changes to our executive leadership team. Recent departures include Dr. Graham Johnson, our former senior vice president of preclinical development and research, in May 2011, Mr. Paul Medeiros, our former senior vice president of business development and chief business officer, in June 2011, Mr. Boyle, our former senior vice president and chief financial officer, in July 2011, and Dr. Stephen Shrewsbury, our former senior vice president and chief medical officer, in August 2011. Recent additions to the executive leadership team include Ms. Effie Toshav, hired as our senior vice president and general counsel in January 2011, Dr. Peter Linsley, hired as our senior vice president and chief scientific officer in May 2011, and Dr. Edward Kaye, hired as our senior vice president and chief medical officer in June 2011.

Such changes, or any other future changes in our executive leadership, 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.

We may engage in future acquisitions that increase our capital requirements, dilute our shareholders, cause us to incur debt or assume contingent liabilities and subject us to other risks.

We actively evaluate various strategic transactions on an ongoing basis, including licensing or acquiring complementary products, technologies or businesses. Any potential acquisitions may entail numerous risks, including increased operating expenses and cash requirements, assimilation of operations and products, retention of key employees, diversion of our management’s attention and uncertainties in our ability to maintain key business relationships of the acquired entities. In addition, if we undertake acquisitions, we may issue dilutive securities, assume or incur debt obligations, incur large one-time expenses and acquire intangible assets that could result in significant future amortization expense.

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 intellectually property rights and our ability to obtain additional patents and licenses in the future. As of June 30, 2011, we owned or controlled approximately 223 U.S. and corresponding foreign patents and 193 U.S. and corresponding foreign patent applications. 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, ability to sell our products, 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, Amsterdam Molecular Therapeutics and PTC Therapeutics 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, through the issuance of equity or equity linked securities or incurrence of debt, or other corporate transactions;
- comments by securities analysts;
- litigation;

- 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 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.

A significant number of shares of our common stock are issuable pursuant to outstanding options and warrants, and we expect to issue additional shares of common stock in the future. Sales of these shares will dilute the interests of other security holders and may depress the price of our common stock.

As of June 30, 2011, there were 135,685,068 shares of common stock outstanding, vested and expected to vest outstanding options to purchase 11,491,000 shares of common stock, and outstanding warrants to purchase 29,204,857 shares of common stock. Additionally, as of June 30, 2011, there were 14,919,456 shares of common stock available for future issuance under our 2011 Equity Incentive Plan. In addition, we may issue additional common stock and warrants from time to time to finance our operations. We may also issue additional shares to fund potential acquisitions or in connection with additional stock options or other equity awards granted to our employees, officers, directors and consultants under our 2011 Equity Incentive Plan. The issuance of additional shares of common stock or warrants to purchase common stock, perception that such issuances may occur, or exercise of outstanding warrants or options will have a dilutive impact on other shareholders and could have a material negative effect on the market price of our common stock.

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

On May 16, 2011, in connection with his appointment as our senior vice president and chief scientific officer, we granted Peter Linsley, Ph.D., an option to purchase 800,000 shares of our common stock at an exercise price of $1.76 per share. Also, on June 20, 2011, in connection with his appointment as our senior vice president and chief medical officer, we granted Edward Kaye, M.D., an option to purchase 850,000 shares of our common stock at an exercise price of $1.38 per share. These option grants were made outside of both our equity incentive plans. 25% of the shares underlying each of the options vest on the first anniversary of the vesting commencement date, which is May 1, 2011 for Dr. Linsley and June 20, 2011 for Dr. Kaye, and 1/48 th of the underlying shares vest on each monthly anniversary thereafter such that the option will be fully vested on the fourth anniversary of the vesting commencement date. The option grants are included in the summary stock option activity table in Note 5 to the accompanying unaudited condensed consolidated financial statements. The options were granted to Dr. Linsley and Dr. Kaye 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
3.1	Fourth Restated and Amended Articles of Incorporation of AVI BioPharma, Inc.	S-8	333-175031	4.1	6/20/11	
10.1†	Modification No. P00005 to Contract Number HDTRA1-10-C-0079 between Defense Threat Reduction Agency and AVI BioPharma, Inc. effective April 13, 2011.					X
10.2*	Stand Alone Stock Option Grant between AVI BioPharma, Inc. and Peter Linsley, Ph.D., dated May 16, 2011.	S-8	333-175031	4.8	6/20/11	
10.3*	Separation and Release Agreement effective June 9, 2011 between Paul Medeiros and AVI BioPharma, Inc.					X
10.4*	Executive Employment Agreement dated June 13, 2011 by and between AVI BioPharma, Inc. and Edward Kaye, M.D.					X
10.5*	Stand Alone Stock Option Grant between AVI BioPharma, Inc. and Edward Kaye, M.D., dated June 20, 2011.	S-8	333-175031	4.9	6/20/11	
10.6*	AVI BioPharma, Inc. 2011 Equity Incentive Plan.	8-K	001-14895	10.1	6/16/11	
10.7*	Form of Stock Option Award Agreement under the 2011 Equity Incentive Plan.	8-K	001-14895	10.2	6/16/11	
10.8*	Form of Notice of Grant of Restricted Stock under the 2011 Equity Incentive Plan.	8-K	001-14895	10.3	6/16/11	
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 Controller, Melinda K. Miles, pursuant to Section 302 of the Sarbanes-					X

	Oxley Act of 2002.	
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 Controller, Melinda K. Miles, pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.	X
101.INS**	XBRL Instance Document.	X
101.SCH**	XBRL Taxonomy Extension Schema Document.	X
101.CAL**	XBRL Taxonomy Extension Calculation Linkbase Document.	X
101.LAB**	XBRL Taxonomy Extension Label Linkbase Document.	X
101.PRE**	XBRL Taxonomy Extension Presentation Linkbase Document.	X

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

* Indicates management contract or compensatory plan, contract or arrangement.

** In accordance with Rule 406T of Regulation S-T, the information in these exhibits is furnished and deemed not filed or a part of a registration statement or prospectus for purposes of Sections 11 or 12 of the Securities Act of 1933, is deemed not filed for purposes of Section 18 of the Exchange Act of 1934, and otherwise is not subject to liability under these sections and shall not be incorporated by reference into any registration statement or other document filed under the Securities Act of 1933, as amended, except as expressly set forth by specific reference in such filing.

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: August 8, 2011	**AVI BIOPHARMA, INC.**
	By: /s/ CHRISTOPHER GARABEDIAN
	Christopher Garabedian
	President and Chief Executive Officer

EXHIBIT INDEX

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Exhibit 10.1

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT		1. CONTRACTOR ID CODE U	PAGE OF PAGES 1 2
2. AMENDMENT/MODIFICATION NO. P00005	3. EFFECTIVE DATE 13-Apr-2011	4. REQUISITION/PURCHASE REQ. NO CBM-100019095Z	5. PROJECT NO (If applicable)
6. ISSUED BY CODE HDTRA1 DEFENSE THREAT REDUCTION AGENCY/BE-BC 8725 JOHN J. KINGMAN ROAD, MSC 6201 FORT BELVOIR VA 22060-6201		7. ADMINISTERED BY (If other than item 6) CODE S4801A 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
4575 SWRESEARCH WAY STE 200
CORVALLIS OR 97333-1299

	9A. AMENDMENT OF SOLICITATION NO.
	9B. DATED (SEE ITEM 11)
X	10A. MOD OF CONTRACT/ORDER NO. HDTRA1-10-C-0079
X	10B. DATED (SEE ITEM 13) 04-Jun-2010

CODE 49WU1 FACILITY CODE

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 Offer ☐ is extended, ☐ is not extended.
Offer 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 you 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 APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS.
IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

	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)
X	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF: 52.243-2 Alt V Changes—Cost Reimbursement (Aug 1987) – Alternate V
	D. OTHER (Specify type of modification and authority)

E. IMPORTANT: Contractoris ☐ 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: nuckolsb111278
The purpose of this modification is to incorporate a revised Statement of Work and adjust the contract value accordingly, from $17,741,829.40 to $13,092,616.75.

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) J. David Boyle II, SVP and CFO		16A.NAME AND TITLE OF CONTRACTING OFFICER (Type or Print) Brian D. Nuckols TEL:703-767-3503 EMAIL: brian.nuckols@dtra.mil	
15B. CONTRACTOR/OFFICER /s/ J. David Boyle II (Signature of person authorized to sign)	15.C DATE SIGNED April 13, 2011	16B. UNITED STATES OF AMERICA /s/ Brian D. Nuckols (Signature of Contracting Officer	16C. DATE SIGNED 4/14/11

EXCEPTION TO SF 30
APPROVED BY OIRM 11-84

30-105-04

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

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SECTION SF 30 BLOCK 14 CONTINUATION PAGE

SUMMARY OF CHANGES

SECTION A - SOLICITATION/CONTRACT FORM

The total cost of this contract was decreased by $4,649,212.65 from $17,741,829.40 to $13,092,616.75 (EST).

SECTION B - SUPPLIES OR SERVICES AND PRICES

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 17 June 2010. to The Contractor shall perform the tasks in accordance with the Statement of Work entitled "AVI BioPharma Project - H1N1 Countermeasure Development" dated 31 March 2011.

The estimated/max cost has decreased by $[†] from $[†] to $[†].
The fixed fee has decreased by $[†] from $[†] to $[†].
The cost constraint has changed from NTE to EST.
The total cost of this line item has decreased by $4,649,212.65 from $17,741,829.40 to $13,092,616.75 (EST).

SECTION G - CONTRACT ADMINISTRATION DATA

The following have been modified:

252.232-9001 PRICES/COST

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.

(End of Summary of Changes)

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AVI BioPharma Project - H1N1 Countermeasure Development

Original: 19 May 2010

Revision: 17 June 2010

Revision: 16 March 2011

Revision: 18 March 2011

Revision: 31 March 2011

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

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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 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 acquire 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).

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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 [1]. 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. [2]

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) [3].

1 "Influenza A (H1N1) virus resistance to oseltamivir -2008/2009 influenza season, northern hemisphere." *WHO.* Web. http://www.who.int/csr/don/2010_06_04/en/index.html.

2 "Pandemic (H1N1) 2009-update 102." *WHO. GAR, Alert and Response*. Web. http://www.who.int/csr/disease/influenza/h1n1_table/en/.

2 "The 2009 H1N1 Pandemic: Summary Highlights, April 2009-April 2010." *CDC*. Web. http://www.cdc.gov/h1n1flu/cdcresponse.htm.

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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. (see reference in FN 3)

4. TASKS

The following tasks define the administrative, technical and operational activities to be performed.

TASK 1. [†]: [†]

TASK 2. [†]: [†]

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[†]: [†]

[†]: [†]

TASK 3.1 [†]

Task 3.1 [†]

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[†]

[†]

[†]

Task 3.2 [†]

[†]

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TASK 4. [†]

[†]

Task 4.1 [†]

[†]

Task 4.2 & 4.3 [†]

[†]

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[†]

[†]

[†]

TASK 5. [†]

[†]

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Task 5.1 [†] [†]

Task 5.2 [†]

[†]

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Task 5.3 [†]: [†]

[†]

[†]

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Task 5.4 [†]: [†]

[†]

[†]

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Task 5.5. [†]: [†]

[†]

[†]

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Task 5.6 [†]: [†]

[†]

[†]

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TASKS 6. [†]

[†]

Task 6.1. [†] [†]

Task 6.2. [†] [†]

Task 6.3 [†]

[†]

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Task 6.4. [†] [†]

TASK 7. [†]

[†]

Task 7.1 [†] [†]

Task 7.2 [†] [†]

Task 7.3 [†] [†]

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Task 7.4 [†] [†]

TASK 8. [†]

[†]

Task 8.1 [†] [†]

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Task 8.2 [†] [†]

Task 8.3 [†] [†]

Task 9. [†] [†]

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SEPARATION AND RELEASE AGREEMENT

THIS SEPARATION AND RELEASE AGREEMENT ("Agreement") is between Paul Medeiros ("Employee") and AVI BioPharma, Inc. ("Employer"), and is effective eight (8) days after Employee signs this Agreement ("Effective Date").

The parties agree as follows:

1. **Separation from Employment**. Employee separated from employment with Employer effective at the close of business on June 1, 2011 (the "Separation Date"). Employee acknowledges and agrees that he has been paid his salary and other compensation and/or benefits through May 31, 2011, less all lawful or required deductions. In addition, Employer will issue a check to Employee on July 1, 2011 in accordance with Section 12(c)(v) of the Employment Agreement (defined below), which check will include payment of amounts owed for accrued and unpaid vacation time, less all lawful or required deductions.

2. **Consideration**. In consideration of Employee's agreements hereunder, (i) Employer shall pay to Employee the amounts set forth and described in Section 12(c)(viii)(A) of that certain Employment Agreement dated effective the 15th day of May, 2009, as amended on October 16, 2009 (the " Employment Agreement") and (ii) Employer and Employee will enter into a consulting arrangement upon terms mutually acceptable to the parties, which consulting agreement shall become effective on the Effective Date. Employee may apply for unemployment benefits and Employer will not oppose this application (except that Employer may submit accurate information in response to any governmental inquiries related to Employee's application for unemployment). Employee specifically acknowledges that he is not entitled to receive any additional severance, termination payments, wages, bonus, vesting or other form of compensation from Employer.

3. **Return of Employer Property**. Employee represents that he has returned all Employer property in his possession or under his control, including but not limited to keys, credit cards, files, laptop computer, cellular telephone and any and all Employer documents.

4. **Confidentiality**. The parties will use reasonable efforts to keep the terms of this Agreement confidential. Employee may disclose the terms of this Agreement to his immediate family. Employer may disclose the terms of this Agreement to its officers and managers and as required by law (including, but not limited to, to comply with the rules and regulations promulgated by the U.S. Securities and Exchange Commission). Either party may disclose the terms of this Agreement to their respective attorneys, accountants, financial advisors, auditors, or similar advisors, or in response to government requests. Third persons informed of the terms of this Agreement shall in turn be advised of this confidentiality provision and requested to maintain such confidentiality.

5. **Release**.

a. In exchange for the consideration paid to Employee as set forth in this Agreement, Employee forever releases and discharges Employer, any of Employer-sponsored employee benefit plans in which Employee participates, or was participating in, (collectively the " Plans") and all of their respective officers, members, managers, partners, directors, trustees, agents, employees, and all of their successors and assigns (collectively "Releasees") from any and all claims, actions, causes of action, rights, or damages, including costs and attorneys' fees (collectively "Claims") which Employee may have arising out of his employment (including Claims that may arise out of Employee's employment agreement), on behalf of himself, known, unknown, or later discovered which arose prior to the date Employee signs this Agreement. This release includes but is not limited to, any Claims under any local, state, or federal laws prohibiting discrimination in employment, including without limitation the federal civil rights acts, Oregon Revised Statutes Chapter 659A, the Americans with Disabilities Act, the Age Discrimination in Employment Act, or Claims under the Employee Retirement Income Security Act, or Claims alleging any legal restriction on Employer's right to terminate its employees, any Claims Employee has relating to his rights to or against any of the Plans, or personal injury Claims, including without limitation wrongful discharge, breach of contract, defamation, tortious interference with business expectancy, constructive discharge, or infliction of emotional distress. Employee represents that he has not filed any Claim against Employer or its Releasees, he has no knowledge of any facts that would support any Claim by Employee against Employer or by a third party against Employer, and that he will not file a Claim at any time in the future concerning Claims released in this Agreement; provided, however, that this will not limit Employee from filing a Claim to enforce the terms of this Agreement. Notwithstanding the foregoing, nothing herein shall constitute release of any of Employee's rights relating to vested options, vested benefits or vested entitlements under the Company's employee benefits plans, including equity incentive and retirement plans.

b. In consideration of the promises of Employee as set forth herein, Employer does hereby, and for all its successors and assigns, release, acquit and forever discharge Employee from any and all actions, causes of action, obligations, costs, expenses, damages, losses, claims, liabilities, suits, debts and demands (including attorneys' fees and costs actually incurred), of whatever character in law or in equity known or unknown, suspected or unsuspected, from the beginning of time to the date of execution hereof.

6. **Non-disparagement**. Employee and Employer each agree not to make disparaging statements about each other, except in the case of Employer statements that are required under applicable federal or state securities laws or applicable rules and regulations of any exchange on which Employer's stock is traded; provided, further that Employer's obligations pursuant to this Section shall apply only with regard to Employer's officers and directors and only for so long as they are employees or officers of Employer.

7. **Consideration and Revocation Periods**. Employee understands and acknowledges that he is waiving and releasing any rights he may have under the Age Discrimination in Employment Act of 1967 ("ADEA"), and that this waiver and release is knowing and voluntary. Employee understands and agrees that this waiver and release does not apply to any rights or claims that may arise under the ADEA after the Effective Date of this Agreement. Employee understands and acknowledges that the consideration given for this waiver and release is in addition to anything

of value to which Employee was already entitled. Employee further understands and acknowledges that he has been advised by this writing that: (a) he should consult with an attorney prior to executing this Agreement; (b) he has twenty-one (21) days within which to consider this Agreement; (c) he has seven (7) days following his execution of this Agreement to revoke this Agreement; (d) this Agreement shall not be effective until after the revocation period has expired; and (e) nothing in this Agreement prevents or precludes Employee from challenging or seeking a determination in good faith of the validity of this waiver under the ADEA, nor does it impose any condition precedent, penalties, or costs for doing so, unless specifically authorized by federal law. In the event Employee signs this Agreement and returns it to the Company in less than the 21-day period identified above, Employee hereby acknowledges that he has freely and voluntarily chosen to waive the time period allotted for considering this Agreement. The Parties agree that any changes made in the course of negotiating the terms of this Agreement will not restart the running of the 21-day period.

8. **Unknown Claims**. Employee acknowledges that he has been advised to consult with legal counsel and that he is familiar with the principle that a general release does not extend to claims that the releaser does not know or suspect to exist in his favor at the time of executing the release, which, if known by him, must have materially affected his settlement with the Releasees. Employee, being aware of said principle, agrees to expressly waive any rights he may have to that effect, as well as under any other statute or common law principles of similar effect.

9. **Cooperation with Company**. For a period of 1 year from the Effective Date, Employee agrees to cooperate reasonably with Employer in the resolution of any matters in which Employee was involved during the course of Employee's employment or about which Employee has knowledge, where Employee's knowledge is necessary for the defense or prosecution, of any claims or actions now in existence or which may be brought or threatened in the future against or on behalf of Employer, including any claims or actions against its officers, directors and employees.

Employee's cooperation in connection with such matters, actions and claims may include, without limitation, being available to consult with Employer regarding matters in which Employee has been involved or has knowledge; to assist Employer preparing for any proceeding (including, without limitation, depositions, consultation, discovery or trial); to provide affidavits reflecting truthful written testimony; to assist with any audit, inspection, proceeding or other inquiry; and to act as a witness to provide truthful testimony in connection with any litigation or other legal proceeding affecting Employer. For a period of one (1) year after the Effective Date of this Agreement, Employee agrees to keep Employer apprised of his current contact information, including telephone numbers, home address, and email address, and to promptly respond to communications from Employer in connection with this Section. In connection with providing such cooperation under this Section, Employee shall be compensated for all documented and reasonable time spent at a rate of $200.00 per hour. Employee shall also be reimbursed for any documented and reasonable costs and expenses incurred in connection with providing such cooperation under this Section.

10. **No Liability**. This Agreement shall not be construed as an admission by either party that it acted wrongfully with respect to the other.

11. **Severability**. If any of the provisions of this Agreement are held to be invalid or unenforceable, the remaining provisions will nevertheless continue to be valid and enforceable.

12. **Entire Agreement**. This Agreement, together with any surviving provisions of the Confidential Proprietary Rights and Non-Disclosure Agreement Employee entered into with the Company on September 25, 2009, any equity agreements, and any surviving provisions of the Employment Agreement, represent and contain the entire understanding between the parties in connection with its subject matter. Except as referenced herein, all other prior written or oral agreements or understandings are merged into and superseded by this Agreement. Employee acknowledges that in signing this Agreement, he has not relied upon any representation or statement not set forth in this Agreement made by Employer or any of its representatives.

13. **Attorney Fees**. If any suit or action is filed by either party to enforce this Agreement or otherwise with respect to the subject matter hereof, the prevailing party shall be entitled to recover reasonable attorney fees incurred in preparation or in prosecution or defense of such suit or action as fixed by the trial court, and if any appeal is taken from the decision of the trial court, reasonable attorney fees as fixed by the appellate court.

14. **Choice of Law**. This Agreement is made and shall be construed and performed under the laws of the State of Oregon.

PLEASE READ CAREFULLY. THIS AGREEMENT INCLUDES A RELEASE OF CERTAIN KNOWN OR UNKNOWN CLAIMS.

(*Signature Page Follows*)

	PAUL MEDEIROS, an individual
Dated: June 1, 2011	/s/ Paul Medeiros
	Paul Medeiros
	AVI BIOPHARMA, INC.
Dated: June 3, 2011	By /s/ Christopher Garabedian
	Name: Christopher Garabedian
	Title: President and Chief Executive Officer

Exhibit 10.4

AVI BIOPHARMA, INC.

EXECUTIVE EMPLOYMENT AGREEMENT

This Employment Agreement (the "**Agreement**") is entered into as of June 13, 2011 (the "**Effective Date**") by and between AVI BioPharma, Inc. (the "**Company**"), and Edward M. Kaye, M.D. ("**Executive**").

1. Duties and Scope of Employment.

(a) Positions and Duties. As of June 20, 2011 (the "**Start Date**"), Executive will serve as the Company's Senior Vice President and Chief Medical 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 $130,000 (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 (15^{th}) day of the third (3^{rd}) 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 850,000 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 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 Company and Executive.

7. Work Location/Corporate Housing. Executive will not be required to relocate near either the Company's Bothell, Washington or Corvallis, Oregon facilities; provided, however, that Executive must spend no less than one-third of all business days (excluding business days spent traveling) in a calendar year at either the Company's Bothell, Washington or Corvallis, Oregon facilities (the "**In-Person Days**"). The number of required In-Person Days shall be pro-rated for

calendar year 2011 based on Executive's Start Date. For purposes of this section, "business days" shall mean all Mondays, Tuesdays, Wednesdays, Thursdays and Fridays, excluding any days designated as holidays according to the Company's employee intranet site. The Company will reimburse Executive for reasonable travel, lodging or other business expenses incurred by Executive in connection with the In-Person Days, in accordance with the Company's expense reimbursement policy as in effect from time to time.

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 (60^{th}) 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 (60^{th}) 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; or (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.

(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 Executive's 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/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 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 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 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: June 13, 2011
Title: President and Chief Executive Officer

EXECUTIVE:

/s/ Edward M. Kaye　　Date: June 13, 2011
EDWARD M. KAYE, M.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.

August 8, 2011

/s/ Christopher Garabedian

Christopher Garabedian
President and Chief Executive Officer
(Principal Executive and Financial Officer)

EXHIBIT 31.2

CERTIFICATION

I, Melinda K. Miles, 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.

August 8, 2011

/s/ Melinda K. Miles

Melinda K. Miles,
Controller
(Principal Accounting 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 June 30, 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.

August 8, 2011

/s/ Christopher Garabedian

Christopher Garabedian,
President and Chief Executive Officer
(Principal Executive and Financial 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, Melinda K. Miles, 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 June 30, 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.

August 8, 2011

/s/ Melinda K. Miles

Melinda K. Miles,
Controller
(Principal 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.