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

FORM 10-Q

(Mark One)

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

For the quarterly period ended June 30, 2009

OR

o TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE EXCHANGE ACT

For the transition period from to

Commission file number 001-14895

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

Oregon	**93-0797222**
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification No.)
4575 SW Research Way, Suite 200, Corvallis, Oregon	**97333**
(Address of principal executive offices)	(Zip Code)

Issuer's telephone number, including area code: **541-753-3635**

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

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 o No o

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

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

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

Indicate the number of shares outstanding of each of the issuer's classes of common stock, as of the latest practicable date: 85,725,709 outstanding at August 8, 2009.

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

	June 30, 2009	December 31, 2008
Assets		
Current Assets:		
Cash and cash equivalents	$ 20,037	$ 11,192
Short-term securities—available-for-sale	168	282
Accounts receivable	3,360	4,971
Other current assets	764	599
Total Current Assets	24,329	17,044
Property and Equipment, net of accumulated depreciation and amortization of $13,492 and $12,919	4,758	5,189
Patent Costs, net of accumulated amortization of $1,891 and $1,927	3,452	3,268
Other assets	78	35
Total Assets	$ 32,617	$ 25,536
Liabilities and Shareholders' Equity		
Current Liabilities:		
Accounts payable	$ 1,506	$ 2,014
Accrued employee compensation	974	1,306
Long-term debt, current portion	76	74
Warrant liability	21,387	1,254

Deferred revenue	2,128	2,190
Other liabilities	217	450
Total Current Liabilities	26,288	7,288
Commitments and Contingencies		
Long-term debt, non-current portion	1,962	2,001
Other long-term liabilities	579	515
Shareholders' Equity:		
Preferred stock, $.0001 par value, 20,000,000 shares authorized; none issued and outstanding	—	—
Common stock, $.0001 par value, 200,000,000 shares authorized; 85,725,709 and 71,101,738 issued and outstanding	9	7
Additional paid-in capital	274,684	266,035
Accumulated other comprehensive income Deficit accumulated during the development stage	(270,905)	(250,310)
Total Shareholders' Equity	3,788	15,732
Total Liabilities and Shareholders' Equity	$ 32,617	$ 25,536

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,		Six months ended June 30,		July 22, 1980 (Inception) through
	2009	2008	2009	2008	June 30, 2009
Revenues from license fees, grants and research contracts	$ 2,945	$ 4,983	$ 6,095	$ 10,608	$ 48,319
Operating expenses:					
Research and development	5,804	7,678	10,299	14,581	216,335
General and administrative	2,206	2,184	4,426	4,737	69,750
Acquired in-process research and development	—	—	—	9,916	29,461
	8,010	9,862	14,725	29,234	315,546
Other income (loss):					
Interest (expense) income and other loss, net	(31)	81	(15)	248	8,762
(Increase) decrease on warrant liability	(14,572)	3,047	(11,950)	1,613	698
Realized gain on sale of short-term securities— available-for-sale	—	—	—	—	3,863
Write-down of short-term securities— available-for-sale	—	—	—	—	(17,001)
	(14,603)	3,128	(11,965)	1,861	(3,678)
Net loss	$ (19,668)	$ (1,751)	$ (20,595)	$ (16,765)	$ (270,905)
Net loss per share - basic and diluted	$ (0.23)	$ (0.02)	$ (0.25)	$ (0.25)	
Weighted average number of common shares outstanding for computing basic and diluted loss per share (in thousands)	85,664	70,986	83,235	68,154	

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,		For the Period July 22, 1980 (Inception) through
	2009	2008	June 30, 2009

Cash flows from operating activities:			
Net loss	$ (20,595)	$ (16,765)	$ (270,905)
Adjustments to reconcile net loss to net cash flows used in operating activities:			
Depreciation and amortization	723	697	17,026
Loss on disposal of assets	221	1	1,179
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	—	—	800
Issuance of common stock and warrants to vendors	—	561	2,903
Compensation expense on issuance of common stock and partnership units	105	134	1,133
Stock-based compensation	976	2,217	17,368
Conversion of interest accrued to common stock	—	—	8
Acquired in-process research and development	—	9,916	29,461
(Increase) decrease on warrant liability	11,950	(1,613)	(698)
(Increase) decrease in:			
Accounts receivable and other current assets	1,446	188	(4,040)
Other assets	—	—	(35)
Net (decrease) increase in accounts payable, accrued employee compensation, and other liabilities	(831)	(973)	4,131
Net cash used in operating activities	(6,005)	(5,637)	(188,531)
Cash flows from investing activities:			
Purchase of property and equipment	(142)	(248)	(17,080)
Patent costs	(555)	(354)	(6,735)
Purchase of marketable securities	114	(5)	(112,872)
Sale of marketable securities	—	—	117,613
Acquisition costs	—	(12)	(2,389)
Net cash used in investing activities	(583)	(619)	(21,463)
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	15,513	44	230,610
Repayments of long-term debt	(37)	(81)	(150)
Buyback of common stock pursuant to rescission offering	—	—	(289)
Withdrawal of partnership net assets	—	—	(177)
Investment in other LT assets	(43)	—	(43)
Issuance of convertible debt	—	—	80
Net cash provided by (used in) financing activities	15,433	(37)	230,031
Increase (decrease) in cash and cash equivalents	8,845	(6,293)	20,037
Cash and cash equivalents:			
Beginning of period	11,192	24,803	—
End of period	$ 20,037	$ 18,510	$ 20,037
SUPPLEMENTAL DISCLOSURE OF CASH FLOW INFORMATION:			
Cash paid during the year for interest	$ 48	$ 33	$ 256
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	$ —	$ —	$ 545
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	$ 8,075
Assumption of liabilities for Ercole assets	$ —	$ 2,124	$ 2,124
Issuance of common stock and warrants in satisfaction of employee bonuses	$ 239	$ —	$ 239

See accompanying notes to financial statements.

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PART I — FINANCIAL INFORMATION

Item 1. Financial Statements.

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

Note 1. Basis of Presentation

The financial information included herein for the six-month period ended June 30, 2009 and 2008 and the financial information as of June 30, 2009 is unaudited; however, such information reflects all adjustments consisting only of normal recurring adjustments, which, in the opinion of management, are necessary for a fair presentation of the financial position, results of operations and cash flows for the interim periods. The financial information as of December 31, 2008 is derived from AVI BioPharma, Inc.'s (the "Company's") Form 10-K. The interim financial statements should be read in conjunction with the financial statements and the notes thereto included in the Company's Form 10-K. 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 Company's net loss, assets, liabilities, shareholders' equity or cash flows.

Estimates and Uncertainties. The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America 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 revenues and expenses during the reporting period. Actual results could differ from those estimates.

Commitments and Contingencies. In the normal course of business, the Company may 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 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. SFAS No. 157, "Fair Value Measurements" (SFAS No. 157), specifies 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. These two types of inputs have created the following fair-value hierarchy:

Level 1—Quoted prices for identical instruments in active markets;

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Level 2—Quoted prices for similar instruments in active markets, quoted prices for identical or similar instruments in markets that are not active, and model-derived valuations in which all significant inputs and significant value drivers are observable in active markets; and

Level 3—Valuations derived from valuation techniques in which one or more significant value drivers are unobservable.

The Company's assets measured at fair value on a recurring basis consisted of the following as of June 30, 2009:

	Fair Value Measurement as of June 30, 2009			
(in thousands)	Total	Level 1	Level 2	Level 3
Short-term securities—available-for-sale	$ 168	$ 168	—	—
Total	$ 168	$ 168	$ —	$ —

The Company's 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, 2009			
(in thousands)	Total	Level 1	Level 2	Level 3
Warrant Liability	$ 21,387	—	—	$ 21,387
Total	$ 21.387	$ —	$ —	$ 21,387

A reconciliation of the change in value of the Company's warrant liability for the six months ended June 30, 2009 is as follows:

(in thousands)	Fair Value Measurements Using Significant Unobservable Inputs (Level 3)
Balance at January 1, 2009	$ 1,254
Total increase in liability included in earnings	11,950
Issuances	8,183
Balance at June 30, 2009	$ 21,387
The increase in the liability relating to warrants still held at June 30, 2009	$ (11,950)

The carrying amounts reported in the balance sheets for cash and cash equivalents, 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.

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Note 3. Revenue Recognition

Government Research Contract Revenue. The Company recognizes revenues from federal research contracts during the period in which the related expenditures are incurred. The Company presents these revenues and related expenses gross in the consolidated financial statements in accordance with EITF 99-19 "*Reporting Revenue Gross as a Principal versus Net as an Agent*."

License Arrangements. License arrangements may consist of non-refundable upfront license fees, data transfer fees, research reimbursement payments, exclusive licensed rights to patented or patent pending compounds, technology access fees, various performance or sales milestones and future product royalty payments. Some of these arrangements are multiple element arrangements.

The Company defers recognition of non-refundable upfront fees if it has 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 Company performance under the other elements of the arrangement. In addition, if the Company has continuing involvement through research and development services that are required because its know-how and expertise related to the technology is proprietary to the Company, or can only be performed by the Company, then such up-front fees are deferred and recognized over the period of continuing involvement. At June 30, 2009, the Company had deferred revenue of $2.1 million, which represents up-front fees received from third parties pursuant to certain contractual arrangements. The Company will recognize the revenue from these contracts upon the achievement of certain performance milestones, as specified in the agreements.

Payments related to substantive, performance-based milestones in a research and development arrangement are recognized as revenue upon the achievement of the milestones as specified in the underlying agreements when they represent the culmination of the earnings process.

Note 4. Patents

Patent costs consist primarily of legal and filing fees incurred to file patents on proprietary technology developed by the Company. Patent costs are amortized on a straight-line basis over the shorter of the estimated economic lives or the legal lives of the patents, generally 17 years.

Note 5. Acquisition of Ercole

On March 20, 2008, the Company acquired all of the stock of Ercole Biotech, Inc. ("Ercole") in exchange for 5,811,721 shares of AVI common stock. The transaction included the assumption of approximately $1.8 million in liabilities of Ercole. As a result of the transfer, Ercole became and remains a wholly owned subsidiary of the Company. The AVI common stock was valued at approximately $8.4 million. AVI also issued warrants to purchase AVI stock to settle certain outstanding warrants held in Ercole, which were valued at $436,535. These warrants are classified in equity. The acquisition was aimed at consolidating AVI's position in directed alternative RNA splicing therapeutics. Ercole and the Company had been collaborating since 2006 to develop drug candidates, including AVI-4658, currently in clinical testing in the United Kingdom for the treatment of Duchenne muscular dystrophy. Ercole has other ongoing discovery research programs.

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The total estimated purchase price of $10.3 million has been allocated as follows:

Cash	$	54,000
A/R	$	76,000
Prepaid Expenses	$	7,000
Fixed Assets	$	10,000
Patents	$	190,000
Acquired In-Process Research and Development	$	9,916,000

The pending patents acquired as part of the Ercole acquisition have an expected expiration date of 2026. Acquired in-process research and development consists of other discovery research programs in areas including beta thalassemia and soluble tumor necrosis factor receptor. As these programs were in development at the time of acquisition, there were significant risks associated with completing these projects, and there were no alternative future uses for these projects, the associated value has been considered acquired in-process research and development.

Ercole has been a development stage company since inception and does not have a product for sale. The Company has retained a limited number of Ercole employees and plans on incorporating in-process technology of Ercole into the Company's processes. The acquisition of Ercole did not meet the definition of a business under EITF 98-3, "Determining Whether a Nonmonetary Transaction Involves Receipt of Productive Assets or of a Business," and, therefore, was accounted for as an asset acquisition.

Note 6. Other Current Assets

Amounts included in other current assets are as follows:

(in thousands)	June 30, 2009	December 31, 2008
Prepaid expenses	$ 385	$ 316
Prepaid rents	98	—
Restricted cash	281	283
Other current assets	$ 764	$ 599

Starting in April 2006, the Company was required to pledge $150,000 as collateral for company credit cards issued to certain employees. Starting in April 2007 the Company was required to pledge $125,000 as collateral for payments on long-term debt. The Company classifies these amounts as restricted cash. As of June 30, 2009, restricted cash, including accrued interest, was $281,000. The remaining components of other current assets include normally occurring prepaid expenses and rents.

Note 7. Liquidity

The Company is in the development stage. Since its inception in 1980 through June 30, 2009, the Company has incurred losses of approximately $271 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 revenues from product sales will be achieved. Moreover, even if the Company does achieve revenues from product sales, the Company expects to incur operating losses over the next several years.

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The financial statements have been prepared assuming that the Company will continue as a going concern. The Company's ability to achieve a profitable level of operations in the future will depend in large part on completing product development of its antisense products, obtaining regulatory approvals for such products, and bringing these products to market. During the period required to develop these products, the Company may require substantial additional financing. There can be no assurance that such financing will be available when needed or that the Company's planned products will be commercially successful. The Company believes it has sufficient cash to fund operations at least through the following twelve months, exclusive of future receipts from billings on existing government contracts. For 2009, the Company expects expenditures for operations, net of government funding, including collaborative efforts and GMP facilities to be approximately $10 to $12 million. This could increase if the Company undertakes additional collaborative efforts. However, if necessary in 2009, the Company believes it can reduce its expenditures because a significant amount of its costs are variable. Those estimated expenditures include amounts necessary to fulfill the Company's obligations under its various collaborative, research and licensing agreements during 2009. The Company believes it will receive additional funding from government and other sources to pursue the development of its product candidates, and has assumed certain revenues from these awards in providing this guidance. Should the Company not receive the additional funding, or should the timing be delayed, it may have a significant negative impact on the Company's guidance.

In December 2006, the Company announced the execution of a two-year $28 million research contract with the Defense Threat Reduction Agency (DTRA), an agency of the United States Department of Defense (DoD). The contract is directed toward funding the Company's development of antisense therapeutics to treat the effects of Ebola, Marburg and Junin hemorrhagic viruses, which are seen by DoD as potential biological warfare and bioterrorism agents. In May 2009, the Company received an amendment from DTRA to extend the contract performance period to November 29, 2009 and a cost modification of an additional $5.9 million, increasing the total contract amount to $34.0 million. During the three month periods ended June 30, 2009 and 2008, the Company recognized $1.3 million and $3.9 million, respectively, in research contract revenue from this contract. During the six month periods ended June 30, 2009 and 2008, the Company recognized $3.1 million and $8.6 million, respectively, in research contract revenue from this contract. To date, the Company has recognized revenues of $27.9 million from this contract. Funding of the remainder of the contract is anticipated in 2009.

In January 2006, the Company announced that the final version of the 2006 defense appropriations act had been approved, which included an allocation of $11.0 million to fund the Company's ongoing defense-related programs. Net of government administrative costs, it is anticipated that the Company will receive up to $9.8 million under this allocation. The Company's technology is expected to be used to continue developing therapeutic agents against Ebola, Marburg and dengue viruses, as well as to continue developing countermeasures for anthrax exposure and antidotes for ricin toxin. The Company has received signed contracts for all of these projects. The Company expects that funding under these signed contracts will be completed over the next 12 months. During the three month periods ended June 30, 2009 and 2008, the Company recognized $0.2 million and $1.6 million, respectively, in research contract revenue from these contracts. During the six month periods ended June 30, 2009 and 2008, the Company recognized $1.6 million and $1.9 million, respectively, in research contract revenue from this contract. To date, the Company has recognized revenues of $8.5 million on these contracts. Funding of the remainder of these contracts is anticipated in 2009.

In May 2009, the Company entered into a contract with the U.S. Defense Threat Reduction Agency ("DTRA") to develop swine flu drugs. Under this contract, DTRA will pay up to $5.1 million to the Company for the work to be performed by the Company. The work will involve the application of the Company's proprietary PMO and PMOplus antisense chemistry and the Company will conduct preclinical development of at least one drug candidate and demonstrate it is effective by testing it on animals. During the three month period ended June 30, 2009, the Company recognized $0.4 million in revenue under this contract.

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Also in May 2009, the Company entered into a $2.5 million contract with Children's National Medical Center in Washington, D.C. to support preclinical studies in the development of AVI-4658 for treatment of Duchenne muscular dystrophy. The work will be conducted with Children's National collaborators Eric Hoffman, Ph.D., an authority on DMD and Professor of Pediatrics, and Edward Connor, M.D., Director, Office of Investigational Therapeutics and Professor of Pediatrics. AVI will serve as a subcontractor to a grant awarded to Children's National by the U.S. Department of Defense. During the second quarter ended June 30, 2009, the Company recognized $1.0 million in revenue under this contract.

In June 2009, the Company and Charley's Fund, Inc. ("Charley's Fund"), a nonprofit organization that funds drug discovery and development initiatives specific to Duchenne muscular dystrophy ("DMD"), entered into the First Amendment to an existing Sponsored Research Agreement (the "Amendment"). The Amendment pertains to certain provisions of the Sponsored Research Agreement by and between the Company and Charley's Fund entered into effective October 12, 2007 (the "Agreement"). Under the terms of the Amendment, the Company was awarded an additional $3 million in sponsored research funds, for a total of $5 million from Charley's Fund to support a new product development program using proprietary exon skipping technologies developed by the Company to overcome the effects of certain genetic errors in the dystrophin gene.

The likelihood of the long-term success of the Company must be considered in light of the expenses, difficulties and delays frequently encountered in the development and commercialization of new pharmaceutical products, competitive factors in the marketplace as well as the complex regulatory environment in which the Company operates. There can be no assurance that the Company will ever achieve significant revenues or profitable operations.

Note 8. Stock Compensation

Stock-based compensation costs are generally based on the fair value calculated from the Black-Scholes option-pricing model on the date of grant for stock options and on the date of enrollment for the Plan. The fair value of stock grants is amortized as compensation expense on a straight-line basis over the vesting period of the grants. Stock options granted to employees are service-based and typically vest over three years.

The fair market 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 weighted average assumptions:

Three and Six Months Ended June 30,	2009	2008
Risk-free interest rate	1.2%-1.4%	1.9%-4.4%
Expected dividend yield	0%	0%
Expected lives	9.0 years	3.6-9.1 years
Expected volatility	92.0%-92.8%	81.0%-90.6%

The risk-free interest rate is estimated using an average of treasury bill interest rates. 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 and considers factors such as future events or circumstances that could impact volatility.

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As part of the requirements of SFAS 123R, 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.

A summary of the Company's stock option compensation activity with respect to the six months ended June 30, 2009 follows:

Stock Options	Shares	Weighted Average Exercise Price	Weighted Average Remaining Contractual Term	Aggregate Intrinsic Value
Outstanding at January 1, 2009	7,540,873	$ 3.34		
Granted	2,438,000	$ 1.03		
Exercised	(4,994)	$ 1.17		
Canceled or expired	(909,569)	$ 3.16		
Outstanding at June 30, 2009	9,064,310	$ 4.01	6.71	$ —
Vested at June 30, 2009 and expected to vest	8,984,772	$ 2.88	3.99	$ —
Exercisable at June 30, 2009	5,087,430	$ 4.09	4.77	$ —

The weighted average fair value per share of stock-based payments granted to employees during the six months ended June 30, 2009 and June 30, 2008 was $0.87 and $1.04, respectively. During the same periods, the total intrinsic values of stock options exercised were $1.17 and $1.31. The total fair value of stock options that vested for the three and six month periods ended June 30, 2009, was $456,000 and $898,000, respectively. The total fair value of stock options that vested for the three and six months of 2008 was $607,000 and $1,484,000, respectively.

As of June 30, 2009, there was $2,874,000 of total unrecognized compensation cost related to non-vested share-based compensation arrangements granted under the Plan. These costs are expected to be recognized over a weighted-average period of 2.3 years. As of June 30, 2008, there was $3,449,000 of total unrecognized compensation cost related to non-vested share-based compensation arrangements granted under the Plan. These costs were expected to be recognized over a weighted-average period of 2.0 years.

During the three and six month periods ended June 30, 2009, 4,994 stock options were exercised. The Company is obligated to issue shares reserved under the 2002 Equity Incentive Plan upon the exercise of stock options. The Company does not currently expect to repurchase shares from any source to satisfy its obligations under the Plan.

The following are the stock-based compensation costs recognized in the Company's statements of operations:

(in thousands)	Three Months Ended June 30, 2009	Six Months Ended June 30, 2009
Research and development	$ 272	$ 550
General and administrative	184	348
Total	$ 456	$ 898

(in thousands)	Three Months Ended June 30, 2008	Six Months Ended June 30, 2008
Research and development	$ 387	$ 891
General and administrative	220	593
Total	$ 607	$ 1,484

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The 2000 Employee Stock Purchase Plan (ESPP) provides that eligible employees may contribute, through payroll deductions, of up to 10% of their cash compensation toward the purchase of the Company's Common Stock at 85% of the fair market value at specific dates. On January 1, 2006, the Company adopted SFAS 123R, which requires the measurement and recognition of compensation expense for all share-based payment awards made to the Company's

employees and directors related to the ESPP, based on estimated fair values. During the three month and six month periods ended June 30, 2009 and 2008, the total compensation expense for participants in the ESPP was immaterial.

In the three month period ended June 30, 2009, the Company granted 25,000 shares of restricted stock to members of its Board of Directors. These shares vest over a period of one year. During the three and six month periods ended June 30, 2009, the Company recognized compensation expense related to these shares of $0 and $3,000, respectively.

Also in the three month period ended June 30, 2009, the Company granted 100,000 shares of restricted stock to its Vice President of Business Development. These shares vest upon the achievement of certain performance milestones. During the three and six month periods ended June 30, 2009, the Company did not recognize any compensation expense related to these shares as the achievement of the performance milestones was not considered probable.

In the three month period ended March 31, 2009, the Company granted 60,000 shares of restricted stock to its Chief Medical Officer. These shares vest over a period of 181 days. During the three and six month periods ended June 30, 2009 the Company recognized compensation expense related to these shares of $41,000 and $70,000, respectively.

In the three month period ended March 31, 2008, the Company granted 333,000 shares of restricted stock to its new Chief Executive Officer. Of these shares, 100,000 vested immediately and the remaining 233,000 vest over a period of four years. During the three month periods ended June 30, 2009 and 2008, the Company recognized compensation expense related to these shares of $16,000 and $118,000, respectively. During the six month period ended June 30, 2009 and 2008, the Company recognized compensation expense related to these shares of $35,000 and $134,000, respectively.

The Company records the fair value of stock options granted to non-employees in exchange for services in accordance with EITF 96-18, "*Accounting for Equity Instruments that are Issued to Other Than Employees for Acquiring, or in Conjunction with Selling, Goods or Services*." The fair value of the options granted is expensed when the measurement date is known. The performance for services was satisfied on the grant date for stock options granted to non-employees.

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The total fair value of the options granted to non-employees during the three months ended June 30, 2009 and 2008 was $0 and $13,000 respectively, which was expensed to research and development.

The total fair value of the options granted to non-employees during the six months ended June 30, 2009 and 2008 was $78,000 and $117,000 respectively, which was expensed to research and development.

Note 9. Warrants

Certain of the Company's warrants issued in connection with financing arrangements are classified as liabilities in accordance with EITF 00-19, "*Accounting for derivative financial instruments indexed to, and potentially settled in, a Company's own stock*." The fair market value of these warrants is recorded on the balance sheet at issuance and marked to market at each financial reporting period. The change in the fair value of the warrants is recorded in the Statement of Operations as an (increase) decrease of the warrant liability and is estimated using the Black-Scholes option-pricing model with the following weighted average assumptions:

Three and Six Months Ended June 30,	2009	2008
Risk-free interest rate	0.2%-2.4%	2.2%-3.3%
Expected dividend yield	0%	0%
Expected lives	0.1-5.0 years	0.4-4.7 years
Expected volatility	83.2%-140.6%	63.6%-78.70%
Warrants classified as liabilities	22,645,157	9,607,866
Warrants classified as equity	2,129,530	4,694,530
Market value of stock at beginning of year	$ 0.66	$ 1.41
Market value of stock at end of period	$ 1.58	$ 1.84

The risk-free interest rate is estimated using an average of treasury bill interest rates. 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. The expected volatility is estimated using historical calculated volatility and considers factors such as future events or circumstances that could impact volatility.

For warrants classified as permanent equity in accordance with EITF 00-19, the fair value of the warrants is recorded as additional paid-in capital and no further adjustments are made. A summary of the Company's warrant activity with respect to the six months ended June 30, 2009 is as follows:

Warrants	Shares	Weighted Average Exercisable Price	Weighted Average Remaining Contractual Term
Outstanding at January 1, 2009	10,123,759	$ 8.54	
Granted (Note 12)	14,650,928	$ 1.17	
Canceled or expired	—	$ —	
Outstanding at June 30, 2009	24,774,687	$ 4.18	3.86

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Note 10. Earnings Per Share

Basic earnings per share ("EPS") is calculated using the weighted average number of common shares outstanding for the period and diluted EPS is computed using the weighted average number of common shares and dilutive common equivalent shares outstanding. Given that the Company is in a loss position, there is no difference between basic EPS and diluted EPS since the common stock equivalents would be antidilutive.

Three Months Ended June 30, (amounts in thousands, except per-share data)	2009	2008
Net loss	$ (19,668)	$ (1,751)
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	85,664	70,985
Dilutive effect of warrants and stock options after application of the treasury stock method	*	*
Weighted average number of common shares outstanding for computing diluted earnings per share	85,664	70,985
Net loss per share - basic and diluted	$ (0.23)	$ (0.02)

Six Months Ended June 30, (amounts in thousands, except per-share data)	2009	2008
Net loss	$ (20,595)	$ (16,765)
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	83,235	68,154
Dilutive effect of warrants and stock options after application of the treasury stock method	*	*
Weighted average number of common shares outstanding for computing diluted earnings per share	83,235	68,154
Net loss per share - basic and diluted	$ (0.25)	$ (0.25)

* Warrants and stock options to purchase 33,838,997 and 19,524,178 shares of common stock as of June 30, 2009 and 2008, respectively, were excluded from the earnings per share calculation as their effect would have been anti-dilutive.

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Note 11. Comprehensive Loss and Securities Available for Sale

For the three and six month periods ended June 30, 2009 and 2008, the Company's comprehensive loss was equal to the net loss.

Note 12. Equity Financing

On January 30, 2009, the Company closed a registered equity financing for net proceeds of $15.5 million with several institutional investors. The Company sold 14,224,202 shares of common stock at $1.16 per share, and also issued warrants for the purchase of 14,224,202 common shares at $1.16 per share. These warrants are exercisable starting July 30, 2009 and expire on July 30, 2014. In connection with the equity financing, the placement agent received a warrant for the purchase of an additional 426,726 common shares at $1.45 per share. This warrant is exercisable starting January 30, 2009 and expires on January 30, 2014. All of these warrants have been classified as liabilities as discussed in Note 9.

The Company plans to use the net proceeds from the offering to fund clinical trials for its lead product candidates, to fund the advancement of its pre-clinical programs, and for other research and development and general corporate purposes.

Note 13. Income Taxes

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, 2009 and at December 31, 2008, and has not recognized interest and/or penalties in the statement of operations for the three and six month periods ended June 30, 2009.

At June 30, 2009, the Company had net deferred tax assets of approximately $103 million. The deferred tax assets are primarily composed of federal and state tax net operating loss carryforwards, federal and state R&D 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 under Section 382 could limit the future use of its net operating loss and R&D credit carryforwards to offset future taxable income based on ownership changes and the value of the Company's stock.

Note 14. Recent Accounting Pronouncements

During the first fiscal quarter of 2009, the Financial Accounting Standards Board issued Staff Positions SFAS No. 157-4, "Determining Fair Value When the Volume and Level of Activity for the Asset or Liability has Significantly Decreased and the Identifying Transactions That Are Not Orderly", SFAS No. 115-2 and SFAS No. 124-2, "Recognition and Presentation of Other-Than-Temporary Impairments", and SFAS No. 107-1 and APB 28-1, "Interim Disclosures about Fair Value of Financial Instruments". These Staff Positions were issued to clarify the application of SFAS No. 157, "Fair Value Measurements" in the current economic environment,

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modify the recognition of other-than-temporary impairments of debt securities, and require companies to disclose the fair value of financial instruments in interim periods. The Staff Positions are effective for interim and annual periods ending after June 15, 2009, with early adoption permitted for periods ending after March 15, 2009, if all three Staff Positions or both the fair-value measurement and other-than-temporary impairment Staff Positions are adopted

simultaneously. The Company has adopted the Staff Positions in the second quarter of fiscal 2009, and there was no material impact on the Company's Financial Statements or related disclosures.

In June 2009, the Financial Accounting Standards Board (FASB) issued SFAS No. 168, "The FASB Accounting Standards Codification and the Hierarchy of Generally Accepted Accounting Principles — A Replacement of FASB Statement No. 162" (SFAS 168). SFAS 168 establishes the *FASB Accounting Standards Codification™* (the Codification) as the single source of authoritative U.S. generally accepted accounting principles (U.S. GAAP) recognized by the FASB to be applied by nongovernmental entities. Rules and interpretive releases of the SEC under authority of federal securities laws are also sources of authoritative U.S. GAAP for SEC registrants. SFAS 168 and the Codification are effective for financial statements issued for interim and annual periods ending after September 15, 2009. When effective, the Codification will supersede all existing non-SEC accounting and reporting standards. All other non-grandfathered non-SEC accounting literature not included in the Codification will become nonauthoritative. Following SFAS 168, the FASB will not issue new standards in the form of Statements, FASB Staff Positions, or Emerging Issues Task Force Abstracts. Instead, the FASB will issue Accounting Standards Updates, which will serve only to: (a) update the Codification; (b) provide background information about the guidance; and (c) provide the bases for conclusions on the change(s) in the Codification. The adoption of SFAS 168 will not have a material impact on the Company's consolidated financial statements.

In May 2009, the FASB issued Statement of Financial Accounting Standards (SFAS) No. 165, "Subsequent Events" (SFAS No. 165), which establishes the accounting for and disclosure of events that occur after the balance sheet date but before financial statements are issued or are available to be issued. It requires the Company to disclose the date through which subsequent events have been evaluated, as well as whether that date is the date the financial statements were issued or the date the financial statements were available to be issued. The Company adopted SFAS No. 165 during the second quarter. There was no material impact on the Company's financial statements.

In April 2009, the FASB issued FASB Staff Position (FSP) No. 115-2 and FAS 124-2, "Recognition and Presentation of Other-Than-Temporary Impairments" (FSP SFAS No. 115-2 and FAS 124-2), which requires the Company to disclose information for interim and annual periods that enables users of its financial statements to understand the types of available-for-sale and held-to-maturity debt and equity securities held, including information about investments in an unrealized loss position for which an other-than-temporary impairment has or has not been recognized. The provisions of FSP SFAS No. 115-2 and FAS 124-2 were adopted in the second quarter. There was no material impact on the Company's financial statements.

In April 2009, the FASB issued FSP No. FAS 107-1 and APB 28-1, "Interim Disclosures about Fair Value of Financial Instruments" (FSP SFAS No. 107-1 and APB 28-1), which requires publicly traded companies to include disclosures about the fair value of its financial instruments whenever it issues summarized financial information for interim reporting periods. The provisions of FSP SFAS No. 107-1 and APB 28-1 were adopted in the second quarter. There was no material impact on the Company's financial statements.

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Note 15. Subsequent Events

In July 2009, the Company entered into a lease agreement with BMR-3450 Monte Villa Parkway LLC relating to the lease of 19,108 square feet of laboratory and office space in Bothell, Washington. The Company anticipates that it will begin occupying this space in August 2009, and that it will relocate most of the Company's senior management to this facility. The term of the lease is approximately 63 months, although the Company has a one-time option to terminate the lease after 3 years' time upon payment of a termination fee. The Company will commence paying base rent of approximately $43,000 per month after approximately 3 months. The amount of base rent is subject to an annual increase of 3%.

The Company has evaluated all other subsequent events through August 10, 2009, the date of this filing, and determined there are no material recognized or unrecognized subsequent events.

In addition to the material agreement noted above, in July 2009, the Company entered into a collaboration agreement with Action Duchenne, a leading UK charity dedicated to increasing awareness, engendering action and raising funds to find a cure for Duchenne Muscular Dystrophy to support the acceleration of research and development for AVI's exon skipping candidate drugs for the treatment of DMD. The agreement has a one-year term, with an option to extend for additional years, and will provide approximately $1.2 million in support to AVI over the initial term for advancement of research, regulatory efforts and clinical trial recruitment.

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

This section should be read in conjunction with the same titled section contained in our Annual Report on Form 10-K as filed with the SEC for the year ended December 31, 2008 and the "Risk Factors" contained in the 10-K and this report.

Forward-Looking Information

The Financial Statements and Notes thereto should be read in conjunction with the following discussion. The discussion in this Form 10-Q contains certain forward-looking statements within the meaning of Section 27A of the Securities Act of 1933 and Section 21E of the Exchange Act. Forward-looking statements are identified by such words as "believe," "expect," "anticipate" and words of similar import. 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. Such forward-looking statements involve risks and uncertainties, including, but not limited to, the results of research and development efforts, the success of raising funds in the current offering or future offerings under our current shelf registration, the results of pre-clinical and clinical testing, the effect of regulation by FDA and other agencies, the impact of competitive products, product development, commercialization and technological difficulties, and other risks detailed in the Company's Securities and Exchange Commission filings, that could cause actual results to differ materially from the expected results reflected in such forward looking statements.

Overview

From our inception in 1980, we have devoted our resources primarily to fund our research and development efforts. We have been unprofitable since inception and, other than limited interest, license fees, grants and research contracts, we have had no material revenues from the sale of products or other sources, other than from government grants and research contracts, and we do not expect material revenues for the foreseeable future. We expect to continue to incur losses

for the foreseeable future as we continue our research and development efforts and enter additional collaborative efforts. As of June 30, 2009, our accumulated deficit was $271 million.

The net loss for the second quarter of 2009 was $19.7 million, or $(0.23) per share, compared with a net loss for the second quarter of 2008 of $1.8 million, or $(0.02) per share. The net loss for the second quarter of 2009 includes a non-cash expense for the warrant liability of $14.6 million compared to a gain of $3.0 million during the second quarter of 2008. For the six months ended June 30, 2009, the Company reported a net loss of $20.6 million, or $(0.25) per share, compared with a net loss for the comparable period in 2008 of $16.8 million, or $(0.25) per share. The net loss for the six months ended June 30, 2009 includes a non-cash expense for the warrant liability of $12.0 million compared to a gain of $1.6 million during the same period of 2008. The increase in the warrant liability is a non-cash expense and is the result of the increase in the Company's stock price subsequent to the issuance of the warrants as a part of the equity financing that closed in January 2009. The increase or decrease in the warrant liability fluctuates as the price of the Company's stock fluctuates.

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Results of Operations

Three Months Ended June 30, 2009 Compared to the Three Months Ended June 30, 2008

Revenues from license fees, grants and research contracts decreased to $2.9 million in the second quarter of 2009 from $5.0 million in the comparable period in 2008. The decrease in research contracts revenues was the result of the decline in revenues from government research contracts.

Operating expenses decreased to $8.0 million in the second quarter of 2009 from $9.9 million in the second quarter of 2008. Total operating expenses were lower as the result of lower research and development expenses.

Research and development expenses decreased to $5.8 million in the second quarter of 2009 from $7.7 million in the second quarter of 2008. This decrease was due primarily to decreases in research and development costs related to the government research contracts. Research and development expenses for the second quarter also include higher expenses for our Duchenne muscular dystrophy project. General and administrative expenses were flat at $2.2 million in the second quarter of 2009, from $2.2 million in the second quarter of 2008. Net interest income declined primarily due to declines in market rates of interest on the Company's interest-earning investments and the write off of abandoned patents.

The increase on warrant liability of $14.6 million is a non-cash expense and is the result of the increase in the Company's stock price subsequent to the issuance of warrants as a part of the equity financing that closed in January 2009. The decrease or increase on the warrant liability fluctuates as the market price of the Company's stock fluctuates.

Six Months Ended June 30, 2009 Compared to the Six Months Ended June 30, 2008

Revenues from license fees, grants and research contracts decreased to $6.1 million in the first six months of 2009 from $10.6 million in the comparable period in 2008. The decrease in research contracts revenues was the result of the decline in revenues from government research contracts.

Operating expenses decreased to $14.7 million in the first six months of 2009 from $29.2 million in the first six months of 2008. In the first six months of 2008, operating expenses included a one time charge of $9.9 million for acquired in-process research and development associated with the acquisition of Ercole Biotech, Inc. Operating expenses also decreased $4.3 million from lower research and development expenses.

Research and development expenses decreased to $10.3 million in the first six months of 2009 from $14.6 million in the first six months of 2008. This decrease was due primarily to decreases in research and development costs related to the government research contracts. Research and development in the first six months also include higher expenses for our Duchenne muscular dystrophy project.

General and administrative expenses decreased to $4.4 million in the first six months of 2009, from $4.7 million in the comparable period in 2008. The decrease in general and administrative expenses was due primarily to non-cash costs for stock compensation paid to Ercole executives related to the 2008 acquisition.

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Net interest income declined in the first six months of 2009 as compared to the same period in 2008, primarily due to declines in market rates of interest on the Company's interest-earning investments and the write off of abandoned patents.

The increase on warrant liability of $12.0 million is a non-cash expense and is the result of the increase in the Company's stock price subsequent to the issuance of warrants as a part of the equity financing that closed in January 2009. The decrease or increase on the warrant liability fluctuates as the market price of the Company's stock fluctuates.

Liquidity and Capital Resources

We have financed our operations since inception primarily through sales of common stock and other forms of equity totaling $230.6 million and from revenues from license fees, grants and research contracts of $48.3 million from various sources. In January 2009, we raised net proceeds of $15.5 million in financing through the sale of 14,224,202 shares of common stock pursuant to a registered direct offering to a select group of institutional investors. The investors also received warrants to purchase 14,224,202 shares of the Company's common stock. These warrants are exercisable starting July 30, 2009 and expire on July 30, 2014. In addition, the placement agent used for the equity financing received a warrant for the purchase of an additional 426,726 common shares at $1.45 per share. This warrant is exercisable starting January 30, 2009 and expires on January 30, 2014. We plan to use the net proceeds from the offering to fund clinical trials for our lead product candidates, to fund the advancement of our pre-clinical programs, and for other research and development and general corporate purposes.

We expect to continue to incur losses as we continue to expand our research and development activities and related regulatory work and increase our collaborative efforts. For 2009, we expect our expenditures for operations, net of government funding, including our collaborative efforts, and our GMP facilities to be approximately $10 to $12 million. This cost could increase if we undertake additional collaborative efforts. However, if necessary in 2009, we believe we can reduce our expenditures because a significant amount of our costs are variable. Those estimated expenditures include amounts necessary to fulfill our obligations under our various collaborative, research and licensing agreements during 2009. The Company believes it will receive additional funding from government and other sources to pursue the development of its product candidates, and has assumed certain revenues from these awards in providing this guidance. Should the Company not receive the additional funding, or should the timing be delayed, it may have a significant negative impact on the Company's guidance.

Because of the cost (up to $1.7 billion) and timeframe (up to 15 years) generally associated with developing a potential drug or pharmaceutical product to the point of approval by the FDA or other regulatory agencies for human use, our business strategy is to develop our products up to Phase II human clinical trials and then look for third parties to fund further development of the product and to market the product through strategic partnerships, license agreements or other relationships. We also look for collaborative and other efforts, such as our relationship with Cook, to utilize other technology to increase the potential variety and reduce the cost of identifying products. We believe that this strategy will reduce the potential costs we would otherwise incur in developing a product and bringing it to market. Our expected costs under our various contracts and for various drug development products can be estimated for the next year or two, but not much beyond that due to the uncertainty of clinical trial results, research results and the timing of securing one or more partners to develop and market a potential drug.

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Because of the various factors noted above and the expectation that, until we establish revenue sources, we will license or jointly develop our prospective products to or with strategic partners, we review, at least annually, each research program and clinical trial, based on results and progress during the prior year and estimate our needs for that program or trial for the coming year, making adjustments based on the progress of the program during the year.

In December 2006, the Company announced the execution of a two-year $28 million research contract with the Defense Threat Reduction Agency (DTRA), an agency of the United States Department of Defense (DoD). The contract is directed toward funding the Company's development of antisense therapeutics to treat the effects of Ebola, Marburg and Junin hemorrhagic viruses, which are seen by DoD as potential biological warfare and bioterrorism agents. In May 2009, the Company received an amendment from DTRA to extend the contract performance period to November 29, 2009 and a cost modification of an additional $5.9 million, increasing the total contract amount to $34.0 million. During the three month periods ended June 30, 2009 and 2008, the Company recognized $1.3 million and $3.9 million, respectively, in research contract revenue from this contract. During the six month periods ended June 30, 2009 and 2008, the Company recognized $3.1 million and $8.6 million, respectively, in research contract revenue from this contract. To date, the Company has recognized revenues of $27.9 million from this contract. Funding of the remainder of the contract is anticipated in 2009.

In January 2006, the Company announced that the final version of the 2006 defense appropriations act had been approved, which included an allocation of $11.0 million to fund the Company's ongoing defense-related programs. Net of government administrative costs, it is anticipated that the Company will receive up to $9.8 million under this allocation. The Company's technology is expected to be used to continue developing therapeutic agents against Ebola, Marburg and dengue viruses, as well as to continue developing countermeasures for anthrax exposure and antidotes for ricin toxin. The Company has received signed contracts for all of these projects. The Company expects that funding under these signed contracts will be completed over the next 12 months. During the three month periods ended June 30, 2009 and 2008, the Company recognized $0.2 million and $1.6 million, respectively, in research contract revenue from these contracts. During the six month periods ended June 30, 2009 and 2008, the Company recognized $1.6 million and $1.9 million, respectively, in research contract revenue from this contract. To date, the Company has recognized revenues of $8.5 million on these contracts. Funding of the remainder of these contracts is anticipated in 2009.

In May 2009, the Company entered into a contract with the U.S. Defense Threat Reduction Agency ("DTRA") to develop swine flu drugs. Under this contract, DTRA will pay up to $5.1 million to the Company for the work to be performed by the Company. The work will involve the application of the Company's proprietary PMO and PMOplus antisense chemistry and the Company will conduct preclinical development of at least one drug candidate and demonstrate it is effective by testing it on animals. During the three month period ended June 30, 2009, the Company recognized $0.4 million in revenue under this contract.

Also in May 2009, the Company entered into a $2.5 million contract with Children's National Medical Center in Washington, D.C. to support preclinical studies in the development of AVI-4658 for treatment of Duchenne muscular dystrophy. The work will be conducted with Children's National collaborators Eric Hoffman, Ph.D., an authority on DMD and Professor of Pediatrics, and Edward Connor, M.D., Director, Office of Investigational Therapeutics and Professor of Pediatrics. AVI will serve as a subcontractor to a grant awarded to Children's National by the U.S. Department of Defense. During the three month period ended June 30, 2009, the Company recognized $1.0 million in revenue under this contract.

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In June 2009, the Company and Charley's Fund, Inc. ("Charley's Fund"), a nonprofit organization that funds drug discovery and development initiatives specific to Duchenne muscular dystrophy ("DMD"), entered into the First Amendment to an existing Sponsored Research Agreement (the "Amendment"). The Amendment pertains to certain provisions of the Sponsored Research Agreement by and between the Company and Charley's Fund entered into effective October 12, 2007 (the "Agreement"). Under the terms of the Amendment, the Company was awarded an additional $3 million in sponsored research funds, for a total of $5 million from Charley's Fund to support a new product development program using proprietary exon skipping technologies developed by the Company to overcome the effects of certain genetic errors in the dystrophin gene.

The likelihood of the long-term success of the Company must be considered in light of the expenses, difficulties and delays frequently encountered in the development and commercialization of new pharmaceutical products, competitive factors in the marketplace as well as the complex regulatory environment in which the Company operates. There can be no assurance that the Company will ever achieve significant revenues or profitable operations.

Our cash, cash equivalents and short-term securities were $20.2 million at June 30, 2009, compared with $11.5 million at December 31, 2008. The increase of $8.7 million was due primarily to net proceeds of $15.5 million from the sale of common stock and issuance of stock warrants as part of the equity financing

that closed in January 2009. This cash from financing activities was partially offset by cash used in operations of $6.0 million and costs related to acquisitions of patents and fixed assets of $0.7 million.

We do not expect any material revenues in 2009 from our business activities except for revenues from U.S. government contracts and other agreements. We expect that our cash requirements for the next twelve months to be satisfied by existing cash resources and these revenues. To fund our operations beyond the next twelve months, we may need to raise additional capital. We will continue to look for opportunities to finance our ongoing activities and operations through accessing corporate partners or the public equity markets, as we currently have no credit facility, and do not intend to seek one.

Critical Accounting Policies and Estimates

The discussion and analysis of the Company's financial condition and results of operations are based upon its financial statements, which have been prepared in accordance with accounting principles generally accepted in the United States. The preparation of these financial statements requires the Company to make estimates and judgments that affect the reported amounts of assets, liabilities, revenues and expenses and related disclosure of contingent assets and liabilities. The Company's critical accounting policies and estimates are consistent with the disclosure in the Company's Form 10-K, with the exception of FIN 48 (see Note 13).

Item 3. Quantitative and Qualitative Disclosures about Market Risk

There has been no material change in the Company's market risk exposure since the filing of our 2008 Annual Report on Form 10-K.

Item 4. Controls and Procedures

Evaluation of Disclosure Controls and Procedures

As of June 30, 2009, the Company carried out an evaluation, under the supervision and with the participation of its management, including its Chief Executive Officer and its Chief Financial Officer, of the effectiveness of the design and operation of its disclosure controls and procedures pursuant to Rule 13a-15(e) under the Securities Exchange Act of 1934. Based on this review of its disclosure controls and procedures, the Chief Executive Officer and the Chief Financial Officer have concluded that its disclosure controls and procedures are effective in timely alerting them to material information relating to the Company that is required to be included in our periodic SEC filings.

Changes in Internal Controls Over Financial Reporting

There were no significant changes in internal controls or in other factors that could significantly affect these controls subsequent to the date of their evaluation, including any corrective actions with regard to significant deficiencies and material weaknesses.

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PART II - OTHER INFORMATION

Item 1. Legal Proceedings.

None

Item 1A. Risk Factors.

Risks Affecting Future Operating Results

The following factors should be considered in evaluating our business and prospects for the future. If risks described below actually occur, our operating results and financial condition would likely suffer and the trading price of our common stock may fall, causing a loss of some or all of an investment in our common stock. In addition, there may be additional risks not known to us or understood by us, which may adversely affect our financial condition, results of operations, and the price of our stock.

If we fail to attract significant additional capital, we may be unable to continue to successfully develop our products.

Since we began operations, we have obtained operating funds primarily by selling shares of our common stock. Based on our current plans, we believe that current cash balances will be sufficient to meet our operating needs for the next twelve months. Furthermore, 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, competition and technological developments in the market. We may need funds sooner than currently anticipated.

If necessary, potential sources of additional funding could include strategic relationships public or private sales of shares of our stock, debt, or other arrangements. We may not be able to obtain additional funding when we need it on terms that will be acceptable to us or at all. If we raise funds by selling additional shares of our common stock or securities convertible into our common stock, the ownership interest of our existing shareholders will be diluted. If we were unable to obtain financing when needed, our business and future prospects would be materially adversely affected.

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Our products are in an early stage of research and development and may not be determined to be safe or effective.

We are in the early stages of clinical development with respect to our RNA therapeutics pharmaceutical products. We have devoted almost all of our resources to research and development of our product candidates, protecting our proprietary rights and establishing strategic alliances. Our potential products are in the pre-clinical or clinical stages of research and development and will require significant further research, development, clinical testing and regulatory clearances. We have no products available for sale and we do not expect to have any products available for sale for several years. Our products could be found to be ineffective or toxic, or could fail to receive necessary regulatory clearances. We have not received any significant revenues from the sale of products and we may not successfully develop marketable products that will increase sales and, given adequate margins, make us profitable. Third parties may develop superior or equivalent, but less expensive, products.

We rely on U.S. government contracts to support several important R&D programs.

We rely on U.S. government contracts and awards to fund several of our development programs, including those for the Ebola and Marburg viruses. The termination of one or more of these contracts, whether due to lack of funding, for convenience, or otherwise, or the occurrence of delays or product failures in connection with one or more of these contracts, could negatively impact our financial condition. Furthermore, we can give no assurance that we would be able to procure new U.S. government contracts to offset the revenues lost as a result of any termination of our contracts.

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. In the event that 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 sales under such a 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 accepted by the government. A termination arising out of our default could expose us to liability and have a negative impact on our ability to obtain future contracts.

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If we fail to receive necessary regulatory approvals, we will be unable to develop and commercialize our products.

All of our products are subject to extensive regulation by the United States Food and Drug Administration, or FDA, and by comparable agencies in other countries. The FDA and these agencies require new pharmaceutical products to undergo lengthy and detailed preclinical and clinical testing procedures and other costly and time-consuming compliance procedures. We do not know when, or if, we will be able to submit our products for regulatory review. Even if we submit a new drug application, there may be delays in obtaining regulatory approvals, if we obtain them at all. Sales of our products outside the United States will also be subject to regulatory requirements governing clinical trials and product approval. These requirements vary from country to country and could delay introduction of our products in those countries. We cannot assure you that any of our products will receive marketing approval from the FDA or comparable foreign agencies. We expect to develop the therapeutic product candidates to treat Ebola Virus and Marburg Virus under defined regulatory pathways using the Animal Rule mechanism. This mechanism has become available only relatively recently and has been infrequently used. This process has yet to be well tested and may present challenges for gaining final regulatory approval for these product candidates.

If we lose key personnel or are unable to attract and retain additional, highly skilled personnel required for our activities, our business will suffer.

The loss of key employees could significantly delay the achievement of our goals. Competition for qualified personnel in our industry is intense, and our success will depend on our ability to attract and retain highly skilled personnel. To date, we have been successful in attracting and retaining key personnel.

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 environment is highly competitive and competing intellectual property could limit our ability to protect our products.

Our success will depend on our existing patents and licenses (180 patents (domestic and foreign) issued or licensed to us and 185 (domestic and foreign) pending patent applications) and our ability to obtain additional patents in the future. We license patents from other parties for certain complementary technologies.

Some of our patents on core technologies expired in 2008, including for our basic PMO chemistry. Based on patented improvements and inventive additions to such core patents, however, we believe our patent protection for those products and other products extend beyond 2020.

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. We are aware of a patent that has issued that may provide the basis for the patent holder to assert that our drug AVI-4658 infringes on such patent. We intend to vigorously defend any such claim if it should be asserted and believe that we may be able to invalidate some or all of the claims covered by this patent. In any case, we believe that we have freedom to move forward with our ongoing clinical trials and drug development efforts for this drug candidate.

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Others may challenge our patents and, as a result, our patents could be narrowed or invalidated. The patent position of biotechnology firms generally is highly uncertain, involves complex legal and factual questions, and has recently been the subject of much litigation. No consistent policy has emerged from the United States Patent and Trademark Office (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 biotechnology patent applications at the USPTO and the approval or rejection of patents may take several years.

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 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. Any required license may not be available to us on acceptable terms, or at all. If we fail to obtain a license, our business might be materially adversely affected.

To help protect our proprietary rights in unpatented trade secrets, we require our employees, consultants and advisors to execute confidentiality 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.

We depend on our partners and contractors for critical functions. Therefore, if our collaborations or strategic relationships are unsuccessful, our business could be harmed.

Our strategic relationships are important to our success. The discovery, development and marketing of many of our key therapeutic products are or will be dependent in large part on the efforts of our strategic partners. The transactions contemplated by our agreements with strategic partners, including the equity purchases and cash payments, are subject to numerous risks and conditions. The occurrence of any of these events could severely harm our business.

We anticipate entering into relationships with larger pharmaceutical companies to conduct late stage clinical trials and to market our products. We also plan to use contract manufacturing for late stage clinical and commercial quantities of our products. We may be unable to enter into partnerships or other relationships, which could impede our ability to bring our products to market**.** Any such partnerships, if entered into at all, may be on less than favorable terms and may not result in the successful development or marketing of our products. If we are unsuccessful in establishing advantageous clinical testing, manufacturing and marketing relationships, we are not likely to generate significant revenues and become profitable.

To fully realize the potential of our products, including development, production and marketing, we may need to establish other strategic relationships.

We may get unexpected results from, or encounter challenges from our clinical studies.

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All clinical studies, including phase III or pivotal studies, need to be agreed with regulatory authorities beforehand and successfully executed. Preclinical as well as clinical studies are experiments designed to test a theory or hypothesis, and by their very nature, the result is unknown at the time the study is started. Sometimes unexpected results occur and the product does not demonstrate effectiveness (even though it might be effective), or an unexpected safety issue is encountered.

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

We incurred a net loss of $19.7 million in the second quarter of 2009 and $24.0 million for the year ended December 31, 2008. As of June 30, 2009, our accumulated deficit was $271 million. Our losses have resulted principally from expenses incurred in research and development of our technology and products and from selling, 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, complete development of our products, obtain regulatory approvals and market our products. It is uncertain when, if ever, we will become profitable.

Our ability to be successful against our competitors cannot be assured.

The biopharmaceutical industry is highly competitive, with a number of well-established firms performing leading-edge research for the development of new products to treat a wide range of diseases. These companies have obtained patents for their intellectual property rights that could preclude other companies from using similar technologies in their product development. Moreover, companies that are focused on the treatment of similar diseases are in effect competing for the same limited number of potential patients. Even if we are able to develop new products for market, there can be no assurance that we will be able to compete effectively or profitably against our competitors.

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

We believe we carry adequate insurance for our current product development research. In the future, commercial sale and use of our products will expose us to the risk of clinical trial claims. Although we intend to obtain product liability insurance coverage, product liability insurance may not continue to be available to us on acceptable terms and our coverage may not be sufficient to cover all claims against us. A product liability claim, even one without merit or for which we have substantial coverage, could result in significant legal defense costs, thereby increasing our expenses, lowering our earnings and, depending on revenues, potentially resulting in additional losses.

We use hazardous substances in our research activities.

We use organic and inorganic solvents and reagents in our clinical development that are customarily used in pharmaceutical development and synthesis. Some of these chemicals may be classified as hazardous substances, are flammable and, if exposed to human skin, can cause anything from irritation to severe burns.

We receive, store, use and dispose of such chemicals in compliance with all applicable laws with containment storage facilities and contained handling and disposal safeguards and procedures. We are routinely inspected by federal, state and local governmental and public safety agencies regarding our storage, use and disposal of such chemicals, including the federal Occupational, Safety and Health Agency ("OSHA"), the Oregon Department of Environmental Quality ("DEQ") and local fire departments, without any material noncompliance

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issues in such inspections to date. Based on our limited use of such chemicals, the nature of such chemicals and the safeguards undertaken by the Company for storage, use and disposal, we believe we do not have any material exposure for toxic tort liability. Further, the cost of such compliance is not a material cost in our operating budget. While we do not have toxic tort liability insurance at this time, we believe our current insurance coverage is adequate to cover most liabilities that may arise from our use of such substances. If we are wrong in any of our beliefs, we could incur a liability in certain circumstances that would be material to our finances and the value of an investment in our securities.

Risks Related to Share Ownership

Our right to issue preferred stock, our classified Board of Directors and Oregon Anti-Takeover laws may delay a takeover attempt and prevent or frustrate any attempt to replace or remove the then current management of the Company by shareholders.

Our authorized capital consists of 200 million shares of common stock and 20 million shares of preferred stock. Our Board of Directors, without any further vote by the shareholders, has the authority to issue preferred shares and to determine the price, preferences, rights and restrictions, including voting and dividend rights, of these shares. The rights of holders of any preferred shares that our Board of Directors may issue in the future may affect the rights of the holders of shares of common stock. For example, our Board of Directors may allow the issuance of preferred shares with more voting rights, preferential dividend payments or more favorable rights upon dissolution than the shares of common stock or special rights to elect directors.

In addition, we have a "classified" Board of Directors, which means that only one-half of our directors are eligible for election each year. Therefore, if shareholders wish to change the composition of our Board of Directors, it could take at least two years to remove a majority of the existing directors or to change all directors. Having a classified Board of Directors may, in some cases, delay mergers, tender offers or other possible transactions that may be favored by some or a majority of our shareholders and may delay or frustrate action by shareholders to change the then current Board of Directors and management.

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 acts may lengthen the period for a proxy contest or for a person to vote their shares to elect the majority of our Board and change management.

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

Historically, the market price of our stock has been highly volatile. The following types of announcements could have a significant impact on the price of our common stock: positive or negative results of testing and clinical trials by ourselves, strategic partners, or competitors; delays in entering into corporate partnerships; technological innovations or commercial product introductions by ourselves or competitors; changes in government regulations; developments concerning proprietary rights, including patents and litigation matters; public concern relating to the commercial value or safety of any of our products; financing or other corporate transactions; or general stock market conditions.

The significant number of our shares of Common Stock eligible for future sale may cause the price of our common stock to fall.

We have outstanding 85,725,709 shares of common stock as of June 30, 2009 and all are eligible for sale under Rule 144 or are otherwise freely tradeable. In addition:

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- Our employees and others hold options to buy a total of 9,064,310 shares of common stock, of which 5,087,430 options were exercisable at June 30, 2009. The options outstanding have exercise prices between $0.60 and $7.35 per share. The shares of common stock to be issued upon exercise of these options have been registered, and, therefore, may be freely sold when issued.

- There are outstanding warrants to buy 24,774,687 shares of common stock as of June 30, 2009 with exercise prices ranging from $.0003 to $35.63 per share. Other than warrants to purchase an aggregate of 445,985 shares of common stock issued to ISIS Pharmaceuticals, Inc. ("ISIS") in exchange for warrants to purchase shares of Ercole capital stock previously issued by Ercole to ISIS prior to the Company's acquisition of Ercole, all of the shares of common stock issuable upon exercise of outstanding warrants are registered for resale and may be freely sold when issued, subject to the limitations imposed by applicable securities laws.

- We may issue options to purchase up to an additional 771,606 shares of common stock as of June 30, 2009 under our stock option plans, which also will be fully saleable when issued except to the extent limited under Rule 144 for resales by our officers and directors.

- We are authorized to sell up to 43,202 shares of common stock under our Employee Stock Purchase Plan to our full-time employees, nearly all of whom are eligible to participate.

Sales of substantial amounts of shares into the public market could lower the market price of our common stock.

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. If a listed company fails to meet the $1.00 minimum bid price per share requirement for 30 consecutive days, it will receive a notice from NASDAQ mandating that the company achieve compliance with the minimum bid price per share listing requirement within 90 calendar days. Our stock price is currently above $1.00; however, our stock price was priced at $0.99 as recently as May 11, 2009. There can be no assurance that we will be able to maintain compliance with the minimum bid price per share requirement in the future.

On October 16, 2008, NASDAQ suspended the minimum bid price per share requirement and market value for publicly held shares requirements for all listed companies through August 2, 2009. Recently, NASDAQ announced that it would reinstate the minimum bid price per share requirement and market value for publicly held shares requirements for all listed companies on August 3, 2009. As of the date of this report, we meet these listing requirements.

In addition to the foregoing, if we are not listed on The NASDAQ Stock Market and/or if our public float remains below $75 million, we may be limited in our ability to file new shelf registration statements on SEC Form S-3 and/or to fully use one or more registration statements on SEC Form S-3. We have relied significantly on shelf registration statements on SEC Form S-3 for most of our financings in recent years, so any such limitations might have a material adverse effect on our ability to raise the capital we need.

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We do not expect to pay dividends in the foreseeable future.

We have never paid dividends on our shares of common stock and do not intend to pay dividends in the foreseeable future. Therefore, you should only invest in our common stock with the expectation of realizing a return through capital appreciation on your investment. You should not invest in our common stock if you are seeking dividend income.

Item 1B. Unresolved Staff Comments.

None.

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

None.

Item 3. Defaults Upon Senior Securities.

None

Item 3. Defaults Upon Senior Securities.

None.

Item 4. Submission of Matters to a Vote of Security Holders.

On May 19, 2009, at the Annual Meeting of the Company's Shareholders ("Annual Meeting"), the shareholders approved each of the proposals set forth in the Company's Proxy Statement dated April 14, 2009, briefly described below:

(i) The shareholders were requested to elect and elected the following individuals to the Board of Directors:

Nominee	For	Withheld
John C. Hodgman	69,396,944	2,141,402
K. Michael Forrest	52,041,694	19,496,652
Leslie Hudson, PhD	60,899,271	10,639,075
M. Kathleen Behrens, PhD	69,099,907	2,438,439

Besides the foregoing directors, the following directors whose term expires in 2010 continued as directors following the Annual Meeting: William Goolsbee, Gil Price, MD, Michael Casey and Christopher S. Henney, PhD, D.Sc.; and.

(ii) The shareholders were asked to ratify the selection of KPMG LLP as the Company's independent auditors. The proposal was approved by the shareholders, as 70,024,306 votes were cast for the proposal, 1,415,221votes were against and 98,819 votes abstained.

Item 5. Other Information.

None.

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Item 6. Exhibits

		Incorporated by Reference to Filings Indicated				
Exhibit No	Exhibit Description	Form	File No.	Exhibit	Filing Date	Filed Herewith
1.3	Engagement Letter dated January 28, 2009	8-K	1-14895	1.3	1/30/09	

	between the Company and Rodman & Renshaw, LLC					
3.1	Third Restated Articles of Incorporation of AntiVirals Inc.	SB-2	333-20513	3.1	5/29/97	
3.2	First Restated Bylaws of AVI BioPharma, Inc.	8-K	1-14895	3.5	2/7/08	
3.3	First Amendment to Third Restated Articles of Incorporation	8-K	0-22613	3.3	9/30/98	
3.4	Amendment to Article 2 of the Company's Third Restated Articles of Incorporation	DEF 14A	1-14895	N/A	4/11/02	
4.4	Form of Common Stock Purchase Warrant	8-K	1-14895	4.4	1/30/09	
10.72	Agreement between the Company and the US Defense Threat Reduction Agency dated May 5, 2009					X
10.73+	Employment Agreement dated May 19, 2009 by and between the Company and Paul Medeiros					X
10.74	Agreement between the Company and the US Defense Threat Reduction Agency dated May 28, 2009					X
10.75+	First Amendment to Sponsored Research Agreement between the Company and Charley's Fund, Inc. dated June 2, 2009					X
31.1	Certification of the Company's President and Chief Executive Officer, Leslie Hudson, Ph.D, pursuant to Section 302 of the Sarbanes-Oxley Act of 2002					X
31.2	Certification of Chief Financial Officer, J. David Boyle II, pursuant to Section 302 of the Sarbanes-Oxley Act of 2002					X
32	Certification of the Company's Chief Executive Officer, Leslie Hudson, Ph.D, and Chief Financial Officer, J. David Boyle II, pursuant to Section 906 of the Sarbanes-Oxley Act of 2002					X

Portions of the materials in the exhibits marked with a "+" have been omitted pursuant to a request for confidential treatment filed with the Securities and Exchange Commission. Omitted portions have been filed separately with the Securities and Exchange Commission.

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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 10, 2009

AVI BIOPHARMA, INC.

By: /s/ LESLIE HUDSON, Ph.D.
Leslie Hudson, Ph.D.
President, Chief Executive Officer and Director
(Principal Executive Officer)

By: /s/ J. DAVID BOYLE II
J. David Boyle II
Senior Vice President and Chief Financial Officer
(Principal Financial and Accounting Officer)

Exhibit 10.72

Defense Threat Reduction Agency
8725 John J. Kingman Road, MSC 6201
Fort Belvoir, VA 22060-6201

Contract Number HDTRA1-09-C-0046
between
Defense Threat Reduction Agency
and
AVI BioPharma, Inc

May 5, 2009

Dear Mr. David Boyle,

This letter constitutes a contract on the terms set forth herein and signifies the intention of the Defense Threat Reduction Agency to execute a formal Cost-Plus-Fixed-Fee Contract with AVI BioPharma, Inc. Services shall be provided as set forth in Attachment 1, 2 and 3, which are incorporated into and made a part of this Letter Contract, upon the terms and conditions therein stated.

You are hereby directed in accordance with FAR 52.216-23 clause entitled, "Execution and Commencement of Work" to proceed with performance of the work, effective immediately, and pursue such work with all diligence to the end that the services may be performed within the time and funds specified in Attachment 1.

Please indicate your acceptance of the forgoing by signing three copies of this letter and returning this letter to the following email address: terese.herston@dtra.mil

Sincerely,

/s/ Terese M. Hurston
Terese Herston
Contracting Officer

LETTER CONTRACT HDTRA1-09-C-0046

The contractor agrees to furnish and deliver all items or perform all services set forth above for the consideration stated above. The rights and obligations of the parties to this letter contract shall be subject to and governed by the terms and conditions set forth above.

Executed as of the date shown below:

/s/ J. David Boyle II	May 5, 2009
David Boyle II, Sr. Vice President and CFO AVI BioPharma	Date

Attachments:
1. Terms and Conditions
2. Statement of Work (provided under separate cover)
3. CDRLs

LETTER CONTRACT HDTRA1-09-C-0046

ATTACHMENT 1

1. EFFECTIVE DATE: The effective date of this letter contract is the same date as the contracting officer's signature.

2. CONTRACT TYPE: Cost-Plus-Fixed-Fee.

3. DESCRIPTION: Supplies/services are to be provided in accordance with the Statement of Work (SOW), entitled "AVI BioPharma PMO Platform - H1N1 Countermeasure Development" dated 1 May 2009.

4. CEILING PRICE: $5,132,400 NTE

5. The anticipated contract line item number (CLIN) Structure is:

CLIN 0001 Work to be performed IAW SOW 1 Lot	$2,000,000.00 NTE
CLIN 000101 Information - Funding	
ACRN AA applies	
CLIN 0002 CDRLs	NSP

6. DELIVERY SCHEDULE: See attached Statement of Work.

7. PERIOD OF PERFORMANCE: The period of performance of this letter contract commences with the effective date cited in paragraph 1 of this attachment and concludes eight months thereafter.

8. INSPECTION AND ACCEPTANCE TERMS: Supplies/services will be inspected/accepted at destination by the Government.

252.246-9000 INSPECTION AND ACCEPTANCE:

The Contracting Officer's Representative (COR) or Project Manager shall be responsible for inspection and acceptance of all work to be performed at any and all times during this contract in accordance with FAR **52.246-8 Inspection of Research and Development — Cost Reimbursement.** Government inspection and acceptance of data shall be as specified on the Contract Data Requirements List, DD Form 1423, Exhibit A to the Contract.

9. CONTRACT ADMINISTRATION: Fiscal Year (FY) 2009Research Development Test & Evaluation (RDT&E) funds in the amount of $2, 00,000.00 have been obligated for this letter contract. Pursuant to the Department of Defense Federal Acquisition Regulation (FAR) Supplement, additional funding for this letter contract shall not be obligated until the Government receives a fully supportable and auditable proposal.

ACCOUNTING AND APPROPRIATION DATA

AA: 9790400.2620 1000 B63D 255999 BD 29854000 S49012
AMOUNT: $2,000,000

252.201-9001 CONTRACTING OFFICE POINT OF CONTACT (POC)

The POC in the Procuring Contracting Office for this contract action is Terese Herston, Contracting Officer, DTRA (BE-BCRC, telephone number (703) 767-3526, email address: terese. herston@dtra.mil.

252.201-9002 CONTRACTING OFFICER'S REPRESENTATIVE

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

Mr. Robert Kimbrough
Defense Threat Reduction Agency/RD-INO
8725 John J. Kingman Road, MS 6201
Fort Belvoir, VA 22060-6201
Telephone (703) 767-2346
Email address: robert.kimbrough@dtra.mil

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

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

252.204-9002 PAYMENT INSTRUCTIONS FOR MULTIPLE ACCOUNTING CLASSIFICATION CITATIONS (REF: DFARS 204.7107)

Payment shall be made from ACRN AA until fully expended. Payment shall then be made from ACRN AB.

252.232-9012 WIDE AREA WORK FLOW (WAWF) — RECEIPT AND ACCEPTANCE (RA) INSTRUCTIONS

(a) As prescribed in DFARS clause 252.232-7003 Electronic Submission of Payment Requests (Jan 2004), Contractors must submit payment requests in electronic form. Paper copies will no longer be accepted or processed for payment unless the conditions of DFARS clause 252.232-7003(c) apply. To facilitate this electronic submission, the Defense Threat Reduction Agency (DTRA) has implemented the DoD sanctioned Wide Area WorkFlow-Receipt and Acceptance (WAWF-RA) for contractors to submit electronic payment requests and receiving reports. The contractor shall submit electronic payment requests and receiving reports via WAWF-RA. Vendors shall send an email notification to the Contracting Officer Representative (COR), Program/Project Manager or

other government acceptance official identified in the contract by clicking on the Send More Email Notification link upon submission of an invoice/cost voucher in WAWF-RA. To access WAWF, go to https://wawf.eb.mil//.

(b) Definitions:

Acceptor: Contracting Officer's Representative, Program/Project Manager, or other government acceptance official as identified in the contract/order.

Pay Official: Defense Finance and Accounting Service (DFAS) payment office identified in the contract/order.

SHIP To/Service Acceptor DoDAAC: Acceptor DoDAAC or DCMA DoDAAC (as specified in the contract/order).

DCAA Auditor DoDAAC: Used when DCAA invoice approval is required by the contract/order and the field is marked as mandatory in WAWF-RA. (Click the DCAA Audit Office Locator Link in WAWF-RA and enter zip code of your CAGE code address).

(c) WAWF-RA Contractor Input Information - ** **IMPORTANT! ****

The contractor shall use the following information in creating electronic payment requests in WAWF-RA:

Invoice Type in WAWF-RA:

If billing for Materials Only, select "Combo"
If billing for Materials and Service, select "Combo"
If billing for Services Only, select "2-n-1 (Services Only)"
If billing for Cost Type/Reimbursable Contracts, select "Cost Voucher"
(**Cost Vouchers are only used when contracts/orders require invoices be sent to DCAA for approval.**)

SF 26, SF 33, SF 1449 and DD 1155

Invoice Type: Invoice and Receiving Report:

Description	SF 26	SF 33	SF 1449	DD 1155
	Located in Block/Section			
Contract Number	2	2	2	1
Delivery Order	See Individual Order		4	2
Cage Code	7	15 a	17 a	9
Paying Office	12	25	18 a	15
Inspection	Section E (except SF 1449, See Entitled): INSPECTION AND ACCEPTANCE			
Acceptance	Section E (except SF 1449, See Entitled): INSPECTION AND ACCEPTANCE			
Issue Date	3	5	3	3
Issue By DoDAAC	5	7	9	6
Admin DoDAAC	6	24	16	7
Ship to Code	6	24	16	7
Ship to Extension	11	Section F: Deliveries or Performance	15	14
Services or Supplies	Based on majority of requirement as determined by monetary value			
Shipment Number	Contractor Shipment Number, Invoice Number (supplies) or period of performance (service). Refer to Appendix F-301 of the DoD FAR Supplement for creating Shipment Numbers.			
Final Invoice?	*Changing "N" (no) to "Y" (yes) will terminate your ability to invoice against this contract and deobligated remaining funds. Change "N" to "Y" for the final invoice ONLY.*			

(d) Final Invoices/Vouchers -Final Payment shall be made in accordance with the Federal Acquisition Regulation (FAR) 52.216-7, entitled "Allowable Cost and Payment."

Invoices - Invoice 2-n-1 (Services Only) and Invoice and Receiving Report (Combo) Select the ***"Y"*** selection from the *"**Final Invoice?**"* drop-down box when submitting the final invoice for payment for a contract. Upon successful submission of the final invoice, click on the ***Send More Email Notifications*** link to send an additional email notification to the Contracting Officer Representative (COR), Program/Project Manager or other government acceptance official identified in the contract.

Cost Vouchers - Once the final DCAA audit is complete for cost reimbursable contracts and authorization is received to submit the final cost voucher, select the "***Y***" selection from the *"**Final Voucher**"* drop-down box when submitting the final cost voucher. Upon successful submission of the final cost voucher, click on the ***Send More Email Notifications*** link to send an additional email notification to the following email address: finalcostvouchers@dtra.mil

(e) WAWF Training may be accessed online at http://www.wawftraining.com//. To practice creating documents in WAWF, visit practice site at https://wawftraining.eb.mil//. Payment information may be accessed using the DFAS website at http://www.dod.mil/dfas//. Your purchase order/contract number or invoice will be required to check status of your payment. **Note: For specific invoice related inquiries email: wawfvendorpay @dtra.mil. Vendors shall forward any additional DTRA related WAWF questions to wawfhelp@dtra.mil.**

10. SPECIAL CONTRACT REQUIREMENTS:

252.204-9000 OFFICIAL DTRA ADDRESSES IN THE NATIONAL CAPITAL REGION (NCR)

DTRA has 2 official mailing addresses in the NCR. Due to heightened security measures, hand-carried packages cannot be accepted, therefore contractors are to select one address below based on the method of mailing.

1. The official United States Postal Service (USPS) mailing address for DTRA:

Defense Threat Reduction Agency
Attn: Mr. Robert Kimbrough/RD-INO*
8725 John J. Kingman Rd. Stop 6201
Fort Belvoir, VA 22060-6201

2. DTRA cannot accept packages delivered via commercial express and ground carrier to any address other than the one listed below. For all incoming packages to DTRA activities in the Washington DC area (this includes packages sent via Federal Express, DHL, Airborne, UPS and other commercial carriers), use the following address:

Defense Threat Reduction Agency
Attn: Mr. Robert Kimbrough /RD-INO*
6200 Meade Road
Fort Belvoir, VA 22060-5264

Note: This address shall also be used in all contracts for delivery of supplies/materials.

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* Mail sent without an office symbol may be misdirected within DTRA. Please use the most current office symbol assigned. If an office symbol changes during the term of this contract, the contracting officer may advise of this change via letter in lieu of a contract modification.

11. CONTRACT CLAUSES

52.216-23 EXECUTION AND COMMENCEMENT OF WORK (APR 1984)

The Contractor shall indicate acceptance of this letter contract by signing three copies of the contract and returning them to the Contracting Officer not later than May 7, 2009. Upon acceptance by both parties, the Contractor shall proceed with performance of the work, including purchase of necessary materials.

(End of clause)

52.216-24 LIMITATION OF GOVERNMENT LIABILITY (APR 1984)

(a) In performing this contract, the Contractor is not authorized to make expenditures or incur obligations exceeding $2,000,000.00 dollars.

(b) The maximum amount for which the Government shall be liable if this contract is terminated is $2,000,000.00 dollars.

(End of clause)

52.216-26 PAYMENTS OF ALLOWABLE COSTS BEFORE DEFINITIZATION (DEC 2002)

(a) Reimbursement rate. Pending the placing of the definitive contract referred to in this letter contract, the Government will promptly reimburse the Contractor for all allowable costs under this contract at the following rates:

(1) One hundred percent of approved costs representing financing payments to subcontractors under fixed-price subcontracts, provided that the Government's payments to the Contractor will not exceed 80 percent of the allowable costs of those subcontractors.

(2) One hundred percent of approved costs representing cost-reimbursement subcontracts; provided, that the Government's payments to the Contractor shall not exceed 85 percent of the allowable costs of those subcontractors.

(3) Eighty-five percent of all other approved costs.

(b) Limitation of reimbursement. To determine the amounts payable to the Contractor under this letter contract, the Contracting Officer shall determine allowable costs in accordance with the applicable cost principles in Part 31 of the Federal Acquisition Regulation (FAR). The total reimbursement made under this paragraph shall not exceed 85 percent of the maximum amount of the Government's liability, as stated in this contract.

(c) Invoicing. Payments shall be made promptly to the Contractor when requested as work progresses, but (except for small business concerns) not more often than every 2 weeks, in amounts approved by the Contracting Officer. The Contractor may submit to an authorized representative of the Contracting Officer, in such form and reasonable detail as the representative may require, an invoice or voucher supported by a statement of the claimed allowable cost incurred by the Contractor in the performance of this contract.

(d) Allowable costs. For the purpose of determining allowable costs, the term “costs” includes—

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

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

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

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

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

(ii) Materials issued from the Contractor’s stores inventory and placed in the production process for use on the contract;

(iii) Direct labor;

(iv) Direct travel;

(v) Other direct in-house costs; and

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

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(3) The amount of financing payments that the Contractor has paid by cash, check, or other forms of payment to subcontractors.

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

(f) Audit. At any time before final payment, the Contracting Officer may have the Contractor’s invoices or vouchers and statements of costs audited. Any payment may be (1) reduced by any amounts found by the Contracting Officer not to constitute allowable costs or (2) adjusted for overpayments or underpayments made on preceding invoices or vouchers.

(End of clause)

252.217-7027 CONTRACT DEFINITIZATION (OCT 1998)

(a) A Cost-Plus-Fixed Fee contract is contemplated. The Contractor agrees to begin promptly negotiating with the Contracting Officer the terms of a definitive contract that will include (1) all clauses required by the Federal Acquisition Regulation (FAR) on the date of execution of the undefinitized contract action, (2) all clauses required by law on the date of execution of the definitive contract action, and (3) any other mutually agreeable clauses, terms, and conditions. The Contractor agrees to submit a Cost-Plus-Fixed Fee proposal and cost or pricing data supporting its proposal.

(b) The schedule for definitizing this contract is as follows:

Proposal Received	4 June 2009
Complete Negotiations	4 August 2009
Definitization	4 September 2009

(c) If agreement on a definitive contract action to supersede this undefinitized contract action is not reached by the target date in paragraph (b) of this clause, or within any extension of it granted by the Contracting Officer, the Contracting Officer may, with the approval of the head of the contracting activity, determine a reasonable price or fee in accordance with subpart 15.4 and part 31 of the FAR, subject to Contractor appeal as provided in the Disputes clause. In any event, the Contractor shall proceed with completion of the contract, subject only to the Limitation of Government Liability clause.

(1) After the Contracting Officer’s determination of price or fee, the contract shall be governed by—

(i) All clauses required by the FAR on the date of execution of this undefinitized contract action for either fixed-price or cost-reimbursement contracts, as determined by the Contracting Officer under this paragraph (c);

(ii) All clauses required by law as of the date of the Contracting Officer’s determination; and

(iii) Any other clauses, terms, and conditions mutually agreed upon.

(2) To the extent consistent with paragraph (c)(1) of this clause, all clauses, terms, and conditions included in this undefinitized contract action shall continue in effect, except those that by their nature apply only to an undefinitized contract action.

(d) The definitive contract resulting from this undefinitized contract action will include a negotiated cost/price ceiling in no event to exceed $5,132,400.

(End of clause)

LETTER CONTRACT HDTRA 1-09-C-0046

12. LIST OF DOCUMENTS, EXHIBITS AND OTHER ATTACHMENTS:

252.215-9001 LIST OF DOCUMENTS, EXHIBITS AND OTHER ATTACHMENTS

List of Documents, Exhibits and Other Attachments

a. Attachments applicable to this contract are identified as follows:

ATTACHMENT	DESCRIPTION
1	Statement of Work, entitled “AVI BioPharma PMO Platform - H1N1 Countermeasure Development”, dated 1 May 2009, 1 Page
2	Exhibit A — CDRLs, 2 Pages dated 30 April 2009

HDTRA1-09-C-0046
Attachment Number 1

AVI BioPharma PMO Platform — H1N1 Countermeasure Development
1 May 2009
Statement of Work for AVI BioPharma Project

Preclinical development of medical countermeasures against the prevailing strains of swine flu based on AVI BioPharma’s proprietary Phosphorodiamidate Morpholino Oligomer backbone.

Task 1: AVI will perform program management including project planning and direction, and management of subcontractors.

Task 2: AVI will analyze the sequence provided and determine appropriate viral targets, recommend lead candidate targets and back-up candidate targets. We expect this task to complete within 1-2 days after the start work and receipt of the viral sequence.

Task 3: AVI will manufacture development (non-GMP) grade material of the lead therapeutic candidate in sufficient quantities for the planned animal tests within 7-11 days.

Task 4: AVI will manufacture development (non-GMP) grade material of the back-up therapeutic candidates in sufficient quantities for the planned animal tests within 7-11 days.

Task 5: AVI will engage a BSL3 laboratory facility to perform an initial test, “Ferret Study 1”, in a ferret model for the lead therapeutic candidate

Task 6: AVI will engage a BSL3 laboratory facility to perform a confirmatory test, “Ferret Study 2”, in a ferret model for the lead therapeutic candidate

Task 7: AVI will engage a BSL3 laboratory facility to perform initial testing, “Mouse Study 1”, in a mouse model for the back-up therapeutic candidates

Task 8: AVI will engage a BSL3 laboratory facility to perform an additional confirmatory test, “Ferret Study 3”, in a ferret model for the lead therapeutic candidate or back-up candidate depending on outcome of the Mouse Study 1

Task 9: If needed, AVI will engage a BSL3 laboratory facility to perform a confirmatory test, “Ferret Study 4”, in a ferret model for the lead therapeutic candidate

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CONTRACT DATA REQUIREMENTS LIST

Form Approved
OMB No. 0704-0188

A. CONTRACT LINE ITEM NO.	B. EXHIBIT	C. CATEGORY:
N/A	A	TDP ____ TM ____ OTHER _____

D. SYSTEM/ITEM	E. CONTRACT/PR NO.	F. CONTRACTOR
Chemical/Biological Medical Systems		**AVI** BioPharma

1. DATA ITEM NO. A001 | **2. TITLE OF DATA ITEM** PMO and/or P-PMO Based Medical Countermeasure | **3. SUBTITLE** H1N1 Therapeutic Candidates Report

4. AUTHORITY *(Data Acquisition Document No.)* N/A | **5. CONTRACT REFERENCE** N/A | **6. REQUIRING OFFICE** DTRA/TMTI

7. DD 250 REQ LT | **9. DIST STATEMENT REQUIRED** | **10. FREQUENCY** See Blk 16 | **12. DATE OF FIRST SUBMISSION** See Blk 16

8. APP CODE A | N/A | **11. AS OF DATE** See Blk 16 | **13. DATE OF SUBSEQUENT SUBMISSION** See Blk 16

14. DISTRIBUTION

a. ADDRESSEE	b. COPIES Draft	Final Reg	Final Repro
DTRA/TMTI		1	
DTRA/BCR		1	
15. TOTAL		2	

16. REMARKS
Blocks 10-13: Provide a report of lead and back-up candidates due within 5 days of identification.

1. DATA ITEM NO. A002 | **2. TITLE OF DATA ITEM** Technical Reports & Miscellaneous Data Submissions | **3. SUBTITLE** N/A

4. AUTHORITY *(Data Acquisition Document No.)* N/A | **5. CONTRACT REFERENCE** N/A | **6. REQUIRING OFFICE** DTRA/TMTI

7. DD 250 REQ LT | **9. DIST STATEMENT REQUIRED** | **10. FREQUENCY** See Blk 16 | **12. DATE OF FIRST SUBMISSION** See Blk 16

8. APP CODE A | N/A | **11. AS OF DATE** See Blk 16 | **13. DATE OF SUBSEQUENT SUBMISSION** See Blk 16

14. DISTRIBUTION

a. ADDRESSEE	b. COPIES Draft	Final Reg	Final Repro
DTRA/TMTI		1	
DTRA/BCR		1	
15. TOTAL		2	

16. REMARKS
Blocks 10-13: Submission dates and frequencies will be coordinated.

1. DATA ITEM NO. A003 | **2. TITLE OF DATA ITEM** Regulatory Contacts & Filings | **3. SUBTITLE** N/A

4. AUTHORITY *(Data Acquisition Document No.)* N/A | **5. CONTRACT REFERENCE** N/A | **6. REQUIRING OFFICE** DTRA/TMTI

7. DD 250 REQ LT | **9. DIST STATEMENT REQUIRED** | **10. FREQUENCY** See Blk 16 | **12. DATE OF FIRST SUBMISSION** See Blk 16

8. APP CODE A | N/A | **11. AS OF DATE** See Blk 16 | **13. DATE OF SUBSEQUENT SUBMISSION** See Blk 16

14. DISTRIBUTION

a. ADDRESSEE	b. COPIES Draft	Final Reg	Final Repro
DTRA/TMTI		1	
DTRA/BCR		1	
15. TOTAL		2	

16. REMARKS
Blocks 10-13: Provide advance notice and copies of all regulatory contacts and filings.

1. DATA ITEM NO. A004 | **2. TITLE OF DATA ITEM** Weekly Update Report | **3. SUBTITLE** Weekly IPR

4. AUTHORITY *(Data Acquisition Document No.)* N/A | **5. CONTRACT REFERENCE** N/A | **6. REQUIRING OFFICE** DTRA/TMTI

7. DD 250 REQ LT | **9. DIST STATEMENT REQUIRED** | **10. FREQUENCY** Weekly | **12. DATE OF FIRST SUBMISSION** See Blk 16

8. APP CODE A | N/A | **11. AS OF DATE** See Blk 16 | **13. DATE OF SUBSEQUENT SUBMISSION** See Blk 16

14. DISTRIBUTION

a. ADDRESSEE	b. COPIES Draft	Final Reg	Final Repro
DTRA/TMTI		1	
DTRA/BCR		1	
15. TOTAL		2	

16. REMARKS
Blocks 11-13: Coordinate a weekly IPR (Conference Call) with the TMTI
Program Office to provide an update and status report. First IPR to be conducted within 5 days of contract award, then weekly thereafter.

G. PREPARED BY	**H. DATE**	**I. APPROVED BY**	**J. DATE**
[ILLEGIBLE]	30 April 2009	[ILLEGIBLE]	30 April 2009

17. PRICE GROUP
18. ESTIMATED TOTAL PRICE

17. PRICE GROUP
18. ESTIMATED TOTAL PRICE
17. PRICE GROUP
18. ESTIMATED TOTAL PRICE
17. PRICE GROUP
18. ESTIMATED TOTAL PRICE

CONTRACT DATA REQUIREMENTS LIST

Form Approved
OMB No. 0704-0188

A. CONTRACT LINE ITEM NO. N/A | **B. EXHIBIT** A | **C. CATEGORY:** TDP ____ TM ____ OTHER _____

D. SYSTEM/ITEM Chemical/Biological Medical Systems | **E. CONTRACT/PR NO.** | **F. CONTRACTOR** **AVI** BioPharma

1. DATA ITEM NO. A005 | **2. TITLE OF DATA ITEM** Monthly Status Report | **3. SUBTITLE** N/A

4. AUTHORITY *(Data Acquisition Document No.)* N/A | **5. CONTRACT REFERENCE** N/A | **6. REQUIRING OFFICE** DTRA/TMTI

7. DD 250 REQ LT | **9. DIST STATEMENT REQUIRED** | **10. FREQUENCY** Monthly | **12. DATE OF FIRST SUBMISSION** See Blk 16

8. APP CODE | N/A | **11. AS OF DATE** | **13. DATE OF SUBSEQUENT SUBMISSION**

14. DISTRIBUTION

a. ADDRESSEE	b. COPIES Draft	Final

A	**See Blk 16**	**See Blk 16**	

16. REMARKS
Blocks 11-13: First report due within 10 days after the end of the first month after award and each month thereafter.

	Reg	Repro
DTRA/TMTI	1	
DTRA/BCR	1	
15. TOTAL	2	

1. DATA ITEM NO. A006	**2. TITLE OF DATA ITEM** Monthly Invoice Report		**3. SUBTITLE** **N/A**	
4. AUTHORITY *(Data Acquisition Document No.)* **N/A**	**5. CONTRACT REFERENCE** **N/A**		**6. REQUIRING OFFICE** DTRA/TMTI	
7. DD 250 REQ **LT**	**9. DIST STATEMENT REQUIRED**	**10. FREQUENCY** Monthly	**12. DATE OF FIRST SUBMISSION** **See Blk 16**	**14. DISTRIBUTION**
8. APP CODE **A**	**N/A**	**11. AS OF DATE** **See Blk 16**	**13. DATE OF SUBSEQUENT SUBMISSION** **See Blk 16**	b. COPIES

a. ADDRESSEE	Draft	Final Reg	Final Repro
DTRA/TMTI		1	
DTRA/BCR		1	
15. TOTAL		2	

16. REMARKS
Blocks 11-13: First report due within 10 days after the end of the first month after award and each month thereafter.

1. DATA ITEM NO. A007	**2. TITLE OF DATA ITEM** Expenditure Forecast		**3. SUBTITLE** Project Spend Plan	
4. AUTHORITY *(Data Acquisition Document No.)* **N/A**	**5. CONTRACT REFERENCE** **N/A**		**6. REQUIRING OFFICE** DTRA/TMTI	
7. DD 250 REQ **LT**	**9. DIST STATEMENT REQUIRED**	**10. FREQUENCY** **See Blk 16**	**12. DATE OF FIRST SUBMISSION** **See Blk 16**	**14. DISTRIBUTION**
8. APP CODE **A**	**N/A**	**11. AS OF DATE** **See Blk 16**	**13. DATE OF SUBSEQUENT SUBMISSION** **See Blk 16**	b. COPIES

a. ADDRESSEE	Draft	Final Reg	Final Repro
DTRA/TMTI		1	
DTRA/BCR		1	
15. TOTAL		2	

16. REMARKS
Blocks 10-13: Contractor will provide an updated expenditure forecast reflecting actual negotiated costs over the lifetime of the project within 30 days of contract initiation and will update the forecast as requested by the government.

1. DATA ITEM NO. A008	**2. TITLE OF DATA ITEM** Work Breakdown Structure		**3. SUBTITLE** 3-Level Work Breakdown Structure	
4. AUTHORITY *(Data Acquisition Document No.)* **N/A**	**5. CONTRACT REFERENCE** **N/A**		**6. REQUIRING OFFICE** DTRA/TMTI	
7. DD 250 REQ LT	**9. DIST STATEMENT REQUIRED**	**10. FREQUENCY** **See Blk 16**	**12. DATE OF FIRST SUBMISSION** **See Blk 16**	**14. DISTRIBUTION**
8. APP CODE **A**	**N/A**	**11. AS OF DATE** **See Blk 16**	**13. DATE OF SUBSEQUENT SUBMISSION** **See Blk 16**	b. COPIES

a. ADDRESSEE	Draft	Final Reg	Final Repro
DTRA/TMTI		1	
DTRA/BCR		1	
15. TOTAL		2	

16. REMARKS
3-Level Work Breakdown Structure and associated costs and schedule per each level of work. For the lowest of each task show the cost breakdown for labor, material and other indirect costs. Blocks 10-13: First report due within 30 days of contract initiation. Format Microsoft Project .mpp file. To be updated quarterly.

G. PREPARED BY	**H. DATE**	**I. APPROVED BY**	**J. DATE**
[ILLEGIBLE]	30 April 2009	[ILLEGIBLE]	30 April 2009

17. PRICE GROUP 18. ESTIMATED TOTAL PRICE	17. PRICE GROUP 18. ESTIMATED TOTAL PRICE	17. PRICE GROUP 18. ESTIMATED TOTAL PRICE	17. PRICE GROUP 18. ESTIMATED TOTAL PRICE

Portions of this document have been redacted pursuant to a confidential treatment request and filed separately with the Securities and Exchange Commission. Redacted portions have been replaced with "*****".

EMPLOYMENT AGREEMENT

THIS EMPLOYMENT AGREEMENT ("Agreement") is made on this 15th day of May, 2009, by and between AVI BioPharma, Inc., an Oregon corporation, with its principal office at 4575 SW Research Way, Suite 200, Corvallis, Oregon, ("Company"), and Paul Medeiros, 700 Mixsell Street, Easton, Pennsylvania 18042 ("Employee").

RECITALS:

The Company desires to hire the Employee as Senior Vice President Business Development and Chief Business Officer and the Employee desires to accept such position under the terms and conditions stated herein.

NOW, THEREFORE, in consideration of the mutual benefits contained herein, the sufficiency of which the parties acknowledge, the parties hereby agree as follows:

AGREEMENT:

1. Employment Term.

The term of employment ("Term") shall commence on the Effective Date and shall continue until the first anniversary of the Effective Date, unless extended as provided below or terminated in accordance with Section 12 below. This Agreement establishes an "at will" employment relationship, as such term is defined and used under Oregon law, between the Company and the Employee. Employee shall commence employment not later than May 19, 2009 (the "Effective Date"). Failure to do so shall be grounds for immediate termination for Cause, as such term is defined in Section 12 hereof. Notwithstanding anything to the contrary herein, unless sooner terminated in accordance with the terms hereof, this Agreement shall annually automatically renew for additional one-year terms unless one party notifies the other party in accordance with Section 13 hereof of its intention not to renew, such notice to be delivered not less than 90 days before the term ends. For purposes of this Agreement, the non-renewal of the Agreement by the Company shall constitute a termination of Employee's employment by the Company other than for Cause.

2. Duties.

Employee shall be employed as Senior Vice President Business development and Chief Business Officer and shall have such duties as are customarily associated with that position, including overall responsibility for development and execution of strategies and tactics for transactions, alliances, mergers and acquisitions that are agreed with the Corporate Executive Team and CEO, and such other duties as may be assigned to him from time to time by the Company's Chief Executive Officer ("CEO"). Employee shall be a direct report of the CEO. Employee shall devote substantially all of his business time to the service of the Company throughout the Term. Employee and

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Company acknowledge and agree that (i) Employee may hold certain offices within certain entities as agreed by the CEO and set forth on Exhibit A to this Agreement, (ii) Employee's devotion of reasonable amounts of time in such capacities, so long as it does not interfere with his performance of services hereunder, shall not conflict with the terms of this Agreement, and (iii) Exhibit A may be amended from time to time by agreement of the parties rendered in writing.

3. Compensation.

(a) Base Compensation. During the Term the Company shall compensate the Employee at an initial annual salary of Three Hundred Fifteen Thousand Dollars ($315,000.00), payable in accordance with the Company's payroll practices in effect from time to time, and less amounts required to be withheld under applicable law and requested to be withheld by the Employee (as increased from time to time, "Base Compensation"). The Employee's Base Compensation shall be subject to review for potential increase (but not decrease) on an annual basis. Except as otherwise provided in this Agreement, the Base Compensation shall be prorated for any period of service less than a full month.

(b) Bonus. For each fiscal year of the Company that ends during the Term, the Employee shall be eligible for an annual bonus of up to 25% of Employee's Base Compensation, which bonus shall be paid in the normal cycle of payment of executive bonuses (which bonus payment shall occur in the first quarter of the fiscal year following the fiscal year with respect to which the bonus is earned) and upon achievement and satisfaction of goals and objectives ("Goals and Objectives") established upon mutual agreement of the CEO, Employee and the Compensation Committee of the Company's Board. Such goals shall be established concurrently with the goals and objectives of the Company's other senior executives. Notwithstanding anything to the contrary herein, Employee's bonus for 2009 will be a guaranteed $50,000 and in order to receive any bonus under this Section 3(b) Employee must be an employee of the Company at the time of the bonus payout.

(c) Equity Compensation.

(i) On the Effective Date, the Employee will be granted options to purchase Four Hundred Thousand (400,000) shares of the Company's common stock (the "Options") under the Company's 2002 Equity Incentive Plan (the "Plan") (a copy of which is attached as Exhibit B), with an exercise price at the fair market value of the Company common stock on the date Effective Date. Subject to accelerated vesting or termination as set forth herein, the Standard Options shall vest in equal annual installments over three (3) years measured from the Effective Date.

(ii) In addition, on the Effective Date, Employee will be issued One Hundred Thousand (100,000) shares of restricted stock under the Plan (the "Restricted Shares"). The Restricted Shares shall vest as follows:

through the first anniversary of the Effective Date (a) in a pro rata basis *****; and (b) 100% upon any Change of Control. By way of illustration and not limitation, *****

(iii) The exercise price of the Options and all other terms and conditions associated with the Options and Restricted Shares shall be determined in accordance with the Plan and grants (the forms of which are annexed hereto as Exhibit C and Exhibit D, respectively). To the maximum extent possible, the Options shall be Incentive Stock Options.

(d) Additional Compensation. Within 10 business days of the Effective Date, the Company will pay the Employee a $100,000 sign-on bonus. Should the Employee separate from the Company prior to the one year anniversary of the Effective Date for reasons of termination for Cause or voluntary termination by the Employee other than for Good Reason, this sign-on bonus is refundable to Company in full.

4. Expenses.

The Company will reimburse Employee for all expenses reasonably incurred by him in discharging his duties for the Company, conditioned upon Employee's submission of written documentation in support of claimed reimbursement of such expenses, and consistent with the Company's expense reimbursement policies in effect from time to time. The Company will reimburse the Employee in 2010 up to One Hundred Twenty Thousand Dollars ($120,000) for reasonable expenses incurred in 2009 and 2010 to relocate Employee, Employee's spouse and parts of Employee's and Employee's Spouse's household in a manner compatible with Employee's duties hereunder to the Company's headquarters location ("Facility Location"), including the reasonable and customary costs of selling his Pennsylvania residence (but not vacant home carrying costs), shipment of personal effects to the Facility Location, and the customary closing costs associated with the purchase of a residence in the Facility Location. In addition, Company shall reimburse Employee (or pay on Employee's behalf) rent and related living expenses, not to exceed $2,500 per month in the aggregate and up to six (6) months in duration, for temporary living arrangements and up to $5,000 for reasonable attorneys' fees incurred in negotiation of this Agreement.

5. Benefits.

Subject to eligibility requirements, Employee shall be entitled to participate in such benefits plans and programs as adopted by the Company from time to time and shall be eligible for paid vacation of four (4) business weeks (20 business days) annually; provided, however, if Employee does not use all available vacation in any given year, Employee may roll-over up to one business week (5 business days) to the following year, the parties intending that Employee shall have a maximum of five (5) business weeks (25 business days) of paid vacation in any calendar year following 2009. Notwithstanding anything to the contrary herein, Employee shall receive 15 days paid vacation in 2009, available as of the Effective Date. Without limiting the foregoing, subject to eligibility requirements, Employee shall be covered by any "directors and officers" insurance and "errors and omissions" insurance policies obtained by the Company.

6. Confidentiality.

As a condition to employment under this Agreement, Employee and the Company shall enter into the Non-Disclosure Agreement in the form attached hereto as Exhibit E. The provisions of this Section 6 shall survive termination of this Agreement and term of employment.

7. Non-competition and Non-solicitation.

(a) For a period of one (1) year in the case of the payment of severance equal to 12 months Base Compensation and for a period of two (2) years in the case of the payment of severance equal to 24 months Base Compensation, in both instances as provided in Section 12 below, Employee shall not directly or indirectly engage in or have any ownership interest in, or participate in the financing, operation, management or control of, any person, firm, corporation or business listed on Exhibit F (as such shall be amended in the event that the Company enters into a material transaction with an entity not listed on Exhibit F and as shall be amended from time to time by mutual consent of Employee and the Company); *provided, however,* that this provision shall not prohibit Employee from owning up to five percent (5%) of any class of outstanding bonds, preferred stock or shares of common stock of any such entity or from employment with any institute of higher learning.

(b) For a period of two (2) years following termination of employment with the Company for any reason, except with the express written consent of the Company, Employee agrees to refrain from directly or indirectly recruiting, hiring or assisting anyone else to hire, or otherwise counseling to discontinue employment with the Company, any person then employed by the Company or its subsidiaries or affiliates; *provided, however,* nothing herein shall prevent Employee from providing, in accordance with Company policy, details regarding the employment history of any such person or providing an employment reference with respect to such person.

(c) In the event that the provisions of this Section 7 should ever be deemed to exceed the duration or geographic limitations or scope permitted by applicable law, then such provisions shall be reformed to the maximum time or geographic limitations or scope, as the case may be, permitted by applicable laws.

(d) The provisions of this Section 7 shall survive termination of this Agreement and the term of employment.

8. Covered Work.

(a) All rights, title and interest to any Covered Work that Employee makes or conceives (whether alone or with others) while employed by the Company, belong to the Company. This Agreement operates as an actual assignment of all rights in Covered Work to the Company. "Covered Work" means products and Inventions that relate to the actual or anticipated business of the Company or any of its subsidiaries or affiliates, or that result from or are suggested by a task assigned to Employee or work performed by Employee on behalf of the Company or any of its subsidiaries or affiliates, or that were

developed in whole or in part on the Company time or using the Company's equipment, supplies or facilities. "Inventions" mean ideas, improvements, designs, computer software, technologies, techniques, processes, products, chemicals, compounds, materials, concepts, drawings, authored works or discoveries, whether or not patentable or copyrightable, as well as other newly discovered or newly applied information or concepts. Attached hereto as Exhibit G is a description of any product or Invention in which Employee had or has any right, title or interest, which is not included within the definition of Covered Work or which is otherwise excluded from the restrictions set forth in this Section 8.

(b) Employee shall promptly reveal all information relating to Covered Work and Confidential Information to an appropriate officer of the Company and shall cooperate with the Company, and execute such documents as may be necessary, in the event that the Company desires to seek copyright, patent or trademark protection thereafter relating to same.

(c) In the event that the Company requests that Employee assist in efforts to defend any legal claims to patents or other right, the Company agrees to reimburse Employee for any reasonable expenses Employee may incur in connection with such assistance. This obligation to reimburse shall survive termination of this Agreement and the term of employment.

(d) The provisions of this Section 8 shall survive termination of this Agreement and the term of employment.

9. Return of Inventions, Products and Documents.

Employee acknowledges and agrees that all Inventions, all products of the Company and all originals and copies of records, reports, documents, lists, drawings, memoranda, notes, proposals, contracts and other documentation related to the business of the Company or containing any information described in this Section 9 shall be the sole and exclusive property of the Company and shall be returned to the Company immediately upon termination of Employee's employment with the Company or upon the written request of the Company. The provisions of this Section 9 shall survive termination of this Agreement and the term of employment

10. Injunction.

Employee agrees that it would be difficult to measure damages to the Company from any breach by Employee of Sections 6, 7, 8 and/or 9 of this Agreement, and that monetary damages would be an inadequate remedy for any such breach. Accordingly, Employee agrees that if Employee shall breach Sections 6, 7, 8 and/or 9 of this Agreement, the Company shall be entitled, in addition to all other remedies it may have at law or in equity, to an injunction or other appropriate orders to restrain any demonstrated breach without showing or proving any actual damage sustained by the Company. The provisions of this Section 10 shall survive termination of this Agreement and the term of employment.

11. Obligations to Others.

Except for items fully disclosed in writing to the Company (including with respect to the entities and agreements listed on Exhibit H), Employee represents and warrants to the Company that (i) Employee's employment by the Company does not violate any agreement with any prior employer or other person or entity, and (ii) Employee is not subject to any existing confidentiality or non-competition agreement or obligation, or any agreement relating to the assignment of Inventions except as has been fully disclosed in writing to the Company. Notwithstanding anything to the contrary, if any agreement listed on Exhibit H shall interfere or limit in any material manner the performance of Employee's duties hereunder, prior to commencement of employment Employee shall disclose the material terms of such agreements to Company.

12. Termination and Termination Compensation

(a) Employee may voluntarily terminate his employment with the Company upon giving the Company sixty (60) days written notice.

(b) The Company may terminate Employee's employment without Cause (as defined below) upon giving Employee thirty (30) days written notice of termination.

(c) Employee's employment with the Company shall terminate upon the occurrence of any one of the following:

(i) Employee's death;

(ii) The effective date of a notice sent to Employee stating the Board's determination made in good faith and after consultation with a qualified physician selected by the Board, that Employee is incapable of performing his duties under this Agreement, with reasonable accommodation, because of a physical or mental incapacity that has prevented Employee from performing such full-time duties for a period of ninety (90) consecutive calendar days and the determination that such incapacity is likely to continue for at least another ninety (90) days; *provided, however,* termination under this Section 12 (c)(ii) shall not affect Employee's eligibility nor modify the terms and conditions under the Company's long term disability policies, if any, existing at the time of such termination; or

(iii) The effective date of a notice sent to Employee terminating Employee's employment for Cause.

(iv) "Cause" means the occurrence of one or more of the following events:

(A) Employee's willful and repeated failure or refusal to comply in any material respect with the reasonable lawful policies, standards or regulations from time to time established by the Company, or to perform his duties in accordance with this Agreement after notice to Employee of such failure and after Employee has been given a reasonable period of time to cure such failure to comply; or

(B) Employee is convicted of, or pleads guilty or nolo contendere to, a felony or demonstrably engages in misconduct that is materially detrimental to the reputation, character or standing of the Company.

(v) Following any termination of the Employee's employment hereunder (by the Employee or by the Company), the Employee will be entitled to receive (i) any earned but unpaid Base Compensation through the date of termination, (ii) any unreimbursed business expenses, (iii) any benefits under the Company's compensation plan that by their terms provide for cash payments of accrued but unused benefits and under applicable law (collectively, the "Accrued Obligations").

(vi) Upon Employee's voluntary termination of employment, other than voluntary termination with Good Reason (as defined below), or upon termination of employment by the Company for Cause, the Company shall pay to Employee the Accrued Obligations, but shall have no further

obligation to Employee hereunder in respect of any period following termination.

(vii) Upon the death of Employee, the Company shall pay to Employee's estate or such other party who shall be legally entitled thereto, the Accrued Obligations and an additional amount equal to compensation at the rate set forth in this Agreement or then current annual salary rate, whichever is greater, from the date of death to the final day of the month following the month in which the death occurs.

(viii) (A) Upon termination of Employee's employment by the Company other than for Cause and other than in connection with or after a Change in Control, in addition to the Accrued Obligations, the Company shall pay to Employee twelve (12) months of Base Compensation, with such payment to be made in a lump sum payment within sixty (60) days of such termination of employment. In addition, all nonvested Options, Restricted Stock Units and other long term compensation benefits then in effect shall immediately vest and be exercisable for a period of 180-days following the effective date of termination.

(B) Upon termination by the Company other than for Cause in connection with or after a Change in Control or upon Employee's voluntary termination of employment for Good Reason in connection with or within twenty-four (24) months after a Change of Control, in addition to the Accrued Obligations, the Company shall pay to Employee twenty-four (24) months of Base Compensation, with such payment to be made in a lump sum payment within sixty (60) days of such termination of employment. In addition, all nonvested Options, Restricted Stock Units and other long term compensation benefits then in effect shall immediately vest and be exercisable for a period of 180-days following the effective date of termination.

(ix) Any amounts payable under this Section 12 shall be net of amounts required to be withheld under applicable law and amounts requested to be withheld by Employee.

(x) As used herein, "Good Reason" shall mean, following a Change of Control (as such term is defined below), the termination by Employee upon the occurrence of any of the below described events. The Employee 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, the Employee must terminate employment within two (2) years of the first occurrence of such event. The events which constitute a Good Reason termination are:

(A) The assignment of a different title or change that results in a material reduction in Employees duties or responsibilities;

(B) A reduction by the Company in Employee's Base Compensation, other than a salary reduction 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 Employees; provided, however, in determining whether to provide an annual increase in Base Compensation commensurate with an annual increase provided to other Employees, the Company may take into account factors such as market levels of compensation, Employee's overall performance, and other factors reasonably considered by the Company's compensation committee and/or Board of Directors, so long as such determination is not made in bad faith with the intent to discriminate against Employee; or

(C) Relocation of Employee's principal place of business of greater than seventy-five (75) miles from its then location; *provided, however,* the current relocation of the Company's headquarters to the Seattle, Washington metropolitan area shall not constitute Good Reason hereunder.

(xi) As a condition of payment of the amounts set forth in this Section 12, if requested by Company with five (5) business days of the Employee's termination of employment, Employee agrees to enter into a Separation and Release Agreement substantially in the form attached hereto as Exhibit I. By way of clarification and not limitation, if no separation payments are made under this Section 12, Employee shall not be required to execute a Separation and Release Agreement

(xii) As used herein, "Change of Control" means the occurrence of any one of the following events: (i) any person becomes the beneficial owner of twenty-five percent (25%) or more of the total number of voting shares of the Company; (ii) any person (other than the persons named as proxies solicited on behalf of the Board of Directors of the Company) holds revocable or irrevocable proxies representing twenty-five percent (25%) or more of the total number of voting shares of the Company; (iii) any person has commenced a tender or exchange offer, or entered into an agreement or received an option, to acquire beneficial ownership of twenty-five percent (25%) or more of the total number of voting shares of the Company; and (iv) as the result of, or in connection with, any cash tender or exchange offer, merger,

or other business combination, sale of assets, or any combination of the foregoing transactions, the persons who were directors of the Company before such transactions shall cease to

constitute at least two-thirds (2/3) of the Board of Directors of the Company or any successor entity.

13. Notice.

Unless otherwise provided herein, any notice, request, certificate or instrument required or permitted under this Agreement shall be in writing and shall be deemed "given" upon personal delivery to the party to be notified or two business days after deposit for next day delivery with Federal Express or similar courier service, addressed to the party to receive notice at the address set forth above, postage prepaid. Either party may change its address by notice to the other party given in the manner set forth in this Section.

14. Entire Agreement.

This Agreement constitutes the entire agreement between the parties and contains all the agreements between them with respect to the subject matter hereof. It also supersedes any and all other agreements or contracts, either oral or written, between the parties with respect to the subject matter hereof; provided, *however,* in the event any of Sections 6, 7, 8, 9, or 10 of this Agreement is found unenforceable in any way, then such section shall be amended to the extent necessary to conform to applicable law.

15. Modification.

Except as otherwise specifically provided, the terms and conditions of this Agreement may be amended at any time by mutual agreement of the parties, provided that before any amendment shall be valid or effective, it shall have been reduced to writing and signed by an authorized representative of the Company and Employee.

16. No Waiver.

The failure of any party hereto to exercise any right, power or remedy provided under this Agreement or otherwise available in respect hereof at law or in equity, or to insist upon compliance by any other party hereto with its obligations, shall not be a waiver by such party of its right to exercise any such or other right, power or remedy or to demand compliance.

17. Severability.

In the event that any section or provision of this Agreement shall be held to be illegal or unenforceable, such section or provision shall be severed from this Agreement and the entire Agreement shall not fail as a result, but shall otherwise remain in full force and effect.

18. Assignment

This Agreement shall be binding upon and inure to the benefit of the Company and its successors and assigns, and shall be binding upon Employee, his administrators, executors, legatees, and heirs. In that this Agreement is a personal services contract, it shall not be assigned by Employee.

19. Dispute Resolution.

Except as otherwise provided in Section 10, the Company and Employee agree that any dispute relating to the rights and obligations under this Agreement between Employee and the Company or its officers, directors, employees, or agents in their individual or Company capacity of this Agreement, shall be submitted to a mediator mutually acceptable to both parties for nonbinding, confidential mediation. If the matter cannot be resolved with the aid of the mediator within 30 days, the Company and Employee mutually agree to arbitration of the dispute. The arbitration shall be in accordance with the then-current Employment Dispute Resolution Rules of the American Arbitration Association before an arbitrator who is licensed to practice law in the State of Washington. The arbitration shall take place in or near Seattle, Washington. Employee and the Company will share bear the cost of the arbitration equally, but each party will bear their own costs and legal fees associated with the arbitration; *provided, however,* if any party prevails on a statutory claim, which affords the prevailing party attorneys' fees, or if there is a written agreement providing for attorneys' fees, the arbitrator may award reasonable attorneys' fees. The Company and Employee agree that the procedures outlined in this provision are the exclusive method of dispute resolution.

20. Attorneys Fees.

In the event suit or action is instituted pursuant to Section 10 or Section 19 of this Agreement, the prevailing party in such proceeding, including any appeals thereon, shall be awarded reasonable attorneys fees and costs; *provided, however,* except with respect to claims found to be friviolous or entirely without merit, the amount of such fees to be paid by the non-prevailing party shall not exceed $50,000.

21. Applicable Law.

This Agreement shall be construed and enforced under and in accordance with the laws of the State of Washington.

22. Section 409A; Section 280G.

(a) It is the intention of the parties to this Agreement that no payment or entitlement pursuant to this Agreement will give rise to any adverse tax consequences to Employee or the Company with regard to Section 409A of the Internal Revenue Code of 1986, as amended ("Section 409A"). This Agreement shall be interpreted to that end and consistent with that objective. The Company and the Employee shall, to the extent

necessary to comply with Section 409A and permitted thereunder, agree to act reasonably and in good faith to mutually reform the provisions of this Agreement to avoid the application of the additional tax and interest under Section 409A(a)(1)(B), provided that any such reformation shall not negatively impact the economics of the Company or the Employee hereunder. Notwithstanding any other provision herein, if Employee is a "specified employee," as defined in, and pursuant to, Treasury Regulation Section 1.409A-1 (i) or any successor regulation, on the date of termination, no payment of any "deferred compensation", as defined under Treasury Regulation Section 1.409A or any successor regulation, shall be made to Employee during the period lasting until the earlier of six (6) months from the date of termination or upon Employee's death. If any payment to Employee is delayed pursuant to the foregoing sentence, such payment instead shall be made on the first business day following the expiration of the six (6) month period referred to in the prior sentence or, if in the case of Employee's death, promptly thereafter.

Except as otherwise specifically provided in this Agreement, if any reimbursement to which the Employee is entitled under this Agreement would constitute deferred compensation subject to Section 409A of the Code, the following additional rules shall apply: (i) the reimbursable expense must have been incurred, except as otherwise expressly provided in this Agreement, during the term of this Agreement; (ii) the amount of expenses eligible for reimbursement during any calendar year will not affect the amount of expenses eligible for reimbursement in any other calendar year; (iii) the reimbursement shall be made not later than December 31 of the calendar year following the calendar year in which the expense was incurred; and (iv) the Employee's entitlement to reimbursement shall not be subject to liquidation or exchange for another benefit.

With regard to any installment payment, each installment thereof shall be deemed a separate payment for purposes of Section 409A of the Code.

(b) Section 280G

(i) Notwithstanding any provision of this Agreement to the contrary, except as provided below, if it is determined that the payments or benefits to which Employee will be entitled under Section 12 of the Agreement or otherwise under any other agreement, policy, plan, program or arrangement (a "Payment"), would be subject to an excise tax ("Excise Tax") under Section 4999 of the Internal Revenue Code of 1986, as amended (the "Code"), but for the application of this sentence, then the Payments will be reduced to the minimum extent necessary (but in no event below zero) so that no portion of any such Payment, as so reduced, constitutes an "excess parachute payment" within the meaning of Section 280G of the Code.

ii) The limitation above will not apply if:

the difference between

(1) the present value of all payments to which Employee is entitled under Section 12 of the Agreement determined without regard to the limitation above, less

(2) the present value of all federal, state, and other income and excise taxes for which Employee is liable as a result of such payments; exceeds

the difference between

(1) the present value of all payments to which Employee is entitled under Section 12 of the Agreement calculated as if the limitation above applies, less

(2) the present value of all federal, state, and other income and excise taxes for which Employee is liable as a result of such reduced payments.

(iii) All determinations required to be made under this Section 21, including whether an Excise Tax is payable by the Employee and the amount of such Excise Tax, shall be made by a nationally recognized accounting firm designated by the Company (the "Accounting Firm"). The Company shall direct the Accounting Firm to submit its determination and detailed supporting calculations to the Company and the Employee within fifteen (15) calendar days after the date of the Employee's termination of employment, and other such time or times as may be requested by the Company or the Employee. If the Accounting Firm determines that no Excise Tax is payable by the Employee, it shall, at the same time as it makes such determination, furnish the Employee with an opinion that the Employee has substantial authority not to report any Excise Tax on the Employee's federal, state, local income or other tax return. The Company and the Employee shall each provide the Accounting Firm access to and copies of any books, records and documents in the possession of the Company or the Employee, as the case may be, reasonably requested by the Accounting Firm in connection with the preparation and issuance of the determination contemplated by this Section 22. Any reasonable determination made by the Accounting Firm under this Section 22 shall be binding upon the Company and the Employee. All fees and expenses of the Accounting Firm shall be borne solely by the Company.

(iv) The reduction of the amounts payable hereunder shall be made in a manner consistent with the requirements of Section 409A of the Code. The reduction of the amounts payable hereunder, if applicable, shall be made by first reducing, but not below zero, any amounts due to the

Employee pursuant to the Company's equity plans shall be reduced on a pro-rata basis. In the event that following the reduction of the amounts set forth in the preceding sentence, additional amounts payable to the participant must be reduced, the cash payments under Section

12 shall be reduced on a pro-rata basis, but not below zero.

23. Counterparts.

This Agreement may be signed in two counterparts, each of which shall be deemed an original and both of which shall together constitute one agreement.

[SIGNATURE PAGE FOLLOWS]

IN WITNESS WHEREOF, AVI BioPharma, Inc. has caused this Agreement to be signed by its duly authorized representative, and Employee has hereunder set his name as of the date of this Agreement.

COMPANY: AVI BioPharma, Inc.

By: /s/ Leslie Hudson
Leslie Hudson, PhD, Chief Executive Officer

EMPLOYEE:

/s/ Paul Medeiros
Paul Medeiros

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT	1. CONTRACT ID CODE U	PAGE OF PAGES 1 6

2. AMENDMENT/MODIFICATION NO.	3. EFFECTIVE DATE	4. REQUISITION/PURCHASE REQ. NO.	5. PROJECT NO.(If applicable)
	29-May-2009	SEE SCHEDULE	

6. ISSUED BY CODE HDTRA1	7. ADMINISTERED BY (If other than item 6) CODE S2401A
DEFENSE THREAT REDUCTION AGENCY/BE-BO 8725 JOHN J. KINGMAN ROAD, MSC 0201 FORT BELVOIR VA 22060-6201	DEFENSE CONTRACT MANAGEMENT AGENCY 1 FEDERAL DRIVE, ROOM 1150 FORT SNELLING MN 55111-4080

8. NAME AND ADDRESS OF CONTRACTOR (No., Street, County, State and Zip Code)		9A. AMENDMENT OF SOLICITATION NO.
AVI BIOPHARMA INC. TOM STEWART 4575 SWRESEARCH WAY STE 200 CORVALLIS OR 97333-1299		9B. DATED (SEE ITEM 11)
	x	10A. MOD. OF CONTRACT/ORDER NO. HDTRA1-07-C-0010
		10B. DATED (SEE ITEM 13)
CODE: 49WU1 FACILITY CODE	x	29-Nov-2006

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

O The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offer O is extended, O 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)
See Schedule

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

o 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.
52.243-2 Alt V Changes - Cost Reimbursement

o 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).

o C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:

o D. OTHER (Specify type of modification and authority)

E. IMPORTANT: Contractor o is not, x 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: pottst091313
The purpose of this change order is to add in scope tasking to the contract. The overall cost of the modification is $5,908,245.26; The obligated amount is 50% or $2,954,122.63; and the government liabilities shall not exceed the of the obligation of $2,954,122.63 unless amended by the government.

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

15A. NAME AND TITLE OF SIGNER (Type or print)		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)	
/s/ J. David Boyle II		TEL:	EMAIL:
15B. CONTRACTOR/OFFEROR	15C. DATE SIGNED	16B. UNITED STATES OF AMERICA	16C. DATE SIGNED
/s/ J. David Boyle II (Signature of person authorized to sign)	5/27/2009	BY (Signature of Contracting Officer)	

EXCEPTION TO SF 30 30-105-04 STANDARD FORM 30 (Rev. 10-83)
APPROVED BY OIRM 11-84 Prescribed by GSA
FAR (48 CFR) 53.243

SECTION SF 30 BLOCK 14 CONTINUATION PAGE

SUMMARY OF CHANGES

SECTION A - - SOLICITATION/CONTRACT FORM

The total cost of this contract was increased by $5,908,245.26 from $28,034,018.00 to $33,942,263.26.

CLIN 0003 is added as follows:

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0003			Lot		$ 5,908,245.26
	Ebola Marburg IND submission response				
	CPFF				
	Additional tasking IAW the Addendum to the SOW dated May 21, 2009.				
	FOB: Destination				
				ESTIMATED COST	$ 5,470,597.46

				FIXED FEE	$ 437,647.80
				TOTAL EST COST + FEE	$ 5,908,245.26(NTE)

SUBCLIN 000301 is added as follows:

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
000301					$ 0.00
	Funding				
	CPFF				
	FOB: Destination				
				ESTIMATED COST	$ 0.00
				FIXED FEE	$ 0.00
				TOTAL EST COST + FEE	$ 0.00
	ACRN AD				$ 2,954,122.63
	CIN: CBM090013351000301				

SECTION F - - DELIVERIES OR PERFORMANCE

The following Delivery Schedule item for CLIN 0002 has been changed to 29 NOV 2009

The following Delivery Schedule item has been added to CLIN 0003:

DELIVERY DATE	QUANTITY	SHIP TO ADDRESS	UIC
POP 29-MAY-2009 TO 29-N0V-2009	N/A	DEFENSE THREAT REDUCTION AGENCY/RD-CBM ROBERT KIMBROUGH 8725 JOHN J KINGMAN ROAD, MAIL STOP 6201, FORT BELVOIR VA 22060 703-767-2346 FOB: Destination	HDTRA1

SECTION G - - CONTRACT ADMINISTRATION DATA

Accounting and Appropriation

Summary for the Payment Office

As a result of this modification, the total funded amount for this document was increased by $2,954,122.63 from $28,034,018.00 to $30,988,140.63.

SUBCLIN 000301:
Funding on SUBCLIN 000301 is initiated as follows:

ACRN: AD

CIN: CBM090013351000301

Acctng Data: 9790400.2620 1000 B63D 255999 BD29394000 S49012

Increase: $2,954,122.63

Total: $2,954,122.63

SECTION I - - CONTRACT CLAUSES

The following have been added by full text:

52.216-24 LIMITATION OF GOVERNMENT LIABILITY (APR 1984)

(a) In performing this contract, the Contractor is not authorized to make expenditures or incur obligations exceeding $2,954,122.63 dollars.

(b) The maximum amount for which the Government shall be liable if this contract is terminated is $2,954,122.63 dollars.

(End of clause)

252.217-7027 CONTRACT DEFINITIZATION (OCT 1998)

(a) A Cost-Plus-Fixed-Fee modification is contemplated. The Contractor agrees to begin promptly negotiating with the Contracting Officer the terms of a definitive contract that will include (1) all clauses required by the Federal Acquisition Regulation (FAR) on the date of execution of the undefinitized contract action, (2) all clauses required by law on the date of execution of the definitive contract action, and (3) any other mutually agreeable clauses, terms, and conditions. The Contractor agrees to submit a Cost-Plus-Fixed Fee proposal and cost or pricing data supporting its proposal.

(b) The schedule for definitizing this contract is as follows:

Proposal Received	24 March 2009
Complete Negotiations	15 June 2009
Definitization	30 June 2009

(c) If agreement on a definitive contract action to supersede this undefinitized contract action is not reached by the target date in paragraph (b) of this clause, or within any extension of it granted by the Contracting Officer, the Contracting Officer may, with the approval of the head of the contracting activity, determine a reasonable price or fee in accordance with subpart 15.4 and part 31 of the FAR, subject to Contractor appeal as provided in the Disputes clause. In any event, the Contractor shall proceed with completion of the contract, subject only to the Limitation of Government Liability clause.

(1) After the Contracting Officer's determination of price or fee, the contract shall be governed by—

(i) All clauses required by the FAR on the date of execution of this undefinitized contract action for either fixed-price or cost-reimbursement contracts, as determined by the Contracting Officer under this paragraph (c);

(ii) All clauses required by law as of the date of the Contracting Officer's determination; and

(iii) Any other clauses, terms, and conditions mutually agreed upon.

(2) To the extent consistent with paragraph (c)(1) of this clause, all clauses, terms, and conditions included in this undefinitized contract action shall continue in effect, except those that by their nature apply only to an undefinitized contract action.

(d) The definitive contract resulting from this undefinitized contract action will include a negotiated cost/price ceiling (including fee) in no event to exceed $5,908,245.26

(End of clause)

(End of Summary of Changes)

Statement of Work

A New Antiviral (AntiSense) Platform Targeting Hemorrhagic Fever Viruses

November 21, 2006

1.0 Objective:

The objective is to show a new capability of identifying potential target countermeasures to specific Category A and B threat agents rapidly (weeks to months), then producing and testing them in animals. The compounds have broad spectrum capability against the threat agents, whether naturally occurring or genetically engineered. AVI BioPharma proposes advanced applied research with its unique Phosphorodiamidate Morpholino Oligomers (PMOs), to demonstrate their safety and efficacy, as well as their unprecedented agility for rapid development and production of countermeasures for a broad spectrum of extant and emergent biothreat agents.

2.0 Scope:

This proposal builds on two key elements of AVI BioPharma's third generation antisense compounds designed against hemorrhagic threat agents, specifically the filoviruses Ebola and Marburg, as well as arenavirus. The Scripps Research Institute, within the last month, reported dramatic success against arenaviruses, specifically the Junin virus vaccine strain, in cell culture with AVI's PMOs. This Phase has two Parts, each with a number of tasks and subtasks.

First, the PMOs are targeted against highly conserved nucleotide sequences of the viral genomes (RNA). Once species and strain and genomic makeup of a virus are known, AVI scientists are able to categorize a series of potential treatment compounds within several weeks or months. This correlates well with the concept of developing countermeasures very rapidly against unknown genetically engineered threats. Properly designed PMOs can be targeted against a family of related viruses (multiple strains), empowering them as a broad spectrum countermeasure for a particular threat category.

The second aspect of the proposal brings AVI's already successful work with USAMRIID on Ebola and Marburg viruses through IND and Phase 1 safety trials. It also prepares, with the Department of Defense, establishment of Emergency Use Authorizations for therapeutic use of these

compounds. The proposal will include a roadmap for the capability to ramp up production to 20,000 doses of selected compound(s), should the government desire to do so. The proposal builds this methodology for production and will provide the initial capability to begin with a small run of 1000 doses.

AVI acknowledges existence of export control laws related to export of, and foreign access to, USG-funded technology development and will take measures to comply with same upon contract execution.

A detailed spreadsheet of AVI Direct Labor Costs is submitted in Excel file format along with this SOW, in a file called “BAA I revised budget shell detail071906 for submission”. Discussion of subcontractor efforts in the areas of fill/finish, USAMRIID, TSRI, NHP tox/pk, and Tessarae appear as Appendix A.

3.0 Background

AVI’s PMOs have been extensively tested against a variety of infectious disease agents and against other common illnesses. These compounds have successfully been utilized in animals and humans with exceptional safety results, which portends well for future success when applied broadly to human disease. AVI has nearly 12 years of experience in the area of developing antisense compounds and an impressive array of successes. AVI has moved well beyond the current siRNAs target gene interference work being accomplished at many university and commercial entities. Significant toxicity problems occur when using siRNA. AVI’s patented third generation PMOs have overcome these problems.

AVI’s proprietary chemistry has significantly improved the stability, function, and bioavailability of antisense complexes. The improved characteristics of AVI PMOs compared to conventional antisense oligonucleotides include:

- resistance to proteases and nucleases,
- enhanced stereochemical base stacking,
- inherent stability for steric blockade of ribosomal assembly and translation arrest,
- reliable aqueous solubility, and
- no diminished hybridization to mRNA targets.

The biological effects of PMOs are evident after intravenous, intraperitoneal, subcutaneous, transdermal, and oral administrations, because of intrinsic biodistribution and bioavailability characteristics of these compounds.

The theoretical biological advantages of PMO are based on the lack of net charge and a non-enzymatic mechanism of action. The PMO include fewer “off-target” effects and do not result in:

- immune modulation through CpG motifs (Art Krieg personal communication),
- altered blood coagulation times (preliminary data),
- metal chelation because there is no net charge for binding,
- complement activation (based on clinical trial observations),
- off-target alteration of gene expression through O-quartets (Hudziak et al., 2000; and E. Wickstrom personal communication)
- RNAse H or other enzymatic RNA cleavage (Stein et al, 1997),
- induction of cytokine release, or
- induction of interferon responses.

Most importantly, compared to conventional antisense oligonucleotides, PMOs are highly resistant to degradation (Hudziak et al., 1996).

4.0 Tasks/Technical Requirements:

The following Gantt Chart delineates AVI’s tasks under this contract. Tasks for subcontractors are shown in Appendix A:

			Quarter								
Milestone		**Description**	**12/06**	**07Q1**	**07Q2**	**07Q3**	**07Q4**	**08Q1**	**08Q2**	**08Q3**	**2 mo. Ended 11/30/08**
1		Efficacy Evaluation of PMO/PPMOs	X								
	1.1	Evaluate cellular toxicity of EBOV and MARV	X								
	1.2	Evaluate cellular toxicity of Arenavirus	X								
2		Mechanism of Action and Cell Culture Studies		X	X	X					
	2.1	Cell culture efficacy and mechanism EBOV and MARV		X	X						
	2.2	Cell culture efficacy and mechanism Junin			X	X					
3		Efficacy Testing in Murine and Guinea Pig Models			X	X	X	X	X	X	
	3.1	Optimal PPMO EBOV lethal challenge studies in mouse			X	X					
	3.2	Optimal PPM MARV lethal challenge in				X	X	X			

		guinea pig							
	3.3	Optimal PPMO Junin challenge in mouse			X	X	X	X	
4		Pharmacokinetic and toxicology	X	X	X	X	X	X	X
	4.1	Develop analytical methods to detect PPMOs in tissues	X	X	X				
	4.2	Pharmacokinetics and toxicity in rodents	X	X	X				
	4.2.1	PK PPMOs for EBOV and MARV		X	X	X			
	4.2.2	PK PPMOs for Junin				X	X		
	4.3	PK and toxicology studies in non-human primates;		X	X	X	X		
	4.3.1	PPMOs for EBOV and MARV		X	X				
	4.3.2	PPMOs for Junin				X	X		
5		Efficacy Testing in second species			X	X	X	X	X
	5.1	PPMOs for EBOV and MARV			X	X	X		
	5.2	PPMOs for Junin					X	X	X
6		Manufacturing	X	X	X	X	X	X	X
	6.1	Manufacturing scale up and establish QC procedures	X	X	X				
	6.2	Subunit preparation and PMO development	X	X	X	X	X	X	X
	6.3	Peptide development and production	X	X	X	X	X	X	X
	6.4	Conjugation production				X	X	X	X
	6.5	Fill and Finish							X
7		Prepare and file IND with FDA				X	X	X	X
	7.1	EBOV				X			
	7.2	MARV						X	
	7.3	Junin							X

5.0 CDRLs/Other Deliverables:

Document Type	Description	Pages	Date
Exhibit A001	Quarterly Status Reports	1	15-NOV-2006
Exhibit A002	Annual Report	1	15-NOV-2006
Exhibit A003	Quarterly Financial Status Reports	1	15-NOV-2006
Exhibit A004	Miscellaneous Data Submission	1	15-NOV-2006
Exhibit A005	Final Report	1	15-NOV-2006
Exhibit A006	Interim Reports	1	15-NOV-2006
Exhibit A007	Investigational New Drug (IND) Submission Report	1	15-NOV-2006

Appendix A: Subcontractor Efforts

Fill/Finish Tasks:

Fill/finish refers to the manufacturing efforts required to convert bulk drug into a final dosage form suitable for injection into humans. The overriding goal of assuring patient safety requires that the final dosage form be filled in an aseptic operation, which necessitates a sterile environment, process controls, trained personnel, validated procedures, and validated test methods in order to ensure a very low probability of microorganism contamination. The equipment necessary to perform aseptic filling activities is of special design and construction and must undergo extensive qualification and validation activities since the failure of one control aspect could lead to lot contamination. Specialized manufacturers provide contract filling services for smaller companies that may require only a few filling runs per year, and which do not have the resources to acquire and maintain the facilities, equipment, and the personnel needed. We have successfully subcontracted for this type of effort several times in the past with multiple vendors, and would anticipate doing the same under this contract, in the most cost effective and quality assured manner available at the time.

USAMRIID Tasks:

Scientific Director: Dr. Sina Bavari
Technical Director: Dr. Kelly Warfield
CDC Registration: C20060223-0428, effective Feb. 23, 2006, expires Jan. 20, 2009

USAMRIID will conduct studies related to Part A-1 of the proposal involving Filovirus infection. Regular communication with investigators at USAMRIID will be required to discuss goals, experimental protocols, observations and preparation of reports. USAMRIID will evaluate the training of individuals involved in studies conducted in theBSL-4 and will prepare applications to the ethical care and use of animals. USAMRIID will utilize multiple isolates for the different strains Ebola and Marburg. The laboratory tasks will initially involve screening studies in Ebola and Marburg infection in cell culture. Mechanism of action studies

will be conducted by USAMRIID using mini-genome systems in cell culture. Finally, the USAMRIID tasks include efficacy studies involving Ebola and Marburg lethal challenge in murine, guinea pig and nonhuman primate models. The mechanism of action studies with mini-genome systems will be conducted in BSL-2 facilities but infected cell culture and animal challenge studies will require BSL-4 containment. USAMRIID will prepare final reports in collaboration with AVI for Ebola and Marburg studies. Specific tasks include:

TASK 1: Complete efficacy and toxicology evaluation of P-PMOs targeting highly conserved regions of Ebola and Marburg in cell culture.

TASK 2: Complete mechanism of action studies with replicons and mini-genome systems in cell culture.

TASK 3: Complete evaluation of lead candidates in mouse lethal challenge model.

TASK 4: Complete evaluation of lead candidates in guinea pig lethal challenge model.

TASK 5: Perform initial studies in non-human primate lethal challenge model.

TASK 6: Perform second round of non-human primate lethal challenge studies.

TASK 7: Complete lethal challenge studies in non-human primates.

The Scripps Research Institute (TSRI) Tasks:

Scientific Director: Dr. Michael Buchmeier
Technical Director: Dr. Benjamin Neuman
CDC Registration: neither Junin Candid#1 nor LCMV are select agents, so registration is not required.

TSRI will conduct studies related to Part A-2 of the proposal involving Arenavirus infection. Regular communication with investigators at USAMRIID will be required to discuss goals, experimental protocols, observations and preparation of reports. TSRI will evaluate the training of individuals involved in studies conducted in the BSL-2 and will prepare applications to the ethical care and use of animals. TSRI will utilize lymphotropic choriiomeningitis virus (LCMV), a pathogenic Old World arenaviru3, and the Candid#1 vaccine strain of Junin virus, the agent of Argentine hemorrhagic fever (neither are select agents). The laboratory tasks will initially involve screening studies in infection in cell culture monitoring plaque assays to measure viral entry, multiplication and spread. Further measures will include measures of viral protein synthesis, viral RNA synthesis, and viral induced cytopathic effects. These in vitro studies will provide information about efficacy, mechanism of action and the resistance profile for effective agents. Finally, TSRI will conduct acute infection studies in mouse challenge models measuring virus titer in blood, liver, kidneys, lungs, and the central nervous system to determine antiviral effects of test agents. TSRI will prepare final reports in collaboration with AVI. Specific tasks include:

TASK 1: Complete efficacy studies with Junin Candid#1 in cell culture.

TASK 2: Complete efficacy studies with LCMV in cell culture.

TASK 3: Complete mechanism of action studies in cell culture.

TASK 4: Initiate acute infection model studies of Junin in mouse.

TASK 5: Complete acute infection model studies of Junin in mouse.

TASK 6: Initiate chronic infection studies in mouse and initiate guinea pig infection studies.

TASK 7: Repeat studies in mouse and guinea pig.

TASK 8: Complete Junin Candid#1 infection studies.

TASK 9: Complete LCMV infection studies.

NHP Toxicology Pharmacokinetic Tasks:

CDC Registration: there will be no use of selected agents in animals.

Potential Subcontractors:

Conventional Toxicology Rat Studies	CTBR
Conventional Toxicology Non-Human Primate	MPIR
Non-Human Primate Pharmacokinetic Studies	MPIR
Safety Pharmacology Studies	MDSP
Genotoxicity	BioReliance

Conventional Safety Pharmacology Studies:

Single dose exposure for each agent in preparation of IND filing, (3 months duration per agent) will require three dosage levels [i.e., anticipated subtherapeutic dosage {low}, therapeutic dosage {intermediate), and 10X the therapeutic dosage {high) all studies).

Cardiovascular Study to assure no clinically significant change in temperature, blood pressure, heart rate, or conduction problems.

Pulmonary Function Study to assure no clinically significant bronchoconstricting or bronchodilating effects occur.

Renal Function Study to assure no clinically significant reduction occurs in. renal function (viz., drop in creatinine clearance and rise in serum creatinine) after single dose administration.

Central Nervous System to assure no excitatory or inhibitory activity occurs in central or peripheral nervous systems after single dose administration in accordance with Irwin test.

Pharmacokinetic studies:

15 monkeys per agent, after single dose and serial dosing at low, intermediate, and high dosing

Conventional Toxicology:

28 Day Daily Dosing Rat Study (estimated total of 96 rats to be tested).

28 Day Daily Rat Study at the highest dosing level with a 14-day washout (estimated total of 24 rats to be tested).

28 Day Daily Dosing Monkey Study (estimated total of 50 monkeys to be tested).

28 Day Daily Monkey Study, at the highest dosing level with 14-day washout (estimated total of 12 monkeys to be tested).

Conventional genotoxicity studies:

Two assays; 2 months duration to complete per agent.

Specific tasks include:

TASK 1: Initiate Conventional tox, Safety Pharm, NHP PK and Genotoxicity for Filovirus therapeutic agent.

TASK 2: Complete Conventional tox, Safety Pharm and Genotoxicity for Filovirus therapeutic agent.

TASK 3: Complete NHP PK for Filovirus agent and Initiate Conventional tox, Safety Pharm, NHP PK and Genotoxicity for Arenavirus therapeutic agent.

TASK 4: Complete Conventional tox, Safety Pharm, Genotox and NHP PK for Arenavirus therapeutic agent.

Tessarae Tasks:

Tessarae LLC will provide pharmacogenomic endpoint modeling services and reports to AVI BioPharma, related to evaluations of clinical safety and efficacy of next generation antivirals targeting hemorrhagic fever viruses. Tessarae will analyze 30 archived blood specimens tested with either placebo or fixed dosages of antiviral PMO compounds to be selected by AVI BioPharma. Archived blood specimens will be subjected to standard preparation of total RNA for microarray-based analysis of gene expression profiles, including reduction of abundant globin mRNA. Global gene expression analysis will be performed on the Affymetrix U133 2.0 Plus microarray platform. Aliquots of purified total RNA preparations will also be analyzed Eppendorf DualChip microarrays, representing four palettes of gene sets related to processes of aging, inflammation, cancer and response to siRNA treatments. A portion of original blood specimens will also be archived for future retrospective analysis.

Specific tasks include:

TASK 1: Receive and archive inventory of blood specimens, each specimen representing three PreAnalytix PAXgene RNA tubes and one Whatman 4-spot FTA card.

TASK 2: Subject 60 PAXgene RNA specimens (180 tubes) to total RNA purification, including globin mRNA reduction protocol.

TASK 3: Perform gene expression profiling (GXP) assay using 50 % of each of the 60 RNA samples on 60 Affymetrix U133 microarrays.

TASK 4: Perform gene expression profiling assay using 50 % of each of the 60 RNA samples on 120 Eppendorf DualChip microarrays.

TASK 5: Perform bioinformatics analysis to determine if significant clusters of gene expression changes are observed among the before/after and placebo/antiviral specimen cohorts.

TASK 6: Compare specific gene set associations and statistical significance of differences using results from the two analytical platforms (Affymetrix and Eppendorf).

TASK 7: Deliver summary report on technical efficacy and cost-value analysis of pilot gene expression profiling for ongoing pharmacogenomic endpoint tracking in trials of PMO antivirals.

Addendum to Original Statement of Work
AVI-6002 and AVI-6003 Bridge Funding Proposal

A. INTRODUCTION:

AVI BioPharma is focused on the discovery and development of RNA-based drugs utilizing an extensive proprietary technology platform with applications to a range of diseases and genetic disorders. The current funding mechanism supported a discovery process, based upon antisense oligomers, to identify lead antiviral candidates for Ebola Zaire (AVI-6002) and Marburg Musoke (AVI-6003). These compounds are effective in multiple animal models of viral infection. AVI BioPharma has prepared and submitted INDs for AVI-6002 and AVI-6003 for immediate treatment of patients following documented or suspected exposure to Ebola Zaire or Marburg Musoke, respectively. In order to continue the science and prepare for NDA submittals, AVI BioPharma is submitting this bridge funding proposal to TMTI to perform tasks that are required to be performed prior to AVI BioPharma's performance of the Advanced funding. These tasks include Program Management, Dose titration studies, Preparation of Clinical Materials, Development of Analytical Methods, Development & Implementation, as well as Incorporation and Resolution of FDA comments from initial IND filing. The specific Statement of Work for these tasks is outlined below:

B. TASKS:

1. **Program Management:** The overall administration of the Ebola/Marburg program includes coordination of items of a technical nature, working with the government to facilitate the proper approvals, as well as ensuring that the program is on task and on budget the program management task is made up of the following:

   1.1 Program Management Team for coordination of effort, evaluation of progress and communication with TMTI.

   1.2 Antiviral Project Team meets bi-weekly to ensure timelines are met, reviews decisions and communicates with internal departments.

2. Dose Titration Studies:

AVI-6002 Dose Titration Study: Dose ranging studies with AVI-6002 in the Ebola lethal challenge model in Rhesus monkeys.

Objective: Establish a dose versus survival relationship for AVI-6002 following infection of rhesus macaques with EBOV Zaire critical to the dose refinement for advanced development and human safety studies.

AVI-6003 Dose Titration Study: Dose ranging studies with AVI-6003 in the Marburg lethal challenge model in Cynomolgus monkeys.

Objective: Establish a dose versus survival relationship for AVI-6003 following infection of cynomolgus macaques with MARV Musoke critical to the dose refinement for advanced development and human safety studies.

3. **Clinical Study Preparations:** In preparation for the first human volunteer safety study, two major work streams prior to the study site activation are required:

   3.1 Clinical Study Start-up Activities. Conducting the various activities required to open a clinical study site usually takes a minimum of 12 weeks after the key contracts are awarded.

   3.2 Clinical Supply Preparations. The Active Pharmaceutical Ingredients (API), AVI-6002 and AVI-6003 will be dispensed into sterile vials for future clinical use.

4. **Analytical Methods Development and Implementation:** The improvement of analytical methods to be used in the first in man pharmacokinetic studies represents ongoing studies that will require support. Transfer of methods to contract research organizations will be required prior to initiating GLP pharmacokinetic studies.

5. **Incorporation and Resolution of FDA Comments:** We propose to schedule a face-to-face strategy meeting regarding our proposed development plan, prior to providing responses to the questions and comments received upon IND approval. The next steps would be to provide three separate category responses: clinical, nonclinical and CMC (chemistry, manufacturing, and control). The clinical submission includes the revised protocol, a revised DSMB charter, and the ICF template, as well as responses to FDA questions, and a development plan outlining what additional clinical studies might be needed prior to approval. The nonclinical responses will be sent with the initial animal study protocols, as requested, and will include efficacy studies as well as PK/PD work. The CMC response will be provided after clinical supply manufacture is complete.

Portions of this document have been redacted pursuant to a confidential treatment request and filed separately with the Securities and Exchange Commission. Redacted portions have been replaced with "*****".

FIRST AMENDMENT TO SPONSORED RESEARCH AGREEMENT

This FIRST AMENDMENT TO SPONSORED RESEARCH AGREEMENT (the "Amendment") is entered into effective as of May 28, 2009 ("Amendment Date"), by and between AVI BioPharma, Inc., an Oregon corporation having offices at 4575 SW Research Way, Suite 200, Corvallis, OR 97333 (the "Company"), and Charley's Fund, Inc., a 501(c)(3) tax-exempt public non-profit organization with a mailing address of P.O. Box 297, South Egremont, MA 01258 (the "Sponsor") (each a "Party" and together the "Parties"), and amends that certain SPONSORED RESEARCH AGREEMENT, effective as of October 12, 2007, by and between the Parties (the "Agreement"), as follows.

RECITALS

WHEREAS, the Parties acknowledge that additional funding is necessary to complete the Research Project (as that term is defined in the Agreement), and therefore desire to amend the Agreement to increase the amount of the Project Funds (as that term is defined in the Agreement) to be provided to the Company by the Sponsor;

WHEREAS, the Parties desire to revise certain terms under the Agreement as they relate to payments to be made by the Company to the Sponsor, and

WHEREAS, the Parties desire to revise and update the description of the Research Project and the milestones contemplated therein,

NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the Parties hereto agree as follows:

1. Section 1.11 is amended and restated in its entirety as follows:

"Net Sales" means the gross amount invoiced for sales of Research Products by (i) for purposes of Section 9 hereof, Sponsor, its Affiliates, and sublicensees or (ii) for purposes of Section 4.3.1 hereof, Company, its Affiliates and licensees, in any case to an independent third party in an arms-length transaction, less:

(a) Trade, quantity and cash discounts allowed;

(b) Discounts, refunds, rebates, chargebacks, retroactive price adjustments, and any other allowances which effectively reduce the net selling price;

(c) Credits for actual Research Product returns; and

(d) Any tax imposed on the production, sale, delivery or use of the Research Product, including, without limitation, sales, use, excise, or value added taxes.

2. Section 4.1 is amended and restated in its entirety as follows:

Subject to the terms and conditions of this Agreement including the repayment

rights provided for in Section 4.3, the Sponsor shall pay the Company a total amount of Five Million Dollars ($5,000,000.00) which amount is inclusive of all direct costs of Research Project activities (the "Project Funds") as follows:

(a) The parties acknowledge and agree that Two Million Dollars ($2,000,000.00) of the Project Funds have been paid to the Company as of May 26, 2009, of which approximately One Million Three Hundred Fifty Thousand Dollars ($1,350,000.00) have been spent and earned by the Company hereunder. The parties further acknowledge and agree that, as of such date, the Company has completed each of Aim 1, Aim 2, Aim 3 and Aim 5 as set forth in the Study Protocol. The remaining Six Hundred Fifty Thousand Dollars ($650,000.00) of unspent, but received Project Funds shall be allocated as follows: (a) approximately ***** ($*****) shall be spent connection with the ***** (as further described in the Study Protocol), and (b) approximately ***** ($*****) shall be spent in connection with ***** (as further described in the Study Protocol), and, in both cases, such funds shall be recognized as earned upon *****.

(b) The Sponsor shall pay the remaining Three Million Dollars ($3,000,000.00) of the Project Funds to the Company in accordance with the following schedule of events (each, as further described in the Study Protocol):

(i) ***** ($*****) upon *****;

(ii) ***** ($*****) upon *****;

(iii) ***** ($*****) upon *****;

(iv) ***** ($*****) upon *****; and

(v) ***** ($*****) upon *****.

Besides the direct costs for the above studies, allowable costs include the costs for the stability testing, and fill/finish of drug product, which are taken into account in the above figures.

The Sponsor shall not be obligated to make any payments to the Company in addition to those set forth in this Section 4.1 unless the parties otherwise mutually agree in writing.

3. Section 4.3.1 is amended and restated in its entirety as follows:

A total royalty of *****% of Net Sales shall be paid to the Sponsor by the Company, less any portion of the Project Funds already repaid to the Sponsor by the Company. In no event shall royalties payable to the Sponsor exceed the total amount of Project Funds actually provided by the Sponsor to the Company. Such royalty shall be payable on a calendar quarter basis, within 45 days after the end of each quarter.

4. Section 4.3.2 is deleted.

5. Section 4.3.3 is deleted.

6. Section 4.3.5 is amended and restated in its entirety as follows:

Without limiting the foregoing, in the event that the full amount of the Project Funds have not been repaid to the Sponsor at first commercial sale into a Major Market of the Research Product via the payment mechanisms of Section 4.3.4, the Company shall make payments to the Sponsor as provided for in Section 4.3.1.

7. Each of Appendix A and Appendix B is amended and restated in its entirety as set forth on Schedule I and Schedule II, respectively, attached to the Amendment.

8. The Parties acknowledge and agree that Dr. Steven Shrewsbury, CMO, is currently serving as the Principal Investigator.

9. All capitalized terms not defined herein shall have the meanings ascribed to them in the Agreement. This Amendment is hereby incorporated into the Agreement. Except as specifically modified herein, the Agreement remains in full force and effect without further modification.

IN WITNESS WHEREOF, the Parties hereto have entered into this Amendment as of the date first written above.

AVI BIOPHARMA, INC.		**CHARLEY'S FUND, INC.**	
By:	/s/ Leslie Hudson	By:	/s/ Benjamin D. Seckler
Name:	Leslie Hudson	Name:	Benjamin D. Seckler
Title:	CEO President	Title:	President

Schedule I

*****

Schedule II

*****

EXHIBIT 31.1

CERTIFICATION PURSUANT TO
SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

I, Leslie Hudson, Ph.D., 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; and

   (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; and

   (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 that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting.

5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

   (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

   (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: August 10, 2009

By: /s/ Leslie Hudson, Ph.D.

Leslie Hudson, Ph.D.
President, Chief Executive Officer and Director
(Principal Executive Officer)

EXHIBIT 31.2

CERTIFICATION PURSUANT TO
SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

I, J. David Boyle II, certify that:

1. I have reviewed this quarterly report on Form 10-Q of AVI BioPharma, Inc. (the "Registrant");

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

   (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared; and

   (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; and

   (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 that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting.

5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

   (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

   (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: August 10, 2009

By: /s/ J. David Boyle II

J. David Boyle II
Senior Vice President and Chief Financial Officer
(Principal Financial and Accounting Officer)

EXHIBIT 32

CERTIFICATION OF CEO AND CFO PURSUANT TO
18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

In connection with the Quarterly Report of AVI BioPharma, Inc. (the "Company") on Form 10-Q for the period ended June 30, 2009 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Leslie Hudson, Ph.D., as President and Chief Executive Officer of the Company, and J. David Boyle II, as Chief Financial Officer of the Company, each hereby certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that, to the best of our knowledge:

(1) The Report fully complies with the req uirements of section 13(a) or 15(d) of the Securities Exchange Act of 1934; and

(2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

/s/ Leslie Hudson, Ph.D.
Leslie Hudson, Ph.D.
President, Chief Executive Officer and Director
AVI BioPharma, Inc.
August 10, 2009

/s/ J. David Boyle II
J. David Boyle II
Senior Vice President and Chief Financial Officer
AVI BioPharma, Inc.
August 10, 2009