

ANTIGENICS INC /DE/  
Form 424B3  
May 11, 2009  
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Filed Pursuant to Rule 424(b)(3) and Rule 424(c)  
Registration No. 333-149116

May 11, 2009

**PROSPECTUS SUPPLEMENT NO. 6**  
**17,417,434 SHARES OF COMMON STOCK**

**ANTIGENICS INC.**

This prospectus supplement amends the prospectus dated March 16, 2009 (as supplemented on April 15, 2009, April 17, 2009, April 22, 2009, April 27, 2009, and May 4, 2009) to allow certain stockholders or their pledgees, donees, transferees, or other successors in interest (the Selling Stockholders), to sell, from time to time, up to 8,708,717 shares of our common stock, which they have acquired in a private placement in the United States, and up to 8,708,717 shares of our common stock issuable upon the exercise of warrants which are held by the Selling Stockholders named in the prospectus.

We would not receive any proceeds from any such sale of these shares. To the extent any of the warrants are exercised for cash, if at all, we will receive the exercise price for those warrants.

This prospectus supplement is being filed to include the information set forth in the Quarterly Report on Form 10-Q and the Current Report on Form 8-K, both filed on May 11, 2009, which are set forth below. This prospectus supplement should be read in conjunction with the prospectus dated March 16, 2009, Prospectus Supplement No. 1 dated April 15, 2009, Prospectus Supplement No. 2 dated April 17, 2009, Prospectus Supplement No. 3 dated April 22, 2009, Prospectus Supplement No. 4 dated April 27, 2009, and Prospectus Supplement No. 5 dated May 4, 2009, which are to be delivered with this prospectus supplement.

Our common stock is quoted on The NASDAQ Capital Market (NASDAQ) under the ticker symbol AGEN. On May 7, 2009, the last reported closing price per share of our common stock was \$0.71 per share.

**Investing in our securities involves a high degree of risk. Before investing in any of our securities, you should read the discussion of material risks in investing in our common stock. See Risk Factors on page 1 of the prospectus.**

**Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or passed upon the adequacy or accuracy of this prospectus. Any representation to the contrary is a criminal offense.**

**THE DATE OF THIS PROSPECTUS SUPPLEMENT NO. 6 IS MAY 11, 2009**

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**UNITED STATES**  
**SECURITIES AND EXCHANGE COMMISSION**

Washington, D.C. 20549

**Form 10-Q**

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

For the Quarterly Period Ended March 31, 2009

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

For the transition period from            to

Commission File Number: 000-29089

**Antigenics Inc.**

(Exact name of registrant as specified in its charter)

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**Delaware**  
(State or other jurisdiction of  
incorporation or organization)

**06-1562417**  
(I.R.S. Employer  
Identification No.)

**3 Forbes Road, Lexington, MA 02421**

(Address of principal executive offices, including zip code)

**(781) 674-4400**

(Registrant's telephone number, including area code)

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

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

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

Large accelerated filer  Accelerated filer

Non-accelerated filer  (Do not check if a smaller reporting company) Smaller reporting company

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

Number of shares outstanding of the registrant's Common Stock as of May 1, 2009: 72,810,664 shares.

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**Antigenics Inc.**

**Quarterly Period Ended March 31, 2009**

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**Table of Contents****PART I FINANCIAL INFORMATION****Item 1. Financial Statements****ANTIGENICS INC. AND SUBSIDIARIES****CONDENSED CONSOLIDATED BALANCE SHEETS****(Unaudited)**

	<b>March 31, 2009</b>	<b>December 31, 2008 As adjusted</b>
<b>ASSETS</b>		
Cash and cash equivalents	\$ 14,592,357	\$ 24,469,008
Short-term investments	9,992,859	9,993,617
Inventories	226,300	226,376
Prepaid expenses	1,055,323	610,462
Other current assets	528,920	187,013
<b>Total current assets</b>	<b>26,395,759</b>	<b>35,486,476</b>
Plant and equipment, net	10,827,855	11,535,467
Goodwill	2,572,203	2,572,203
Core and developed technology, net	2,149,970	2,426,785
Debt issuance costs, net (Note I)	663,036	717,833
Other long-term assets	4,101,835	4,083,442
<b>Total assets</b>	<b>\$ 46,710,658</b>	<b>\$ 56,822,206</b>
<b>LIABILITIES AND STOCKHOLDERS DEFICIT</b>		
Current portion, long-term debt	\$ 146,061	\$ 146,061
Current portion, deferred revenue	1,444,499	1,481,999
Accounts payable	589,708	540,529
Accrued liabilities	3,701,441	4,618,806
Other current liabilities	180,000	209,585
<b>Total current liabilities</b>	<b>6,061,709</b>	<b>6,996,980</b>
Long-term debt (Note I)	63,158,837	64,125,926
Deferred revenue	3,094,471	3,436,845
Other long-term liabilities (Note I)	5,093,920	2,592,882
Commitments and contingencies (Note E)		
Stockholders deficit:		
Preferred stock, par value \$0.01 per share; 25,000,000 shares authorized:		
Series A convertible preferred stock; 31,620 shares designated, issued, and outstanding at March 31, 2009 and December 31, 2008; liquidation value of \$31,817,625 at March 31, 2009	316	316
Series B2 convertible preferred stock; 5,250 shares designated, issued, and outstanding at March 31, 2009 and December 31, 2008	53	53
Common stock, par value \$0.01 per share; 250,000,000 shares authorized; 67,089,484 and 66,497,702 shares issued at March 31, 2009 and December 31, 2008, respectively	670,895	664,977
Additional paid-in capital	510,626,492	511,447,653

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Treasury stock, at cost; 260,944 and 143,031 shares of common stock at March 31, 2009 and December 31, 2008, respectively	(324,792)	(269,849)
Accumulated deficit	(541,671,243)	(532,173,577)
Total stockholders' deficit	(30,698,279)	(20,330,427)
Total liabilities and stockholders' deficit	\$ 46,710,658	\$ 56,822,206

See accompanying notes to unaudited condensed consolidated financial statements.

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**ANTIGENICS INC. AND SUBSIDIARIES**  
**CONDENSED CONSOLIDATED STATEMENTS OF OPERATIONS**  
**(Unaudited)**

	Quarter Ended March 31,	
	2009	2008 As adjusted
Revenue	\$ 621,354	\$ 850,224
Operating expenses:		
Research and development	(4,905,402)	(5,730,737)
General and administrative	(3,903,569)	(5,272,927)
Operating loss	(8,187,617)	(10,153,440)
Other income (expense):		
Non-operating income (Note I)	158,010	2,310
Interest expense (Note I)	(1,514,241)	(1,570,843)
Interest income	67,430	351,088
Net loss	(9,476,418)	(11,370,885)
Dividends on series A convertible preferred stock	(197,625)	(197,625)
Net loss attributable to common stockholders	\$ (9,674,043)	\$ (11,568,510)
Per common share data, basic and diluted:		
Net loss attributable to common stockholders	\$ (0.14)	\$ (0.21)
Weighted average number of common shares outstanding, basic and diluted	66,871,347	55,745,587

See accompanying notes to unaudited condensed consolidated financial statements.

**Table of Contents****ANTIGENICS INC. AND SUBSIDIARIES****CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS****(Unaudited)**

	<b>Quarter Ended March 31,</b>	
	<b>2009</b>	<b>2008 As adjusted</b>
<b>Cash flows from operating activities:</b>		
Net loss	\$(9,476,418)	\$ (11,370,885)
<b>Adjustments to reconcile net loss to net cash used in operating activities:</b>		
Depreciation and amortization	1,056,356	1,319,310
Change in fair value of derivative liability	(157,889)	
Share-based compensation	716,954	1,771,144
Non-cash interest expense	372,209	310,227
<b>Changes in operating assets and liabilities:</b>		
Accounts receivable		10,333
Inventories	76	190,397
Prepaid expenses	(444,861)	(621,729)
Accounts payable	40,449	60,872
Deferred revenue	(379,874)	(357,999)
Accrued liabilities and other current liabilities	(946,139)	(391,351)
Other operating assets and liabilities	(416,512)	(100,029)
<b>Net cash used in operating activities</b>	<b>(9,635,649)</b>	<b>(9,179,710)</b>
<b>Cash flows from investing activities:</b>		
Proceeds from maturities of available-for-sale securities	5,000,000	4,200,000
Purchases of available-for-sale securities	(4,996,967)	
Purchases of plant and equipment	(8,400)	(2,798)
<b>Net cash (used in) provided by investing activities</b>	<b>(5,367)</b>	<b>4,197,202</b>
<b>Cash flows from financing activities:</b>		
Net proceeds from sale of equity		26,031,913
Proceeds from exercise of stock options		43,881
Proceeds from employee stock purchases	16,933	121,193
Treasury stock received to satisfy minimum tax withholding requirements	(54,943)	(86,461)
Payment of series A convertible preferred stock dividend	(197,625)	(197,625)
<b>Net cash (used in) provided by financing activities</b>	<b>(235,635)</b>	<b>25,912,901</b>
<b>Net (decrease) increase in cash and cash equivalents</b>	<b>(9,876,651)</b>	<b>20,930,393</b>
Cash and cash equivalents, beginning of period	24,469,008	14,479,322
<b>Cash and cash equivalents, end of period</b>	<b>\$14,592,357</b>	<b>\$ 35,409,715</b>

See accompanying notes to unaudited condensed consolidated financial statements.



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**ANTIGENICS INC. AND SUBSIDIARIES**

**NOTES TO UNAUDITED CONDENSED CONSOLIDATED FINANCIAL STATEMENTS**

**March 31, 2009**

**Note A Business and Basis of Presentation**

Antigenics Inc. (including its subsidiaries, also referred to as Antigenics, the Company, we, us, and our ) is a biotechnology company developing and commercializing technologies to treat cancers and infectious diseases, primarily based on immunological approaches. Our most advanced product, Oncophage<sup>®</sup> (vitespen), is a patient-specific therapeutic cancer vaccine registered for use in Russia and under review for conditional authorization by the European Medicines Agency for the treatment of kidney cancer patients with earlier stage disease. Oncophage has been tested in Phase 3 clinical trials for the treatment of renal cell carcinoma, the most common type of kidney cancer, and for metastatic melanoma, and it has also been tested in Phase 1 and Phase 2 clinical trials in a range of indications and is currently in a Phase 2 clinical trial in recurrent glioma, a type of brain cancer. Our product candidate portfolio also includes (1) QS-21 Stimulon<sup>®</sup> adjuvant, or QS-21, which is used in numerous vaccines under development in trials as advanced as Phase 3 for a variety of diseases, including hepatitis, human immunodeficiency virus, influenza, cancer, Alzheimer's disease, malaria, and tuberculosis, (2) AG-707, a therapeutic vaccine program tested in a Phase 1 clinical trial for the treatment of genital herpes, and (3) Aroplatin, a liposomal chemotherapeutic tested in a Phase 1 clinical trial for the treatment of solid malignancies and B-cell lymphomas. Further internal clinical development of AG-707 and Aroplatin is currently on hold due to cost containment efforts. Our related business activities include product research and development, intellectual property prosecution, manufacturing therapeutic vaccines for clinical trials, regulatory and clinical affairs, corporate finance and development activities, market development, and support of our collaborations.

Our product candidates require clinical trials and approvals from regulatory agencies, as well as acceptance in the marketplace. We are conducting clinical trials in various cancer indications and in one infectious disease indication. Part of our strategy is to develop and commercialize some of our product candidates by continuing our existing collaborative arrangements with academic and corporate collaborators and licensees and by entering into new collaborations.

We have incurred significant losses since our inception. As of March 31, 2009, we had an accumulated deficit of \$541.7 million. Since our inception, we have financed our operations primarily through the sale of equity and convertible notes, interest income earned on cash, cash equivalents, and short-term investment balances, and debt provided through secured lines of credit. We believe, based on our current plans and activities, that our working capital resources at March 31, 2009, anticipated revenues, and the estimated proceeds from our license, supply, and collaborative agreements will be sufficient to satisfy our liquidity requirements into 2010. We closely monitor our cash needs. Should our anticipated revenues for certain of our activities prove not to be commercially feasible by the end of the second quarter of 2009, we may discontinue funding of such activities. In addition, we will continue to adjust other spending as needed in order to preserve liquidity. We expect to attempt to raise additional funds in advance of depleting our current funds. Satisfying long-term liquidity needs may require the successful commercialization of (1) our product, Oncophage, and/or one or more partnering arrangements for Oncophage, (2) QS-21 by our licensees, and/or (3) potentially other product candidates, and will require additional capital.

The accompanying unaudited interim condensed consolidated financial statements have been prepared in accordance with U.S. generally accepted accounting principles for interim financial information and with the instructions to Article 10 of Regulation S-X. Accordingly, they do not include all of the information and footnotes required by U.S. generally accepted accounting principles for complete annual consolidated financial statements. In the opinion of management, the condensed consolidated financial statements include all normal and recurring adjustments considered necessary for a fair presentation of our financial position and operating results. All significant intercompany transactions and accounts have been eliminated in consolidation. Certain amounts previously reported have been adjusted in order to conform to the current period's presentation including changes resulting from the adoption of Financial Accounting Standards Board (FASB) Staff Position (FSP) APB 14-1, *Accounting for Convertible Debt Instruments That May Be Settled in Cash upon Conversion (Including Partial Cash Settlement)* (FSP APB 14-1). Operating results for the quarter ended March 31, 2009 are not necessarily indicative of the results that may be expected for the year ending December 31, 2009. For further information, refer to our consolidated financial statements and footnotes thereto included in our Annual Report on Form 10-K for the year ended December 31, 2008 filed with the Securities and Exchange Commission (the SEC).

**Table of Contents****ANTIGENICS INC. AND SUBSIDIARIES****NOTES TO UNAUDITED CONDENSED CONSOLIDATED FINANCIAL STATEMENTS (continued)**

The preparation of consolidated financial statements in conformity with U.S. generally accepted accounting principles requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosures of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Management bases its estimates on historical experience and on various assumptions that are believed to be reasonable under the circumstances. Actual results could differ materially from those estimates.

**Note B Net Loss Per Share**

Basic loss per common share is calculated by dividing the net loss attributable to common stockholders by the weighted average number of common shares outstanding (including common shares issuable under our Directors' Deferred Compensation Plan). Diluted loss per common share is calculated by dividing the net loss attributable to common stockholders by the weighted average number of common shares outstanding (including common shares issuable under our Directors' Deferred Compensation Plan) plus the dilutive effect of outstanding convertible instruments such as warrants, stock options, nonvested shares, convertible preferred stock, and convertible notes. Because we have reported a net loss attributable to common stockholders for all periods, diluted loss per common share is the same as basic loss per common share, as the effect of utilizing the fully diluted share count would have reduced the net loss per common share. Therefore, shares underlying the 33,126,151 warrants outstanding or issuable, the 7,327,539 outstanding stock options, the 1,693,304 outstanding nonvested shares, the 31,620 outstanding shares of series A convertible preferred stock, and the 5,250 outstanding shares of series B2 convertible preferred stock, and the impact of conversion of our 5.25% convertible senior notes due February 2025 (the 2005 Notes) and our 8% senior secured convertible notes due August 2011 (the 2006 Notes), are not included in the calculation of diluted net loss per common share.

**Note C Inventories**

Inventories are stated at cost using the first-in, first-out method. The components of inventories are as follows (in thousands).

	March 31, 2009	December 31, 2008
Work in process	\$ 194	\$ 194
Finished goods	32	32
	\$ 226	\$ 226

**Note D Share-Based Compensation**

Share-based compensation expense includes compensation expense for all share-based options granted prior to, but not yet vested as of, January 1, 2006, based on the grant date fair value estimated in accordance with the original provisions of Statement of Financial Accounting Standards (SFAS) No. 123, *Accounting for Stock-Based Compensation*. Share-based compensation expense also includes compensation expense for all share-based awards granted, modified, or settled after January 1, 2006, based on the grant date fair value estimated in accordance with the provisions of SFAS No. 123R, *Share-Based Payment* (SFAS No. 123R), and the fair market value of shares issued to non-employees for services rendered.

We have applied the provisions of Staff Accounting Bulletin (SAB) No. 107, *Share-Based Payment* (SAB No. 107), in accounting for share-based compensation in accordance with SFAS No. 123R. SAB No. 107 contains the SEC's guidance on certain aspects of SFAS No. 123R and the valuation of share-based payments for public companies.

Stock options granted to non-employees are accounted for based on the fair-value method of accounting in accordance with SFAS No. 123R and Emerging Issues Task Force (EITF) Issue No. 96-18, *Accounting for Equity Instruments That Are Issued to Other Than Employees for Acquiring, or in Conjunction with Selling, Goods or Services*. As a result, the non-cash charge to operations for non-employee options with

vesting or other performance criteria is affected each reporting period, until the non-employee options vest, by changes in the fair value of our common stock.

**Table of Contents****ANTIGENICS INC. AND SUBSIDIARIES****NOTES TO UNAUDITED CONDENSED CONSOLIDATED FINANCIAL STATEMENTS (continued)**

Certain of our fully vested options granted to non-employees are outside the scope of SFAS No. 123R and are subject to EITF Issue No. 00-19, *Accounting for Derivative Financial Instruments Indexed to, and Potentially Settled in, a Company's Own Stock*, which requires that stock options held by certain non-employee consultants be accounted for as liability-classified awards. The fair value of the award is remeasured at each financial statement date until the award is exercised or expires. As of March 31, 2009, fully vested stock options to acquire approximately 606,000 shares of common stock held by non-employee consultants were accounted for as liability-classified awards, and remained unexercised.

We use the Black-Scholes option pricing model to value options for employees, as well as options granted to members of our Board of Directors. All stock option grants have a 10-year term and generally vest ratably over a four-year period.

A summary of option activity for the quarter ended March 31, 2009 is presented below:

	Options	Weighted Average Exercise Price	Weighted Average Remaining Contractual Term (in years)	Aggregate Intrinsic Value
Outstanding at December 31, 2008	7,873,464	\$ 5.00		
Granted	25,523	0.39		
Exercised				
Forfeited	(315,890)	2.23		
Expired	(255,558)	9.80		
Outstanding at March 31, 2009	7,327,539	\$ 4.93	6.2	\$ 3,895
Vested or expected to vest at March 31, 2009	7,120,985	\$ 5.02	6.1	\$ 3,668
Exercisable at March 31, 2009	4,619,796	\$ 6.63	4.9	\$ 2,760

The weighted average grant-date fair values of options granted during the quarters ended March 31, 2009 and 2008 were \$0.33 and \$1.34, respectively.

During the first quarter of 2009, all options were granted with exercise prices equal to the fair market value of the underlying shares of common stock on the grant date.

As of March 31, 2009, \$2.3 million of total unrecognized compensation cost related to stock options granted to employees and directors is expected to be recognized over a weighted average period of 2.32 years.

As of March 31, 2009, unrecognized expense for options granted to outside advisors for which performance (vesting) has not yet been completed but the exercise price of the option is known is \$6,400. Such amount is subject to change each reporting period based upon changes in the fair value of our common stock, expected volatility, and the risk-free interest rate, until the outside advisor completes his or her performance under the option agreement.

Certain employees and consultants have been granted nonvested stock. In accordance with SFAS No. 123R, the fair value of nonvested stock is calculated based on the closing sale price of the Company's common stock on the date of issuance.



**Table of Contents****ANTIGENICS INC. AND SUBSIDIARIES****NOTES TO UNAUDITED CONDENSED CONSOLIDATED FINANCIAL STATEMENTS (continued)**

A summary of nonvested stock activity for the quarter ended March 31, 2009 is presented below:

	Nonvested Shares	Weighted Average Grant Date Fair Value
Outstanding at December 31, 2008	966,450	\$ 1.54
Granted	1,308,130	0.35
Vested	(537,376)	1.97
Forfeited	(43,900)	1.23
Outstanding at March 31, 2009	1,693,304	\$ 0.50

As of March 31, 2009, there was \$548,000 of unrecognized share-based compensation expense related to these nonvested shares. This cost is expected to be recognized over a weighted average period of 1.4 years. The total intrinsic value of shares vested during the quarter ended March 31, 2009 was \$251,000.

Cash received from purchases under the 1999 Employee Stock Purchase Plan (the 1999 ESPP) for the quarter ended March 31, 2009 was approximately \$17,000. We issue new shares upon option exercises, purchases under the 1999 ESPP, vesting of nonvested stock, and under the Directors' Deferred Compensation Plan. During the quarter ended March 31, 2009, 41,300 shares were issued under the 1999 ESPP and approximately 537,000 shares, net of 118,000 shares withheld to cover personal income tax withholding, were issued as a result of the vesting of nonvested stock. The shares withheld were recorded as treasury stock using the cost method, at a weighted average price of \$0.47 per share, based on the NASDAQ Global Market closing price on the vesting dates, for a total of approximately \$55,000. In addition, during the quarter ended March 31, 2009, approximately 15,000 shares were issued under our Directors' Deferred Compensation Plan.

The impact on our results of operations from share-based compensation was as follows (in thousands).

	Quarter Ended March 31,	
	2009	2008
Research and development	\$ 289	\$ 666
General and administrative	417	1,105
Total share-based compensation expense	\$ 706	\$ 1,771

**Note E Commitments and Contingencies**

Antigenics, our Chairman and Chief Executive Officer, Garo H. Armen, Ph.D., and two investment banking firms that served as underwriters in our initial public offering have been named as defendants in a federal civil class action lawsuit pending in the United States District Court for the Southern District of New York. Substantially similar actions were filed concerning the initial public offerings for more than 300 different issuers, and the cases were coordinated as *In re Initial Public Offering Securities Litigation*, 21 MC 92 for pre-trial purposes. The suit alleges that the brokerage arms of the investment banking firms charged secret excessive commissions to certain of their customers in return for allocations of our stock in the offering. The suit also alleges that shares of our stock were allocated to certain of the investment banking firms customers based upon agreements by such customers to purchase additional shares of our stock in the secondary market. Dr. Armen has been dismissed without prejudice from the lawsuit pursuant to a stipulation. In June 2004, a stipulation of settlement and release of claims against the

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issuer defendants, including us, was submitted to the Court for approval. The Court preliminarily approved the settlement in August 2005. In December 2006, the appellate court overturned the certification of classes in six test cases that were selected by the underwriter defendants and plaintiffs in the coordinated proceedings. Class certification had been one of the conditions of the settlement. Accordingly, on June 25, 2007, the Court entered an order terminating the proposed settlement based on a stipulation among the parties to the settlement. Plaintiffs have filed amended master allegations and amended complaints and moved for class certification in the six test cases, which the defendants in those cases have opposed. On March 26, 2008, the Court denied the defendants' motion to dismiss the amended complaints. The

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**ANTIGENICS INC. AND SUBSIDIARIES**

**NOTES TO UNAUDITED CONDENSED CONSOLIDATED FINANCIAL STATEMENTS (continued)**

parties recently reached a global settlement of the litigation. On April 2, 2009, plaintiffs filed a motion for preliminary approval of the settlement. Under the settlement, which remains subject to Court approval, the insurers would pay the full amount of settlement share allocated to the defendants, and the defendants would bear no financial liability. The company defendants, as well as the officer and director defendants who were previously dismissed from the action pursuant to tolling agreements, would receive complete dismissals from the case. It is uncertain whether the settlement will receive final Court approval. No accrual has been recorded at March 31, 2009 for this action.

We currently are a party, or may become a party, to other legal proceedings as well. While we currently believe that the ultimate outcome of any of these proceedings will not have a material adverse effect on our financial position, results of operations, or liquidity, litigation is subject to inherent uncertainty. Furthermore, litigation consumes both cash and management attention.

**Note F License and Supply Agreements**

On July 6, 2006, we and GlaxoSmithKline Biologicals SA ( GSK ) entered into an expanded license agreement (the GSK license agreement ) and an expanded Manufacturing Technology Transfer and Supply Agreement (the 2006 GSK supply agreement ) for the use of QS-21, an investigational adjuvant used in numerous vaccines under development. Under the terms of the agreements, we agreed to supply QS-21 to GSK through 2014. In addition, we agreed to transfer manufacturing technologies under the 2006 GSK supply agreement. In conjunction with the GSK license agreement and the 2006 GSK supply agreement, we received a \$3.0 million up-front non-refundable payment in July 2006. In February 2007, we received and recorded \$2.0 million in revenue as a result of the achievement of a milestone related to the transfer of manufacturing technologies to GSK.

On July 20, 2007, we executed a letter with GSK amending the 2006 GSK supply agreement to accelerate GSK's commercial grade QS-21 manufacturing rights previously granted in July 2006. On January 16, 2009, we entered into an Amended and Restated Manufacturing Technology Transfer and Supply Agreement (the Amended GSK supply agreement ) reflecting the provisions of the letter.

Accordingly, from the effective date of the letter, GSK has the right to manufacture all of its requirements of commercial grade QS-21. In addition, the parties have amended their purchase and supply obligations with respect to pre-commercial grade QS-21. In accordance with the terms of the Amended GSK supply agreement, upon our election, GSK is obligated to supply us (or our affiliates, licensees, or customers) certain quantities of commercial grade QS-21 for a stated period of time.

As consideration for our entering into the letter, we received a \$2.0 million up-front non-refundable payment from GSK in August 2007, in lieu of a milestone payment that would have otherwise been payable under the 2006 GSK supply agreement. In addition, GSK is obligated to make payments to us totaling \$5.25 million through December 2012, for manufacturing profits that were anticipated to have otherwise been earned under the 2006 GSK supply agreement. Except as expressly provided in the Amended GSK supply agreement, all other financial obligations of GSK under the 2006 GSK supply agreement, including royalty payments, remain unchanged. The Amended GSK supply agreement does not affect the rights and obligations of the parties under the July 6, 2006 GSK license agreement.

During each of the quarters ended March 31, 2009 and 2008, we recognized revenue of \$332,000 from the amortization of deferred revenue relating to payments received under our license and supply agreement with GSK. Deferred revenue of \$4.1 million related to our agreement with GSK is included in deferred revenue on our consolidated balance sheet as of March 31, 2009.

**Table of Contents****ANTIGENICS INC. AND SUBSIDIARIES****NOTES TO UNAUDITED CONDENSED CONSOLIDATED FINANCIAL STATEMENTS (continued)****Note G Restructuring Costs**

On February 2, 2009, we initiated a plan of restructuring that resulted in a reduction of our workforce by approximately 20%, or 19 positions. We engaged in this workforce reduction in order to reduce operating expenses in light of current market conditions and to focus our resources on near-term commercial opportunities. This restructuring action resulted in total charges of approximately \$177,000 in severance and outplacement expenses in the quarter ended March 31, 2009, with \$42,000 included in research and development expenses and \$135,000 included in general and administrative expenses in our consolidated statement of operations. A summary of these costs is as follows (in thousands):

	Liability at December 31, 2008	Charge to Operations	Amounts Paid	Liability at March 31, 2009
Severance	\$	\$ 150	\$ (119)	\$ 31
Outplacement		27	( 10)	17
<b>Total</b>	<b>\$</b>	<b>\$ 177</b>	<b>\$ (129)</b>	<b>\$ 48</b>

**Note H Recent Accounting Pronouncements**

In December 2007, the FASB issued SFAS No. 141 (revised 2007), *Business Combinations* ( SFAS No. 141R ). This revised standard expands the types of transactions or other events that will qualify as business combinations and requires that all business combinations will result in all assets and liabilities of the acquired business being recorded at their fair values, with limited exceptions. The standard also requires, among other provisions, that certain contingent assets and liabilities will be recognized at their fair values on the acquisition date. An acquirer will also recognize contingent consideration at its fair value on the acquisition date and, for certain arrangements, changes in fair value will be recognized in earnings until the contingency is settled. Under SFAS No. 141R, acquisition-related transaction and restructuring costs will be expensed rather than treated as part of the cost of the acquisition and included in the amount recorded for assets acquired. SFAS No. 141R is required to be applied prospectively to business combinations for which the acquisition is on or after the beginning of the first annual reporting period beginning on or after December 15, 2008. The adoption of SFAS No 141R did not have an impact on our financial position or results of operations.

In December 2007, the FASB issued SFAS No. 160, *Noncontrolling Interests in Consolidated Financial Statements* ( SFAS No. 160 ). SFAS No. 160, which is effective for fiscal years, and interim periods within those fiscal years, beginning on or after December 15, 2008, governs the accounting for and reporting of noncontrolling interests in partially owned consolidated subsidiaries and the loss of control in subsidiaries. The adoption of SFAS No. 160 did not have an impact on our financial position or results of operations.

In March 2008, the FASB issued SFAS No. 161, *Disclosures about Derivative Instruments and Hedging Activities* ( SFAS No. 161 ). SFAS No. 161, which is effective for fiscal years, and interim periods within those fiscal years, beginning on or after November 15, 2008, is intended to improve financial reporting about derivative instruments and hedging activities by requiring enhanced disclosures to enable investors to better understand their effects on an entity's financial position, financial performance and cash flows. The adoption of SFAS No. 161 did not have an impact on our financial position or results of operations but will require additional disclosure.

In May 2008, the FASB issued FSP APB 14-1, which is effective for fiscal years, and interim periods within those fiscal years, beginning after December 15, 2008. FSP APB 14-1 clarifies that convertible debt instruments that may be settled in cash upon conversion are not addressed by paragraph 12 of APB Opinion No. 14, *Accounting for Convertible Debt and Debt Issued with Stock Purchase Warrants*. FSP APB 14-1 also specifies that issuers of such instruments should separately account for the liability and equity components in a manner that will reflect the entity's nonconvertible debt borrowing rate when interest cost is recognized in subsequent periods. We adopted FSP APB 14-1 as of January 1, 2009 and the effect on our consolidated financial statements is discussed in Note I.

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In June 2008, the FASB ratified the consensus in EITF Issue No. 07-5, *Determining Whether an Instrument (or Embedded Feature) Is Indexed to an Entity's Own Stock* ( EITF Issue No. 07-5 ), which is effective for financial statements issued for fiscal years beginning after December 15, 2008, and interim periods within those fiscal years. EITF Issue No. 07-5 defines when adjustment features within contracts are considered to be equity-indexed. We adopted EITF Issue No. 07-5 as of January 1, 2009, which is applicable to our 2006 Notes due to the provisions contained therein that protect the holders from declines in our stock price. EITF Issue No. 07-5 is applied prospectively, with a cumulative effect adjustment recorded to accumulated deficit as of January 1, 2009, as if the standard had been applied to the 2006 Notes since their issuance. See Note I for additional information as to the effect of the adoption of EITF Issue No. 07-5.

**Table of Contents****ANTIGENICS INC. AND SUBSIDIARIES****NOTES TO UNAUDITED CONDENSED CONSOLIDATED FINANCIAL STATEMENTS (continued)**

In April 2009, the FASB issued FSP FAS 141(R)-1, *Accounting for Assets Acquired and Liabilities Assumed in a Business Combination That Arise from Contingencies* ( FSP FAS 141(R)-1 ). FSP FAS 141(R) requires an acquirer to recognize at the acquisition date the fair value of an asset acquired or liability assumed in a business combination that arises from a contingency, if the acquisition-date fair value can be determined during the measurement period. This FSP is effective for business combinations for which the acquisition date is on or after the beginning of the first annual reporting period beginning on or after December 15, 2008. FSP FAS 141(R)-1 impacts our accounting for future business combinations, if any.

In April 2009, the FASB also issued FSP FAS 157-4, *Determining Fair Value When the Volume and Level of Activity for the Asset or Liability Have Significantly Decreased and Identifying Transactions That Are Not Orderly*. This FSP provides additional guidance for estimating fair value in accordance with SFAS No. 157, *Fair Value Measurements* ( SFAS No. 157 ), when the volume and level of activity for the asset or liability have significantly decreased. This FSP also includes guidance on identifying circumstances that indicate a transaction is not orderly. This FSP emphasizes that even if there has been a significant decrease in the volume and level of activity for the asset or liability and regardless of the valuation technique(s) used, the objective of a fair value measurement remains the same. Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction (that is, not a forced liquidation or distressed sale) between market participants at the measurement date under current market conditions. This FSP is effective for interim and annual reporting periods ending after June 15, 2009, and shall be applied prospectively with early adoption permitted for periods ending after March 15, 2009. The adoption of this FSP is not expected to have an impact on our consolidated financial statements.

In April 2009, the FASB issued FSP FAS 115-2 and FAS 124-2, *Recognition and Presentation of Other-Than-Temporary Impairments*. This FSP amends the other-than-temporary impairment guidance for debt securities to make the guidance more operational and to improve the presentation and disclosure of other-than-temporary impairments on debt and equity securities in the financial statements. This FSP does not amend existing recognition and measurement guidance related to other-than-temporary impairments of equity securities. This FSP is effective for interim and annual reporting periods ending after June 15, 2009, with early adoption permitted for periods ending after March 15, 2009. The adoption of this FSP is not expected to have a material impact on our consolidated financial statements.

In April 2009, the FASB issued FSP FAS 107-1 and APB 28-1, *Interim Disclosures about Fair Value of Financial Instruments*, to require disclosures about the fair value of financial instruments for interim reporting periods of publicly traded companies as well as in annual financial statements. This FSP also amends APB Opinion No. 28, *Interim Financial Reporting*, to require those disclosures in summarized financial information at interim reporting periods. This FSP is effective for interim reporting periods ending after June 15, 2009, with early adoption permitted for periods ending after March 15, 2009. The adoption of this FSP will not have an impact on our financial position or results of operations but will require additional disclosure.

**Note I Convertible Debt**

We adopted FSP APB 14-1 as of January 1, 2009 and retrospectively applied this change in accounting to all prior periods presented for which we had applicable outstanding convertible debt, as required by this new standard. In accordance with SFAS No. 154, *Accounting Changes and Error Corrections*, all prior periods presented herein have been adjusted to apply the new method retrospectively. Under this new method of accounting, the debt and equity components of our 2005 Notes and our 2006 Notes are bifurcated and accounted for separately based on the value and related interest rate of non-convertible debt securities with the same terms. The fair value of a non-convertible debt instrument at the original issuance dates of our 2005 Notes and our 2006 Notes was determined to be \$42.6 million and \$23.6 million, respectively. The equity (conversion options) components of our convertible debt securities have been included in additional paid-in capital on our consolidated balance sheet and, accordingly, the initial carrying value of the debt securities was reduced by \$8.8 million. Our previously reported net loss for the quarter ended March 31, 2008 was increased by \$300,000 primarily due to recognizing the accretion of the reduced carrying values of our convertible debt securities to their face amount as additional non-cash interest expense. The adoption of FSP APB 14-1 has resulted in a reduction in the carrying value of our convertible debt by approximately \$3.7 million as of December 31, 2008. In addition, the adoption of FSP APB 14-1 reduced our deferred debt issuance costs as we were required to allocate an amount related to the conversion option to equity.

**Table of Contents****ANTIGENICS INC. AND SUBSIDIARIES****NOTES TO UNAUDITED CONDENSED CONSOLIDATED FINANCIAL STATEMENTS (continued)**

As a result of the adoption of EITF Issue No. 07-5, the conversion feature embedded in our 2006 Notes is now treated as a derivative and recorded at its fair value, with period to period changes in the fair value recorded as a gain or loss in our consolidated statement of operations. Accordingly, upon adoption we recorded a reduction to additional paid-in capital of \$1.4 million, an increase to debt discount of \$1.3 million, a derivative liability of \$2.7 million, and a charge to opening accumulated deficit of \$21,000; and a charge to other income of \$158,000 and \$165,000 of non-cash interest expense for the quarter ended March 31, 2009.

**Note J Fair Value Measurements**

We measure fair value in accordance with SFAS No. 157. SFAS No. 157 establishes a hierarchy for inputs used in measuring fair value that maximizes the use of observable inputs and minimizes the use of unobservable inputs by requiring that observable inputs be used when available. Observable inputs are inputs that market participants would use in pricing the asset or liability based on market data obtained from sources independent of the Company. Unobservable inputs are inputs that reflect the Company's assumptions about the inputs that market participants would use in pricing the asset or liability and are developed based on the best information available in the circumstances. The fair value hierarchy is broken down into three levels based on the source of inputs as follows:

Level 1 Valuations based on unadjusted quoted prices in active markets for identical assets or liabilities that the Company has the ability to access;

Level 2 Valuations based on quoted prices for similar assets or liabilities in active markets, quoted prices for identical or similar assets or liabilities in markets that are not active and models for which all significant inputs are observable, either directly or indirectly; and

Level 3 Valuations based on inputs that are unobservable and significant to the overall fair value measurement.

The availability of observable inputs can vary among the various types of financial assets and liabilities. To the extent that the valuation is based on models or inputs that are less observable or unobservable in the market, the determination of fair value requires more judgment. In certain cases, the inputs used to measure fair value may fall into different levels of the fair value hierarchy. In such cases, for financial statement disclosure purposes, the level in the fair value hierarchy within which the fair value measurement is categorized is based on the lowest level input that is significant to the overall fair value measurement.

We measure our short-term investments and derivative liability at fair value. Our short-term investments are comprised of U.S. Treasury securities that are valued using quoted market prices with no valuation adjustments applied. Accordingly, these securities are categorized in Level 1. Our derivative liability is classified within Level 3 because it is valued using a modified Black-Scholes model. Certain inputs into this model were valued using a combination of income and market approaches which are unobservable in the market and are significant.

Assets and liabilities measured at fair value are summarized below (in thousands):

Description	March 31, 2009	Quoted Prices in	Significant
		Active Markets for Identical Assets (Level 1)	Unobservable Inputs (Level 3)
<b>Assets:</b>			
Short-term investments	\$ 10,000	\$ 10,000	\$
<b>Liabilities:</b>			
Derivative liability	\$ 2,555	\$	\$ 2,555

**Table of Contents****ANTIGENICS INC. AND SUBSIDIARIES****NOTES TO UNAUDITED CONDENSED CONSOLIDATED FINANCIAL STATEMENTS (continued)**

The following table presents our liabilities measured at fair value using significant unobservable inputs (Level 3) as defined in SFAS No. 157, as of March 31, 2009 (amounts in thousands):

Balance, December 31, 2008	\$
Cumulative effect of change in accounting principle – adoption of EITF Issue No. 07-5	2,713
Decline in fair value for the quarter ended March 31, 2009	(158)
Balance, March 31, 2009	\$ 2,555

The decline in fair value of the derivative liability is included in non-operating income in our condensed consolidated statement of operations for the quarter ended March 31, 2009.

**Note K Subsequent Event**

In April 2009, we issued 5,929,212 shares of our common stock upon conversion of 2,145 shares of our series B2 convertible preferred stock via cashless conversions. These shares were issued pursuant to an effective registration statement. Upon completion of this conversion, 3,105 shares of our series B2 convertible preferred stock are still outstanding although no further shares can be converted into shares of common stock.

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

We are currently researching and/or developing technologies and product candidates to treat cancers and infectious diseases. Since our inception in March 1994, our activities have primarily been associated with the development of our heat shock protein technology and our product, Oncophage<sup>®</sup> (vitespen), a patient-specific therapeutic cancer vaccine registered for use in Russia for the treatment of kidney cancer patients at intermediate risk for disease recurrence and under review by the European Medicines Agency for conditional authorization for the treatment of kidney cancer patients with earlier-stage disease. Oncophage has been tested in Phase 3 clinical trials for the treatment of renal cell carcinoma, the most common type of kidney cancer, and for the treatment of metastatic melanoma, and it has also been tested in Phase 1 and Phase 2 clinical trials in a range of indications and is currently in a Phase 2 clinical trial in recurrent glioma, a type of brain cancer. Our business activities have included product research and development, intellectual property prosecution, manufacturing therapeutic vaccines for clinical trials, regulatory and clinical affairs, corporate finance and development activities, market development, and support of our collaborations.

We have incurred significant losses since our inception. As of March 31, 2009, we had an accumulated deficit of \$541.7 million. Since our inception, we have financed our operations primarily through the sale of equity and convertible notes, interest income earned on cash, cash equivalents, and short-term investment balances, and debt provided through secured lines of credit. We believe, based on our current plans and activities, that our working capital resources at March 31, 2009, anticipated revenues, and the estimated proceeds from our license, supply, and collaborative agreements will be sufficient to satisfy our liquidity requirements into 2010. We expect to attempt to raise additional funds in advance of depleting our current funds. Satisfying long-term liquidity needs may require the successful commercialization of (1) our product, Oncophage and/or one or more partnering arrangements for Oncophage, (2) QS-21 by our licensees, and/or (3) potentially other product candidates, and will require additional capital.

On February 2, 2009, we initiated a plan of restructuring that resulted in a reduction of our workforce by approximately 20%, or 19 positions. We engaged in this workforce reduction in order to reduce operating expenses in light of current market conditions and to focus our resources on near-term commercial opportunities. This restructuring action resulted in charges of approximately \$177,000 in severance and outplacement expenses in the quarter ended March 31, 2009. All of these expenses resulted in cash outlays, most of which were paid during the quarter ended March 31, 2009.

In April 2008, the Russian Ministry of Public Health issued a registration certificate for the use of Oncophage for the treatment of kidney cancer patients at intermediate risk for disease recurrence and, in September 2008, the FDA granted the necessary permission to allow for the export of Oncophage from the United States for patient administration in Russia. The Russian registration was our first product approval from a regulatory authority, and the first approval of a patient-specific therapeutic cancer vaccine in a major market. Since approval, our focus in Russia has been on pre-commercial launch activities.

In October 2008, we announced the submission of a marketing authorization application to the European Medicines Agency requesting conditional authorization of Oncophage in earlier-stage, localized kidney cancer. Conditional authorization, a relatively new provision, is reserved for products intended to treat serious and life-threatening diseases where a high unmet medical need currently exists.

In addition, we are exploring the steps necessary to make Oncophage available in other markets outside the United States directly or through one or more partnering arrangements. This exploration process includes formal and informal discussions with international regulatory authorities, key opinion leaders, and consultants with country-specific regulatory experience regarding potential applications for full or conditional marketing approval, and/or named patient programs.

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Guidance received from past interaction with the FDA indicated that further clinical studies must be conducted to demonstrate the efficacy and safety of Oncophage. At the appropriate time, we intend to seek a meeting with the FDA to discuss the results of the updated analyses from our Phase 3 renal cell carcinoma trial utilizing data through March 2007 to determine whether there is an opportunity to file a biologics license application, or BLA, on the basis of these results with appropriate commitments to conduct further post approval trials. Because the primary evidence of efficacy comes from a subgroup analysis of the pre-specified primary and secondary endpoints and was not demonstrated in the intent-to-treat population, this trial is likely not sufficient as sole support for product approval based on existing standards. Furthermore, this trial ultimately may not be sufficient to support approval in additional countries.

On November 20, 2008, we were notified by the Listing Qualifications Staff of NASDAQ that our common stock was subject to delisting from the NASDAQ Global Market based upon our failure to satisfy the \$50.0 million minimum market value of listed securities requirement for the previous ten consecutive trading days (pursuant to Rule 4450(b)(1)(A) of the NASDAQ Marketplace Rules). We were granted a thirty calendar-day period to regain compliance with the requirement, and on December 23, 2008, we were notified by NASDAQ that we did not regain compliance. NASDAQ indicated that our common stock was subject to delisting unless we requested a hearing before the NASDAQ Listing Qualifications Panel (the Panel). We had the hearing at which we presented a plan for regaining compliance with the NASDAQ Marketplace Rules. On March 25, 2009 we received notification that the Panel had determined to transfer our listing to the NASDAQ Capital Market and continue our listing on that market effective with the opening of trading on March 27, 2009. On April 28, 2009, we received notification from NASDAQ of compliance with continued listing standards of the NASDAQ Capital Market. Our shares continue to trade under the ticker AGEN.

**Forward-Looking Statements**

This Quarterly Report on Form 10-Q contains forward-looking statements. Generally, these statements can be identified by the use of terms like believe, expect, anticipate, plan, may, will, could, estimate, potential, opportunity, future, project, and similar terms.

Forward-looking statements include, but are not limited to, statements about generating sales from Oncophage in Russia, generating royalty revenue from QS-21 in the 2010 timeframe, our or our partners' or licensees' plans for performing plans or timelines for performing and completing research, preclinical studies and clinical trials, and releasing data, plans or timelines for initiating new clinical trials, expectations regarding research, preclinical studies, clinical trials, and regulatory processes (including additional clinical studies for Oncophage in renal cell carcinoma), expectations regarding test results, future product research and development activities, the expected effectiveness of therapeutic drugs, vaccines, and combinations in treating diseases, applicability of our heat shock protein technology to multiple cancers and infectious diseases, competitive position, plans for regulatory filings and meetings with regulatory authorities (including potential requests for meetings with the U.S. Food and Drug Administration regarding Oncophage clinical studies and seeking conditional authorization of Oncophage in Europe and approvals for Oncophage in other markets outside the United States), the sufficiency of our clinical trials in renal cell carcinoma and melanoma, or subgroup analyses of data from these trials, to support a BLA or foreign marketing application for product approval, possible receipt of future regulatory approvals, the performance of collaborative partners in, and revenue expectations from, our strategic license and partnering collaborations, expected liquidity and cash needs, plans to commence, accelerate, decelerate, postpone, discontinue, or resume clinical programs, the rate of our net cash burn (defined as cash used in operating activities plus capital expenditures, debt repayments, and dividend payments), plans for commercial launch, and sales and marketing activities in Russia, implementation of corporate strategy, increased foreign currency exposure when we commercialize in Russia, and future financial performance.

These forward-looking statements involve a number of risks and uncertainties that could cause actual results to differ materially from those suggested by the forward-looking statements. These risks and uncertainties include, among others, that clinical trials may not demonstrate that our products are safe and more effective than current standards of care; that the subgroup analyses of our Oncophage clinical trials do not predict survival or efficacy of the product in future studies or use of Oncophage; that we may be unable to obtain sufficient funding or the regulatory authorization necessary to conduct additional clinical trials; that we may not be

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able to enroll sufficient numbers of patients in our clinical trials; that we may be unable to obtain the regulatory review or approval necessary to commercialize our product candidates because regulatory agencies are not satisfied with our trial protocols or the results of our trials; that we may fail to adequately protect our intellectual property or that it is determined that we infringe on the intellectual property of others; our strategic licenses and partnering collaborations may not meet expectations; that we or our business partners may fail to take all steps necessary for the successful commercial launch of Oncophage in Russia; that we may not be able to secure adequate reimbursement mechanisms and/or private-pay for Oncophage in Russia; manufacturing problems may cause product development and launch delays and unanticipated costs; our ability to raise additional capital; our ability to attract and retain key employees; changes in financial markets, regulatory requirements, and geopolitical developments; the solvency of counterparties under material agreements, including subleases; and general real estate risks.

We have included more detailed descriptions of these risks and uncertainties and other risks and uncertainties applicable to our business in Part II-Item 1A. Risk Factors of this Quarterly Report on Form 10-Q. We encourage you to read those descriptions carefully. We caution investors not to place significant reliance on forward-looking statements contained in this document; such statements need to be evaluated in light of all the information contained in this document. Furthermore, the statements speak only as of the date of this document, and we undertake no obligation to update or revise these statements.

Oncophage<sup>®</sup> and Stimulon<sup>®</sup> are registered trademarks of Antigenics and Aroplatin is a trademark of Antigenics. All rights reserved.

## **Historical Results of Operations**

### ***Quarter Ended March 31, 2009 Compared to the Quarter Ended March 31, 2008***

**Revenue:** We generated revenue of \$621,000 and \$850,000 during the quarters ended March 31, 2009 and 2008, respectively. This decrease in revenue includes a decrease in revenue earned on shipments of QS-21 to our QS-21 licensees in the quarter ended March 31, 2009 as compared to the quarter ended March 31, 2008, primarily due to timing. In the quarters ended March 31, 2009 and 2008, we recorded \$380,000 and \$358,000, respectively, from the amortization of deferred revenue.

**Research and Development:** Research and development expenses include the costs associated with our internal research and development activities, including compensation and benefits, occupancy costs, clinical manufacturing costs, administrative costs, and services provided by clinical research organizations. Research and development expense decreased 14% to \$4.9 million for the quarter ended March 31, 2009 from \$5.7 million for the quarter ended March 31, 2008. The decrease includes declines related to our general cost containment efforts, a decline in non-cash share-based compensation expense primarily attributable to a reduction of our stock price quarter over quarter, the decline in shipments of QS-21, and a decline in depreciation and amortization expense.

**General and Administrative:** General and administrative expenses consist primarily of personnel costs, facility expenses, and professional fees. General and administrative expenses decreased 26% to \$3.9 million for the quarter ended March 31, 2009 from \$5.3 million for the quarter ended March 31, 2008. This decrease is largely related to our general cost containment efforts and a decrease in non-cash share-based compensation expense primarily attributable to a decline in our stock price quarter over quarter.

**Non-Operating Income:** Non-operating income of \$158,000 for the quarter ended March 31, 2009 consists primarily of the change in the fair value of our derivative liability since December 31, 2008.

**Interest Expense:** Interest expense decreased to \$1.5 million for the quarter ended March 31, 2009 from \$1.6 million for the quarter ended March 31, 2008. This decrease is related to the repurchase of a portion of our 5.25% convertible senior notes due February 2025 during the fourth quarter of 2008. Interest on our 8% senior secured convertible notes due August 2011 (the 2006 Notes) is payable semi-annually on December 30 and June 30 in cash or, at our option, in additional notes or a combination thereof. During the quarters ended March 31, 2009 and 2008, interest expense included \$593,000 and \$548,000, respectively, on the 2006 Notes.

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*Interest Income:* Interest income decreased to \$67,000 for the quarter ended March 31, 2009 from \$351,000 for the same period in 2008. This decrease is attributable to a decrease in our average cash balance coupled with a decrease in interest rates earned on our cash, cash equivalents, and short-term investments. Our average interest rate decreased from 4.1% for the quarter ended March 31, 2008 to 1% for the quarter ended March 31, 2009.

**Research and Development Programs**

Prior to 2002, we did not track costs on a per project basis, and therefore have estimated the allocation of our total research and development costs to our largest research and development programs for that time period. During the first quarter of 2009, our focus was primarily on Oncophage, as indicated in the following table (in thousands).

Research and Development Program	Product	Quarter Ended	Year Ended December 31,			Prior to	Total
		March 31, 2009	2008	2007	2006	2006	
Heat Shock Proteins for Cancer	Oncophage	\$ 4,566	\$ 17,156	\$ 13,970	\$ 19,985	\$ 204,471	\$ 260,148
Heat Shock Proteins for Infectious Diseases	AG-702/707	165	1,377	2,005	1,939	12,127	17,613
Liposomal Cancer Treatments*	Aroplatin	35	865	3,005	2,475	9,092	15,472
Vaccine Adjuvant**	QS-21	96	648	2,064	2,492	4,944	10,244
Other Research and Development Programs		43	617	745	1,752	14,626	17,783
Total Research and Development Expenses		\$ 4,905	\$ 20,663	\$ 21,789	\$ 28,643	\$ 245,260	\$ 321,260

\* Prior to 2001, costs were incurred by Aronex Pharmaceuticals, Inc., a company we acquired in July 2001.

\*\* Prior to 2000, costs were incurred by Aquila Biopharmaceuticals, Inc., a company we acquired in November 2000.

Research and development program costs include compensation and other direct costs plus an allocation of indirect costs, based on certain assumptions and our review of the status of each program. Our product, Oncophage, and our product candidates are in various stages of development as described below. Significant additional expenditures will be required if we start new trials, encounter delays in our programs, apply for regulatory approvals, continue development of our technologies, expand our operations, and/or bring Oncophage and our product candidates to market. The eventual total cost of each clinical trial is dependent on a number of factors such as trial design, length of the trial, number of clinical sites, and number of patients. The process of obtaining and maintaining regulatory approvals for new therapeutic products is lengthy, expensive, and uncertain. Because the further development of Oncophage is subject to further evaluation and uncertainty, and because AG-707 and Aroplatin are in early-stage clinical development and currently on hold due to cost containment efforts, we are unable to reliably estimate the cost of completing our research and development programs, the timing of bringing such programs to various markets, and, therefore, when, if ever, material cash inflows are likely to commence. Programs involving QS-21 depend on our collaborative partners or licensees successfully completing clinical trials, successfully manufacturing QS-21 to meet demand, and obtaining regulatory approvals and successfully commercializing product candidates containing QS-21.

**Product Development Portfolio**

Below is a table showing the clinical trials completed or ongoing in our product portfolio.

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<b>PRODUCT PIPELINE</b>		<b>Phase 1</b>	<b>Phase 2</b>	<b>Phase 3</b>
<b>Oncophage</b>	Renal cell carcinoma (e)(f)			
	Metastatic melanoma			
	Glioma (a)(c)(d)			
	Colorectal cancer			
	Non-Hodgkin's lymphoma			
	Gastric cancer (a)			
	Metastatic renal cell carcinoma (b)			
	Lung cancer			
	Metastatic melanoma (a)			
	Pancreatic cancer			
<b>Aroplatin</b>	Colorectal cancer			
	Solid malignancies/ Non-Hodgkin's lymphoma			
	Solid malignancies			
<b>AG-707</b>	Genital herpes			

- (a) Phase 1/2 trials.
- (b) Includes two separate Phase 1/2 and Phase 2 trials.
- (c) Trial is ongoing.
- (d) Investigator-sponsored trial.
- (e) Approved for use in Russia for the treatment of kidney cancer patients at intermediate risk for disease recurrence.
- (f) A registry to monitor patient survival is on-going.

*Oncophage*

We started enrolling patients in our first clinical trial studying Oncophage at Memorial Sloan-Kettering Cancer Center in New York, New York in November 1997. To date, we have treated nearly 800 cancer patients with Oncophage in our clinical trials. Because Oncophage is a novel therapeutic cancer vaccine that is patient-specific, meaning it is derived from the patient's own tumor, it is experiencing a long regulatory review process and high development costs, either of which could delay or prevent our commercialization efforts. For additional information regarding regulatory risks and uncertainties, please read the risks identified under Part II-Item 1A. Risk Factors of this Quarterly Report on Form 10-Q.

An investigator-sponsored Phase 1/2 clinical trial in recurrent, high-grade glioma is currently our lead ongoing clinical trial. This study is being lead by the Brain Tumor Research Center at the University of California, San Francisco, with grants from the American Brain Tumor Association and the National Cancer Institute Special Programs of Research Excellence. Phase 1 results, presented at the Society for Neuro-Oncology Annual Meeting Conference, showed that 11 out of 12 patients exceeded the historical median benchmark of 6.5 months survival from time of recurrence. The study also showed that all 12 treated patients demonstrated a significant immune response after vaccination with Oncophage ( $P < 0.001$ ) and that patients with minimal residual disease at time of first vaccination ( $n = 7$ ) were more likely to survive beyond nine months compared with patients with significant residual disease. The study has progressed to the Phase 2 portion, which is designed to enroll 30 patients.

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We believe that the collective results from our clinical trials thus far show that Oncophage has a favorable safety profile. We also believe that available results from clinical trials suggest that treatment with Oncophage can generate immunological and anti-tumor responses.

On March 24, 2006, we announced top-line results from part I of our Phase 3 study of Oncophage in renal cell carcinoma patients who are at high risk of recurrence after surgery, and disclosed that the trial did not meet its primary endpoint. We subsequently announced the termination of part II of the trial.

The Eastern Cooperative Oncology Group is currently sponsoring a large adjuvant renal cell carcinoma trial that stratifies patients by certain prognostic risk factors for recurrence, and puts patients into intermediate risk, high risk, and very high risk categories. We are able to apply these definitions to the data generated as part of our Phase 3 trial of Oncophage in renal cell carcinoma and it is in the intermediate risk, or better-prognosis population, where significant improvement in favor of the Oncophage arm was demonstrated.

We have opened a subsequent protocol that will continue to follow patients in the format of a registry in order to collect overall survival information, as well as investigator reports of disease recurrence. The registry, which is expected to provide additional data on the effectiveness of Oncophage, will follow patients for an additional three years from closure of the initial trial, providing more than five years of data collection following the enrollment of the last patient in the trial. We expect to announce preliminary results from the registry in 2009. In addition to the patient registry, we are in the early initiation stage of a small study in non-metastatic renal cell carcinoma that measures immunological data in the intermediate-risk patient population. The results of this study and continued data collection and our ongoing analysis are uncertain, and may negatively affect or not affect the acceptability of the overall results of the trial and, even if clinically meaningful, may not meet the requirements of the FDA or other regulatory authorities for submission and approval of a marketing application or similar applications for product approval outside the United States.

In April 2008, the Russian Ministry of Public Health issued a registration certificate for the use of Oncophage for the treatment of kidney cancer patients at intermediate risk for disease recurrence and, in September 2008, the FDA granted the necessary permission to allow for the export of Oncophage from the United States for patient administration in Russia. The Russian registration was our first product approval from a regulatory authority, and the first approval of a patient-specific therapeutic cancer vaccine in a major market. Since approval we have been focusing our efforts in Russia on pre-commercial launch activities.

Prior to commercial launch we, or our distributors, must also obtain import and export approvals from the Russian authorities, as well as complete a number of post approval activities. In addition, since Oncophage can only be manufactured from a patient's own tumor, patients will need to be diagnosed, and their tumors will need to be removed and sent to our manufacturing facility for vaccine to be prepared, released, and then returned to the site for patient administration. Complexities unique to the logistics of commercial products may delay shipments and limit our ability to move commercial product in an efficient manner without incident. In addition, if we are unable to secure import and export approvals in Russia, establish and execute on successful local distribution arrangements including favorable pricing and payment terms, and/or implement appropriate logistical processes for distribution of Oncophage, our commercialization efforts would be adversely affected.

Even if we successfully meet the logistical and regulatory requirements for Russian launch, the amount of revenue generated, if any, from the sale of Oncophage in Russia will depend on, among other things, identifying sources of reimbursement and obtaining adequate reimbursement, including from national or regional funds, and physician and patient assessments of the benefits and cost-effectiveness of Oncophage. If we are unsuccessful in obtaining substantial reimbursement for Oncophage from national or regional funds, we will have to rely on private-pay for the foreseeable future which may delay or prevent our launch efforts because the ability and willingness of patients to pay is unclear. Many patients will not be capable of paying for Oncophage by themselves. In addition, cost-containment measures by third parties may prevent us from becoming profitable. Because, among other things, we have limited resources and minimal sales and marketing experience, commercial launch of Oncophage has been slow. Furthermore, we may experience significant delays in the receipt of payment for Oncophage, or an inability to collect payments at all.

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In October 2008, we announced the submission of a marketing authorization application to the European Medicines Agency requesting conditional authorization of Oncophage in earlier-stage, localized kidney cancer. Conditional authorization, a relatively new provision, is reserved for products intended to treat serious and life-threatening diseases where a high unmet medical need currently exists. Specifically, conditional authorization allows for the commercialization of a product with post approval commitments associated with the requirement to provide comprehensive clinical information about the products' efficacy and safety profile. Products receiving conditional authorization are required to undergo annual regulatory evaluation and renewal until all commitments are fulfilled. Currently, there are no European Medicines Agency-approved drug therapies for this patient population. The marketing authorization application is undergoing review through the Centralized Procedure, which means that an approval, if granted, would apply to all current 27 European Union countries plus Norway and Iceland.

In addition, we are exploring the steps necessary to make Oncophage available in other markets outside the United States directly or through one or more partnering arrangements. This exploration process includes formal and informal discussions with international regulatory authorities, key opinion leaders, and consultants with country-specific regulatory experience regarding potential applications for full or conditional marketing approvals, and/or named patient programs.

Guidance received from past interaction with the FDA indicated that further clinical studies must be conducted to demonstrate the efficacy and safety of Oncophage. At the appropriate time, we intend to seek a meeting with the FDA to discuss the results of the updated analyses from our Phase 3 renal cell carcinoma trial utilizing data through March 2007 to determine whether there is an opportunity to file a BLA on the basis of these results with appropriate commitments to conduct further post approval trials. Because the primary evidence of efficacy comes from a subgroup analysis of the pre-specified primary and secondary endpoints and was not demonstrated in the intent-to-treat population, this trial is likely not sufficient as sole support for product approval based on existing standards. Furthermore, this trial ultimately may not be sufficient to support approval in additional countries.

### *QS-21*

QS-21 is an adjuvant, or a substance added to a vaccine and other immunotherapy, that is designed to enhance the body's immune response to the antigen contained within the treatment. QS-21 is best known for its ability to stimulate antibody, or humoral, immune response, and has also been shown to activate cellular immunity. A natural product, QS-21 is a triterpene glycoside, or saponin, a natural compound purified from the bark of a South American tree called *Quillaja saponaria*. It is sufficiently characterized with a known molecular structure, thus distinguishing it from other adjuvant candidates, which are typically emulsions, polymers, or biologicals.

QS-21 has been tested in approximately 185 clinical trials involving, in the aggregate, over 10,000 subjects in a variety of cancer indications, infectious diseases, and other disorders. These studies have been carried out by academic institutions located in the United States and internationally. A number of these studies have shown QS-21 to be significantly more effective in stimulating antibody responses than aluminum hydroxide or aluminum phosphate, the adjuvants most commonly used in approved vaccines in the United States today.

A number of pharmaceutical and biotechnology companies have licensed QS-21 for use in vaccines to treat a variety of human diseases. Companies with QS-21 programs include GlaxoSmithKline Biologicals SA ( GSK ) and Elan Corporation, plc, through its affiliate Elan Pharmaceuticals International Limited ( Elan ). In return for rights to use QS-21, these companies have generally agreed to pay us license fees, manufacturing payments, milestone payments, and royalties on product sales for a minimum of 10 years after commercial launch. In addition to our corporate licensing arrangements, we have developed a number of academic collaborations to test new vaccine concepts and products containing QS-21. There are approximately 15 vaccines currently in clinical development that contain QS-21.

On July 20, 2007, we executed a letter of intent with GSK amending the supply agreement to accelerate GSK's commercial grade QS-21 manufacturing rights previously granted in July 2006. Accordingly, from the effective date of the letter, GSK has the

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right to manufacture all of its requirements of commercial grade QS-21. In addition, the parties have amended their purchase and supply obligations with respect to pre-commercial grade QS-21. Also, in accordance with the terms of the letter, upon our election, GSK is obligated to supply us (or our affiliates, licensees, or customers) certain quantities of commercial grade QS-21 for a stated period of time. On January 16, 2009, we entered into an Amended and Restated Manufacturing Technology Transfer and Supply Agreement reflecting the provisions of the letter. We understand that QS-21 is a key component included in several of GSK's proprietary adjuvant systems and that a number of GSK's vaccine candidates currently under development are formulated using adjuvant systems containing QS-21. GSK has initiated a Phase 3 study evaluating its investigational MAGE-A3 Antigen-Specific Cancer Immunotherapeutic containing QS-21 in non-small cell lung cancer. GSK and its research partners have also released data from Phase 2 studies of its malaria vaccine candidate in African infants and young children. GSK has indicated that it intends to proceed into late stage trials of what could be the first malaria vaccine for infants and young children in Africa.

Elan has a commercial license for the use of QS-21 in research and commercialization of products. Under the terms of the agreement, we are entitled to receive future milestone payments and product royalties in the event of the successful development of Elan's Alzheimer's disease vaccine that contains QS-21. In 2007, Elan initiated a Phase 2 study of their vaccine. Pursuant to the terms of the supply agreement between the parties, we (directly or through a third-party manufacturer) are Elan's exclusive supplier of QS-21.

*AG-707*

The first potential off-the-shelf application of our heat shock protein technology, AG-707, is an investigational therapeutic vaccine product candidate directed at the virus that causes genital herpes (herpes simplex virus-2, or HSV-2). AG-707 is a multivalent vaccine containing multiple synthetic HSV-2 peptides. Based on the results of completed toxicology studies and other preclinical activities, we submitted to the FDA an investigational new drug application for AG-707 during the second quarter of 2005. In October 2005, we initiated a multicenter Phase 1 clinical trial of AG-707 in genital herpes. Analysis of immune responses from this study is ongoing and results are expected in the first half of 2009. Further work on this program is on hold due to cost containment efforts.

*Aroplatin*

Aroplatin is a novel liposomal formulation of a third-generation platinum chemotherapeutic structurally similar to Eloxatin (oxaliplatin; Sanofi Aventis), a treatment for colorectal cancer. Anti-tumor activity has been demonstrated in over 10 tumor cell lines.

In 2002, we initiated a Phase 2 trial with Aroplatin for advanced colorectal cancer unresponsive to medical treatment. This single-arm, open-label trial, conducted at the Arizona Cancer Center, was designed to evaluate the effect of Aroplatin alone in patients whose disease is not responsive to standard first-line cancer treatments (5-fluorouracil/leucovorin or capecitabine and irinotecan). In September 2003, the investigators presented findings from this trial at the European Cancer Conference, also known as ECCO. One out of the 15 evaluable patients demonstrated a partial clinical response and two experienced disease stabilization. Researchers observed that Aroplatin appeared well tolerated in this pretreated patient population. Because this was a single-arm study without a comparator arm, statistical significance is not calculable. This trial is completed.

In January 2003, we also initiated at the John Wayne Cancer Center, in Santa Monica, California, a Phase 1/2 trial of Aroplatin for a variety of advanced solid malignancies amenable to platinum therapy. The final study data demonstrated that out of the 15 evaluable patients, 14 were reported with disease progression at the first evaluation for disease status after the first treatment with Aroplatin, and one patient demonstrated stabilization of disease with subsequent disease progression after two months. The median time to progression was 66 days with a minimum of 49 days and a maximum of 105 days. This study is complete, and the data have undergone final review and analysis.

In October 2005, we initiated a Phase 1, dose-escalation trial of a new formulation of Aroplatin in advanced solid malignancies and B cell lymphoma. In collaboration with the trial investigators, we have determined that the maximum tolerated dose of Aroplatin has been reached in this study. Based on this result, the trial has been closed and a study report completed. We have reviewed the results from this trial with our medical advisors and decided not to pursue internal development of Aroplatin at the present time. However, we would consider licensing and/or co-development opportunities to advance the product.

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**Liquidity and Capital Resources**

We have incurred annual operating losses since inception, and we had an accumulated deficit of \$541.7 million as of March 31, 2009. We expect to incur significant losses over the next several years as we continue our clinical trials, apply for regulatory approvals, prepare for commercialization, and continue development of our technologies. Since our inception, we have financed our operations primarily through the sale of equity and convertible notes, interest income earned on cash, cash equivalents, and short-term investment balances, and debt provided through secured lines of credit. From our inception through March 31, 2009, we have raised aggregate net proceeds of \$476.1 million through the sale of common and preferred stock, the exercise of stock options and warrants, proceeds from our employee stock purchase plan, and the issuance of convertible notes, and borrowed \$20.5 million under two credit facilities. As of March 31, 2009, we had debt outstanding of \$68.0 million, including \$29.6 million of our 2006 Notes and \$38.2 million of 5.25% convertible senior notes maturing February 20, 2025, but subject to redemption at the option of the holders or us beginning February 1, 2012.

Based on our current plans and activities, we anticipate that our net cash burn (defined as cash used in operating activities plus capital expenditures and dividend payments) will be in the \$25 million range for the year ending December 31, 2009. We continue to support and develop our QS-21 partnering collaborations, with the goal of generating royalties from this product in the 2010 timeframe.

We believe, based on our current plans and activities, that our working capital resources at March 31, 2009, anticipated revenues, and the estimated proceeds from our license, supply, and collaborative agreements will be sufficient to satisfy our liquidity requirements into 2010. We closely monitor our cash needs. Should our anticipated revenues for certain of our activities prove to not be commercially feasible by the end of the second quarter of 2009, we may suspend funding of such activities. In addition, we will continue to adjust other spending as needed in order to preserve liquidity. We expect to attempt to raise additional funds in advance of depleting our current funds. In order to fund our operations through 2010 and beyond, we will need to contain costs and raise additional funds. We may attempt to raise additional funds by: (1) licensing technologies or products to one or more collaborative partners, (2) renegotiating license and/or supply agreements with current collaborative partners, (3) completing an outright sale of assets, (4) securing additional debt financing, and/or (5) selling additional equity securities. Our ability to successfully enter into any such arrangements is uncertain, and if funds are not available, or not available on terms acceptable to us, we may be required to revise our planned clinical trials, other development activities, capital expenditures, and/or the scale of our operations. As noted above, we expect to attempt to raise additional funds in advance of depleting our current funds; however, we may not be able to raise funds or raise amounts sufficient to meet the long-term needs of the business. Satisfying long-term liquidity needs may require the successful commercialization of Oncophage and/or one or more partnering arrangements for Oncophage, successful commercialization of QS-21 by our licensees, and potentially successful commercialization of other product candidates, and will require additional capital, as discussed above. Please see the **Forward-Looking Statements** section and the risks highlighted under Part II-Item 1A. **Risk Factors** of this Quarterly Report on Form 10-Q.

Our future cash requirements include, but are not limited to, efforts to commercialize Oncophage in Russia and other jurisdictions we are currently exploring, as well as supporting our clinical trial and regulatory efforts and continuing our other research and development programs. Since inception, we have entered into various agreements with institutions and clinical research organizations to conduct and monitor our current clinical studies. Under these agreements, subject to the enrollment of patients and performance by the applicable institution of certain services, we have estimated our payments to be \$46.8 million over the term of the studies. Through March 31, 2009, we have expensed \$46.1 million as research and development expenses and \$45.7 million has been paid related to these clinical studies. The timing of expense recognition and future payments related to these agreements is subject to the enrollment of patients and performance by the applicable institution of certain services.

We have also entered into sponsored research agreements related to our product candidates that required payments of \$6.5 million, all of which has been paid through March 31, 2009. We plan to enter into additional agreements, and we anticipate significant additional expenditures will be required to advance our clinical trials, apply for regulatory approvals, continue

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development of our technologies, and bring our product, Oncophage, and our product candidates to market. Part of our strategy is to develop and commercialize some of our product candidates by continuing our existing collaborative arrangements with academic and collaborative partners and licensees and by entering into new collaborations. As a result of our collaborative agreements, we will not completely control the efforts to attempt to bring those product candidates to market. We have various agreements, for example, with collaborative partners and/or licensees, which allow the use of our QS-21 adjuvant in numerous vaccines. These agreements grant exclusive worldwide rights in some fields of use and co-exclusive or non-exclusive rights in others. These agreements generally provide us with rights to manufacture and supply QS-21 to the collaborative partner or licensee and also call for royalties to be paid to us on future sales of licensed vaccines that include QS-21, which may or may not be achieved. Significant investment in manufacturing capacity could be required if we were to retain our manufacturing and supply rights.

Our cash, cash equivalents, and short-term investments at March 31, 2009 were \$24.6 million, a decrease of \$9.9 million from December 31, 2008.

As part of private placement agreements entered into on January 9, 2008 and April 8, 2008, we agreed to register the shares of common stock issued in the equity sales, and the shares of common stock underlying the warrants issued to the investors, with the SEC within contractually specified time periods. We filed registration statements covering all required shares. We have also agreed to use our best efforts to keep the registration statements continuously effective. If we are unable to keep the registration statements continuously effective in accordance with the terms of the private placements, we are subject to liquidated damages of up to a maximum of 10% of the aggregate purchase price paid by the investors, or \$4.4 million.

During the quarter ended March 31, 2009, the decline in cash and cash equivalents was primarily due to cash being used to finance our operations. Net cash used in operating activities for the quarters ended March 31, 2009 and 2008 was \$9.6 million and \$9.2 million, respectively. We continue to support and develop our QS-21 partnering collaborations, with the goal of generating royalties from this product in the 2010 timeframe. Our future ability to generate cash from operations will depend on achieving regulatory approval of our product candidates, and market acceptance of Oncophage and our product candidates, achieving benchmarks as defined in existing collaborative agreements, and our ability to enter into new collaborations. Please see the **Forward-Looking Statements** section and the risks highlighted under Part II-Item 1A. **Risk Factors** of this Quarterly Report on Form 10-Q.

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Net cash used in investing activities for the quarter ended March 31, 2009 was \$5,000 as compared to net cash provided by investing activities of \$4.2 million for the quarter ended March 31, 2008. During the quarter ended March 31, 2009, we had minimal net maturities of short-term securities compared with net maturities of short-term securities of \$4.2 million during the quarter ended March 31, 2008.

Net cash used in financing activities was \$236,000 for the quarter ended March 31, 2009 as compared to net cash provided by financing activities of \$25.9 million for the quarter ended March 31, 2008. During the quarter ended March 31, 2008, we raised net proceeds from private placements of \$25.8 million. During the quarters ended March 31, 2009 and 2008, proceeds from our employee stock purchase plan totaled \$17,000 and \$121,000, respectively. In addition, during the quarter ended March 31, 2008, we received proceeds of \$44,000 from the exercise of stock options. Dividends paid on our series A convertible preferred stock totaled \$198,000 during both periods.

Effective July 19, 2002, we sublet part of our Framingham facility to GTC Biotherapeutics, Inc. ( GTC ), and we have leased related leasehold improvements and equipment under agreements that were to expire on December 31, 2006. GTC exercised its option to extend this lease until September 2010. Under the terms of our original lease, we are obligated to pay our landlord approximately 7% of our rental income. Effective March 17, 2004, we sublet an additional part of our Framingham facility to PP Manufacturing, whose lease also expires in September 2010. We are contractually entitled to receive base rental payments of approximately \$900,000 during the remainder of 2009 and in 2010. The collection of this income, however, is subject to uncertainty.

We are currently involved in certain legal proceedings as detailed in Note E of the notes to our unaudited condensed consolidated financial statements. While we currently believe that the ultimate outcome of any of these proceedings will not have a material adverse effect on our financial position, results of operations, or liquidity, litigation is subject to inherent uncertainty. Furthermore, litigation consumes both cash and management attention.

**Recent Accounting Pronouncements**

In December 2007, the Financial Accounting Standards Board ( FASB ) issued SFAS No. 141 (revised 2007), *Business Combinations* ( SFAS No. 141R ). This revised standard expands the types of transactions or other events that will qualify as business combinations and requires that all business combinations will result in all assets and liabilities of the acquired business being recorded at their fair values, with limited exceptions. The standard also requires, among other provisions, that certain contingent assets and liabilities will be recognized at their fair values on the acquisition date. An acquirer will also recognize contingent consideration at its fair value on the acquisition date and, for certain arrangements, changes in fair value will be recognized in earnings until the contingency is settled. Under SFAS No. 141R, acquisition-related transaction and restructuring costs will be expensed rather than treated as part of the cost of the acquisition and included in the amount recorded for assets acquired. SFAS No. 141R is required to be applied prospectively to business combinations for which the acquisition is on or after the beginning of the first annual reporting period beginning on or after December 15, 2008. We adopted this standard on January 1, 2009 and it did not have an impact on our financial position or results of operations.

In December 2007, the FASB issued SFAS No. 160, *Noncontrolling Interests in Consolidated Financial Statements* ( SFAS No. 160 ). SFAS No. 160, which is effective for fiscal years, and interim periods within those fiscal years, beginning on or after December 15, 2008, governs the accounting for and reporting of noncontrolling interests in partially owned consolidated subsidiaries and the loss of control in subsidiaries. We adopted this standard on January 1, 2009, and it did not have an impact on our financial position or results of operations.

In March 2008, the FASB issued SFAS No. 161, *Disclosures about Derivative Instruments and Hedging Activities* ( SFAS No. 161 ). SFAS No. 161, which is effective for fiscal years, and interim periods within those fiscal years, beginning on or after November 15, 2008, is intended to improve financial reporting about derivative instruments and hedging activities by requiring enhanced disclosures to enable investors to better understand their effects on an entity's financial position, financial performance and cash flows. The adoption of SFAS No. 161 did not have an impact on our financial position or results of operations, but will require additional disclosure.

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In May 2008, the FASB issued FASB Staff Position ( FSP ) APB 14-1, *Accounting for Convertible Debt Instruments That May Be Settled in Cash upon Conversion (Including Partial Cash Settlement)* ( FSP APB 14-1 ), which is effective for fiscal years, and interim periods within those fiscal years, beginning after December 15, 2008. FSP APB 14-1 clarifies that convertible debt instruments that may be settled in cash upon conversion are not addressed by paragraph 12 of Accounting Principles Board ( APB ) Opinion No. 14, *Accounting for Convertible Debt and Debt Issued with Stock Purchase Warrants*. FSP APB 14-1 also specifies that issuers of such instruments should separately account for the liability and equity components in a manner that will reflect the entity's nonconvertible debt borrowing rate when interest cost is recognized in subsequent periods.

We adopted FSP APB 14-1 as of January 1, 2009 and retrospectively applied this change in accounting to all prior periods presented for which we had applicable outstanding convertible debt, as required by this new standard. In accordance with SFAS No. 154, *Accounting Changes and Error Corrections*, all prior periods presented herein have been adjusted to apply the new method retrospectively. Under this new method of accounting, the debt and equity components of our 2005 Notes and our 2006 Notes are bifurcated and accounted for separately based on the value and related interest rate of non-convertible debt securities with the same terms. The fair value of a non-convertible debt instruments at the original issuance dates of our 2005 Notes and our 2006 Notes was determined to be \$42.6 million and \$23.6 million, respectively. The equity (conversion options) components of our convertible debt securities have been included in additional paid-in capital on our consolidated balance sheet and, accordingly, the initial carrying value of the debt securities was reduced by \$8.8 million. Our previously reported net loss for the quarter ended March 31, 2008 was increased by \$300,000 primarily due to recognizing the accretion of the reduced carrying values of our convertible debt securities to their face amount as additional non-cash interest expense. The adoption of FSP APB 14-1 has resulted in a reduction in the carrying value of our convertible debt by approximately \$3.7 million as of December 31, 2008. In addition, the adoption of FSP APB 14-1 reduced our deferred debt issuance costs as we were required to allocate an amount related to the conversion option to equity.

In June 2008, the FASB ratified the consensus in Emerging Issues Task Force ( EITF ) Issue No. 07-5, *Determining Whether an Instrument (or Embedded Feature) Is Indexed to an Entity's Own Stock* ( EITF Issue No. 07-5 ), which is effective for financial statements issued for fiscal years beginning after December 15, 2008, and interim periods within those fiscal years. EITF Issue No. 07-5 defines when adjustment features within contracts are considered to be equity-indexed. We adopted EITF Issue No. 07-5 as of January 1, 2009, which is applicable to our 2006 Notes due to the provisions contained therein that protect the holders from declines in our stock price. As a result of the adoption of EITF Issue No. 07-5, the conversion feature embedded in our 2006 Notes is now treated as a derivative and recorded at its fair value, with period to period changes in the fair value recorded as a gain or loss in our consolidated statement of operations. Accordingly, upon adoption we recorded a reduction to additional paid-in capital of \$1.4 million, an increase to debt discount of \$1.3 million, a derivative liability of \$2.7 million, and a charge to opening accumulated deficit of \$21,000; and an increase to other income of \$158,000 and \$165,000 of non-cash interest expense for the quarter ended March 31, 2009.

In April 2009, the FASB issued FSP FAS 141(R)-1, *Accounting for Assets Acquired and Liabilities Assumed in a Business Combination That Arise from Contingencies* ( FSP FAS 141(R)-1 ). FSP FAS 141(R) requires an acquirer to recognize at the acquisition date the fair value of an asset acquired or liability assumed in a business combination that arises from a contingency, if the acquisition-date fair value can be determined during the measurement period. This FSP is effective for business combinations for which the acquisition date is on or after the beginning of the first annual reporting period beginning on or after December 15, 2008. FSP FAS 141(R)-1 impacts our accounting for future business combinations, if any.

In April 2009, the FASB also issued FSP FAS 157-4, *Determining Fair Value When the Volume and Level of Activity for the Asset or Liability Have Significantly Decreased and Identifying Transactions That Are Not Orderly*. This FSP provides additional guidance for estimating fair value in accordance with SFAS No. 157, *Fair Value Measurements*, when the volume and level of activity for the asset or liability have significantly decreased. This FSP also includes guidance on identifying circumstances that indicate a transaction is not orderly. This FSP emphasizes that even if there has been a significant decrease in the volume and level of activity for the asset or liability and regardless of the valuation technique(s) used, the objective of a fair value measurement remains the same. Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction (that is, not a forced

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liquidation or distressed sale) between market participants at the measurement date under current market conditions. This FSP is effective for interim and annual reporting periods ending after June 15, 2009, and shall be applied prospectively. Early adoption is permitted for periods ending after March 15, 2009. The adoption of this FSP is not expected to have an impact on our consolidated financial statements.

In April 2009, the FASB issued FSP FAS 115-2 and FAS 124-2, *Recognition and Presentation of Other-Than-Temporary Impairments*. This FSP amends the other-than-temporary impairment guidance for debt securities to make the guidance more operational and to improve the presentation and disclosure of other-than-temporary impairments on debt and equity securities in the financial statements. This FSP does not amend existing recognition and measurement guidance related to other-than-temporary impairments of equity securities. This FSP is effective for interim and annual reporting periods ending after June 15, 2009, with early adoption permitted for periods ending after March 15, 2009. The adoption of this FSP is not expected to have a material impact on our consolidated financial statements.

In April 2009, the FASB issued FSP FAS 107-1 and APB 28-1, *Interim Disclosures about Fair Value of Financial Instruments*, to require disclosures about the fair value of financial instruments for interim reporting periods of publicly traded companies as well as in annual financial statements. This FSP also amends APB Opinion No. 28, *Interim Financial Reporting*, to require those disclosures in summarized financial information at interim reporting periods. This FSP is effective for interim reporting periods ending after June 15, 2009, with early adoption permitted for periods ending after March 15, 2009. The adoption of this FSP will not have an impact on our financial position or results of operations, but will require additional disclosure.

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### **Item 3. *Quantitative and Qualitative Disclosures About Market Risk***

In the normal course of business, we are exposed to fluctuations in interest rates as we seek debt financing and invest excess cash. We are also exposed to foreign currency exchange rate fluctuation risk related to our transactions denominated in foreign currencies. We do not currently employ specific strategies, such as the use of derivative instruments or hedging, to manage these exposures. Our currency exposures vary, but are primarily concentrated in the euro and the ruble. There has been no material change with respect to our interest rate and foreign currency exposures or our approach toward those exposures, as described in our Annual Report on Form 10-K for the year ended December 31, 2008. However, commercialization of Oncophage in Russia and possible commercialization of Oncophage in other locations outside of the United States could result in increased foreign currency exposure.

We had cash, cash equivalents, and short-term investments at March 31, 2009 of \$24.6 million, which are exposed to the impact of interest rate changes, and our interest income fluctuates as interest rates change. Due to the short-term nature of our investments in money market funds, the carrying value approximates the fair value of these investments at March 31, 2009; however, we are subject to investment risk.

We invest our cash, cash equivalents, and short-term investments in accordance with our Investment Policy. The primary objectives of our Investment Policy are to preserve principal, maintain liquidity to meet operating needs, and maximize yields. We review our Investment Policy annually and amend it as deemed necessary. Currently, the Investment Policy prohibits investing in any structured investment vehicles and asset-backed commercial paper. Although our investments are subject to credit risk, our Investment Policy specifies credit quality standards for our investments and limits the amount of credit exposure from any single issue, issuer, or type of investment. Our investments are also subject to interest rate risk and will decrease in value if market interest rates increase. However, due to the conservative nature of our investments and relatively short duration, interest rate risk is mitigated. We do not invest in derivative financial instruments. Accordingly, we do not believe that there is currently any material market risk exposure with respect to derivative or other financial instruments that would require disclosure under this item.

### **Item 4. *Controls and Procedures***

#### **Evaluation of Disclosure Controls and Procedures**

Under the supervision and with the participation of our management, including our Chief Executive Officer and Chief Financial Officer, we conducted an evaluation of the effectiveness of our disclosure controls and procedures, as such term is defined under Rule 13a-15(e) promulgated under the Securities Exchange Act of 1934 (the Securities Exchange Act). Based on this evaluation, our Chief Executive Officer and our Chief Financial Officer concluded that our disclosure controls and procedures were functioning effectively as of the end of the period covered by this Quarterly Report on Form 10-Q to provide reasonable assurance that the Company can meet its disclosure obligations.

#### **Changes in Internal Control Over Financial Reporting**

During the quarter ended March 31, 2009, there was no change in our internal control over financial reporting (as defined in Rules 13a-15(f) and 15d-15(f) under the Securities Exchange Act) that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

**Table of Contents****PART II OTHER INFORMATION****Item 1. Legal Proceedings**

Antigenics, our Chairman and Chief Executive Officer, Garo H. Armen, Ph.D., and two investment banking firms that served as underwriters in our initial public offering have been named as defendants in a federal civil class action lawsuit pending in the United States District Court for the Southern District of New York. Substantially similar actions were filed concerning the initial public offerings for more than 300 different issuers, and the cases were coordinated as *In re Initial Public Offering Securities Litigation*, 21 MC 92 for pre-trial purposes. The suit alleges that the brokerage arms of the investment banking firms charged secret excessive commissions to certain of their customers in return for allocations of our stock in the offering. The suit also alleges that shares of our stock were allocated to certain of the investment banking firms customers based upon agreements by such customers to purchase additional shares of our stock in the secondary market. Dr. Armen has been dismissed without prejudice from the lawsuit pursuant to a stipulation. In June 2004, a stipulation of settlement and release of claims against the issuer defendants, including us, was submitted to the Court for approval. The Court preliminarily approved the settlement in August 2005. In December 2006, the appellate court overturned the certification of classes in six test cases that were selected by the underwriter defendants and plaintiffs in the coordinated proceedings. Class certification had been one of the conditions of the settlement. Accordingly, on June 25, 2007, the Court entered an order terminating the proposed settlement based on a stipulation among the parties to the settlement. Plaintiffs have filed amended master allegations and amended complaints and moved for class certification in the six test cases, which the defendants in those cases have opposed. On March 26, 2008, the Court denied the defendants' motion to dismiss the amended complaints. The parties recently reached a global settlement of the litigation. On April 2, 2009, plaintiffs filed a motion for preliminary approval of the settlement. Under the settlement, which remains subject to Court approval, the insurers would pay the full amount of settlement share allocated to the defendants, and the defendants would bear no financial liability. The company defendants, as well as the officer and director defendants who were previously dismissed from the action pursuant to tolling agreements, would receive complete dismissals from the case. It is uncertain whether the settlement will receive final Court approval. No accrual has been recorded at March 31, 2009 for this action.

We currently are a party, or may become a party, to other legal proceedings as well. While we currently believe that the ultimate outcome of any of these proceedings will not have a material adverse effect on our financial position, results of operations, or liquidity, litigation is subject to inherent uncertainty. Furthermore, litigation consumes both cash and management attention.

**Item 1A. Risk Factors**

Our future operating results could differ materially from the results described in this Quarterly Report on Form 10-Q due to the risks and uncertainties described below. We cannot assure investors that our assumptions and expectations will prove to have been correct. Important factors could cause our actual results to differ materially from those indicated or implied by forward-looking statements. See Forward-Looking Statements on page 15 of this Quarterly Report on Form 10-Q. Factors that could cause or contribute to such differences include those factors discussed below.

**Risks Related to our Business**

*If we incur operating losses for longer than we expect, or we are not able to raise additional capital, we may be unable to continue our operations, or we may become insolvent.*

From our inception through March 31, 2009, we have generated net losses totaling \$541.7 million. Our net losses for the three months ended March 31, 2009 and the years ended December 31, 2008, 2007, and 2006 were \$9.5 million, \$30.8 million, \$37.9 million, and \$52.8 million, respectively. We expect to incur significant losses over the next several years as we continue research and clinical development of our technologies, apply for regulatory approvals, and pursue commercialization efforts and related activities. Furthermore, our ability to generate cash from operations is dependent on the success of our licensees and collaborative partners, as well as the likelihood and timing of new strategic licensing and partnering relationships and/or successful commercialization of Oncophage and our various product candidates. If we incur operating losses for longer than we expect and/or we are unable to raise additional capital, we may become insolvent and be unable to continue our operations.

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On March 31, 2009, we had \$24.6 million in cash, cash equivalents, and short-term investments. We believe, based on our current plans and activities, that our working capital resources at March 31, 2009, anticipated revenues, and the estimated proceeds from our license, supply, and collaborative agreements will be sufficient to satisfy our liquidity requirements into 2010. We expect to attempt to raise additional funds in advance of depleting our current funds. For the three months ended March 31, 2009, our average monthly cash used in operating activities was \$3.2 million. We do not anticipate significant capital expenditures during 2009.

As part of certain private placement agreements, we are required to maintain effective registration statements. If we are unable to keep the registration statements continuously effective in accordance with the terms of the private placement agreements, we are subject to liquidated damages penalties of up to a maximum of 10% of the aggregate purchase price paid by the original investors, or \$4.4 million.

Since our inception, we have financed our operations primarily through the sale of equity and convertible notes, interest income earned on cash, cash equivalents, and short-term investment balances, and debt provided through secured lines of credit. In order to finance future operations, we will be required to raise additional funds in the capital markets, through arrangements with collaborative partners, or from other sources.

Additional financing may not be available on favorable terms, or at all. If we are unable to raise additional funds when we need them, we will be required to delay, reduce, or eliminate some or all of our development, commercialization and clinical trial programs, including those related to Oncophage. We also may be forced to license or sell technologies to others under agreements that allocate to third parties substantial portions of the potential value of these technologies. We may also be unable to continue our operations, or we may become insolvent.

Many economists have indicated that the United States economy, and possibly the global economy, has entered into a prolonged recession. While the ultimate outcome cannot be predicted, this may have a material adverse effect on our liquidity and financial condition, particularly if our ability to raise additional funds is impaired. The ability of potential patients and/or health care payers to pay for Oncophage treatments could also be adversely impacted, thereby limiting our potential revenue. In addition, any negative impacts from the deterioration in the credit markets and related financial crisis on our collaborative partners could limit potential revenue from our product candidates.

### ***We have significant long-term debt, and we may not be able to make interest or principal payments when due.***

As of March 31, 2009, the principal portion of our total long-term debt, excluding the current portion, was \$67.8 million. Our 2005 Notes do not restrict our ability or the ability of our subsidiaries to incur additional indebtedness, including debt that effectively ranks senior to the 2005 Notes. On each of February 1, 2012, February 1, 2015, and February 1, 2020, holders may require us to purchase their notes for cash equal to 100% of the principal amount of the notes, plus any accrued and unpaid interest. Holders may also require us to repurchase their notes upon a fundamental change, as defined, at a cash price equal to 100% of the principal amount of the notes to be repurchased, plus any accrued and unpaid interest, and in some cases, an additional make-whole premium.

At maturity of our 2006 Notes, we may elect to repay the outstanding balance in cash or in common stock, subject to certain limitations. In no event will any of the note holders be obligated to accept equity that would result in them owning in excess of 9.99% of our outstanding common stock at any given time in connection with any conversion, redemption, or repayment of these notes. The 2006 Note agreements include material restrictions on our incurrence of debt and liens while these notes are outstanding, as well as other customary covenants.

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Our ability to satisfy our obligations will depend upon our future performance, which is subject to many factors, including the factors identified in this Risk Factors section and other factors beyond our control. If we are not able to generate sufficient cash flow from operations in the future to service our indebtedness, we may be required, among other things, to:

seek additional financing in the debt or equity markets;

refinance or restructure all or a portion of our indebtedness;

sell, out-license, or otherwise dispose of assets; and/or

reduce or delay planned expenditures on research and development and/or commercialization activities.

Such measures might not be sufficient to enable us to make principal and interest payments. In addition, any such financing, refinancing, or sale of assets might not be available on economically favorable terms, if at all.

To date, we have had negative cash flows from operations. For the three months ended March 31, 2009 and the years ended December 31, 2008, 2007, and 2006, net cash used in operating activities was \$9.6 million, \$28.9 million, \$26.7 million, and \$44.9 million, respectively. Excluding our 2006 Notes, which mature in 2011 and for which we may elect to pay the interest in cash or additional notes, at our option, and for which the outstanding balance at maturity may be paid in cash or in common stock, subject to certain limitations, and assuming no additional interest-bearing debt is incurred and none of our notes are converted, redeemed, repurchased, or exchanged, our interest payments will be \$2.0 million annually during 2009 and thereafter until maturity.

***Several factors could delay or prevent the successful commercial launch of Oncophage in Russia. In addition, we do not expect to generate significant revenue from sales of Oncophage in Russia for several months, if ever.***

In April 2008, the Russian Ministry of Public Health issued a registration certificate for the use of Oncophage for the treatment of kidney cancer patients at intermediate risk for disease recurrence and, in September 2008, the FDA granted the necessary permission to allow for the export of Oncophage from the United States to Russia. The Russian registration was our first product approval from a regulatory authority, and the first approval of a patient-specific therapeutic cancer vaccine in a major market.

We or our distributors must also obtain import and export approvals from the Russian authorities, as well as complete a number of post-approval activities. In addition, since Oncophage can only be manufactured from a patient's own tumor, patients will need to be diagnosed, and their tumors will need to be removed and sent to our manufacturing facility for vaccine to be prepared, released, and then returned to the site for patient administration. Complexities unique to the logistics of commercial products may delay shipments and limit our ability to move commercial product in an efficient manner without incident. In addition, if we are unable to secure import and export approvals in Russia, establish and execute on successful local distribution arrangements including favorable pricing and payment terms, and/or implement appropriate logistical processes for distribution of Oncophage, our commercialization efforts would be adversely affected.

Even if we have a successful completion of the logistical and regulatory requirements for Russian launch, the amount of revenue generated from the sale of Oncophage in Russia will depend on, among other things, identifying sources of reimbursement and obtaining adequate reimbursement, including from national or regional funds, and physician and patient assessments of the benefits and cost-effectiveness of Oncophage. If we are unsuccessful in obtaining substantial reimbursement for Oncophage from national or regional funds, we will have to rely on private-pay for the foreseeable future which may delay or reduce our launch efforts because the ability and willingness of patients to pay is unclear. In addition, cost-containment measures by third parties may prevent us from becoming profitable. Because we have limited resources and minimal sales and marketing experience, commercial launch of Oncophage may be slow. Furthermore, we may experience significant delays in the receipt of payment for Oncophage, or an inability to collect payments at all.

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***If we fail to obtain adequate levels of reimbursement for Oncophage, our product candidates, or the product candidates of our collaborators, there may be no commercially viable market for these products, or the commercial potential of these products may be significantly limited.***

Public and private insurance programs may determine that Oncophage, our product candidates, or the product candidates of our collaborative partners do not come within a category of items and services covered by their insurance plans. Generally, in Russia, Europe, and other countries outside the United States, government-sponsored health care systems pay a substantial share of health care costs, and they may regulate reimbursement levels of our products to control costs. Government and private third-party payers are increasingly challenging the prices charged for medical products and services, and increasingly attempting to limit and/or regulate the reimbursement for medical products. In many of the markets where we or our collaborative partners would commercialize a product following regulatory approval, the prices of pharmaceutical products are subject to price controls by various mechanisms. Russia is an evolving market and regulatory, legal, and commercial structures are less predictable than in more mature markets. In addition, the reimbursement system in Russia is changing rapidly and has experienced serious funding and administrative problems in its national and regional reimbursement programs. For example, the program known by the Russian acronym of DLO, which was established in January 2005 to provide free-of-charge prescriptions to certain Russians, has substantially delayed payments and covered fewer drugs recently. In addition, the Russian government is attempting to reduce coverage for drugs produced outside of Russia, as they tend to cost more than drugs produced in Russia. Furthermore, it is possible that reimbursement for cancer drugs and other therapeutic areas will not be covered by a newly created system, which may result in uncertainties regarding levels of reimbursement. Drug reimbursement in Russia could continue to undergo change. There can be no assurance regarding the timing, scope, or availability of reimbursement in Russia for Oncophage. If we are unsuccessful in obtaining substantial reimbursement for Oncophage from national or regional funds, we will have to rely on private-pay for the foreseeable future which may delay or prevent our launch efforts, because the ability and willingness of patients to pay is unclear.

It is possible that there will be substantial delays in obtaining coverage of Oncophage, our product candidates, or the product candidates of our collaborative partners, if at all, and that, if coverage is obtained, there may be significant restrictions on the circumstances in which there would be reimbursement. Where government or insurance coverage is available, there may be prohibitive levels of patient coinsurance, making products unaffordable, or limits on the payment amount, which could have a material adverse effect on sales. If we are unable to obtain or retain adequate levels of reimbursement from government or private health plans, our or our collaborative partners' ability to sell products will be adversely affected. We are unable to predict what impact any future regulation or third-party payer initiatives relating to reimbursement will have on sales. Healthcare reform that may emerge from current policy debate may result in deleterious pricing and potential price controls on pharmaceutical and biotech products in the United States, Europe, and elsewhere.

***If we fail to comply with regulatory requirements in Russia or elsewhere, if these regulatory requirements change, or if we experience unanticipated regulatory problems, our commercial launch of Oncophage could be prevented or delayed, or Oncophage could be subjected to restrictions, or be withdrawn from the market, or some other action may be taken that may be adverse to our business.***

Regulatory authorities generally approve products for particular indications. If an approval is for a limited indication, this limitation reduces the size of the potential market for that product. Product approvals, once granted, are subject to continual review and periodic inspections by regulatory authorities. Later discovery of previously unknown problems or safety issues and/or failure to comply with applicable regulatory requirements can result in, among other things, warning letters, fines, injunctions, civil penalties, recall or seizure of products, total or partial suspension of production, refusal of the government to renew marketing applications, complete withdrawal of a marketing application, and/or criminal prosecution. Such regulatory enforcement could have a direct and negative impact on the product for which approval is granted, but also could have a negative impact on the approval of any pending applications for marketing approval of new drugs or supplements to approved applications.

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*We face a risk of government enforcement actions in connection with our business and marketing activities.*

Our operations and marketing practices are subject to regulation and scrutiny by the United States government, as well as governments of any other countries in which we do business or conduct activities. Because we are a company operating in a highly regulated industry, regulatory authorities could take enforcement action against us in connection with our business and marketing activities for various reasons.

For example, our marketing and sales, labeling, and promotional activities in Russia are subject to local regulations. If we fail to comply with regulations prohibiting the promotion of products for non-approved indications or products for which marketing approval has not been granted, regulatory authorities could bring enforcement actions against us that could inhibit our marketing capabilities, as well as result in penalties. In addition, the United States Foreign Corrupt Practices Act prohibits U.S. companies and their representatives from offering, promising, authorizing, or making payments to foreign officials for the purpose of obtaining or retaining business abroad. Failure to comply with domestic or foreign laws, knowingly or unknowingly, could result in various adverse consequences, including possible delay in approval or refusal to approve a product, recalls, seizures, withdrawal of an approved product from the market, exclusion from government health care programs, imposition of significant fines, injunctions, and/or the imposition of civil or criminal sanctions against us and/or our officers or employees.

*We may not be able to obtain approval to market Oncophage in countries other than Russia. Because we expect additional Phase 3 clinical trials of Oncophage may be required prior to submitting a BLA to the FDA for any indication, we likely will not commercialize Oncophage in the United States for several years, if ever. We may face similar hurdles in other territories where we may seek marketing approval.*

Oncophage is currently only approved for marketing in Russia for the treatment of kidney cancer patients at intermediate risk for disease recurrence. In October 2008, we submitted a marketing authorization application to the European Medicines Agency requesting conditional authorization of Oncophage in earlier-stage, localized kidney cancer. Conditional authorization, a relatively new provision, is reserved for products intended to treat serious and life-threatening diseases where a high unmet medical need currently exists. Conditional authorization allows for the commercialization of a product with post approval commitments associated with the requirement to provide comprehensive clinical information about the product's efficacy and safety profile. We believe that Oncophage in this indication meets the criteria for conditional authorization. Until we receive an official decision from the European Medicines Agency, we cannot be certain of the outcome. There is a high level of uncertainty regarding the probability and timing of a favorable outcome.

Additionally, and as resources allow, we continue to explore potential opportunities to seek product approval in other jurisdictions, including the U.S. and Canada. The probability and timing of submissions and/or approval in any jurisdiction or indication for this product is uncertain. The FDA has indicated that our Phase 3 clinical trials of Oncophage cannot, by themselves, support BLA filings in the studies' indications (renal cell carcinoma and metastatic melanoma). The signals and trends observed in the Phase 3 renal cell carcinoma and melanoma trials of Oncophage are based on data analysis of subgroups of patients, some of which were not pre-specified. While the subgroup data might be suggestive of treatment effect, under current regulatory guidelines the results cannot be expected, alone, to support registration or approval of Oncophage in the United States, and our existing data may not support registration or approval in other territories outside of Russia. Any additional studies may take years to complete and may fail to support regulatory filings for many reasons. In addition, Oncophage is a novel therapeutic cancer vaccine that is patient-specific, meaning it is derived from the patient's own tumor. The FDA and foreign regulatory agencies, including the European Medicines Agency, which is responsible for product approvals in Europe, and Health Canada, which is responsible for product approvals in Canada, have relatively little experience in reviewing this novel class of patient-specific oncology therapies. Therefore, Oncophage may experience a long regulatory review process and high development costs, either of which could delay or prevent our commercialization efforts.

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***Regulatory reforms may create additional burdens that would cause us to incur additional costs and may adversely affect our ability to commercialize our products.***

From time to time, new legislation is passed into law that could significantly change the statutory provisions governing the approval, manufacturing, and marketing of products regulated by the FDA and other global health authorities. Additionally, regulations and guidance are often revised or reinterpreted by health agencies in ways that may significantly affect our business and our products. It is impossible to predict whether further legislative changes will be enacted, or whether regulations, guidance, or interpretations will change, and what the impact of such changes, if any, may be.

***Risks associated with doing business internationally could negatively affect our business.***

With the registration of Oncophage in Russia, we have begun to focus our efforts on the commercial launch of this product. However, Russia is an evolving market and regulatory, legal, and commercial structures are less predictable than in more mature markets. This unpredictability, combined with changes in Russian leadership, as well as potential geopolitical instability in the Russian region, could negatively impact the regulatory and/or commercial environment there, which in turn could have an adverse effect on our business.

In addition, various other risks associated with foreign operations may impact our success. Possible risks include fluctuations in the value of foreign and domestic currencies, disruptions in the import, export, and transportation of patient tumors and our product, the product and service needs of foreign customers, difficulties in building and managing foreign relationships, the performance of our collaborators, and unexpected regulatory, economic, or political changes in foreign markets.

Our financial position, results of operations, and cash flows can be affected by fluctuations in foreign currency exchange rates, primarily for the euro and the ruble. Movement in foreign currency exchange rates could cause revenue or clinical trial costs to vary significantly in the future and may affect period-to-period comparisons of our operating results. Historically, we have not hedged our exposure to these fluctuations in exchange rates.

***Our commercial operations experience and resources are limited and need to be developed or acquired. If we fail to do so, our revenues may be limited or nonexistent. In addition, we may be required to incur significant costs and devote significant efforts to augment our existing capabilities.***

As we have limited experience with commercial operations, it may be difficult to accurately estimate our costs. We currently do not have employees, manufacturing, or business operations facilities outside of the United States. As we prepare for the commercial launch of Oncophage in Russia, and in the event we obtain conditional authorization of Oncophage in Europe, we rely significantly on consultants, partners, and other third parties to conduct our sales, marketing, and distribution operations. If these third parties are unable to fulfill their obligations, our commercial launch of Oncophage could be delayed or prevented. If in the future we elect to perform sales, marketing, and distribution functions ourselves, we will face a number of additional risks, including the need to recruit experienced marketing and sales personnel, or incur significant expenditures. In addition, we may need to compete with other companies that have more experienced and better-funded operations. Where we have licensed our products to third-party collaborators or licensees, we will be dependent on their commercial operations, sales and marketing expertise and resources, and any revenues we receive from those products will depend primarily on the sales and marketing efforts of others.

For Oncophage, we need to develop specialized commercial operations to manage patient-specific ordering, tracking, and control. There are few companies that have developed this expertise and we do not know whether we will be able to establish commercial operations or enter into marketing and sales agreements with others on acceptable terms, if at all.

***Our competitors in the biotechnology and pharmaceutical industries may have superior products, manufacturing capability, and/or selling and marketing expertise.***

Our business and the products in development by our collaborative partners may fail because of intense competition from major pharmaceutical companies and specialized biotechnology companies engaged in the development of product candidates directed at

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cancer, infectious diseases and degenerative disorders. Several of these companies have products that utilize technologies similar to Oncophage and/or patient-specific medicine techniques, such as Dendreon, Oxford BioMedica and its partner Sanofi-Aventis, Nventa (formerly Stressgen), Accentia, and Cell Genesys. Patents have been issued in both the United States and Europe related to Nventa's heat shock protein technology.

There is no guarantee that we will be able to compete with potential future products being developed by our competitors. More specifically, Oncophage may compete with therapies currently in development for non-metastatic renal cell carcinoma, such as Wilex AG's Rencarex (WX-G250), which is in Phase 3 clinical trials. Additionally, sorafenib and sunitinib, which are approved for advanced renal cell carcinoma, are being studied in non-metastatic renal cell carcinoma, and other products that have been developed for metastatic renal cell carcinoma, such as temsirolimus and bevacizumab, may also be developed for non-metastatic renal cell carcinoma. As Oncophage is potentially developed in other indications, it will face additional competition in those indications. In addition, for Oncophage and all of our product candidates, prior to regulatory approval, we may compete for access to patients with other products in clinical development, with products approved for use in the indications we are studying, or with off-label use of products in the indications we are studying. Our product candidate, Aroplatin, may compete with existing approved chemotherapies or other chemotherapies that are in development by various companies, including GPC Biotech and Poniard Pharmaceuticals. We anticipate that we will face increased competition in the future as new companies enter markets we seek to address and scientific developments surrounding immunotherapy and other traditional cancer therapies continue to accelerate.

Our patent to purified QS-21 expired in most territories in 2008. Additional protection for our QS-21 proprietary adjuvant in combination with other agents is provided by our other patents. Our license and supply agreements for QS-21 would typically provide royalties for at least 10 years after commercial launch. However, there is no guarantee that we will be able to collect royalties in the future.

Several other vaccine adjuvants are in development and could compete with QS-21 for inclusion in vaccines in development. These adjuvants include, but are not limited to, oligonucleotides, under development by Pfizer, Idera, Juvaris, and Dynavax, anti-CTLA-4 antibody, under development by Pfizer and Bristol-Myers Squibb, MF59 and SAF, under development by Novartis, IC31, under development by Intercell, and MPL, under development by GlaxoSmithKline. In addition, several companies, such as CSL Limited and Galenica, as well as academic institutions, are developing saponin adjuvants, including derivatives and synthetic formulations.

Many of our competitors, including large pharmaceutical companies, have greater financial and human resources and more experience than we do. Our competitors may:

commercialize their product candidates sooner than we commercialize our own;

develop safer or more effective therapeutic drugs or preventive vaccines and other therapeutic products;

implement more effective approaches to sales and marketing and capture some of our potential market share;

establish superior intellectual property positions;

discover technologies that may result in medical insights or breakthroughs, which render our drugs or vaccines obsolete, possibly before they generate any revenue; or

adversely affect our ability to recruit patients for our clinical trials.

***Manufacturing problems may cause product launch delays, unanticipated costs, or loss of revenue streams.***

If one of our product candidates or our licensees' product candidates for which we maintain exclusive or primary manufacturing rights for a component nears marketing approval or is approved for sale, or if the Russian market for Oncophage is substantially



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greater than we anticipate, or if we obtain approval or conditional approval for Oncophage in another territory, we may be required to manufacture substantially more than we have been required to manufacture for preclinical studies and clinical trials. We have no experience manufacturing products in commercial quantities, and we can provide no assurance that we will be able to do so successfully. We may experience higher manufacturing failure rates than we have in the past if and when we attempt to substantially increase production volume.

We currently manufacture Oncophage in our Lexington, Massachusetts facility. We intend to use this facility to manufacture Oncophage for the Russian market, as well as for ongoing and future clinical trials. While we believe we will be able to cover both our commercial and clinical Oncophage demands in the near term, there is no guarantee that we will be able to meet any unanticipated increase in demand, and a failure to do so could adversely affect our business. An unanticipated increase in the demand for the commercial supply of Oncophage could result in our inability to meet commercial demand or to manufacture sufficient Oncophage product to support our clinical trials, and this could cause a delay or failure in our Oncophage programs.

Manufacturing of Oncophage is complex, and various factors could cause delays or an inability to supply vaccine. Oncophage is a patient-specific biologic and requires product characterization steps that are more onerous than those required for most chemical pharmaceuticals. Accordingly, we employ multiple steps to attempt to control the manufacturing processes. Deviations in these manufacturing processes could result in production failures.

Currently, we can also manufacture other clinical product in our own manufacturing facility. This manufacturing facility has certain support areas that it shares with the Oncophage manufacturing areas. As we seek to expand the market opportunities for Oncophage, including possibly filing for approvals in other territories, the applicable regulatory bodies may require us to make our Oncophage manufacturing facility a single product facility. In such an instance, we would no longer have the ability to manufacture AG-707 in our current facility. AG-707 is a complex product requiring Good Manufacturing Practices, or GMP, for the manufacture and release of a recombinant protein and a large number of peptides. In order to prepare additional AG-707 to support future clinical trials, we will have to manufacture or have manufactured these critical raw materials in a GMP compliant facility.

Currently, we do not manufacture QS-21 or Aroplatin in our own manufacturing facility. If we choose to manufacture QS-21 or Aroplatin in our own manufacturing facility, the investment of substantial funds and the recruitment of qualified personnel would be required in order to build and/or lease and operate new manufacturing facilities. While we have previously relied on a third-party manufacturer to meet QS-21 supply demands, that supplier currently does not, and may never have the ability to manufacture commercial grade QS-21. Our ability to use GSK as a supplier to meet our other QS-21 licensees' needs is limited and not desirable to all of our QS-21 licensees. In order to continue to support QS-21 product candidates and Aroplatin development, apply for regulatory approvals, and commercialize these product candidates, we or our licensees or collaborators will need to develop, contract for, or otherwise arrange for the necessary manufacturing capabilities. There is no assurance that we or our licensees or collaborators will be successful in these endeavors. If we fail to comply with our obligations in our supply agreements with third parties, we could lose revenue streams that are important to our business.

We currently rely upon and expect to continue to rely upon third parties, potentially including our collaborators or licensees, to produce materials required for product candidates, preclinical studies, clinical trials, and commercialization. A number of factors could cause production interruptions at our manufacturing facility or at our contract manufacturers, including equipment malfunctions, labor or employment retention problems, natural disasters, power outages, terrorist activities, or disruptions in the operations of our suppliers. Alternatively, there is the possibility we may have excess manufacturing capacity if product candidates do not progress as planned.

There are a limited number of contract manufacturers that operate under applicable GMP regulations that are capable of manufacturing our product candidates. If we are unable to do so ourselves or to arrange for third-party manufacturing of these product candidates, or to do so on commercially reasonable terms, we may not be able to complete development of these product candidates or commercialize them ourselves or through our collaborative partners or licensees. Reliance on third-party manufacturers entails risks to which we would not be subject if we manufactured products ourselves, including reliance on the third party for regulatory compliance, the possibility of breach of the manufacturing agreement by the third party because of factors beyond our control, and the possibility of termination or non-renewal of the agreement by the third party, based on its own business priorities, at a time that is costly or inconvenient for us.

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Manufacturing is also subject to extensive government regulation. Regulatory authorities must approve the facilities in which human health care products are produced. In addition, facilities are subject to ongoing inspections, and minor changes in manufacturing processes may require additional regulatory approvals, either of which could cause us to incur significant additional costs and lose revenue.

***The drug development and approval process is uncertain, time-consuming, and expensive.***

The process of obtaining and maintaining regulatory approvals for new therapeutic products is lengthy, expensive, and uncertain. It also can vary substantially based on the type, complexity, and novelty of the product. We must provide regulatory authorities with preclinical and clinical data demonstrating that our product candidates are safe and effective before they can be approved for commercial sale. Clinical development, including preclinical testing, is also a long, expensive, and uncertain process. It may take us several years to complete our testing, and failure can occur at any stage of testing. Interim results of preclinical studies or clinical trials do not necessarily predict their final results, and acceptable results in early studies might not be seen in later studies. Any preclinical or clinical test may fail to produce results satisfactory to regulatory authorities for many reasons, including but not limited to study structure, conduct, failure to enroll a sufficient number of patients, and collectability of data. Preclinical and clinical data can be interpreted in different ways, which could delay, limit, or prevent regulatory approval. Negative or inconclusive results from a preclinical study or clinical trial, adverse medical events during a clinical trial, or safety issues resulting from products of the same class of drug could require a preclinical study or clinical trial to be repeated or cause a program to be terminated, even if other studies or trials relating to the program are successful. As of March 31, 2009, we have spent approximately 15 years and \$260.1 million on our research and development program in heat shock proteins for cancer.

We may not complete our planned preclinical studies or clinical trials on schedule or at all. We may not be able to confirm the safety and efficacy of our potential drugs in long-term clinical trials, which may result in further delays or failure to commercialize our product candidates. The timing and success of a clinical trial is dependent on enrolling sufficient patients in a timely manner, avoiding serious or significant adverse patient reactions, and demonstrating efficacy of the product candidate in order to support a favorable risk versus benefit profile, among other considerations. Because we rely on third-party clinical investigators and contract research organizations to conduct our clinical trials, we may encounter delays outside our control, particularly if our relationships with any third-party clinical investigators or contract research organizations are adversarial. The timing and success of our clinical trials, in particular, are also dependent on clinical sites and regulatory authorities accepting each trial's protocol, statistical analysis plan, product characterization tests, and clinical data. If we are unable to satisfy clinical sites or regulatory authorities with respect to such matters, including the specific matters noted above, or our clinical trials yield inconclusive or negative results, we will be required to modify or expand the scope of our clinical studies or conduct additional studies to support marketing approvals, or modify our development pipeline. In addition, regulatory authorities may request additional information or data that is not readily available. Delays in our ability to respond to such requests would delay, and failure to adequately address concerns would prevent, our commercialization efforts.

Also, we or regulatory authorities might further delay or halt our clinical trials for various reasons, including but not limited to:

we may fail to comply with extensive regulations;

a product candidate may not appear to be more effective than current therapies;

a product candidate may have unforeseen, undesirable, or significant adverse side effects, toxicities, or other characteristics;

we may fail to prospectively identify, or identify at all, the most appropriate patient populations and/or statistical analyses for inclusion in our clinical trials;

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the time required to determine whether a product candidate is effective may be longer than expected;

we may be unable to adequately follow or evaluate patients after treatment with a product candidate;

patients may die during a clinical trial because their disease is too advanced or because they experience medical problems that may not be related to the product candidate;

sufficient numbers of patients may not meet our eligibility criteria and/or enroll in our clinical trials and may withdraw from our clinical trials after they have enrolled; or

we may be unable to produce sufficient quantities of a product candidate to complete the trial.

Furthermore, regulatory authorities, including the FDA and the European Medicines Agency, may have varying interpretations of our preclinical study and clinical trial data, which could delay, limit, or prevent regulatory approval or clearance. Any delays or difficulties in obtaining regulatory approvals or clearances for our product candidates may:

adversely affect the marketing of any products we or our collaborators develop;

impose significant additional costs on us or our collaborators;

diminish any competitive advantages that we or our collaborators may attain;

limit our ability to receive royalties and generate revenue and profits; and

adversely affect our business prospects and ability to obtain financing.

If we are delayed in these activities or do not receive regulatory approval for our product candidates in a timely manner, we may have to incur additional development expense, and subject to securing additional financing, we will not be able to commercialize them in the timeframe anticipated, and therefore our business will suffer.

***New data from our research and development activities could modify our strategy and result in the need to adjust our projections of timelines and costs of programs.***

Because we are focused on novel technologies, our research and development activities, including our preclinical studies and clinical trials, involve the ongoing discovery of new facts and the generation of new data, based on which we determine next steps for a relevant program. These developments are sometimes a daily occurrence and constitute the basis on which our business is conducted. We need to make determinations on an ongoing basis as to which of these facts or data will influence timelines and costs of programs. We may not always be able to make such judgments accurately, which may increase the costs we incur attempting to commercialize our product candidates. These issues are pronounced in our efforts to commercialize Oncophage, which represents an unprecedented approach to the treatment of cancer.

We may need to successfully address a number of technological challenges in order to complete development of our product candidates. Moreover, these product candidates may not be effective in treating any disease or may prove to have undesirable or unintended side effects, toxicities, or other characteristics that may preclude our obtaining regulatory approvals or prevent or limit commercial use.



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***Failure to enter into significant collaboration agreements may hinder our efforts to develop and commercialize our product candidates and will increase our need to rely on other financing mechanisms, such as sales of securities, to fund our operations.***

We have been engaged in efforts to enter into collaborative agreements with one or more pharmaceutical or larger biotechnology companies to assist us with development and/or commercialization of our product candidates. If we are successful in entering into a collaborative agreement we may not be able to negotiate agreements with economic terms similar to those negotiated by other companies. We may not, for example, obtain significant up-front payments or substantial royalty rates. If we fail to enter into collaboration agreements, our efforts to develop and/or commercialize our products or product candidates may be undermined. In addition, if we do not raise funds through collaboration agreements, we will need to rely on other financing mechanisms, such as sales of securities, to fund our operations. Sales of certain securities may substantially dilute the ownership of existing stockholders. If we are unable to conclude the sale of such securities, we may become insolvent.

While we have been pursuing these business development efforts for several years, we have not concluded an agreement relating to the potential development or commercialization of Oncophage. Due to the announcement in March 2006 that part I of our Phase 3 trial in renal cell carcinoma did not achieve its primary endpoint in the intent to treat population, and because companies may be skeptical regarding the potential success of a patient-specific product candidate, many companies may be unwilling to commit to an agreement prior to receipt of additional clinical data, if at all. In the absence of such data, potential collaborative partners may demand economic terms that are unfavorable to us, or may be unwilling to collaborate with us at all. Even if Oncophage generates favorable clinical data over the next several years, we may not be able to negotiate a collaborative transaction at all, or negotiate one that provides us with favorable economic terms.

In addition, we would consider license and/or co-development opportunities to advance Aroplatin and AG-707. These products are at an early stage, and collaborative partners or licensees may defer discussions until results from early clinical trials become available, or they may not engage in such discussions at all. Further work on these programs is on hold due to cost containment efforts.

***Because we rely on collaborators and licensees for the development and commercialization of some of our product candidate programs, these programs may not prove successful, and/or we may not receive significant payments from such parties.***

Part of our strategy is to develop and commercialize some of our product candidates by continuing our existing arrangements with academic and corporate collaborators and licensees and by entering into new collaborations. Our success depends on our ability to negotiate such agreements and on the success of the other parties in performing research, preclinical and clinical testing, completing regulatory applications, and commercializing product candidates. For example, the development of Oncophage for the treatment of glioma is currently dependent in large part on the efforts of our institutional collaborators, such as the Brain Tumor Research Center at the University of California, San Francisco, which is conducting a Phase 2 clinical trial of Oncophage for the treatment of recurrent glioma. In addition, all product candidates containing QS-21 depend on the success of our collaborative partners or licensees, and the Company's relationships with these third parties. Such product candidates depend on the successful and adequate manufacture and/or supply of QS-21, and our collaborators and licensees successfully enrolling patients and completing clinical trials, being committed to dedicating the resources to advance these product candidates, obtaining regulatory approvals, and successfully commercializing product candidates.

These development activities may fail to produce marketable products due to unsuccessful results or abandonment of these programs, failure to enter into future collaborations or license agreements, or the inability to manufacture product supply requirements for our collaborators and licensees. For example, in August 2006, Pharmexa A/S announced a decision to cease dosing patients in their Phase 2 clinical trial of their HER-2 Protein AutoVac breast cancer vaccine containing our QS-21 adjuvant, after it was determined that the trial was unlikely to meet its primary endpoint. Several of our agreements also require us to transfer important rights and regulatory compliance responsibilities to our collaborators and licensees. As a result of collaborative agreements, we will not control the nature, timing, or cost of bringing these product candidates to market. Our collaborators and licensees could

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choose not to devote resources to these arrangements or, under certain circumstances, may terminate these arrangements early. They may cease pursuing product candidates or elect to collaborate with different companies. In addition, these collaborators and licensees, outside of their arrangements with us, may develop technologies or products that are competitive with those that we are developing. From time to time, we may also become involved in disputes with our collaborators. Such disputes could result in the incurrence of significant expense, or the termination of collaborations. We may be unable to fulfill all of our obligations to our collaborators, which may result in the termination of collaborations. As a result of these factors, our strategic collaborations may not yield revenue. Furthermore, we may be unable to enter into new collaborations or enter into new collaborations on favorable terms. Failure to generate significant revenue from collaborations would increase our need to fund our operations through sales of securities and would negatively affect our business prospects.

***If we are unable to purify heat shock proteins from some cancer types, we may have difficulty successfully initiating clinical trials in new indications or completing our clinical trials, and, even if we do successfully complete our clinical trials, the size of our potential market could decrease.***

Our ability to successfully develop and commercialize Oncophage for a particular cancer type depends in part on our ability to purify heat shock proteins from that type of cancer. If we experience difficulties in purifying heat shock proteins for a sufficiently large number of patients in our clinical trials, it may lower the probability of a successful analysis of the data from these trials and, ultimately, the ability to obtain regulatory approvals. For example, our inability to manufacture adequate amounts of Oncophage for approximately 30% of the patients randomized in the Oncophage treatment arm of the Phase 3 metastatic melanoma trial undermined the potential for the trial to meet its pre-specified clinical endpoints. To address this lower success rate for melanoma, we included additional protease inhibitors in the manufacturing process to further limit the breakdown of the product. Subsequent to the implementation of this change, we successfully produced Oncophage for 18 of 23 patients, a success rate of approximately 78%, whereas previously we had produced Oncophage for 123 of 179 patients, a success rate of approximately 69%. The small sample size used subsequent to our process change may make the reported improvement in our manufacturing success unreliable as a predictor of future success.

We have successfully manufactured product for 100%, 10 of 10, of the patients randomized to treatment in our Phase 2 lung cancer trial and 95%, 21 of 22, of the patients randomized to treatment in our Phase 2 metastatic renal cell carcinoma trial. Based on our clinical trials to date, we have been able to manufacture Oncophage from 87% of the tumors delivered to our manufacturing facility in Lexington, Massachusetts; for non-metastatic renal cell carcinoma, 92%; for melanoma, 70%; for colorectal cancer, 98%; for gastric cancer, 81%; for lymphoma, 89%; for glioma, 81%; and for pancreatic cancer, 46%. The relatively low rate of manufactured product for pancreatic cancer is due to the abundance of proteases in pancreatic tissue. Proteases, which are enzymes that break down proteins, are believed to degrade the heat shock proteins during the purification process.

We may encounter problems with other types of cancer as we expand our research. If we cannot overcome these problems, the number of cancer types that our heat shock protein product candidates could treat would be limited. In addition, if we commercialize our heat shock protein product candidates, we may not be able to replicate past manufacturing success rates and we may face claims from patients for whom we are unable to produce a vaccine.

***If we fail to sustain and further build our intellectual property rights, competitors will be able to take advantage of our research and development efforts to develop competing products.***

If we are not able to protect our proprietary technology, trade secrets, and know-how, our competitors may use our inventions to develop competing products. We currently have exclusive rights to 75 issued United States patents and 101 foreign patents. We also have exclusive rights to 17 pending United States patent applications and 72 pending foreign patent applications. However, we currently do not have any issued patents in Russia covering Oncophage and we may not have rights to Oncophage patents in other territories where we may pursue regulatory approval. In addition, our patents may not protect us against our competitors. Our patent positions, and those of other pharmaceutical and biotechnology companies, are generally uncertain and involve complex legal, scientific, and factual questions. The standards which the United States Patent and Trademark Office uses to grant patents, and the standards which courts use to interpret patents, are not always applied predictably or uniformly and can change, particularly as new

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technologies develop. Consequently, the level of protection, if any, that will be provided by our patents if we attempt to enforce them, and they are challenged, is uncertain. In addition, the type and extent of patent claims that will be issued to us in the future is uncertain. Any patents that are issued may not contain claims that permit us to stop competitors from using similar technology.

In addition to our patented technology, we also rely on unpatented technology, trade secrets, and confidential information. We may not be able to effectively protect our rights to this technology or information. Other parties may independently develop substantially equivalent information and techniques or otherwise gain access to or disclose our technology. We generally require each of our employees, consultants, collaborators, and certain contractors to execute a confidentiality agreement at the commencement of an employment, consulting, collaborative, or contractual relationship with us. However, these agreements may not provide effective protection of our technology or information, or in the event of unauthorized use or disclosure, they may not provide adequate remedies.

***We may incur substantial costs as a result of litigation or other proceedings relating to patent and other intellectual property rights, and we may be unable to protect our rights to, or use, our technology.***

If we choose to go to court to stop someone else from using the inventions claimed in our patents, that individual or company has the right to ask a court to rule that our patents are invalid and should not be enforced against that third party. These lawsuits are expensive and would consume time and other resources even if we were successful in stopping the infringement of our patents. In addition, there is a risk that the court will decide that our patents are not valid and that we do not have the right to stop the other party from using the claimed inventions. There is also the risk that, even if the validity of our patents is upheld, the court will refuse to stop the other party on the grounds that such other party's activities do not infringe our patents.

We may not have rights under some patents or patent applications related to some of our existing and proposed products or processes. Third parties may own or control these patents and patent applications in the United States and abroad. Therefore, in some cases, such as those described below, in order to develop, use, manufacture, sell, or import some of our existing or proposed products, or develop or use some of our existing or proposed processes, we or our collaborators may choose to seek, or be required to seek, licenses under third-party patents issued in the United States and abroad, or those that might issue from United States and foreign patent applications. In such an event, we likely would be required to pay license fees or royalties or both to the licensor. If licenses are not available to us on acceptable terms, we or our collaborators may not be able to exploit these products or processes.

Furthermore, a third party may claim that we are using inventions covered by such third-party's patents or other intellectual property rights and may go to court to stop us from engaging in our normal operations and activities. These lawsuits are expensive and would consume time and other resources. There is a risk that a court would decide that we are infringing the third-party's patents and would order us to stop the activities covered by the patents. In addition, there is a risk that a court will order us to pay the other party substantial damages for having violated the other party's patents. The biotechnology industry has produced a proliferation of patents, and it is not always clear to industry participants, including us, which patents cover various types of products. The coverage of patents is subject to interpretation by the courts, and the interpretation is not always uniform. We know of patents issued to third parties relating to heat shock proteins and alleviation of symptoms of cancer. We have reviewed these patents, and we believe, as to each claim in those patents, that we either do not infringe the claim, or that the claim is invalid. Moreover, patent holders sometimes send communications to a number of companies in related fields suggesting possible infringement, and we, like a number of biotechnology companies, have received such communications, including with respect to the third-party patents mentioned above, as well as communications alleging infringement of a patent relating to certain gel-fiberglass structures. If we are sued for patent infringement, we would need to demonstrate that our products either do not infringe the patent claims of the relevant patent and/or that the patent claims are invalid, which we may not be able to do. Proving invalidity, in particular, is difficult, since it requires a showing of clear and convincing evidence to overcome the presumption of validity enjoyed by issued patents.

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***We may become involved in expensive patent litigation or other proceedings, which could result in our incurring substantial costs and expenses or substantial liability for damages, or require us to stop development and commercialization efforts.***

There has been substantial litigation and other proceedings regarding patent and other intellectual property rights in the pharmaceutical and biotechnology industries. We may become a party to patent litigation or other proceedings regarding intellectual property rights.

The cost to us of any patent litigation or other proceeding, even if resolved in our favor, could be substantial. Some of our competitors may be able to sustain the cost of such litigation or proceedings more effectively than we can because of their substantially greater financial resources. If a patent litigation or other proceeding is resolved against us, we or our collaborators may be enjoined from using, manufacturing, selling, or importing our products or processes without a license from the other party, and we may be held liable for significant damages. We may not be able to obtain any required licenses on commercially acceptable terms or at all.

Uncertainties resulting from the initiation and continuation of patent litigation or other proceedings could have a material adverse effect on our ability to enter into collaborations with other entities, obtain financing, or compete in the marketplace. Patent litigation and other proceedings may also absorb significant management time.

***Our patent protection for any compound or product that we seek to develop may be limited to a particular method of use or indication such that, if a third party were to obtain approval of the compound or product for use in another indication, we could be subject to competition arising from off-label use.***

The patent landscape in our business is becoming increasingly congested with competing applications for protection of closely related compounds and technologies that arise from both industrial and academic research. Although we generally seek the broadest patent protection available for our proprietary compounds, competing art may prevent us from obtaining patent protection for the actual composition of matter of any particular compound and we may be limited to protecting a new method of use for the compound or otherwise restricted in our ability to prevent others from exploiting the compound. If we are unable to obtain patent protection for the actual composition of matter of any compound that we seek to develop and commercialize and must rely on method of use patent coverage, we would likely be unable to prevent others from manufacturing or marketing that compound for any use that is not protected by our patent rights. If a third party were to receive marketing approval for the compound for another use, physicians might nevertheless prescribe it for indications that are not described in the product's labeling or approved by the FDA or other regulatory authorities. Even if we have patent protection of the prescribed indication, as a practical matter, we likely would have little recourse as a result of this off-label use. In that event, our revenues from the commercialization of the compound would likely be adversely affected.

***If we fail to comply with our obligations in our intellectual property licenses with third parties, we could lose license rights that are important to our business.***

We are a party to various license agreements under which we receive the right to practice and use important third-party patent rights and we may enter into additional licenses in the future. Our existing licenses impose, and we expect future licenses will impose, various diligence, milestone payment, royalty, insurance, and other obligations on us. If we fail to comply with these obligations, the licensor may have the right to terminate the license, in which event we might not be able to market any product that is covered by the licensed patents.

***If we fail to retain the services of, and/or maintain positive relations with, key individuals and our employees, we may be unable to successfully develop our product candidates, conduct clinical trials, and obtain financing.***

Garo H. Armen, Ph.D., the Chairman of our Board of Directors and our Chief Executive Officer, co-founded Antigenics in 1994 with Pramod K. Srivastava, Ph.D., and has been and continues to be integral to building our company and developing our technology. If Dr. Armen severed his relationship with Antigenics, our business may be adversely impacted.

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Effective December 1, 2005, we entered into an employment agreement with Dr. Armen. Subject to the earlier termination as provided in the agreement, the agreement had an original term of one year and is automatically extended thereafter for successive terms of one year each, unless either party provides notice to the other at least ninety days prior to the expiration of the original or any extension term. Dr. Armen plays an important role in our day-to-day activities. We do not carry key employee insurance policies for Dr. Armen or any other employee.

Dr. Srivastava currently has a consulting agreement with us pursuant to which he is retained to provide advice and services to Antigenics from time to time. This agreement has an initial term ending March 31, 2011.

We also rely greatly on employing and retaining other highly trained and experienced senior management and scientific and operations personnel. The competition for these and other qualified personnel in the biotechnology field is intense. In order to reduce our expenses, we have restructured our business and reduced staffing levels. This has in many cases eliminated any redundancy in skills and capabilities in key areas. If we are not able to attract and retain qualified personnel, we may not be able to achieve our strategic and operational objectives.

*We may face litigation that could result in substantial damages and may divert management's time and attention from our business.*

Antigenics, our Chairman and Chief Executive Officer, Garo H. Armen, Ph.D., and two investment banking firms that served as underwriters in our initial public offering have been named as defendants in a federal civil class action lawsuit pending in the United States District Court for the Southern District of New York. Substantially similar actions were filed concerning the initial public offerings for more than 300 different issuers, and the cases were coordinated as *In re Initial Public Offering Securities Litigation*, 21 MC 92 for pre-trial purposes. The suit alleges that the brokerage arms of the investment banking firms charged secret excessive commissions to certain of their customers in return for allocations of our stock in the offering. The suit also alleges that shares of our stock were allocated to certain of the investment banking firms customers based upon agreements by such customers to purchase additional shares of our stock in the secondary market. Dr. Armen has been dismissed without prejudice from the lawsuit pursuant to a stipulation. In June 2004, a stipulation of settlement and release of claims against the issuer defendants, including us, was submitted to the Court for approval. The Court preliminarily approved the settlement in August 2005. In December 2006, the appellate court overturned the certification of classes in six test cases that were selected by the underwriter defendants and plaintiffs in the coordinated proceedings. The case involving Antigenics is not one of the six test cases. Class certification had been one of the conditions of the settlement. Accordingly, on June 25, 2007, the Court entered an order terminating the proposed settlement based on a stipulation among the parties to the settlement. Plaintiffs have filed amended master allegations and amended complaints in the six test cases. On March 26, 2008, the Court largely denied the defendants' motion to dismiss the amended complaints. The parties recently reached a global settlement of the litigation. On April 2, 2009, plaintiffs filed a motion for preliminary approval of the settlement. Under the settlement, which remains subject to Court approval, the insurers would pay the full amount of settlement share allocated to the defendants, and the defendants would bear no financial liability. The company defendants, as well as the officer and director defendants who were previously dismissed from the action pursuant to tolling agreements, would receive complete dismissals from the case. It is uncertain whether the settlement will receive final Court approval. Regardless of the outcome, participation in this lawsuit diverts our management's time and attention from our business and may result in our paying damages.

In addition, we are involved in other litigation and may become involved in additional litigation. Any such litigation could be expensive in terms of out-of-pocket costs and management time, and the outcome of any such litigation is uncertain.

Our directors and officers insurance policies provide \$25.0 million annual aggregate coverage and \$25.0 million per occurrence coverage. This limited insurance coverage may not be sufficient to cover us for future claims.

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***Product liability and other claims against us may reduce demand for our products and/or result in substantial damages.***

We face an inherent risk of product liability exposure related to testing our product candidates in human clinical trials and will face even greater risks upon the sale of Oncophage commercially, as well as if we sell our various product candidates commercially. An individual may bring a product liability claim against us if Oncophage or one of our product candidates causes, or merely appears to have caused, an injury. Product liability claims may result in:

decreased demand for Oncophage or our product candidates;

injury to our reputation;

withdrawal of clinical trial volunteers;

costs of related litigation; and

substantial monetary awards to plaintiffs.

We manufacture Oncophage from a patient's cancer cells, and a medical professional must inject Oncophage into the same patient from which it was manufactured. A patient may sue us if a hospital, a shipping company, or we fail to deliver the removed cancer tissue or that patient's Oncophage. We anticipate that the logistics of shipping will become more complex if the number of patients we treat increases and that shipments of tumor and/or Oncophage may be lost, delayed, or damaged. Additionally, complexities unique to the logistics of commercial products may delay shipments and limit our ability to move commercial product in an efficient manner without incident. Currently, we do not have insurance that covers loss of or damage to Oncophage or tumor material, and we do not know whether such insurance will be available to us at a reasonable price or at all. We have limited product liability coverage for use of our product candidates. Our product liability policy provides \$10.0 million aggregate coverage and \$10.0 million per occurrence coverage. This limited insurance coverage may be insufficient to fully cover us for future claims.

***If we do not comply with environmental laws and regulations, we may incur significant costs and potential disruption to our business.***

We use hazardous, infectious, and radioactive materials, and recombinant DNA in our operations, which have the potential of being harmful to human health and safety or the environment. We store these hazardous (flammable, corrosive, toxic), infectious, and radioactive materials, and various wastes resulting from their use, at our facilities pending use and ultimate disposal. We are subject to a variety of federal, state, and local laws and regulations governing use, generation, storage, handling, and disposal of these materials. We may incur significant costs complying with both current and future environmental health and safety laws and regulations. In particular, we are subject to regulation by the Occupational Safety and Health Administration, the Environmental Protection Agency, the Drug Enforcement Agency, the Department of Transportation, the Centers for Disease Control and Prevention, the National Institutes of Health, the International Air Transportation Association, and various state and local agencies. At any time, one or more of the aforementioned agencies could adopt regulations that may affect our operations. We are also subject to regulation under the Toxic Substances Control Act and the Resource Conservation Development programs.

Although we believe that our current procedures and programs for handling, storage, and disposal of these materials comply with federal, state, and local laws and regulations, we cannot eliminate the risk of accidents involving contamination from these materials. Although we have limited pollution liability coverage (\$2.0 million) and a workers' compensation liability policy, we could be held liable for resulting damages in the event of an accident or accidental release, and such damages could be substantially in excess of any available insurance coverage and could substantially disrupt our business.

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### **Risks Related to our Common Stock**

#### ***Our officers and directors may be able to block proposals for a change in control.***

Antigenics Holdings LLC is a holding company that owns shares of our common stock, and as of March 31, 2009, Antigenics Holdings LLC controlled approximately 17% of our outstanding common stock. Due to this concentration of ownership, Antigenics Holdings LLC can substantially influence all matters requiring a stockholder vote, including:

the election of directors;

the amendment of our organizational documents; or

the approval of a merger, sale of assets, or other major corporate transaction.

Our Chief Executive Officer directly and indirectly owns approximately 48% of Antigenics Holdings LLC. In addition, several of our directors and officers directly and indirectly own approximately 4% of our outstanding common stock.

#### ***The unaffiliated holders of certain convertible securities have the right to convert such securities into a substantial percentage of our outstanding common stock.***

According to publicly filed documents, Mr. Brad M. Kelley beneficially owns 5,546,240 shares of our outstanding common stock and 31,620 shares of our series A convertible preferred stock. The shares of preferred stock are currently convertible at any time into 2,000,000 shares of common stock at an initial conversion price of \$15.81, are non-voting, and carry a 2.5% annual dividend yield. If Mr. Kelley had converted all of the shares of preferred stock on March 31, 2009, he would have held approximately 11% of our outstanding common stock. We currently have a right of first refusal agreement with Mr. Kelley that provides us with limited rights to purchase certain of Mr. Kelley's shares if he proposes to sell them to a third party.

Mr. Kelley's substantial ownership position provides him with the ability to substantially influence the outcome of matters submitted to our stockholders for approval. Furthermore, collectively, Mr. Kelley and Antigenics Holdings LLC control approximately 25% of our outstanding common stock as of March 31, 2009, providing substantial ability, if they vote in the same manner, to determine the outcome of matters submitted to a stockholder vote. If Mr. Kelley were to convert all of his preferred stock into common stock, the combined total would increase to 27%. Additional purchases of our common stock by Mr. Kelley also would increase both his percentage of outstanding voting rights and the percentage combined with Antigenics Holdings LLC. While Mr. Kelley's shares of preferred stock do not carry voting rights, the shares of common stock issuable upon conversion carry the same voting rights as other shares of common stock.

On October 30, 2006, we issued \$25.0 million of our 2006 Notes to a group of institutional investors. These 2006 Notes, together with any interest paid in the form of additional 2006 Notes, are convertible into our common stock at an initial fixed conversion price of \$3.50 per share at the option of the investors. On March 31, 2009, one holder of the 2006 Notes had holdings which, if totally converted into shares of our common stock, would result in this holder owning 6,774,038 shares. If such holder had exercised such conversion right on March 31, 2009, such holder would have owned approximately 9% of our outstanding common stock.

While the 2006 Notes do not carry any voting rights, the common stock issuable upon conversions of such securities do carry the same voting rights as other shares of common stock. The ownership positions following any such conversions, along with any open market purchases by such holders, could provide the holders with the ability to substantially influence the outcome of matters submitted to our stockholders for approval.

#### ***Provisions in our organizational documents could prevent or frustrate attempts by stockholders to replace our current management.***

Our certificate of incorporation and bylaws contain provisions that could make it more difficult for a third party to acquire us without consent of our Board of Directors. Our certificate of incorporation provides for a staggered board and removal of directors only for cause. Accordingly, stockholders may elect only a minority of our Board at any annual meeting, which may have the effect of delaying or preventing changes in management. In addition, under our certificate of incorporation, our Board of Directors may



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issue additional shares of preferred stock and determine the terms of those shares of stock without any further action by our stockholders. Our issuance of additional preferred stock could make it more difficult for a third party to acquire a majority of our outstanding voting stock and thereby effect a change in the composition of our Board of Directors. Our certificate of incorporation also provides that our stockholders may not take action by written consent. Our bylaws require advance notice of stockholder proposals and director nominations and permit only our President or a majority of the Board of Directors to call a special stockholder meeting. These provisions may have the effect of preventing or hindering attempts by our stockholders to replace our current management. In addition, Delaware law prohibits a corporation from engaging in a business combination with any holder of 15% or more of its capital stock until the holder has held the stock for three years unless, among other possibilities, the Board of Directors approves the transaction. Our Board of Directors may use this provision to prevent changes in our management. Also, under applicable Delaware law, our Board of Directors may adopt additional anti-takeover measures in the future.

*Our stock has generally had low trading volume, and its public trading price has been volatile.*

Between our initial public offering on February 4, 2000 and March 31, 2009, and for the three months ended March 31, 2009, the closing price of our common stock has fluctuated between \$0.30 and \$52.63 per share and \$0.30 and \$0.50 per share, respectively, with an average daily trading volume for the three months ended March 31, 2009 of approximately 111,000 shares. The market may experience significant price and volume fluctuations that are often unrelated to the operating performance of individual companies. In addition to general market volatility, many factors may have a significant adverse effect on the market price of our stock, including:

continuing operating losses, which we expect over the next several years as we continue our development activities;

announcements of decisions made by public officials;

results of our preclinical studies and clinical trials;

announcements of technological innovations, new commercial products, failures of products, or progress toward commercialization by our competitors or peers;

developments concerning proprietary rights, including patent and litigation matters;

publicity regarding actual or potential results with respect to product candidates under development by us or by our competitors;

regulatory developments; and

quarterly fluctuations in our financial results.

*The sale of a significant number of shares could cause the market price of our stock to decline.*

The sale by us or the resale by stockholders of a significant number of shares of our common stock could cause the market price of our common stock to decline. As of March 31, 2009, we had 66,828,540 shares of common stock outstanding. All of these shares are eligible for sale on the NASDAQ, although certain of the shares are subject to sales volume and other limitations. We have filed registration statements to permit the sale of 12,436,831 shares of common stock under our equity incentive plan and certain equity plans that we assumed in the acquisitions of Aquila Biopharmaceuticals, Inc. and Aronex Pharmaceuticals, Inc. We have also filed registration statements to permit the sale of 450,000 shares of common stock under our employee stock purchase plan, to permit the sale of 250,000 shares of common stock under our Directors Deferred Compensation Plan, to permit the sale of 17,417,434 shares of common stock pursuant to the private placement agreement dated January 9, 2008 and to permit the sale of 14,000,000 shares of common stock pursuant to the private placement agreement dated April 8, 2008. As of March 31, 2009, an aggregate of 31,383,163 shares remain available for sale under these registration statements. The market price of our

common stock may decrease based on the expectation of such sales.

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As of March 31, 2009, options to purchase 7,327,539 shares of our common stock with a weighted average exercise price per share of \$4.93 were outstanding. Many of these options are subject to vesting that generally occurs over a period of up to four years following the date of grant. As of March 31, 2009, we have 1,693,304 nonvested shares outstanding.

*Our stock may be delisted from the NASDAQ Capital Market, which could affect its market price and liquidity.*

Our common stock is currently listed on the NASDAQ Capital Market under the symbol AGEN. In the event that we fail to satisfy any of the listing requirements, our common stock may be put under review or removed from listing on the NASDAQ Capital Market. On November 20, 2008, we were notified by the Listing Qualifications Staff of NASDAQ that our common stock was subject to delisting from the NASDAQ Global Market based upon our failure to satisfy the \$50.0 million minimum market value of listed securities requirement for the previous ten consecutive trading days (pursuant to Rule 4450(b)(1)(A) of the NASDAQ Marketplace Rules). We were granted a thirty calendar-day period to regain compliance with the requirement, and on December 23, 2008, we were notified by NASDAQ that we did not regain compliance. NASDAQ indicated that our common stock would be subject to delisting unless we requested a hearing before the NASDAQ Listing Qualifications Panel (the Panel). We had the hearing at which we presented a plan for regaining compliance with the NASDAQ Marketplace Rules. On March 25, 2009, we received notification that the Panel had determined to transfer our listing to the NASDAQ Capital Market and continue our listing on that market effective with the opening of trading on March 27, 2009. On April 28, 2009, we received notification from NASDAQ of compliance with continued listing standards of the NASDAQ Capital Market. There is no assurance that we will be able to maintain our listing. For example, in the event that NASDAQ reinstates its minimum share price requirement of \$1.00 per share, which has been suspended until July 20, 2009, we may not be able to meet that requirement. The closing price of our common stock on the NASDAQ Capital Market on May 7, 2009 was \$0.71 per share.

*Because we are a relatively small public company, we believe we have been disproportionately negatively impacted by the Sarbanes-Oxley Act of 2002 and related regulations, which have increased our costs and required additional management resources.*

The Sarbanes-Oxley Act of 2002 and rules adopted by the SEC and the NASDAQ have resulted in, and we expect will continue to result in, significant costs to us. In particular, our efforts to comply with Section 404 of the Sarbanes-Oxley Act of 2002 and related regulations regarding the required assessment of our internal control over financial reporting, and our independent registered public accounting firm's audit of internal control over financial reporting, have required commitments of significant financial resources and management time. We expect these commitments to continue. Additionally, these laws and regulations could make it more difficult for us to attract and retain qualified members for our Board of Directors, particularly independent directors, or qualified executive officers.

Our internal control over financial reporting (as defined in Rules 13a-15 of the Securities Exchange Act) is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of our consolidated financial statements for external purposes in accordance with generally accepted accounting principles. Because of its inherent limitations, internal control over financial reporting may not prevent or detect all deficiencies or weaknesses in our financial reporting. While our management has concluded that there were no material weaknesses in our internal control over financial reporting as of December 31, 2008, our procedures are subject to the risk that our controls may become inadequate because of changes in conditions or as a result of a deterioration in compliance with such procedures. No assurance is given that our procedures and processes for detecting weaknesses in our internal control over financial reporting will be effective.

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

The following table shows Company repurchases of its common stock for the three months ended March 31, 2009.

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Period	Total Number of Shares Purchased	Average Price Paid per Share	Total Number of Shares Purchased as Part of Publicly Announced Plans or Programs	Maximum Number of Shares that May Yet Be Purchased Under the Plans or Programs
January 1 - January 31, 2009	117,913 <sup>(1)</sup>	\$ 0.47	N/A	N/A
February 1 - February 28, 2009			N/A	N/A
March 1 - March 31, 2009			N/A	N/A

(1) Represents shares withheld to cover personal income tax withholding for employees upon the vesting of nonvested stock.

**Item 6. Exhibits**

The Exhibits listed in the Exhibit Index are included in this Quarterly Report on Form 10-Q.

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**ANTIGENICS INC.**

**SIGNATURES**

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

ANTIGENICS INC.

/s/ SHALINI SHARP  
Shalini Sharp  
*Chief Financial Officer*

Date: May 11, 2009

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**EXHIBIT INDEX**

<b>Exhibit No.</b>	<b>Description</b>
3.1	Amended and Restated Certificate of Incorporation of Antigenics Inc. filed as Exhibit 3.1 to our Current Report on Form 8-K (File No. 0-29089) dated June 10, 2002 and incorporated herein by reference.
3.1.1	Certificate of Amendment to Amended and Restated Certificate of Incorporation of Antigenics Inc. filed as Exhibit 3.1 to our Current Report on Form 8-K (File No. 0-29089) dated June 11, 2007 and incorporated herein by reference.
3.2	Third Amended and Restated By-laws of Antigenics Inc. filed as Exhibit 3.2 to our Quarterly Report on Form 10-Q/A (File No. 0-29089) dated November 10, 2008 and incorporated herein by reference.
3.3	Certificate of Designation, Preferences and Rights of the Series A Convertible Preferred Stock of Antigenics Inc. filed with the Secretary of State of the State of Delaware on September 24, 2003. Filed as Exhibit 3.1 to our Current Report on Form 8-K (File No. 0-29089) filed on September 25, 2003 and incorporated herein by reference.
3.4	Certificate of Designations, Preferences and Rights of the Class B Convertible Preferred Stock of Antigenics Inc. Filed as Exhibit 3.1 to our Current Report on Form 8-K (File No. 0-29089) filed on September 5, 2007 and incorporated herein by reference.
10.1(1)	Amended and Restated Manufacturing Technology Transfer and Supply Agreement dated January 16, 2009 by and between Antigenics Inc., a Massachusetts corporation and wholly owned subsidiary of Antigenics Inc., a Delaware corporation and GlaxoSmithKline Biologicals SA. Filed herewith.
10.2(1)	Second Amendment to Exhibit A-5 dated January 14, 2009 to Master Services Agreement dated May 24, 2007, between Antigenics Inc. and Raifarm Limited. Filed herewith.
10.3	Summary of oral agreement between Garo H. Armen, Ph.D. and Antigenics, Inc. modifying the base salary of Dr. Armen. Filed in our Current Report on Form 8-K (File No. 0-29089) filed on January 21, 2009 and incorporated herein by reference.
10.4	Amendment of Rights with respect to Events of Default and Issuance of Other Securities by and between Antigenics Inc. and Ingalls & Snyder Value Partners L.P. dated November 11, 2008. Filed herewith.
31.1	Certification of Chief Executive Officer pursuant to Rules 13a-14(a) and 15d-14(a) under the Securities Exchange Act of 1934, as amended. Filed herewith.
31.2	Certification of Chief Financial Officer pursuant to Rules 13a-14(a) and 15d-14(a) under the Securities Exchange Act of 1934, as amended. Filed herewith.
32.1	Certification of Chief Executive Officer and Chief Financial Officer pursuant to 18 U.S.C. Section 1350 as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002. Furnished herewith.
(1)	Certain confidential material contained in the document has been omitted and filed separately with the Securities and Exchange Commission pursuant to Rule 406 of the Securities Act or Rule 24b-2 of the Securities Exchange Act.

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*Exhibit 10.1*

*Confidential*

**AMENDED AND RESTATED MANUFACTURING TECHNOLOGY TRANSFER AND  
SUPPLY AGREEMENT  
BY AND BETWEEN  
ANTIGENICS, INC., A MASSACHUSETTS CORPORATION  
AND  
GLAXOSMITHKLINE BIOLOGICALS SA**

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*Confidential*

**AMENDED AND RESTATED MANUFACTURING TECHNOLOGY TRANSFER AND SUPPLY AGREEMENT**

This Amended and Restated Manufacturing Technology Transfer and Supply Agreement (this Agreement ) is made effective this 16th day of January, 2009 ( Effective Date ) by and between Antigenics Inc., a Massachusetts corporation and wholly owned subsidiary of Antigenics Inc., a Delaware corporation, having offices at 3 Forbes Road, Lexington, MA 02421 ( Antigenics MA ), and GlaxoSmithKline Biologicals SA, a Belgian company, having an address at 89 rue de l Institut, 1330 Rixensart, Belgium ( GSK ) (each singularly a Party and collectively the Parties ).

WHEREAS, Antigenics MA and GSK were parties to that certain License, Development, and Supply Agreement entered into effective September 11, 1992 between Cambridge Biotech Corporation (predecessor to Antigenics MA) and Smithkline Beecham p.l.c. (predecessor to GlaxoSmithKline plc an Affiliate of GSK) (as amended, the 1992 Agreement ); and

WHEREAS Antigenics MA and GSK terminated and superceded the 1992 Agreement with that certain Manufacturing Technology Transfer and Supply Agreement entered into effective July 6, 2006 between the Parties (the 2006 Supply Agreement ) and the License Agreement (as defined below);

WHEREAS, the Parties entered into that certain Binding Letter of Intent dated July 20, 2007 (the Letter ) to accelerate GSK's manufacturing rights for QS-21 under the 2006 Supply Agreement; and

WHEREAS, GSK and Antigenics MA now desire to memorialize their understanding as described in the Letter and supercede and amend and restate the 2006 Supply Agreement with this Agreement;

NOW, THEREFORE, in consideration of the premises and the mutual covenants and agreements herein contained, and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the Parties do hereby agree as follows:

**1. Definitions.**

The following terms, whether used in the singular or the plural, shall have the following meanings for purposes of this Agreement:

1.1 Affiliate means any corporation, firm, partnership or other entity, which controls, is controlled by or is under common control with a Party. For purposes of this Section 1.1, control means direct or indirect ownership of fifty percent (50%) or more, or such lesser percentage which is the maximum allowed to be owned by a foreign corporation in a particular jurisdiction, of the outstanding stock or other voting rights entitled to elect directors thereof or the ability to otherwise control the management of the corporation, firm, partnership or other entity.

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1.2 BMF means (a) Antigenics MA's FDA biologics master file(s) for QS-21 and (b) GSK's and/or its Affiliate's and/or [\*\*] biological master file(s) for QS-21, existing now or at any time in the future, as the case may be.

1.3 Business Day means a day on which banking institutions in both Brussels, Belgium and Boston, Massachusetts are open for business.

1.4 cGMP means the current European Guidelines, ICH Guidelines and United States Good Manufacturing Practices for Finished Pharmaceuticals pursuant to 21 C.F.R. 210 et seq., as amended from time to time.

1.5 cGMP Consistency Lots means minimum of [\*\*] commercial grade process validation runs for Antigenics MA's facility, Manufactured in accordance with the Specifications.

1.6 Completion of the Transfer of the Manufacturing Technology Package means (a) transfer of all documents of the Manufacturing Technology Package by Antigenics MA to GSK and (b) performance of a [\*\*] in accordance with [\*\*] and [\*\*] of [\*\*] at [\*\*] in accordance with [\*\*] and [\*\*] of [\*\*] at [\*\*], of one (1) [\*\*] of [\*\*] (which [\*\*] is [\*\*] without any [\*\*] from the [\*\*] which would [\*\*] and [\*\*]), in accordance with the Manufacturing Technology Transfer Plan, which [\*\*] shall be [\*\*] the [\*\*] to [\*\*] in [\*\*] with [\*\*], for the [\*\*] of [\*\*] and [\*\*] the transfer of the Manufacturing Technology Package. For avoidance of doubt, Completion of the Transfer of the Manufacturing Technology Package does not require [\*\*] and [\*\*] of [\*\*].

1.7 Confidential Information has the meaning set forth in Article 9 hereof.

1.8 Customer means (a) Antigenics MA, in the case where GSK is Manufacturing and supplying for Antigenics MA hereunder, or (b) GSK, in the case where Antigenics MA is Manufacturing and supplying for GSK hereunder.

1.9 FDA means the United States Food and Drug Administration or any successor entity thereto.

1.10 First Commercial Sale means the date of first commercial sale of a QS-21 Vaccine by GSK or its Affiliates or Third Party Sublicensees or distributors anywhere in the Territory.

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[\*\*] = Portions of this exhibit have been omitted pursuant to a confidential treatment request. An unpredicted version of this exhibit has been filed separately with the Commission.

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*Confidential*

1.11 Fully Burdened Costs means: (a) in the case where [\*\*] Manufactures QS-21 for supply to [\*\*] hereunder, the total cost to Manufacture by [\*\*] and/or its Affiliates hereunder, which total cost shall include direct and indirect labor costs, direct material costs (including without limitation, raw materials, lab supplies and other materials used directly in Manufacturing QS-21) and indirect material costs (including without limitation shipping materials (driven by shipments not batches), stability materials, batch record materials, sundry supplies to support QS-21 Manufacture, record keeping, stationary, incidental supplies etc.) calculated in accordance with Generally Accepted Accounting Principles ( GAAP ), and Other Overhead Costs calculated in accordance with GAAP [\*\*]; or (b) in the case where [\*\*] engages a Third Party to Manufacture QS-21 on its behalf for supply to [\*\*] hereunder, the actual cost to [\*\*] to have QS-21 Manufactured and supplied by such Third Party, including without limitation, direct and indirect costs borne by [\*\*] for any internal quality assurance, quality control, fill/finish, packaging, shipping, and/or delivery, in each case as duly documented by [\*\*]. In the case [\*\*] is [\*\*]of the [\*\*] (both [\*\*] and [\*\*]) to meet its supply obligations under this Agreement, the [\*\*] of the [\*\*] shall be added to the [\*\*]to [\*\*] and/or the [\*\*]by [\*\*] as appropriate, however, in no event shall any [\*\*] be included as part of the Fully Burdened Costs. [\*\*] In the event that [\*\*] Manufactures QS-21 for [\*\*] and/or other customers of [\*\*] during this period, [\*\*] and these other customers will bear their appropriate proportionate share of the [\*\*]. For the avoidance of doubt, in no event shall any of the cost components exclusive of the Manufacturing direct labor and direct material costs exceed [\*\*].

For either (a) or (b) above, Fully Burdened Costs shall also include direct and indirect costs incurred by [\*\*] as a result of [\*\*] fulfilling its Manufacturing and supply obligations pursuant to this Agreement, but shall specifically exclude any costs or expenses otherwise payable or reimbursable by [\*\*] hereunder, if applicable. Upon [\*\*] by [\*\*] to [\*\*],[\*\*] estimated Fully Burdened Cost details shall be updated annually (or semi-annually upon the request of Customer) by Supplier and shall be [\*\*].

1.12 Gross Sales has the meaning set forth in Section 1.26 below.

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1.13 GSK Capacity Date means the date upon which GSK has commercial grade QS-21 Manufacturing capabilities such that it is capable of supplying Antigenics MA with QS-21 in accordance with this Agreement, but in no event later than [\*].

1.14 Letter has the meaning set forth in the third Whereas clause.

1.15 License Agreement means the license agreement by and between Antigenics MA and GSK entered into contemporaneously with the 2006 Supply Agreement and providing GSK with license rights under certain intellectual property to use QS-21 (as defined below) to develop, make, have made, use, sell, offer for sale and import certain products containing QS-21.

1.16 Licensed Indications means the Vaccine indications licensed to GSK pursuant to the License Agreement.

1.17 Licensed Vaccines means the Vaccines for which GSK has license rights under the License Agreement.

1.18 Manufacture or Manufacturing means the storage, production, purification, handling, materials procurement, processing, testing, packaging and release of QS-21 in accordance with this Agreement.

1.19 Manufacturing Capacity means (a) in the case where Antigenics MA is the Supplier, the amounts of QS-21 binding on GSK as set forth on Exhibit B attached hereto and incorporated herein, or such higher capacity as Antigenics MA may advise GSK in accordance with Exhibit B, and (b) in the case where GSK is the Supplier, [\*\*] of QS-21 per [\*\*], provided that in the event that Antigenics MA requests more than [\*\*] of QS-21 per [\*\*], GSK will reasonably consider any such requests for increased capacity, such agreement not to be unreasonably withheld if it would not interfere with GSK's own QS-21 supply needs.

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1.20 Manufacturing Improvements means any development, enhancement, improvement, invention, modification, or derivative (whether or not patentable) necessary for or actually applied to the Manufacture of QS-21 that is made, discovered, conceived or reduced to practice by or on behalf of GSK or its Affiliates in the course of the further development or Manufacturing of QS-21 at any time during the term of the [\*\*], or the [\*\*] of this Agreement or by Antigenics MA or its Affiliates in the course of the further development or Manufacture of QS-21 at any time during the term of the [\*\*], or the [\*\*] of this Agreement. For the avoidance of doubt, Manufacturing Improvements specifically exclude any development, enhancement, improvement, invention, modification, or derivative (whether or not patentable) relating to [\*\*] (as opposed to [\*\*]) or [\*\*] or [\*\*] or [\*\*] of [\*\*] with a [\*\*] other [\*\*] or any other [\*\*] of a [\*\*].

1.21 Manufacturing Technology means (i) United States Patent No. [\*\*] (the [\*\*] Patent ), together with any patents issuing from any continuations, continuations-in-part (to the extent that the claims therein are directed to subject matter disclosed in the [\*\*] Patent), divisionals, substitutions, reissues, reexaminations or extensions of the [\*\*] Patent, and any foreign counterparts or equivalents of the foregoing, and (ii) the technical and regulatory information contained in the Manufacturing Technology Package, and (iii) any know-how owned or controlled by Antigenics MA (with the right to grant licenses or sublicenses hereunder) existing as of the effective date of the 2006 Supply Agreement that are necessary or reasonably useful for the Manufacture of QS-21 and (iv) any Manufacturing Improvements owned or controlled by Antigenics MA or its Affiliates (with the right to grant licenses or sublicenses hereunder) whether or not claimed by a patent filed by Antigenics MA.

1.22 Manufacturing Technology Package means all relevant technical and regulatory information on QS-21 and the QS-21 Manufacturing process owned and/or controlled by Antigenics MA (with the right to transfer to GSK BIO), as listed under the heading Phase 1: Transfer of Enabling Technology (Manufacturing Technology Package) in the Manufacturing Technology Transfer Plan.

1.23 Manufacturing Technology Transfer Royalty has the meaning set forth in Section 5.3 hereof.

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1.24 Manufacturing Technology Transfer Plan means the written transfer plan agreed to between the Parties pursuant to the 2006 Supply Agreement and to be updated by mutual written agreement of the Parties within a reasonable time after execution of this Agreement, which forms an integral part hereof, which will set forth the activities of each Party relating to the objectives, criteria, milestones and timelines relating to each Party's Manufacturing activities hereunder including without limitation, cooperation of the Parties to ensure [\*\*] between the Parties and timelines for [\*\*] of QS-21 as further described therein, and as may be updated from time to time until completion of all contemplated activities.

1.25 Marketing Approval means approval received from the FDA or any comparable approval in any non-US jurisdiction with any relevant Regulatory Authority granting the right to commercialize QS-21 Vaccines (but specifically independent of pricing or reimbursement considerations, where applicable).

1.26 Net Sales means the amount billed or invoiced on arms length sales of QS-21 Vaccines by GSK, its Affiliates or Third Party Sublicensees to Third Parties including its distributors ( Gross Sales ) less deductions duly documented for (i) normal and customary trade, quantity and cash discounts and non-affiliated broker's, distributor's or agent's commissions actually allowed and taken; (ii) amounts repaid or credited by reason of rejection or return or retroactive price reduction; (iii) to the extent separately stated on purchase or sales orders, invoices, or other documents of sale, sales and excise taxes and duties levied on and/or other governmental charges made as to production, sale, importation, transportation, delivery or use paid by or on behalf of GSK or its Affiliates or Third Party Sublicensees; (iv) transportation costs including insurance; and (v) the [\*\*] determined as [\*\*] of [\*\*] and other special [\*\*] and/or [\*\*] and [\*\*] with Licensed Vaccines; (vi) any [\*\*] to [\*\*] on [\*\*], provided however that deductions under this subparagraph (vi) shall not exceed [\*\*] of [\*\*]; and (vii) contributions and payments required by the United States Government to be made pursuant to the [\*\*], specifically with respect to any of [\*\*], and which [\*\*] and [\*\*] have been [\*\*] on to the [\*\*] and are [\*\*] in the [\*\*] of [\*\*] and which are not [\*\*], provided however that deductions under this subparagraph (vii) and subparagraph (v) shall not exceed [\*\*] of [\*\*] in the [\*\*]. Sales between or among GSK and its Affiliates or Third Party Sublicensees shall be excluded from the computation of Net Sales except where the Affiliates or Third Party Sublicensees are end users, but Net Sales shall include the subsequent final sales to Third Parties by the Affiliates or Third Party Sublicensees.

For the avoidance of doubt, in the event GSK gets any indirect financial interest, income or other consideration back from the subsequent QS-21 Vaccines sales of GSK distributors to Third Parties, such financial interest, income or consideration shall be included as Net Sales.

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In addition, in the event that GSK has entered into a distribution agreement with a Third Party and which distribution agreement is in a form that is in economic and business substance a sublicense relationship and not a traditional distribution relationship in such country or countries, then such distributor shall be treated as a Sublicensee for purposes of calculating Net Sales and royalties hereunder.

If GSK or any of its Affiliates or Third Party Sublicensees makes any transfer of QS-21 Vaccines to Third Parties for consideration other than monetary value or as part of a multi-product transaction, such transfer will be considered a sale hereunder for Net Sales, accounting and royalty purposes. Net Sales for any such transfers will be determined on a country by country basis and will be the average price of arms length sales of QS-21 Vaccines by GSK or its Affiliates or Third Party Sublicensees in such country during the royalty reporting period in which such transfer occurs or, if no such arms length sales occurred in such country during such period, during the last period in which such arms length sales occurred. If no arms length sales have occurred in a particular country, Net Sales for any such transfer in such country will be the average price of arms length sales of QS-21 Vaccines in all countries in the Territory by GSK, its Affiliates or Third Party Sublicensees.

If QS-21 Vaccine(s) is (are) sold as part of a Combination Vaccine (as hereinafter defined), Net Sales for purposes of determining royalties on QS-21 Vaccine(s) in the Combination Vaccine shall be calculated by [\*\*] of the [\*\*] (as determined in accordance with the provisions of this Section) by the [\*\*], where [\*\*] is the [\*\*] of the QS-21 Vaccine(s) [\*\*] in the [\*\*] and [\*\*] and [\*\*] is the [\*\*] of the [\*\*] in the [\*\*] in the [\*\*] and [\*\*]).

As used herein, Combination Vaccine means QS-21 Vaccines formulated in combination with one or more Other Vaccine Product(s). As used herein, Other Vaccine Product means a vaccine product, other than a QS-21 Vaccine, which is [\*\*] with [\*\*] and [\*\*] when [\*\*] with the [\*\*] as [\*\*] by [\*\*] to [\*\*].

In the event that no such separate sales are made of the QS-21 Vaccine or Other Vaccine Product(s) in such Combination Vaccine in the relevant country during the royalty period in question, then by [\*\*] of the [\*\*] (as determined in accordance with the provisions of this Section) by the [\*\*], where [\*\*] is the [\*\*] of the [\*\*] in [\*\*] within the [\*\*] and [\*\*] and [\*\*] is the [\*\*] of the [\*\*] in such [\*\*] within the [\*\*] and [\*\*].

In the event that no such separate sales are made of the QS-21 Vaccines or any of the Other Vaccine Products in such Combination Vaccine in the relevant countries within the same geographical region and similar economic profile during the royalty period in question, Net Sales, for the purposes of determining royalty payments, shall be calculated as [\*\*] in [\*\*] the [\*\*], provided that in the event the Parties are [\*\*] to [\*\*] to [\*\*] on [\*\*] after [\*\*], then [\*\*] shall be [\*\*] for [\*\*] to an [\*\*] to the [\*\*] shall be [\*\*].

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1.27 Other Overhead Costs for purposes of determining Fully Burdened Costs, means appropriate [\*\*] and [\*\*] of [\*\*] related to QS-21 Manufacturing activities

1.28 [\*\*] has the meaning set forth in Section [\*\*] of this Agreement.

1.29 Quality Agreement means (i) the Quality Agreement entered into between the Parties contemporaneously with the 2006 Supply Agreement, and (ii) the Quality Agreement to be entered into between the Parties as soon as reasonably possible after the execution of this Agreement, each as may be revised by the Parties from time to time and which form an integral part hereof.

1.30 QS-21 means all adjuvant isolated from *Quillaja saponaria* tree extract, or any structural equivalents thereof, manufactured by or on behalf of Customer. For purpose of clarification GSK has no obligation to Manufacture or have Manufactured any other saponin outside the agreed Specifications for QS-21, unless otherwise agreed between the Parties.

1.31 QS-21 Vaccine(s) means, during the term of the License Agreement, the Licensed Vaccines, and after expiration of a Valid Claim of the Licensed Patent Rights covering the applicable Vaccine product, QS-21 Vaccines means any Vaccine product of GSK or its Affiliates or Third Party Sublicensees formulated using QS-21.

1.32 Regulatory Authority means the U.S. or foreign government agency or health authority that regulates and grants recommendations for approvals for the manufacture and sale of pharmaceutical products.

1.33 Release has the meaning set forth in Section 4.1 hereof.

1.34 Specifications means the applicable release specifications for QS-21 agreed to by the Parties and set out in Exhibit A attached hereto and incorporated herein, as may be amended from time to time by mutual agreement of the Parties.

1.35 Steering Committee means the Steering Committee maintained in accordance with this Agreement.

1.36 Sublicensee means any Affiliate or Third Party to whom GSK grants a sublicense of any of the license rights granted to GSK pursuant to the terms and conditions of the License Agreement.

1.37 Supplier means (a) Antigenics MA, in the case where Antigenics MA is Manufacturing and supplying for GSK hereunder, or (b) GSK, in the case where GSK is Manufacturing and supplying for Antigenics MA hereunder.

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*Confidential*

1.38 Term has the meaning set forth in Section 8.1 hereof.

1.39 Territory means the world.

1.40 Third Party means any entity other than the Parties to this Agreement or their respective Affiliates.

1.41 Vaccine means a preparation in finished form (not requiring any further processing or packaging prior to sale to the end user).

1.42 2006 Supply Agreement has the meaning set forth in the second whereas clause.

**2. Steering Committee, Manufacturing Technology Transfer, Cooperation and License Rights.**

2.1 General. The Parties acknowledge that Antigenics MA transferred the Manufacturing Technology Package to GSK in accordance with the Manufacturing Technology Transfer Plan. Both Parties will perform their remaining respective activities under and in accordance with the Manufacturing Technology Transfer Plan in order to facilitate consistency in QS-21 Manufacturing between the two Parties.

2.2 Steering Committee.

(a) Antigenics MA and GSK will maintain a steering committee (the Steering Committee ) to oversee the activities to be undertaken pursuant to this Agreement. The Steering Committee will facilitate communication between the Parties and provide a forum to review any technology transfer, supply and Manufacturing matters pertaining to QS-21. The Steering Committee shall consist of three (3) individuals appointed by each Party or such other number of representatives the Parties may mutually agree upon and may also include additional representatives from the Parties, as mutually agreed, on an ad-hoc basis and shall be co-chaired by GSK and Antigenics MA. The co-chairs will coordinate agendas and minute-taking for meetings of the Steering Committee. Each Party may replace its Steering Committee representatives at any time upon written notice to the other Party provided that, the Party intending to change its representative(s) will [\*\*] and will [\*\*] to any [\*\*]. The Steering Committee may establish certain ad hoc sub-committees which consider certain matters, including without limitation, one or more sub-committees (consisting of at least one (1) individual from each Party) to address (i) technical matters in dispute that have not been resolved under the Quality Agreement and (ii) repetitive, specific cGMP issues.

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(b) The Steering Committee shall meet (in person, or by teleconference or videoconference as agreed by the Parties) at least [\*\*] during the [\*\*] and thereafter [\*\*] (or more frequently as the Parties mutually agree is appropriate, or on such dates and at such times as the Parties shall agree. The Steering Committee (itself or through one or more sub-committees as contemplated in Section 2.2(a) above) will, among other things: (i) oversee the disclosure of Manufacturing Improvements in accordance with this Agreement; (ii) review and manage the Manufacturing relationship hereunder, including without limitation, review the Manufacturing requirements for QS-21 for Customer, (iii) discuss and review for Supplier's reasonable consideration, the [\*\*], discuss and review validation plans for Manufacturing, QC testing and facilities, and coordinate efforts to ensure [\*\*] between the two Parties; and (iv) address such other matters as may be agreed to between the Parties, including open matters that may exist at the level of the sub-committees. In addition and without limiting the foregoing, the Steering Committee shall meet [\*\*] starting [\*\*] to discuss [\*\*] and [\*\*], with respect to QS-21 Manufacturing to ensure that GSK will meet the Capacity Date deadline of [\*\*]. In such meetings, GSK shall provide the Steering Committee with detailed summaries and updates with respect to the foregoing. All information provided to Antigenics MA pursuant to this Section shall be considered the Confidential Information of GSK in accordance with Article 9; *provided, however*, that GSK grants permission to Antigenics MA to disclose such information as may be necessary or reasonably useful: (i) to comply with any applicable laws, rules, regulations, or guidelines, including to reference and submit any such information to the FDA and other relevant Regulatory Authorities and (ii) for Antigenics MA and its Affiliates and QS-21 licensees and customers to [\*\*] with respect to [\*\*], and (ii) for inclusion in the QS-21 BMF or comparable filing, subject to GSK's confidential obligations to Third Parties. All information provided to GSK pursuant to this Section shall be considered the Confidential Information of Antigenics MA in accordance with Article 9, *provided however* that Antigenics MA grants permission to GSK to disclose such information as may be necessary or reasonably useful: (i) to comply with any applicable laws, rules, regulations, or guidelines, including to reference and submit any such information to the FDA and other relevant Regulatory Authorities, and (ii) for securing product license with respect to QS-21 Vaccines, subject to Antigenics MA's confidential obligations to Third Parties. For the avoidance of doubt, nothing in this subsection shall extend the limitation on Antigenics MA's right to grant sublicenses to practice Manufacturing Improvements to Manufacture QS-21 as set forth in Section 2.6 below.

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(c) Subject to Section 10.1 below, the Steering Committee will operate by consensus, and each Party will consider the other Party's input in good faith, provided however that [\*\*] shall [\*\*] in [\*\*] on the [\*\*] with [\*\*] with respect to [\*\*], provided that (x) [\*\*] shall not [\*\*] in [\*\*] that [\*\*] in [\*\*] to a [\*\*] or other [\*\*], or [\*\*] in [\*\*] between (i) [\*\*] and [\*\*] (or, in the case of [\*\*], its [\*\*]) [\*\*], or (ii) each [\*\*], or [\*\*] hereunder); and (y) without in any way limiting (x), Customer shall indemnify and hold harmless Supplier from any liability incurred by Supplier as a result of [\*\*].

**2.3 Manufacturing Technology Transfer Plan, Manufacturing Technology Transfer Team and Manufacturing Technology Package.**

(a) **Manufacturing Technology Transfer Plan.** The Parties will use commercially reasonable efforts to update the Manufacturing Technology Transfer Plan and perform their respective activities thereunder, in an efficient and timely manner and in accordance with any schedule that may be set forth in the Manufacturing Technology Transfer Plan. The Parties acknowledge that Antigenics MA has transferred to GSK all documents under the Manufacturing Technology Package and the Parties have completed the Phase 1 of the Manufacturing Technology Transfer Plan in accordance with the timelines set forth in the 2006 Supply Agreement. The Parties shall use commercially reasonable efforts to complete their obligations under the Manufacturing Technology Transfer Plan.

(b) **Establishment of Manufacturing Technology Transfer Team.** Until completion of the Manufacturing Technology Transfer Plan (as shall be amended by the Parties in accordance with this Agreement), GSK and Antigenics MA shall maintain a Manufacturing Technology Transfer Team comprised at least of four (4) representatives designated by GSK and at least four (4) representatives designated by Antigenics MA; *provided that* GSK and Antigenics MA may designate an equal number of additional representatives from time to time. Either Party may change its designees to the Manufacturing Technology Team at any time upon written notice to the other Party. Each representative shall have appropriate skills and competencies for its role on the team.

(c) **Contact Persons.** The Parties will identify contact persons to serve as the primary contacts for and day-to-day management of the disclosure of the Manufacturing Improvements under the Manufacturing Technology Transfer Plan and this Agreement.

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(d) Transfer of the Manufacturing Technology Package. The Parties acknowledge that Antigenics MA has accomplished the Completion of the Transfer of the Manufacturing Technology Package and GSK has made the payment described in Sections 5.2 (a) and (b) below in accordance with the provisions of Section 5.2.

2.4 Regulatory Cooperation.

(a) Access to Regulatory Documents and Communications. GSK will have the right to cross-reference Antigenics MA's BMF, and Antigenics MA has provided GSK with a redacted copy of such BMF. GSK shall also have the right to file or have filed its own BMF, and shall provide and hereby provides Antigenics MA (and its Third Party manufacturer, Affiliates, and QS-21 licensees and customers) with an automatic, blanket right to cross-reference such BMF for all indications. GSK shall provide Antigenics MA with a redacted copy of any such BMF. In addition, each Party shall provide the other Party with relevant sections of its BMF upon update, and shall maintain its BMF for a period of [\*\*] from the Effective Date of this Agreement, unless otherwise agreed to between the Parties. In addition, GSK shall promptly cooperate with Antigenics MA and provide Antigenics MA with any necessary additional documentation to effectuate the foregoing. In addition, each Party shall promptly send the other Party a copy of any material notices, material reports, and other material communications it has received from any Regulatory Authority or other governmental entity concerning QS-21. Antigenics MA will discuss with GSK any material documents relating to Manufacturing matters for the QS-21 Vaccines pertaining to the QS-21 that Antigenics MA receives from, or intends to submit to, the Regulatory Authorities in the Territory in line with Section 5.8 of the License Agreement and GSK will discuss with Antigenics MA any material documents relating to Manufacturing matters for QS-21 or QS-21 Vaccines pertaining to the QS-21 that GSK receives from, or intends to submit to, the Regulatory Authorities in the Territory in line with Section 5.8 of the License Agreement. Upon one Party's reasonable request, the other Party will reasonably cooperate with the requesting Party in support of all regulatory filings involving QS-21, including participation in meetings with Regulatory Authorities as appropriate. In addition, Supplier will authorize and reasonably cooperate with Customer to prepare any visit or inspection requested by Regulatory Authorities.

(b) Changes to Manufacturing Processes. Any changes to Manufacturing processes shall be handled pursuant to the provisions of the Quality Agreement and Section 2.8 of this Agreement.

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(c) Adverse Events Reporting. GSK shall be responsible for reporting all safety related events from studies of QS-21 Vaccines to the appropriate Regulatory Authorities and agencies according to the applicable local regulations, including without limitation, the regulations outlined in 21 CFR 312.32 (and other applicable international regulations). GSK and Antigenics MA shall keep each other informed of any serious adverse reactions, or other significant, unusual or unexpected safety findings related to QS-21 as provided for in Section 5.8 of the License Agreement.

(d) Compliance. Notwithstanding the foregoing and for the avoidance of doubt, (i) GSK shall comply, and shall cause its Sublicensees to comply, with the Specifications, the cGMP and all applicable federal and state laws, rules, regulations and guidelines in connection with its performance under this Agreement, the Manufacture of QS-21, and the development and commercialization of QS-21 Vaccines; and (ii) Antigenics MA shall comply, and shall cause its Affiliates and Third Party Manufacturer (other than the contract manufacturer selected by the Steering Committee, whose compliance shall be the joint responsibility of Antigenics MA and GSK) to comply, with the Specifications, the cGMP and other applicable federal and state laws, rules and regulations in connection with its performance under this Agreement and the Manufacture of QS-21. Without limiting the generality of the foregoing, GSK shall use Commercially Reasonable Efforts (as such term is defined in the License Agreement) to ensure compliance with all applicable product safety, product testing, product labeling, package marking, and product advertising laws and regulations and International Conference on Harmonisation (ICH) Guidelines. As between the Parties, GSK shall be solely responsible for diligently obtaining all required and/or necessary Regulatory Authority authorizations and approvals to develop, Manufacture and commercialize QS-21 Vaccines hereunder and under the License Agreement.

(e) Product Recalls. Any products recalls will be handled pursuant to the terms of the Quality Agreement.

2.5 License Grant to GSK.

(a) Subject to the terms and conditions of this Agreement (including without limitation, the provisions of Article 4 below and the retained rights of Antigenics MA set forth in Section 2.5(b) below), Antigenics MA hereby grants to GSK a [\*\*], right and license (with the right to grant sublicenses to its Affiliates and Sublicensees as defined in the License Agreement, subject to the provisions of Section 2.5(c) below) to the Manufacturing Technology for the sole purpose of Manufacturing QS-21: (i) to supply Antigenics MA (and its Affiliates and QS-21 licensees and customers) in accordance with this Agreement, and (ii) to develop, make, have made, use, sell, offer for sale and import QS-21 Vaccines. To the extent that Antigenics MA

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subcontracts or sublicenses with its Affiliates or Third Parties to Manufacture for GSK hereunder, Antigenics MA shall obtain the right under the intellectual property rights of such Affiliate or Third Party related to the Manufacture of QS-21, with the right to grant sublicenses to GSK and its Affiliates (and such license shall be further sublicensable by GSK to its Affiliates and Sublicensees, subject to the provisions of Section 2.5(c) below), to use any such intellectual property necessary for or actually applied to the Manufacture of QS-21 that is discovered or developed by such Affiliate or Third Party to preserve the license granted to GSK and its Affiliates in this Section.

(b) Notwithstanding the provisions of Section 2.5(a) above, Antigenics MA hereby retains the right and has the obligation to Manufacture QS-21 for GSK as set forth in Section 3.1 below, and any other parties. For the avoidance of doubt, nothing in this Section 2.5 shall be construed to prevent Antigenics MA from Manufacturing or having Manufactured QS-21 for itself or any other parties. For the Term of this Agreement, GSK agrees to Manufacture or have Manufactured QS-21 solely in accordance with this Agreement, and for the term of the License Agreement and thereafter to use QS-21 solely to develop, make, have made, use, sell, offer for sale and import QS-21 Vaccines.

(c) GSK may grant sublicenses to Sublicensees provided that:

(i) the Sublicensee will practice the Manufacturing Technology only to the extent granted to GSK under this Agreement;

(ii) GSK and each Affiliate Sublicensee will sign a side letter under which the Affiliate Sublicensee will agree to be bound by the terms of this Agreement;

(iii) GSK and each Third Party Sublicensee shall enter into a written agreement subject to, consistent with, and not to extend beyond the scope of GSK's rights under, and the terms and conditions of, this Agreement, or provide for Sublicensee obligations inconsistent with or less than GSK's obligations under this Agreement, and which written agreement shall require the Third Party Sublicensee to agree to be bound by and comply with provisions that are consistent with the provisions of this Agreement;

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(iv) GSK shall remain responsible for compliance by any Sublicensee receiving a sublicense hereunder with all terms and conditions of this Agreement relevant to such Sublicensee. GSK shall promptly provide Antigenics MA with a copy of the relevant provisions of such agreement entered into with any Third Party Sublicensee redacted as may be deemed appropriate by GSK for confidentiality or legal reason; and

(v) in addition and notwithstanding the foregoing, GSK may grant sublicenses to Affiliate subsidiaries controlled by GSK without entering into a written side letter or sublicense agreement with such subsidiaries, provided that GSK shall and hereby guarantees and remains primarily responsible for the performance of such subsidiaries in accordance with this Agreement.

Should this Agreement terminate for any reason, at GSK's request (or Antigenics MA's election in the event this Agreement and the licenses granted to GSK hereunder are terminated by Antigenics MA for GSK's material breach in accordance with Section 8.4(c)), and provided that GSK's Third Party Sublicensee continues to comply with the provisions of the written agreement to be entered into pursuant to this Section, the Third Party Sublicensee shall survive, provided that Antigenics MA shall be substituted for GSK and become the direct licensor of GSK's Third Party Sublicensee, provided that Antigenics MA has approved or has not reasonably objected to such written agreement. However, Antigenics MA shall assume no obligations of GSK under such written agreement, other than the obligation to grant the Manufacturing rights contemplated in this Section 2.5, unless Antigenics MA otherwise agrees.

2.6 License Grant to Antigenics MA. Subject to the terms and conditions of this Agreement, GSK shall grant and hereby grants to Antigenics MA and its Affiliates a [\*\*], right and license, with the right to grant sublicenses, to any Manufacturing Improvement (whether or not patented or patentable) to make or have made QS-21. For the avoidance of doubt, nothing in this Section 2.6 shall be construed as granting Antigenics MA any right to [\*\*] or to [\*\*]. To the extent that GSK subcontracts or sublicenses with its Affiliates or Third Parties for the performance of GSK's rights or obligations hereunder in accordance with this Agreement, GSK shall obtain the right under the intellectual property rights of such Affiliate or Third Party related to the Manufacture of QS-21, with the right to grant sublicenses to Antigenics MA and its Affiliates (and such license shall be further sublicensable by Antigenics MA), to use any such intellectual property necessary for or actually applied to the [\*\*] that is discovered or developed by such Affiliate or Third Party to preserve the license granted to Antigenics MA and its Affiliates in

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this Section. Notwithstanding the foregoing, Antigenics MA's right to grant sublicenses to any Manufacturing Improvements of GSK to [\*\*] conceived and reduced to practice after the effective date of the Letter shall be limited to [\*\*] of [\*\*] provided that such [\*\*] may in no event be a party listed on Exhibit C-1. In the event that GSK identifies a party not listed on Exhibit C-1 for whom GSK does not want Antigenics MA to grant sublicense rights hereunder in the future, and such third party is a GSK Direct Competitor (as hereinafter defined), such party may be added to Exhibit C-1 upon mutual agreement of the Parties. In such an event, GSK shall notify Antigenics MA and shall provide Antigenics MA with reasonable basis for identifying such party as a GSK Direct Competitor. In the event that Antigenics MA disagrees with GSK's determination, then the matter shall be resolved in accordance with Section 10.1. A GSK Direct Competitor shall be defined as any company active in [\*\*] and/or [\*\*] of [\*\*] and/or [\*\*]. For the avoidance of doubt, not all parties listed in Exhibit C-1 as of the effective date of the Letter were Direct Competitors of GSK. For further clarification, for purpose of this Section the following entities are not to be regarded as a GSK Direct Competitor: (a) [\*\*] or its [\*\*], or (b) Third Party contract manufacturers whose primary business is contract manufacturing, including without limitation, the parties listed on Exhibit C-2.

2.7 **No Other Rights.** Except for the express licenses granted pursuant to this Article 2, no license, express or implied, is granted by either Party to the other Party under any intellectual property or other rights owned or controlled by such Party pursuant to this Agreement.

2.8 **Disclosure of Manufacturing Improvements.** For the avoidance of doubt, no obligations on either Party to disclose Manufacturing Improvements (and in the case of Antigenics MA, [\*\*]) are implied by the license grants set forth herein, and the only Manufacturing Improvements (and in the case of Antigenics MA, [\*\*]) disclosure obligations under this Agreement are the specific disclosure and reporting obligations expressly set forth in this Agreement, the Quality Agreement or the Manufacturing Technology Transfer Plan. The Parties agree that each Party will promptly disclose to the other Party those Manufacturing Improvements that are modifications, alternatives, improvements or other changes to the Manufacturing process that may reasonably affect the yield, scale, cost, purity, or efficiency of the Manufacturing process, or the Specifications and shall cooperate with the other Party for a period not to exceed [\*\*] from the last supply to the other Party hereunder to enable the other Party to practice such modifications, improvements or other changes in its Manufacturing processes in accordance with such other Party's rights under this Agreement. For the avoidance of doubt Antigenics MA shall be entitled to share Manufacturing Improvements conceived by GSK to its [\*\*] and applicable Regulatory Authorities, but shall not be entitled to disclose such Manufacturing Improvements to [\*\*]. In the event that either Party requires the other Party to Manufacture a batch of QS-21 not otherwise to be produced by such Party, in furtherance of this provision, the requesting Party agrees to purchase

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such batch at a transfer price of [\*\*] of the [\*\*]. In addition, in the event that either Party requires the other Party to perform any analytical testing outside of the Manufacture of QS-21 in accordance with the provisions of Article 3 in furtherance of this provision and not otherwise to be performed by such Party, the Parties shall negotiate in good faith a [\*\*] to be paid by the requesting Party for such services.

**3. Manufacture and Supply Obligations.**

3.1 Supply Obligations of Antigenics MA. The Parties acknowledge and agree that, subject to the terms and conditions contained in the 2006 Supply Agreement, until the Manufacturing Transition Date (as defined under the 2006 Supply Agreement), GSK agreed to purchase solely from Antigenics MA or its Affiliates (or [\*\*] or another Third Party manufacturer approved by GSK, such approval not to be unreasonably withheld or delayed), and Antigenics MA or its Affiliates (or a Third Party manufacturer approved by GSK, such approval not to be unreasonably withheld or delayed) agreed to supply GSK and its Sublicensees with one hundred percent (100%) of their initial requirements of QS-21 (subject to the Manufacturing Capacity) for use solely in the development, marketing and sale of QS-21 Vaccines in the Territory. However, after the effective date of the Letter, GSK had and shall have no further obligation to purchase QS-21 from Antigenics MA (or its Affiliates or Third Party designee), and Antigenics MA (or its Affiliates or Third Party designee) shall have no further obligation to supply GSK and its Sublicensees QS-21, subject to the remaining provisions of this Section 3.1. Subject to the terms and conditions contained in this Agreement, GSK shall purchase from Antigenics MA (or its approved Third Party manufacturer) and Antigenics MA (or its approved Third Party manufacturer) shall supply to GSK, pre-commercial grade QS-21 in the amounts and timelines set forth on Exhibit B.

3.2 Supply Obligations of GSK. At and upon Antigenics MA's election but not before the GSK Capacity Date, and subject to the terms and conditions contained in this Agreement, GSK shall supply Antigenics MA (and Antigenics MA's Affiliates and QS-21 licensees and customers) with up to [\*\*] per [\*\*] of commercial grade QS-21 for up to [\*\*] from the [\*\*] of [\*\*] from Antigenics MA to GSK. GSK shall reasonably consider any request by Antigenics MA or its Affiliates or [\*\*] to extend the [\*\*] supply term if such request will not unreasonably interfere with GSK's business or QS-21 supply needs. GSK shall keep Antigenics MA informed as to its timelines for having commercial grade QS-21 Manufacturing capabilities. In the event that GSK determines that there is a possibility that it will not be able to supply QS-21 to Antigenics MA by [\*\*], or thereafter have an inability to supply Antigenics MA with quantities requested by Antigenics MA, GSK shall immediately notify Antigenics MA and cooperate with Antigenics MA to address such inability. For the avoidance of doubt, Antigenics MA has no obligation to purchase QS-21 from GSK.

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3.3 Supply to GSK's Sublicensees. Prior to supplying any Sublicensee under the License Agreement with QS-21 supplied to GSK hereunder, GSK shall enter into a written agreement with such Sublicensee pursuant to which such Sublicensee acknowledges and agrees to be subject and subordinate to the provisions of this Agreement (but specifically excluding the obligation of such Sublicensee to [\*\*] from Antigenics MA or [\*\*] to Antigenics MA, or make [\*\*] to Antigenics MA other than the [\*\*] set forth in Section [\*\*]).

3.4 Forecasts and Purchase Orders. Customer shall issue forecasts and firm purchase orders for those amounts of QS-21 it intends to purchase from Supplier hereunder as set forth below. For the avoidance of doubt, and subject to GSK's obligations to purchase QS-21 in the amounts and in accordance with the timelines set forth in Exhibit B, Customer has no obligation to purchase QS-21 from Supplier, other than those quantities for which Customer becomes bound and obligated in accordance with the remaining provisions of this Section 3.4.

(a) Rolling Forecasts. Commencing [\*\*] before, and continuing for so long as, Supplier has Manufacture and supply obligations under this Agreement and, subject to the last sentence of this Section 3.4(a), the following provisions shall apply. Not later than the first day of each calendar quarter, Customer shall provide Supplier with a rolling quarterly forecast of the quantity of QS-21 that it expects to purchase from Supplier for the following next [\*\*] calendar quarters, which shall be binding on Customer for hundred percent (100%) as to the first [\*\*] quarters, be binding on Customer for between [\*\*] and [\*\*] of the quantities of QS-21 forecasted for the next [\*\*] quarters, and be non-binding on Customer as to the remaining [\*\*] calendar quarters. In the event that Customer does not comply with the provisions of this Section 3.4(a) and fails or delays to provide its forecasts hereunder, then Supplier will notify Customer and Customer shall have [\*\*] to comply with its obligations, otherwise Supplier may elect to fill the purchase order(s) to be placed in accordance with Section 3.4(b) below for any of the quarters of the concerned forecast, but is not obligated to do so. Notwithstanding the foregoing, attached hereto as Exhibit B are GSK's binding forecasts for QS-21 it intends to order from Antigenics MA for the time period from Q3 2007 through Q4 2008, and with respect to orders made by GSK, this Section 3.4(a) shall only apply to amounts of QS-21 ordered by GSK in excess of those amounts set forth on Exhibit B, to the extent the Parties agree that GSK may order excess amounts pursuant to the provisions of Exhibit B.

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(b) **Firm Purchase Orders.** Not later than [\*\*] prior to the beginning of each [\*\*] for which Supplier has Manufacture and supply obligations under this Agreement, Customer shall provide Supplier with a firm purchase order for the quantity of QS-21 it intends to purchase hereunder during such [\*\*]. Each firm purchase order shall specify the quantity of QS-21 to be ordered. Such firm purchase order commits Customer to purchase [\*\*] of the quantity of QS-21 set forth in the purchase order during that [\*\*]. In the event that Customer does not comply with the foregoing provisions of this Section and delays ordering or does not submit a purchase order for a particular [\*\*] in a given [\*\*], then Supplier may notify Customer and Customer shall have [\*\*] to comply with its purchase order obligations (and Supplier shall have an additional [\*\*] to supply Customer beyond the period specified in Section 3.4(c) below). In case of Customer's failure to do so, Supplier is relieved of its Manufacture and supply obligations with respect to the applicable [\*\*] for which no purchase order was submitted. Notwithstanding the foregoing, in the event that (i) GSK fails to submit any purchase order with respect to orders of QS-21 binding on GSK as set forth on Exhibit B, Antigenics MA retains the right to treat Exhibit B as such purchase order, and to deliver to, and charge GSK for, QS-21 as set forth therein in such [\*\*]; (ii) Customer fails to submit any purchase order with respect to orders of QS-21 binding upon Customer as set forth in Section 3.4 (a) (other than those set forth on Exhibit B), Supplier retains the right to treat [\*\*] of the quantities mentioned in Customer's forecasts for the first [\*\*] and [\*\*] of the quantities mentioned in Customer's binding forecasts for the next [\*\*] of any relevant period as firm purchase orders. For the avoidance of doubt, in no event shall Supplier be obligated to Manufacture and supply QS-21 in excess of the Manufacturing Capacity unless otherwise agreed in writing by Supplier.

(c) **Delivery.** Supplier shall deliver within [\*\*] of the applicable [\*\*] (the Contractual Delivery Date), and in accordance with the Specifications, [\*\*] of the quantity of QS-21 set forth in the applicable firm purchase order (subject to the Manufacturing Capacity) for the applicable calendar quarter. Such QS-21 shall not [\*\*]; *provided, however*, that Supplier may make delivery of any firm purchase order that is for less than the amount set forth in Customer's binding forecast for that quarter, subject to payment by Customer of the [\*\*] of the [\*\*] up to the amount set forth in the applicable binding forecast. In addition, Supplier shall have the right to reject any purchase order that is otherwise inconsistent with the requirements of this Agreement. If Supplier determines that any firm purchase order submitted by Customer and not rejected by Supplier hereunder cannot be filled by the Contractual Delivery Date, including, without limitation, as a result of a supply failure by a Third Party manufacturer, Supplier shall notify Customer in writing promptly upon making such determination. In such case, the Parties will work together, in good faith, to identify an appropriate resolution to the supply problem. If the Parties cannot reach an

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agreement on an appropriate resolution to the problem within [\*\*] of bringing this to the attention of the Steering Committee for resolution, then at either Party's written request but without prejudice to Section 3.5(d), resolution of the problem will be governed by the terms of Section 10.1 hereof. Notwithstanding the foregoing or any other provision of this Agreement, in the event GSK orders QS-21 for any calendar quarter in an amount greater than [\*\*]percent ([\*\*]%) of the quantity ordered in the firm purchase order for the [\*\*], Antigenics MA will use commercially reasonable efforts to meet the order, but shall be deemed to have met the order if it supplies by the Contractual Delivery Date [\*\*] percent ([\*\*]%) of the quantities ordered in the firm purchase order for the [\*\*]. In calculating [\*\*] ([\*\*]%) of the quantities ordered in firm purchase orders for the [\*\*], the Parties shall exclude quantities ordered in the [\*\*] in excess of that which Antigenics MA must supply in order to have been deemed to have met the order. Although Supplier may upon request from Customer agree from time to time in its sole discretion to deliver QS-21 in [\*\*], any such agreement in a given instance shall in no event obligate Supplier to deliver subsequent future orders of QS-21 in any [\*\*] but the [\*\*].

(d) **Shipping.** Each order of QS-21 shall be shipped F.O.B. Supplier's facilities (U.C.C. terms) or, in the event Supplier has a Third Party Manufacture QS-21 in accordance with this Agreement, then at Supplier's discretion, F.O.B. the Third Party's facilities. Shipping will be according to the purchase order and to any other specific written instructions of Customer reasonably acceptable to Supplier or its approved Third Party manufacturer (or if no written instructions are given, by a common carrier selected by Supplier and reasonably agreeable to Customer, taking into consideration the specific nature of QS-21). Title to and risk of loss for any order of QS-21 purchased by Customer shall pass to Customer upon the common carrier taking possession and control of the order of QS-21. Unless otherwise agreed to between the Parties, all QS-21 shall be [\*\*] and in accordance with shipping instructions provided by Customer to Supplier from time to time.

(e) All forecasts and purchase orders to be provided by Customer to Supplier hereunder may be transmitted to Supplier via email, provided that Supplier confirms receipt thereof within [\*\*]. Such email communications to Antigenics MA shall be sent to [smonks@antigenics.com](mailto:smonks@antigenics.com) with a copy to [dpetersen@antigenics.com](mailto:dpetersen@antigenics.com). Such email communications to GSK shall be sent to [jean.gilliard@gskbio.com](mailto:jean.gilliard@gskbio.com) with a copy to [pierre.desmons@gskbio.com](mailto:pierre.desmons@gskbio.com). In the event that Supplier does not confirm receipt within [\*\*], Customer shall contact Supplier to ensure that Supplier received such email, or in the alternative, Customer may provide such forecast or purchase order via the notice requirements of Section 10.12 of this Agreement.

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**3.5 Supply Controls.**

(a) **Orders From** [\*\*]. Unless otherwise elected by Antigenics MA, any QS-21 orders from [\*\*] shall be through Antigenics MA.

(b) **Manufacturing Facility Locations.** Supplier shall select in its sole discretion its location for QS-21 Manufacturing, subject to the other provisions of this Agreement including by out-contracting such Manufacturing to Third Party Manufacturer(s). Quality aspects will be managed by Supplier in accordance with this Agreement, cGMP, the Quality Agreement, and the specifications agreed to between the Parties, and pursuant to guidelines and recommendations issued from time to time by the Regulatory Authorities.

(c) **Customer** [\*\*] **Procurement.** Subject to the provisions of this Section 3.5(c), Antigenics MA will use commercially reasonable efforts to assist GSK in arranging for the continuous supply of [\*\*] to GSK directly from [\*\*] or another [\*\*] of Antigenics MA at [\*\*] to those applicable to [\*\*]. In the event that GSK [\*\*] from another [\*\*], it shall notify Antigenics MA, and upon Antigenics MA's request, GSK will use commercially reasonable efforts to [\*\*] in [\*\*] for [\*\*] from such [\*\*] at [\*\*] to those applicable to [\*\*]. Upon written request of Antigenics MA, GSK shall provide Antigenics MA with copies of [\*\*] and [\*\*] of [\*\*] from such [\*\*] by or on behalf of GSK.

(d) **Supplier Inability to Supply.** Supplier shall use commercially reasonable efforts to supply Customer with quantities of QS-21 ordered from Supplier by Customer pursuant to Article 3 above. As soon as Supplier determines it will be unable to deliver to Customer the quantities of QS-21 ordered with respect to any particular calendar quarter, Supplier shall immediately notify Customer, and Customer shall then be released of its obligations under any binding forecasts or purchase orders with respect to such quantities of QS-21 that Supplier is unable to fill for the time period that Supplier is unable to meet such Customer orders [\*\*]. In the event that Customer engages a Third Party to Manufacture as a result of Supplier's inability to supply hereunder, then Supplier will cooperate with such Third Party in its efforts, consistent with the terms of this Agreement.

**4. Supply Conditions.**

4.1 **Documentation with Deliveries.** Supplier shall provide, or shall cause any Third Party manufacturer in accordance with this Agreement to provide, to Customer, together with each shipment of QS-21, all documentation set forth in the Quality Agreement, documenting the quality control authorized release of such shipment in accordance with the terms and conditions of the Quality Agreement (the Release ).

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4.2 **Testing and Acceptance.** Customer shall have [\*\*] after the delivery to Customer of the order of QS-21 supplied hereunder to determine whether the QS-21 conforms to the Specifications (using the same validated test methods as the Supplier) and order quantity. Supplier shall transfer [\*\*] and [\*\*] to enable qualification of [\*\*]. Customer will be deemed to have acknowledged that an order of QS-21 conforms to the Specifications and order quantity and is accepted, unless Customer rejects the QS-21 order by giving written notice of non-conformity to Supplier within such [\*\*] period. If Customer determines that the QS-21 order fails to meet the Specifications, or that there is a shortage in the quantity delivered, it shall promptly so notify Supplier in writing within such [\*\*] period. Any such notice shall specify the reason, with supporting documentation, for the non-conformity or the details of any quantity shortage, as the case may be. In the event that Supplier agrees that an order of QS-21 is non-conforming with the Specifications or that there was a shortage in quantity delivered, Supplier shall, at its own cost (including shipping) use commercially reasonable efforts to replace the non-conforming quantities of QS-21 or make up the shortage, as soon as reasonably possible. If Supplier does not agree that the particular order of QS-21 fails to meet the Specifications or that it delivered a shortage of QS-21, it shall notify Customer and the Parties (through the Steering Committee) shall try to negotiate a mutually satisfactory resolution of their differences. Should a dispute over the conformity of a QS-21 order persist beyond [\*\*] days after Supplier's notice to Customer of disagreement, a representative sample of the QS-21 at issue shall be submitted to an independent testing laboratory designated by Customer and reasonably agreeable to Supplier for testing against the Specifications using the same validated test methods in use at Supplier. Both Parties shall cooperate in method transfer and supply of reference materials to enable qualification of the independent test laboratory. The test results obtained from such laboratory shall be final and binding on the Parties. The cost of such test shall be borne by the Party whose results disagree with those of the independent laboratory. Where the test results demonstrate that the QS-21 order fails to meet any of the Specifications, Supplier shall replace the non-conforming quantities of QS-21 at no additional cost to Customer as soon as reasonably possible after receipt of such results. The provisions of this Section shall not apply to any QS-21 damaged or lost in transit after delivery by Supplier to the common carrier, which shall be the responsibility of Customer.

4.3 **Sample Testing and Records.** Sample testing and record retention shall be in accordance with the Quality Agreement.

4.4 **Inspections.** During the term of Supplier's Manufacture and supply obligations under this Agreement, and subject to the last sentence of this Section 4.4, Supplier shall permit a reasonable number of Customer employees or agents (which in the case of [\*\*], may include [\*\*]) or an independent qualified inspector reasonably acceptable to [\*\*] and/or its QS-21 customers and licensees as appropriate, as Customer may reasonably request from time to time, at least [\*\*] per [\*\*] (and more often if

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there are repetitive, specific cGMP issues), access to Supplier's QS-21 manufacturing facilities during normal business hours for the purpose of Manufacturing and quality control compliance reviews and inspections (at each Party's own cost and expense), subject to the remaining provisions of this Section 4.4. Customer agrees that prior to any such employee or agent visitor entering such QS-21 manufacturing facilities, Customer will provide Supplier with (a) written notice of the visit at least [\*\*] in advance for routine annual audits, and (b) reasonable advance notice, and in no event less than [\*\*] notice for [\*\*]. In addition, Customer will obtain from such employees or agents or independent inspector a binding confidentiality agreement in a form acceptable to Supplier (including an express acknowledgement that any such [\*\*] shall not have the right to [\*\*] to [\*\*], except in the case expressly provided for in Section [\*\*]) in advance of any visit and that these audits do not take place more often than reasonably necessary. The Parties agree that Supplier may refuse access to or eject any Customer employee or agent if Supplier reasonably believes, and can reasonably demonstrate to Customer that it has grounds for such belief, that such employee or agent is or may be a security risk to Supplier or does not meet Supplier's safety or security requirements. Supplier shall have no liability under this Agreement for refusing access to or ejecting such individual(s). Customer further agrees to protect, defend, indemnify, and hold harmless Supplier and its officers, directors, employees, agents and assignees, from all demands, claims, actions, liability, loss, damage, costs and expenses including reasonable attorney's fees, arising out of any claims for personal injury or property damage caused by a Customer employee or agent while visiting such QS-21 manufacturing facilities. Notwithstanding the foregoing, if GSK's request to inspect the QS-21 manufacturing facilities as contemplated hereunder conflicts with any Third Party rights to which Antigenics MA has Manufacture or supply obligations, the Parties will work together, in good faith, to identify an appropriate resolution to the conflict. Further notwithstanding the foregoing, in the event that Antigenics MA has engaged a Third Party to Manufacture and supply QS-21 to Antigenics MA for subsequent supply to GSK pursuant to this Agreement, Antigenics MA shall [\*\*] with respect to such [\*\*].

4.5 Exchange of Information. The Parties shall fully cooperate to achieve acceptance of QS-21 Manufacturing facilities by Regulatory Authorities, and to exchange information about lots produced by the Parties in accordance with this Agreement, the Quality Agreement and the Manufacturing Technology Transfer Plan.

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**Table of Contents***Confidential***5. Consideration.**

5.1 Upfront Payment to Antigenics MA. As partial consideration for the Manufacturing Technology rights transferred to GSK pursuant to the 2006 Supply Agreement and this Agreement, and Antigenics MA's agreement to provide expertise in connection therewith in accordance with the 2006 Supply Agreement and this Agreement, the Parties acknowledge that GSK made a non-refundable, non-creditable upfront payment to Antigenics MA in the amount of three million dollars (US\$3,000,000) on July 12, 2006.

5.2 Additional Payments. As further consideration for the Manufacturing Technology rights and licenses transferred to GSK pursuant to the 2006 Supply Agreement and this Agreement, and Antigenics MA's agreement to provide expertise in connection therewith in accordance with the 2006 Supply Agreement and this Agreement, and as consideration for entering into the Letter and this Agreement, GSK has or shall pay Antigenics MA the following non-refundable, non-creditable additional payments upon receipt of an invoice from Antigenics MA:

<b>Payment Trigger/Due Date</b>	<b>Payment Amount</b>
(a) For Completion of the Transfer of the Manufacturing Technology Package to GSK prior to the Effective Date of this Agreement	US \$2,000,000  (was paid)
(b) For entering into the Letter and this Agreement (in lieu of the milestone payable under the 2006 Supply Agreement for Release of [**] Lots of QS-21 Manufactured by Antigenics MA in accordance with the Specifications)	US \$2,000,000  (was paid)
(c) As consideration for a substantial portion of the Manufacturing profits that the Parties anticipate would have otherwise been owing to Antigenics MA under the 2006 Supply Agreement, the following additional payments shall be made:	
On or before December 31, 2008	US \$1,750,000
On or before [**]	US \$[**]
On or before [**]	US \$[**]

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5.3 Manufacturing Technology Transfer Royalty. As further consideration for the Manufacturing Technology rights transferred to GSK pursuant to the 2006 Supply Agreement and this Agreement, and Antigenics MA's agreement to provide expertise in connection therewith in accordance with the 2006 Supply Agreement and this Agreement, commencing with the First Commercial Sale of QS-21 Vaccines by GSK or its Affiliates or Third Party Sublicensees or distributors, GSK shall pay Antigenics MA a Manufacturing Technology transfer royalty ( Manufacturing Technology Transfer Royalty ) of [\*\*] percent ([\*\*]%) of Net Sales throughout the Territory.

This Manufacturing Technology Transfer Royalty obligation shall apply: (i) with respect to prophylactic QS-21 Vaccines for ten (10) years after the First Commercial Sale of the first prophylactic QS-21 Vaccine in a Major Market Country (as defined below); and (ii) with respect to therapeutic QS-21 Vaccines for ten (10) years after the First Commercial Sale of the first therapeutic QS-21 Vaccine in a Major Market Country.

In addition and notwithstanding the foregoing, in no event shall the foregoing Manufacturing Technology Transfer Royalty obligation apply with respect to QS-21 Vaccines in the [\*\*] for less than [\*\*] years after the First Commercial Sale of the first prophylactic or first therapeutic [\*\*]; and in no event shall the foregoing Manufacturing Technology Transfer Royalty obligation apply with respect to QS-21 Vaccines in the [\*\*] for less than [\*\*] years after the First Commercial Sale of the first prophylactic or first therapeutic [\*\*].

As used herein, Major Market Country means the countries of the United States, France, Germany, Italy, the United Kingdom, Canada, Spain, Australia, Japan and, in the case of a Licensed Vaccine for the Licensed Indication of [\*\*].

The foregoing Manufacturing Technology Transfer Royalty shall not be subject to any reductions.

5.4 QS-21 Supply Transfer Pricing. As consideration for Antigenics MA agreeing to supply GSK with QS-21 under this Agreement, GSK shall pay Antigenics MA a transfer price of [\*\*] percent ([\*\*]%) of the Fully Burdened Costs for QS-21 delivered hereunder up to [\*\*], and thereafter GSK shall pay Antigenics MA a transfer price of [\*\*] percent ([\*\*]%) of the Fully Burdened Costs for QS-21 delivered hereunder. As consideration for GSK agreeing to supply Antigenics MA with QS-21 under this Agreement, Antigenics MA shall pay GSK a transfer price of [\*\*] percent ([\*\*]%) of the Fully Burdened Costs for QS-21 delivered hereunder, provided that in the event that GSK has more than one QS-21 Manufacturing facility (itself or through a Third Party), then for purposes of determining the Fully Burdened Costs of QS-21 Manufacturing by GSK, the Fully Burdened

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Cost components shall not exceed the average of such costs among the various facilities, and provided further that in no event shall the Fully Burdened Cost components exclusive of the Manufacturing direct labor and direct material costs exceed [\*\*]. Supplier shall invoice Customer upon delivery to the common carrier and Customer shall pay Supplier in U.S. dollars (USD) within [\*\*] days of the invoice date unless rejected by Customer under Section 4.2 for each order of QS-21.

5.5 Customer's Audit Rights. At the request of Customer, upon at least [\*\*] prior written notice to Supplier and at the expense of Customer (except as otherwise provided below), Supplier shall permit an experienced, independent certified public accountant selected by Customer and reasonably acceptable to Supplier to inspect, during regular business hours, any such records of Supplier for the then-preceding [\*\*] solely to the extent necessary to verify Fully Burdened Costs provided that such inspection shall not take place more often than once a year, and shall not cover such records for more than the preceding [\*\*] and shall not cover the same records more than once unless this is reasonably necessary for confirming the accuracy of existing records. Results of any such inspection shall be made available to both Parties.

**6. Payments, Reports and Records.**

6.1 First Commercial Sale. GSK shall notify Antigenics MA of the occurrence of the First Commercial Sale of each therapeutic QS-21 Vaccine and each prophylactic QS-21 Vaccine in each country within [\*\*] days of its occurrence.

6.2 Payments. Commencing with the First Commercial Sale of the first QS-21 Vaccine in any country, GSK shall furnish to Antigenics MA a written report within [\*\*] days after [\*\*] of each [\*\*] showing, on a country-by-country basis: (i) Gross Sales by GSK and its Affiliates and Third Party Sublicensees during the reporting period; (ii) the Net Sales of all such QS-21 Vaccines sold, and qualifying discounts as described in Section 1.26, listed by category of deductions; (iii) the Manufacturing Technology Transfer Royalties payable in United States dollars which shall have accrued hereunder in respect of such sales; (iv) withholding taxes, if any, required by law to be deducted in respect of such sales, as applicable; and (v) the exchange rates used in determining the amount of United States dollars. All Manufacturing Technology Transfer Royalty payments shown to have accrued to Antigenics MA by each report provided for under this Section shall be due and payable on the date such report is due. If no payments are due for any reporting period hereunder, GSK shall so report. All payments to Antigenics MA under this Agreement shall be made in United States dollars by check payable to Antigenics Inc. or, if requested by Antigenics MA, by wire transfer to an account designated by Antigenics MA.

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6.3 **Withholding Taxes.** All royalty payments are exclusive of all federal, state, local and foreign taxes, levies, and assessments, duties, customs and similar charges. GSK shall be responsible for any and all such applicable charges incident to the payments to Antigenics MA under this Agreement, other than taxes on Antigenics MA's income. When Antigenics MA has the legal obligation to collect such taxes, the appropriate amount shall be paid by GSK (by adding such amount to the payment otherwise due to Antigenics MA), unless GSK provides Antigenics MA with a valid tax exemption certificate authorized by the appropriate taxing authority. In the event that GSK is required by applicable law to make deductions or withholdings from payments to Antigenics MA hereunder, then GSK shall pay such additional amounts to Antigenics MA as may be necessary to assure that the actual amount received by Antigenics MA after deduction or withholding shall equal the amount that would have been received if such deduction or withholding were not required.

6.4 **Exchange Rates.** If GSK (or its Affiliates or Third Party Sublicensees) receives revenues from the sale of QS-21 Vaccines in currency other than United States dollars, revenues shall be converted to United States dollars at the conversion rate for foreign currency as published in the eastern edition of *The Wall Street Journal* published on the last Business Day of the applicable calendar quarter.

6.5 **GSK's Recordkeeping and Inspection.** After the date of First Commercial Sale of the first QS-21 Vaccine, GSK shall keep, and shall cause its Affiliates and Third Party Sublicensees to keep, for at least [\*\*], records of all sales of QS-21 Vaccines in sufficient detail to permit Antigenics MA to confirm the accuracy of GSK's Manufacturing Technology Transfer Royalty payment calculations. At the request of Antigenics MA, upon at least [\*\*] prior written notice to GSK or its Affiliates or Third Party Sublicensees and at the expense of Antigenics MA (except as otherwise provided below), GSK or its Affiliates or Third Party Sublicensees shall permit an experienced, independent certified public accountant selected by Antigenics MA and reasonably acceptable to GSK or its Affiliates or Third Party Sublicensees to inspect, during regular business hours, any such records of GSK or its Affiliates or Third Party Sublicensees for the then-preceding [\*\*] solely to the extent necessary to verify such calculations provided that such inspection shall not take place more often than once a year, and shall not cover such records for more than the preceding [\*\*]. Results of any such inspection shall be made available to both Parties. If such inspection reveals a deficiency in the calculation of Manufacturing Technology Transfer Royalty payments resulting in an underpayment to Antigenics MA by [\*\*] or more, GSK shall pay all costs and expenses of such inspection. Any deficiencies found shall be payable by GSK within [\*\*] of receipt of invoice from Antigenics MA. If such inspection reveals an overpayment of Manufacturing Technology Transfer Royalty payments resulting in an underpayment to Antigenics MA [\*\*] or more,

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Antigenics MA shall refund to GSK any overpaid amounts within [\*\*] after results of such inspection become available. For the avoidance of doubt, the rights set forth in this Section 6.5 are in addition to the rights set forth in Section 5.5 of the Agreement.

6.6 Interest on Late Payments. Any payment not timely made shall bear interest at a rate equal to [\*\*]

**7. Indemnification and Warranties.**

7.1 Indemnification by GSK. GSK shall indemnify, defend, and hold harmless Antigenics MA and its Affiliates and their respective directors, officers, employees, and agents, and its and their respective successors, heirs (current and former) and assigns (the Antigenics MA Indemnitees ) from and against any and all loss, liability, damage, cost, or expense (including reasonable legal fees and expenses of litigation) (collectively, Liabilities ) suffered, incurred by, or imposed upon any such Antigenics MA Indemnitee, resulting from any Third Party claims, demands, suits, actions, or judgments (collectively referred to hereafter as Claims ) to the extent arising out of or resulting from (i) the development, pre-clinical or clinical testing, Manufacture, use, sale, offer for sale, or importation of QS-21 Vaccines, including without limitation, the Manufacture of QS-21 for use therein, (ii) GSK s breach of any representation, warranty or covenant of GSK hereunder, (iii) the negligence or intentional misconduct of GSK, or (iv) the failure of QS-21 delivered by GSK hereunder to conform to the Specifications at the time of shipment hereunder, in each case except to the extent such Liability is attributable to the negligence or intentional misconduct of any Antigenics MA Indemnitee, or in each case except for (iv above), the failure of QS-21 delivered by Antigenics MA to meet the Specifications at the time of shipment hereunder.

7.2 Indemnification by Antigenics MA. Antigenics MA shall indemnify, defend, and hold harmless GSK and its Affiliates and its and their respective directors, officers, employees, and agents, and its and their respective successors, heirs (current and former) and assigns (the GSK Indemnitees ) from and against any and all Liabilities suffered, incurred by, or imposed upon any such GSK Indemnitee, resulting from any Third Party Claims to the extent arising out of or resulting from (i) the failure of QS-21 delivered by Antigenics MA (including by Antigenics MA through [\*\*]) hereunder to conform to the Specifications at the time of shipment hereunder, or (ii) Antigenics MA s breach of any representation, warranty or covenant hereunder, or (iii) the negligence or intentional misconduct of Antigenics MA, in each case except to the extent such Liability is attributable to the negligence or intentional misconduct of any GSK Indemnitee.

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7.3 **Conditions on Indemnification.** Any Antigenics MA Indemnitee or GSK Indemnitee (each an Indemnitee ) intending to claim indemnification under this Article 7 shall promptly notify the other Party (the Indemnifying Party ) of any Claim after the Indemnitee is aware thereof, setting forth the nature of the Claim and the basis for indemnification hereunder, and the Indemnifying Party shall assume, at its sole cost and expense, the defense of the Claim with counsel mutually satisfactory to the Parties; *provided, however*, that any Indemnitee shall have the right to retain its own counsel reasonably acceptable to the Indemnifying Party, at the expense of the Indemnifying Party, if representation of such Indemnitee by the counsel retained by the Indemnifying Party would be inappropriate because of actual or potential differences in the interests of such Indemnitee and any other Party represented by such counsel. The Indemnitee shall cooperate fully with the Indemnifying Party in such defense and will permit the Indemnifying Party to conduct and control such defense and disposition of such Claim (including all decisions relative to litigation, appeal and settlement), provided that (i) the Indemnifying Party agrees to keep the Indemnitee informed of the progress in the defense and disposition of such Claim and to consult with the Indemnitee with regard to any proposed settlement, and (ii) the Indemnifying Party agrees not to enter into any settlement which would have a material adverse effect on the other Party without prior written consent of the other Party, which consent shall not be unreasonably withheld or delayed. This indemnity agreement shall not apply to amounts paid in settlement of any Liability if such settlement is effected without the consent of the Indemnifying Party, which consent shall not be withheld unreasonably. The failure to deliver notice to the Indemnifying Party promptly after the Indemnitee receives notice of or otherwise becomes aware of any such Claim, if prejudicial to its ability to defend such Claim, shall relieve the Indemnifying Party of any liability to the Indemnitee under this indemnity agreement.

7.4 **Insurance.** During the Term of this Agreement and for a period of [\*\*] after the [\*\*] of QS-21 Vaccines by GSK, its Affiliates or Third Party Sublicensees or its or their distributors (or ten years after the last supply of QS-21 by GSK hereunder, if later), GSK shall, at its discretion, either self-insure through a GlaxoSmithKline plc program, or obtain and carry, and shall cause its Sublicensees to obtain and carry, in full force and effect product liability insurance in amounts which are reasonable and customary in the pharmaceutical industry for similar products. GSK shall provide Antigenics MA with appropriate certificates of insurance from time to time as requested by Antigenics MA unless GSK is self-insured. During the Term of Antigenics MA's supply obligations under this Agreement and for a period of [\*\*] after the [\*\*] of QS-21 to GSK its Affiliates or Third Party Sublicensees, Antigenics MA shall at its discretion, either self-insure through an Antigenics Inc. (parent corporation) program, or obtain and carry, and shall cause its sublicensees receiving QS-21 supplied by GSK hereunder to obtain and carry, in full force and effect product liability insurance in amounts which are reasonable and customary in the pharmaceutical industry for similar products. Antigenics MA shall provide GSK with appropriate certificates of insurance from time to time as requested by GSK unless Antigenics MA is self-insured.

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7.5 Representation and Warranties of GSK. GSK represents, warrants, and covenants to Antigenics MA as follows:

(a) GSK is a corporation duly organized, validly existing and in good standing under the laws of Belgium. GSK has, and will have on all relevant dates, all requisite corporate power to own and operate its properties and assets and to carry on its business as presently being conducted and as proposed to be conducted. GSK has, and will have on all relevant dates, all requisite legal and corporate power to execute and deliver this Agreement, and to carry out and perform its obligations under the terms of this Agreement;

(b) the execution and delivery of this Agreement and the performance of the transactions contemplated hereby have been duly authorized by all appropriate GSK corporate action;

(c) the performance by GSK of any of the terms and conditions of this Agreement on its part to be performed does not and will not constitute a breach or violation of any other agreement or understanding, written or oral, to which it is a party;

(d) GSK will Manufacture, purchase and use, QS-21 and formulate, package and distribute the QS-21 Vaccines for marketing and sale in the Territory solely in accordance with this Agreement and the License Agreement, and applicable laws, rules, regulations, and guidelines; and

(e) GSK shall Manufacture, or have Manufactured, QS-21 supplied to Antigenics MA (and its Affiliates and QS-21 licensees and Customers) hereunder in conformity with the Specifications and applicable laws, rules, regulations, and guidelines.

7.6 Representation and Warranties of Antigenics MA. Antigenics MA represents and warrants to GSK as follows:

(a) Antigenics MA is a corporation duly organized, validly existing and in good standing under the laws of the Commonwealth of Massachusetts. Antigenics MA has all requisite corporate power to own and operate its properties and assets and to carry on its business as presently being conducted and as proposed to be conducted. Antigenics MA has, and will have on all relevant dates, all requisite legal and corporate power to execute and deliver this Agreement;

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(b) the execution and delivery of this Agreement and the performance of the transactions contemplated hereby have been duly authorized by all appropriate Antigenics MA corporate action;

(c) the performance by Antigenics MA of any of the terms and conditions of this Agreement on its part to be performed does not and will not constitute a breach or violation of any other agreement or understanding, written or oral, to which it is a party; and

(d) Antigenics MA shall Manufacture, or have Manufactured, QS-21 supplied to GSK hereunder in conformity with the Specifications and applicable laws, rules, regulations, and guidelines.

7.7 LIMITATION OF LIABILITY. EXCEPT A) WITH RESPECT TO LIABILITY RELATING TO THIRD PARTY CLAIMS UNDER SECTIONS 7.1 OR 7.2, B) LIABILITY FOR BREACH OF ARTICLE 9 AND C) CLAIMS FOR MISUSE, MISAPPROPRIATION OR INFRINGEMENT OF INTELLECTUAL PROPERTY, IT IS AGREED BY THE PARTIES THAT NEITHER PARTY NOR ITS AFFILIATES SHALL BE LIABLE TO THE OTHER PARTY OR ITS AFFILIATES FOR ANY SPECIAL, CONSEQUENTIAL, INDIRECT, EXEMPLARY OR INCIDENTAL DAMAGES (INCLUDING LOST OR ANTICIPATED REVENUES (OTHER THAN REVENUES COMPRISING ROYALTIES OR OTHER PAYMENTS TO BE EARNED AND PAID TO A PARTY BY THE OTHER PARTY UNDER THIS AGREEMENT) OR PROFITS RELATING TO THE SAME), ARISING FROM ANY CLAIM RELATING TO THIS AGREEMENT, WHETHER SUCH CLAIM IS BASED ON CONTRACT, TORT (INCLUDING NEGLIGENCE) OR OTHERWISE, EVEN IF AN AUTHORIZED REPRESENTATIVE OF SUCH PARTY IS ADVISED OF THE POSSIBILITY OR LIKELIHOOD OF SAME.

7.8 DISCLAIMER OF WARRANTY. EXCEPT AS OTHERWISE EXPRESSLY PROVIDED IN SECTION 7.6 HEREOF, ANTIGENICS MA MAKES NO REPRESENTATIONS AND EXTENDS NO WARRANTY OF ANY KIND, EITHER EXPRESS OR IMPLIED, WITH RESPECT TO THE QS-21 MANUFACTURED AND SUPPLIED HEREUNDER, INCLUDING WITHOUT LIMITATION, WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NON-INFRINGEMENT OF ANY THIRD PARTY PATENTS OR PROPRIETARY RIGHTS. ALL UNIFORM COMMERCIAL CODE WARRANTIES AND UNITED NATIONS CONVENTION ON THE INTERNATIONAL SALE OF GOODS WARRANTIES ARE EXPRESSLY DISCLAIMED BY ANTIGENICS MA.

**8. Term and Termination.**

8.1 Term. Unless otherwise terminated pursuant to the terms hereof or by separate written agreement between the Parties, the term of this Agreement (the Term ) shall begin on the Effective Date and shall remain in full force and effect until the later of (a) each Supplier's Manufacture and Supply obligations hereunder, or (b) expiration of the royalty obligations provided under

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Section 5.3 above. After expiration of the royalty obligations provided under Section 5.3 above, GSK shall have a [\*\*] license under the Manufacturing Technology to Manufacture QS-21 for use in any QS-21 Vaccines [\*\*] under this Agreement, unless earlier terminated in accordance with Section 8.2 below.

8.2 Material Breach. If either Party materially breaches any obligation, representation or warranty contained in this Agreement, the other Party shall be entitled to give to the Party in default written notice specifying the nature of the default and requiring it to cure such default. If such default is not cured within [\*\*] days for payments or [\*\*] days after the receipt of such notice, the notifying Party shall be entitled, without prejudice to any of its other rights conferred on it by this Agreement and in addition to any other remedies available to it by law or in equity, to terminate this Agreement effective upon written notice to the other Party. The right of a Party to terminate this Agreement, as hereinabove provided, shall not be affected in any way by its waiver or failure to take action with respect to any previous default. For the purposes of this Section, a material breach of the [\*\*] by one Party shall be deemed a material breach and default of this Agreement by such Party, and shall entitle the other Party to give notice of default under this Section. In addition, Antigenics MA shall have the right to terminate this Agreement and/or [\*\*] immediately upon written notice to GSK in the event that GSK or its Affiliates challenge, or direct or assist a Third Party to challenge, the validity, patentability or enforceability of, or otherwise oppose any, Licensed Patent Rights (as defined in the License Agreement) or the Manufacturing Technology.

8.3 Termination Or Continuation for Bankruptcy of Either Party.

(a) Either Party may terminate this Agreement if, at any time, the other Party shall file in any court or agency pursuant to any statute or regulation of (the United States or of) any (individual) state or (foreign) country, a petition in bankruptcy or insolvency or for reorganisation or for an arrangement or for the appointment of a receiver or trustee of the party or of its assets, or if the other Party proposes a written agreement of composition or extension of its debts, or if the other Party shall be served with an involuntary petition against it, filed in any insolvency proceeding, and such petition shall not be dismissed [\*\*] after the filing thereof, or if the other Party shall propose or be a party to any dissolution or liquidation, or if the other Party shall make an assignment for the benefit of creditors.

(b) All rights and licenses granted under or pursuant to this Agreement by each Party are, and shall otherwise be deemed to be, for purposes of Article 365(n) of the U.S. Bankruptcy Code, licenses of rights to intellectual property as defined under Article 101 of the U.S. Bankruptcy Code so long as such rights do not conflict with any of the terms of this Agreement. The Parties further agree that, in the event of the commencement of a bankruptcy proceeding by or against either Party under the

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U.S. Bankruptcy Code, the other Party shall be entitled to a complete duplicate of (or complete access to, as appropriate) the Manufacturing Technology or Manufacturing Improvements (as the case may be) and any such intellectual property and all embodiments of intellectual property consistent with Article 365(n) of the U.S. Bankruptcy Code, and same, if not already in its possession, shall be promptly delivered to it (a) upon any such commencement of a bankruptcy proceeding upon its written request therefore, unless the Party subject to the bankruptcy proceeding elects to continue to perform all of its obligations under this Agreement or (b) if not delivered under (a) above, upon the rejection of this Agreement by or on behalf of the Party subject to the bankruptcy proceeding upon written request therefore by the other Party. All such Manufacturing Technology and/or Manufacturing Improvements and intellectual property so delivered shall remain subject to the use and confidentiality restrictions set forth in Article 9 of this Agreement and Article 9 of the [\*\*].

**8.4 Effects of Termination.**

(a) **Orders in Progress.** In the event of expiration of this Agreement, Supplier shall at Customer's request or otherwise at its election, fill any purchase orders for QS-21 that were made by Customer and accepted by Supplier prior to such date, and Customer shall pay Supplier for any QS-21 supplied by Supplier hereunder. In addition, in the event of early termination of this Agreement, Supplier retains the right but not the obligation to fill any purchase orders for QS-21 that were made by Customer and accepted by Supplier prior to such date, and Customer shall pay Supplier for any QS-21 supplied by Supplier hereunder. In either such an event, and in addition to the provisions set forth in Section 8.4(b) and (c) below, the provisions of Sections 3.4 (c) and (d) shall remain in full force and effect until the Parties have fulfilled their respective obligations with respect to such orders.

(b) Termination or expiration of this Agreement, for any reason, shall not deprive or relieve either Party hereto, of any right, remedy, or obligation accrued hereunder prior to termination or expiration, and shall not effect any other rights accrued in any way under separate agreements between the Parties.

(c) The provisions of Articles 6 (with respect to outstanding payment obligations), 7, and 9, and Sections 2.6, 4.1 and 4.2 (with respect to deliveries made prior to the date of expiration or termination or thereafter in accordance with Section 8.4(a) above) 4.3, 5.2, 5.3 (with respect to Net Sales of QS-21 Vaccines made prior to the date of expiration), 5.4 (with respect to deliveries made prior to the date of expiration or termination or thereafter in accordance with Section 8.4(a) above), 5.5, 8.1, 8.4, 10.1, 10.5, 10.6 (for so long as payment obligations survive the termination or expiration of this Agreement), 10.8, 10.11, and 10.12 shall survive expiration or termination of this Agreement for any reason. In addition, the provisions of Sections 2.5, 5.3 and Article 6 (with respect to payment obligations under Section 5.3) shall survive termination of this Agreement for any reason,

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other than termination by Antigenics MA for GSK's material breach, unless Antigenics MA elects otherwise in the case of such material breach. Furthermore, in the event this Agreement is terminated by [\*\*] under Section 8.2 for material breach of the [\*\*] (as agreed to by the [\*\*] or finally resolved in accordance with the Dispute Resolution provisions of Section 10.1 of this Agreement), and, prior to such termination, [\*\*] covered by a [\*\*] (as defined in the License Agreement of a [\*\*] of the [\*\*] into the [\*\*] of QS-21 at the request of the [\*\*] that results in a [\*\*] in the [\*\*] of greater than [\*\*] then the [\*\*] to the [\*\*] by the [\*\*] under Section [\*\*] above (as applicable) shall (a) [\*\*] be [\*\*] a [\*\*] at a [\*\*], and the Parties shall [\*\*] a [\*\*] as [\*\*] for [\*\*] (which [\*\*] shall [\*\*] a [\*\*] of the [\*\*] in the [\*\*]), and (b) [\*\*] with respect to any [\*\*] not covered by a [\*\*].

**9. Confidentiality.**

9.1 Confidential Information shall mean any technical, scientific or business information furnished by or on behalf of one Party or its Affiliates (the Disclosing Party ) to the other Party or its Affiliates (the Receiving Party ) in connection with this Agreement, the License Agreement, the 1992 Agreement, or the 2006 Supply Agreement, or the activities contemplated hereunder and thereunder, regardless of whether such information is specifically designated as confidential and regardless of whether such information is in oral, written, electronic or other form. The terms of this Agreement shall be considered Confidential Information of both Parties, subject to the provisions of this Article 9 and Section 10.6. Confidential Information shall not include information that:

- (a) is generally available in the public domain or thereafter becomes available to the public through no act of the Receiving Party; or
- (b) was independently known to the Receiving Party prior to receipt thereof or was discovered independently by an employee of the Receiving Party who had no access to the information supplied by or on behalf of the Disclosing Party; or
- (c) was made available to the Receiving Party as a matter of lawful right by a Third Party who had no obligations of confidentiality to the Disclosing Party.

9.2 Obligations. The Receiving Party agrees that it shall not, without the prior written consent of the Disclosing Party, directly or indirectly:

- (a) make any use, including but not limited to any research, commercial or potentially commercial use thereof, of any portion of the Confidential Information of the Disclosing Party for purposes other than those set forth in this Agreement; or

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(b) duplicate, disseminate, disclose or transfer any portion of the Confidential Information to any person, except that the Receiving Party may disclose or permit the disclosure of Confidential Information to its Affiliates, licensees and sublicensees and its and their respective directors, officers, employees, consultants, and advisors, and investors and potential investors in connection with a general financing transaction, and, (i) in the case of GSK, to Third Party contract manufacturers (solely for the purpose of supplying GSK) as may be useful or necessary to Manufacture for GSK as contemplated in this Agreement, and (ii) in the case of Antigenics MA, to Third Party contract manufacturers as may be useful or necessary to Manufacture for Antigenics MA as contemplated in this Agreement, in any case, who have an ethical or fiduciary duty to the Receiving Party or are otherwise obligated to maintain the confidential nature of such Confidential Information and who need to know such Confidential Information for the purposes set forth in this Agreement, or for other legitimate business purposes;

Notwithstanding the above, the Receiving Party may disclose Confidential Information of the Disclosing Party when required by applicable laws or government rules or regulations (including without limitation, applicable securities regulations), provided that to the extent reasonably possible, the Receiving Party provides reasonable prior written notice of such disclosure to the Disclosing Party and takes reasonable efforts to avoid and/or minimize the extent of disclosure.

9.3 Upon expiration or termination of this Agreement and upon request of the Disclosing Party, all copies of any Disclosing Party's Confidential Information (other than the Manufacturing Technology in the case of expiration) shall be returned to the Disclosing Party, except that each Receiving Party may retain one (1) copy of the Confidential Information received hereunder in the possession of its legal counsel, solely for monitoring its obligations under this Agreement.

9.4 No option, license, or conveyance of such rights, express or implied, is granted to the Receiving Party in connection with any Confidential Information disclosed by the Disclosing Party, except for the express licenses granted in Article 2. If any such rights are to be granted to the Receiving Party, such grant shall be expressly set forth in a separate written instrument.

**10. Miscellaneous.**

10.1 **Dispute Resolution.** Except for the right of any Party to apply to a court of competent jurisdiction for a temporary restraining order, a preliminary injunction or other equitable relief to preserve the status quo or prevent irreparable harm, any dispute, other than disputes regarding the construction, validity or enforcement of patents, arising between the Parties relating to, arising out of or in any way connected with this Agreement or any term or condition hereof, or the performance by either Party of its obligations hereunder, whether before or after termination of this Agreement, shall be resolved as follows:

(a) If the dispute cannot be resolved by the Parties through their duly authorized representatives (or the Steering Committee, if applicable) within [\*\*], the Chief Executive Officer of GSK (or his designee) and the Chief Executive Office of Antigenics, Inc., a Delaware corporation, the parent corporation of Antigenics MA (or his designee) shall meet in person at a mutually acceptable time and location or by means of telephone or video conference within [\*\*] of the matter being referred to them.

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(b) If the Chief Executive Officer of GSK (or his designee) and the Chief Executive Officer of Antigenics, Inc. (or his designee) fail to first meet within [\*\*] of the matter being referred to them, or if the dispute can not be resolved by the Chief Executive Officer of GSK (or his designee) and the Chief Executive Officer of Antigenics, Inc. (or his designee) within [\*\*] of the matter being referred to them, then either Party may bring such matter in a federal or state court in the State of Delaware to whose exclusive jurisdiction both Parties hereto consent.

(c) Notwithstanding the foregoing, in the event there is a disagreement between the Parties as to whether the [\*\*] complies with [\*\*] under applicable [\*\*] and [\*\*] from [\*\*] or other [\*\*], such dispute shall be resolved by an independent panel of experts (the [\*\*] Panel ). The [\*\*] Panel shall be composed of one (1) member if the Parties can agree on the sole member within [\*\*]. Otherwise, it shall be composed of one (1) member appointed by Antigenics MA, one (1) member appointed by GSK and a third member appointed by the agreement of first two (2) members. In order to be eligible for appointment to the [\*\*] Panel, a person must be independent in all respects from both Antigenics MA and GSK and have the [\*\*]. The Parties shall identify their respective appointees within [\*\*] following notice by one Party to the other of a [\*\*] dispute. The first two (2) members so appointed will have an additional [\*\*] to choose the third member. Antigenics MA and GSK shall share equally any cost involved in the engagement and services of such third member. The [\*\*] Panel shall determine whether, in light of all circumstances, including without limitation, [\*\*], the [\*\*] complies with the above referred [\*\*]. Notwithstanding the foregoing, the Parties may, by agreement, identify a more specific or relevant [\*\*] for the [\*\*] Panel to consider in resolving a particular dispute. The [\*\*] Panel shall make its determination as soon as reasonably possible, but no later than [\*\*] after referral of the dispute to the [\*\*] Panel by the Parties. Decisions of the [\*\*] Panel shall be made by [\*\*] vote of the members and shall be announced, with such reasoning as the [\*\*] Panel, in its sole discretion, shall determine to be appropriate, in a document delivered on the same date to both Parties.

10.2 **No Partnership.** Nothing in this Agreement is intended or shall be deemed to constitute a partnership, distributorship, agency, employer-employee or joint venture relationship between the Parties. No Party shall incur any debts or make any commitments for the other, except to the extent, if at all, specifically provided herein.

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[\*\*] = Portions of this exhibit have been omitted pursuant to a confidential treatment request. An unpredicted version of this exhibit has been filed separately with the Commission.

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10.3 Assignments. This Agreement may not be assigned or otherwise transferred by either Party without the prior written consent of the other Party, which consent shall not be unreasonably withheld or delayed; *provided, however*, that, [\*\*] may, without such consent, assign this Agreement and any of its right or obligations hereunder to its Affiliates or in connection with the transfer or sale of all or substantially all of the portion of its business to which this Agreement relates, or in the event of its merger or consolidation or reorganization or change in control; *provided, further*, that the assigning Party shall deliver written notice of any such permitted assignment to the other Party. Notwithstanding the foregoing, in the event that [\*\*] assigns this Agreement to a [\*\*] (as defined in Section [\*\*]) without the prior written consent of [\*\*], then (i) the license granted to [\*\*] pursuant to Section [\*\*] shall terminate upon [\*\*] written notice to the [\*\*] (provided that any sublicenses granted prior to the date of assignment in accordance with Section [\*\*] shall survive), (ii) [\*\*] shall have no obligation to transfer any Confidential Information of [\*\*] to such [\*\*] unless [\*\*] would have had a right under this Agreement to transfer such information to said [\*\*] prior to the date of the assignment, (iii) [\*\*] shall in no event have an obligation to disclose any [\*\*] to the [\*\*] and (iv) at [\*\*] discretion, inspections referred to in Section 4.4 shall be conducted by an independent qualified inspector reasonably acceptable to the [\*\*] rather than by the [\*\*] itself. This Agreement shall be binding upon and inure to the benefit of the successors and permitted assigns of the Parties and the name of a Party appearing herein shall be deemed to include the names of such Party's successors and permitted assigns to the extent necessary to carry out the intent of this Agreement. Any attempted assignment not in accordance with this Section 10.3 shall be void.

10.4 Further Actions. Each Party agrees to execute, acknowledge and deliver such further instruments, and to do all such other acts, as may be necessary or appropriate in order to carry out the purposes and intent of this Agreement.

10.5 No Name or Trademark Rights. Except as otherwise expressly provided herein, or expressly set forth in the License Agreement, no right, express or implied, is granted by this Agreement to use in any manner the names Antigenics Inc., GlaxoSmithkline plc. or any contraction thereof or any other trade name or trademark of Antigenics MA or GSK in connection with the performance of this Agreement. In addition, GSK agrees not to use or apply for registration of any trademarks, tradenames or tradenames pertaining to QS-21 (as opposed to trademarks pertaining to QS-21 Vaccines) in the Territory without Antigenics MA's prior consent, which consent shall not be unreasonably withheld where the use of such trademarks, tradenames or tradenames is required by applicable laws or regulations, provided that such use by GSK is consistent with both Party's internal trademark policies.

[\*\*] = Portions of this exhibit have been omitted pursuant to a confidential treatment request. An unredacted version of this exhibit has been filed separately with the Commission.

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*Confidential*

10.6 Public Announcements. Press releases and public announcements regarding the subject matter of this Agreement shall be made in accordance with the provisions of the License Agreement.

10.7 Force Majeure. If any default or delay occurs which prevents or materially impairs a Party's performance and is due to a cause beyond the Party's reasonable control, including but not limited to any act of god, flood, fire, explosion, earthquake, casualty, accident, war, revolution, terrorist acts, civil commotion, blockade or embargo, injunction, law, proclamation, order, regulation or governmental demand, or acts, omissions or delays in acting by any Regulatory Authority, the affected Party promptly shall notify the other Party in writing of such cause and shall exercise diligent efforts to resume performance under this Agreement as soon as possible. Neither Party shall be liable to the other Party for any loss or damage due to such cause. Neither Party may terminate this Agreement because of such default or delay, unless such event continues unabated for a period of six (6) months, in which case the Party disadvantaged by such default or delay may, at its option, terminate this Agreement upon written notice to the other Party.

10.8 Entire Agreement of the Parties, Amendments. This Agreement, including the Exhibits attached hereto which are incorporated herein, and the License Agreement, Quality Agreement, and Manufacturing Technology Transfer Plan, constitute and contain the entire understanding and agreement of the Parties and cancels and supersedes any and all prior negotiations, correspondence, understandings and agreements, whether verbal or written, between the Parties respecting the subject matter hereof and thereof, including without limitation, the 1992 Agreement, the 2006 Supply Agreement, and the Letter. In the event of any inconsistency between this Agreement and the Quality Agreement or the Manufacturing Technology Transfer Plan, the provisions of the Quality Agreement or the Manufacturing Technology Transfer Plan shall prevail. In addition and for the avoidance of doubt, the Parties hereby agree that the 1992 Agreement was terminated and fully superseded by the 2006 Supply Agreement and the License Agreement as of the effective dates of the 2006 Supply Agreement and the License Agreement, and the 2006 Supply Agreement and the Letter are terminated and fully superseded by this Agreement as of the Effective Date of this Agreement. Notwithstanding any provision to the contrary in the 2006 Agreement, no provision contained in that agreement shall survive termination thereof. Notwithstanding the foregoing, (a) each Party hereby agrees that all actions, suits, damages, or claims which either of them may have against the other arising under the terms of the 1992 Agreement, by reason of any breach of the 1992 Agreement arising out of any act or failure to act prior to the effective date of the 2006 Supply Agreement, was waived or released thereby, and (b) each Party hereby agrees that all actions, suits, damages, or claims which either of them may have against the other arising under the terms of the 2006 Supply Agreement or the Letter by reason of any breach of the 2006 Supply Agreement or the Letter arising out of any act or failure to act prior to the Effective Date of this Agreement shall survive and be enforceable under this Agreement. No other waiver, modification or amendment of any provision of this Agreement shall be valid or effective unless made in writing and signed by a duly authorized officer of each of the Parties. The foregoing provisions of this Section 10.8 is subject to, and in no way diminishes, the rights of the Parties under Section [\*\*] of the License Agreement with respect to the [\*\*] (as defined in the License Agreement).

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10.9 Severability. If any provision of this Agreement, or part thereof, is found by a proper authority to be unenforceable, that provision, or part thereof, shall be stricken and the remainder of this Agreement will continue in full force and effect; *provided, however*, that the Parties shall renegotiate an acceptable replacement provision so as to accomplish, as nearly as possible, the original intent of the Parties.

10.10 Captions. The captions to this Agreement are for convenience only, and are to be of no force or effect in construing or interpreting any of the provisions of this Agreement.

10.11 Applicable Law; Governing Language. This Agreement shall be governed and construed in accordance with the laws of the State of Delaware, without regard to conflicts of laws principles. This Agreement has been prepared in the English language and the English language shall control its interpretation. All consents, notices, reports and other written documents to be delivered or provided by a Party under this Agreement shall be in the English language, and in the event of any conflict between the provisions of any document and the English language translation thereof, the terms of the English language translation shall control.

10.12 Notices and Deliveries. Any notice or other communication required or permitted hereunder shall be in writing and shall be deemed given (a) when delivered personally, (b) three (3) Business Days after having been sent by registered or certified mail, return receipt requested, postage prepaid; or (c) one (1) day after deposit with a commercial express courier specifying next day delivery, with written verification or receipt, as follows:

If to Antigenics MA, to:      Antigenics Inc.  
   3 Forbes Road  
   Lexington MA 02421 U.S.A.  
   Attention: Vice President, Business Development

with copy to:                      Antigenics Inc.  
   3 Forbes Road  
   Lexington MA 02421 U.S.A.  
   Attention: Legal Department

If to GSK, to:                      GlaxoSmithKline Biologicals SA  
   89 rue de l Institut  
   B-1330 Rixensart, BELGIUM  
   Attention: President and General Manager

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[\*\*] = Portions of this exhibit have been omitted pursuant to a confidential treatment request. An unpredicted version of this exhibit has been filed separately with the Commission.

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*Confidential*

with a copy to:                   GlaxoSmithKline Biologicals SA  
  89 rue de l Institut  
  B-1330 Rixensart, BELGIUM  
  Attention: Legal Department

However, all invoices shall be sent by Antigenics MA to GSK's Licensing Manager, Account Department, GlaxoSmithKline Biologicals SA, 89 rue de l Institut, B-1330 Rixensart, Belgium or at such other address GSK may later designate in writing.

10.13 Counterparts. This Agreement may be executed simultaneously in two or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument.

[The remainder of this page is intentionally left blank.]

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*Confidential*

IN WITNESS WHEREOF, the Parties hereto have caused this Agreement to be signed by their respective corporate officers, duly authorized as of the day and year first above written.

Antigenics Inc., a Massachusetts corporation and wholly owned subsidiary of Antigenics Inc., a Delaware corporation

By: /s/ Garo Armen  
Name: Garo Armen  
Title: CEO

GlaxoSmithKline Biologicals SA

By: /s/ J. Stephenne  
Name: J. Stephenne  
Title: President & General Manager GSK Biologics

**Table of Contents**

*Confidential*

Exhibit A

Specifications

[\*\*] Specifications\*

QS-21 shall be produced and released according to Manufacturing methods and applicable [\*\*]

The release criteria and specifications are set in the Quality Agreement.

[\*\*] Specifications\*

QS-21 shall be produced and released in [\*\*], in accordance with [\*\*] methods of Manufacturing [\*\*].

The release criteria and specifications are set in the current Quality Agreement.

\*The Parties agree that the [\*\*] Specifications shall apply to Antigenics MA's supply obligations hereunder and the [\*\*] Specifications shall apply to GSK's supply obligations hereunder.

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[\*\*] = Portions of this exhibit have been omitted pursuant to a confidential treatment request. An unredacted version of this exhibit has been filed separately with the Commission.

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Exhibit B

GSK's QS-21 Forecasts

Q3 2007: [\*\*] (binding on GSK)

Q4 2007: [\*\*] (binding on GSK)

Q1 2008: [\*\*] (binding on GSK)

Q2 2008: [\*\*] (binding on GSK)

Q3 2008: [\*\*] (binding on GSK)

Q4 2008: [\*\*] (binding on GSK)

GSK may request additional quantities from Antigenics MA in 2009, subject to the below provisions\*.

\*Antigenics MA will inform GSK by [\*\*] if Antigenics MA can provide additional quantities of QS-21 after Q4 2008 (but in no event more than [\*\*] per quarter unless otherwise agreed by Antigenics). In any such event, GSK would be obligated to provide forecasts in accordance with Section 3.4 of this Agreement for any additional quantities within Antigenics MA's capacity.

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[\*\*] = Portions of this exhibit have been omitted pursuant to a confidential treatment request. An unpredicted version of this exhibit has been filed separately with the Commission.

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*Confidential*

Exhibit C-1

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[\*\*] = Portions of this exhibit have been omitted pursuant to a confidential treatment request. An unredacted version of this exhibit has been filed separately with the Commission.

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*Confidential*

Exhibit C-2

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[\*\*] = Portions of this exhibit have been omitted pursuant to a confidential treatment request. An unredacted version of this exhibit has been filed separately with the Commission.

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*Exhibit 10.2*

*Confidential*

**Second Amendment to Exhibit A-5 to Master Services Agreement**

THE UNDERSIGNED HEREBY ACKNOWLEDGE AND AGREE THAT THIS SECOND AMENDMENT TO EXHIBIT A-5 IS INCORPORATED BY REFERENCE INTO, AND SUBJECT TO THE PROVISIONS OF THAT CERTAIN MASTER SERVICES AGREEMENT BETWEEN THE PARTIES DATED MAY 24, 2007, AS AMENDED (THE AGREEMENT ).

1. This Second Amendment to Exhibit A-5 to Master Services Agreement and the Scope of Works and Budgets attached hereto as Appendix 1 (the Set-Up Plan ), and the Scope of Work and Budget attached hereto as Appendix 2 (the Safety Plan ) (collectively, this Second Amended Exhibit A-5 ) sets forth the agreed to Services, fees, pass through costs and related compensation for Raifarm Limited relating to commercialization set-up activities in Russia for Oncophage from April 1, 2008, and the pharmacovigilance and associated regulatory support for Oncophage in Russia. This Second Amended Exhibit A-5 hereby replaces the provisions of the Amendment to Exhibit A-5 to Master Services Agreement entered into by the Parties on June 5, 2008 ( First Amended Exhibit A-5 ). Capitalized terms not otherwise defined shall have the meaning set forth in the Agreement.
2. The Parties acknowledge that work for some of the tasks under Appendix 1 has already commenced, and some hours set forth in the Appendix 1 have already been utilized in performance of the tasks. *The Parties further acknowledge and agree that Company shall only be responsible to provide compensation to Raifarm Limited for hours actually utilized in performance of the Services, such hours and compensation not to exceed the amounts set forth in Appendix 1 and Appendix 2 without the prior written consent of Company.*
3. The Parties acknowledge that the provisions of Paragraph 3 of the First Amended Exhibit A-5 is deleted in its entirety, and that the provisions of Paragraph 2 and 4 of the First Amended Exhibit A-5 remain in full force and effect, provided however, that any payments to Raifarm after the Effective Date of this Second Amended Exhibit A-5 shall be payable by the Company in the form of U.S. dollars cash.

Acknowledged and Agreed:

**ANTIGENICS Inc., a Delaware corporation**

By: /s/ Garo Armen  
Date: 1/14/09  
Typed Name: Garo Armen  
Title: Chairman & CEO  
Appendix 1

[See attached Appendix 1 Set Up Plan]

**RAIFARM LIMITED**

By: /s/ Yuri Raifeld  
Date: December 17, 2008  
Typed Name: Yuri Raifeld  
Title: Director

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*Exhibit 10.2*

*Confidential*

Appendix 1

[see attached]

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*Exhibit 10.2*

*Confidential*

Set-Up Plan [\*\*]

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[\*\*] = Portions of this agreement have been omitted pursuant to a confidential treatment request. An unredacted version of this agreement has been filed separately with the Commission.

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*Exhibit 10.2*

*Confidential*

**Appendix 2**

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[\*\*] = Portions of this agreement have been omitted pursuant to a confidential treatment request. An unredacted version of this agreement has been filed separately with the Commission.

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**Exhibit 10.4**

**ANTIGENICS, INC.**

**Amendment of Rights with respect to Events of Default and Issuance of Other Securities**

**RECITALS**

WHEREAS, reference is made to the Senior Secured Convertible Notes issued on October 30, 2006 (together with any senior secured convertible notes issued in replacement or exchange thereof in accordance with the terms thereof and any senior secured convertible notes issued to pay interest, the 2006 Notes and each a 2006 Note ), by Antigenics, Inc., a Delaware corporation (the Company ) to Ingalls & Snyder Value Partners L.P. ( Ingalls ) and Penrith LTD ( Penrith ), and together with Ingalls, the Investors );

WHEREAS, pursuant to the Indenture, dated January 25, 2005, between the Company and HSBC Bank USA, National Association, the Company issued \$50.0 million of 5.25% Convertible Senior Notes due 2025 (the 2005 Notes ) in a private placement;

WHEREAS, the Company desires, at any time and from time to time, to redeem and repurchase up to \$15,000,000 in aggregate principal amount of 2005 Notes, along with accrued but unpaid interest, for cash, from certain holders thereof (the 2005 Notes Redemption );

WHEREAS, pursuant to Section 4(a)(ii) of the 2006 Notes, the 2005 Notes Redemption will constitute an Event of Default (as defined in the 2006 Notes);

WHEREAS, pursuant to Section 4(b) of the 2006 Notes, the Investors will have certain redemption rights upon the occurrence of the Event of Default that results from the 2005 Notes Redemption (the Event of Default Rights );

WHEREAS, at any time and from time to time, the Company may issue and sell shares of Company Common Stock (as defined in the 2006 Notes), Convertible Securities (as defined in the 2006 Notes), Options (as defined in the 2006 Notes) or any combination thereof (collectively, the New Securities ) through a public offering or a private placement (each a Replenishment Offering );

WHEREAS, pursuant to Section 7(a) of the 2006 Notes, the Investors may have certain anti-dilutive rights upon the Company's issuance and sale of New Securities through a Replenishment Offering (the Anti-Dilutive Rights ) if the Replenishment Offering constitutes a Dilutive Issuance (as defined in the 2006 Notes);

WHEREAS, the undersigned parties desire to permit the 2005 Notes Redemption subject to the terms and conditions set forth herein without triggering the Event of Default Rights;

WHEREAS, the undersigned parties desire to permit each Replenishment Offering subject to the terms and conditions set forth herein without triggering the Anti-Dilutive Rights;

WHEREAS, pursuant to Section 15 of the 2006 Notes, the terms of the 2006 Notes may be changed or amended by either (i) the affirmative vote at a meeting duly called for such purpose or (ii) the written consent without a meeting, of the holders of 2006 Notes representing at least a majority of the aggregate principal amount of the 2006 Notes then outstanding; and

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WHEREAS, Ingalls holds 2006 Notes representing 80% of the aggregate principal amount of the 2006 Notes outstanding;

NOW, THEREFORE, in consideration of the promises and agreements set forth in this Amendment of Rights with respect to Events of Default and Issuance of Other Securities (this Amendment ), the undersigned agree as follows:

**AGREEMENT**

1. **Definitions.** Capitalized terms used in this Amendment without definition shall have the meanings ascribed to them in the 2006 Notes.

2. **Amendment.**

a. The parties hereto hereby amend the Event of Default Rights by excluding the 2005 Note Redemption from the definition of an Event of Default in Section 4(a)(ii) of the 2006 Notes, subject to the condition that, in connection with the 2005 Note Redemption, redemptions or repurchases by the Company of 2005 Notes be at a purchase price that does not exceed the sum of (i) twenty-five percent (25%) of the outstanding principal of such notes plus (ii) the accrued but unpaid interest on such notes.

b. The parties hereto hereby amend Section 7(a) of the 2006 Notes by excluding each Replenishment Offering from the definition of a Dilutive Issuance, subject to the following conditions:

i. If the New Issuance Price for such Replenishment Offering is less than \$1.00 per share, then (a) immediately after such Replenishment Offering, the Fixed Conversion Price then in effect shall be reduced in the amount of the difference between \$1.00 per share and the New Issuance Price, and (b) for purposes of determining the adjusted Fixed Conversion Price, Section 7(a)(i)-(iv) of the 2006 Notes shall apply and Applicable Price shall mean \$1.00 per share with respect to such Replenishment Offering.

ii. This section 2.b shall apply to up to an aggregate number of shares of Company Common Stock (a) issued and sold through all Replenishment Offerings and (b) available for issuance under Options and/or Convertible Securities sold through all Replenishment Offerings, equal to ten percent (10%) of the total number of shares of Company Common Stock issued and outstanding on the Business Day immediately preceding the consummation of the Replenishment Offering in question.

iii. The aggregate dollar amount raised in the Replenishment Offerings is not to exceed the aggregate dollar amount (excluding accrued but unpaid interest) expended by the Company on any 2005 Note Redemptions.

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3. Miscellaneous. Other than as specifically set forth herein, this Amendment shall not be construed as a consent to any future action or an amendment of any right or remedy on any future occasion. This Amendment may be executed in one or more counterparts, all of which shall be considered one and the same amendment.

*[Signature Page Follows]*

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IN WITNESS WHEREOF, the undersigned have executed this Amendment as of November 11, 2008.

ANTIGENICS, INC.

By: /s/ Garo H. Armen  
Name: Garo H. Armen, Ph.D.  
Title: Chairman & CEO

INGALLS & SNYDER VALUE PARTNERS L.P.

By: /s/ Thomas O. Boucher  
Name: Thomas O. Boucher  
Title: General Partner

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**Exhibit 31.1**

Certification Pursuant to Rules 13a-14(a) and 15d-14(a) under the Securities Exchange Act of 1934, as amended

I, Garo H. Armen, certify that:

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

information; and

- b. any fraud, whether or not material, that involves management or other employees who have a significant role in the Registrant's internal control over financial reporting.

Date: May 11, 2009

*/s/* GARO H. ARMEN, Ph.D.  
**Garó H. Armen, Ph.D.**  
**Chief Executive Officer**

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**Exhibit 31.2**

Certification Pursuant to Rules 13a-14(a) and 15d-14(a) under the Securities Exchange Act of 1934, as amended

I, Shalini Sharp, certify that:

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

information; and

- b. any fraud, whether or not material, that involves management or other employees who have a significant role in the Registrant's internal control over financial reporting.

Date: May 11, 2009

*/s/ SHALINI SHARP*  
**Shalini Sharp**  
**Chief Financial Officer**

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**Exhibit 32.1**

Certification

Pursuant to 18 U.S.C. Section 1350,

As Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002

In connection with the Quarterly Report on Form 10-Q of Antigenics Inc. (the Company ) for the quarterly period ended March 31, 2009 as filed with the Securities and Exchange Commission on the date hereof (the Report ), each of the undersigned to his/her knowledge hereby certifies, pursuant to 18 U.S.C. Section 1350, that:

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

*/s/ GARO H. ARMEN, PH.D.*  
**Garó H. Armen, Ph.D.**  
**Chief Executive Officer**

*/s/ SHALINI SHARP*  
**Shalini Sharp**  
**Chief Financial Officer**

Date: May 11, 2009

A signed original of this written statement required by Section 906 has been provided to Antigenics Inc. and will be retained by Antigenics Inc. and furnished to the Securities and Exchange Commission or its staff upon request.

The foregoing certification is being furnished to the Securities and Exchange Commission as an exhibit to the Quarterly Report on Form 10-Q for the quarterly period ended September 30, 2008 and should not be considered filed as part of the Quarterly Report on Form 10-Q.

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**UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION**

Washington, D.C. 20549

**FORM 8-K**

**CURRENT REPORT**

**Pursuant to Section 13 or 15(d) of  
the Securities Exchange Act of 1934**

**May 11, 2009**

**Date of Report (Date of earliest event reported)**

**ANTIGENICS INC.**

**(Exact name of registrant as specified in its charter)**

**DELAWARE**

**000-29089**  
**(Commission File Number)**

**06-1562417**  
**(IRS Employer)**

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(State or other jurisdiction  
of incorporation)

Identification No.)

**3 Forbes Road**

**Lexington, MA**  
(Address of principal executive offices)

**02421**  
(Zip Code)

**781-674-4400**

(Registrant's telephone number, including area code)

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions (see General Instruction A.2. below):

- .. Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)
- .. Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)
- .. Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))
- .. Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))

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**Item 1.01 Entry into a Material Definitive Agreement.**

On May 11, 2009, Antigenics Inc. entered into a letter agreement with the University of Connecticut Health Center ( UConn ) memorializing the parties' agreement to extend the date for Antigenics to fulfill its obligations under section 3.1(b) of the License Agreement between UConn and Antigenics Inc. effective May 25, 2001, as amended (the Agreement ) until June 15, 2009, while the parties continue their current negotiations to potentially amend certain financial terms of the Agreement. All other obligations of the parties under the Agreement shall remain in force.

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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 hereunto duly authorized.

**ANTIGENICS INC.**

Date: May 11, 2009

By: /s/ Shalini Sharp  
Shalini Sharp  
Chief Financial Officer