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

FORM 10-Q

(Mark One)

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

For the quarterly period ended September 30, 2008

OR

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

For the transition period from to

Commission File No. 001-31326

SENESCO TECHNOLOGIES, INC.
(exact name of registrant as specified in its charter)

Delaware	**84-1368850**
(State or other jurisdiction of incorporation or organization)	(IRS Employer Identification No.)

303 George Street, Suite 420
New Brunswick, New Jersey 08901
(Address of principal executive offices)

(732) 296-8400
(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 past 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days.

Yes: x No: o

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

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

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act).

Yes: o No: x

As of October 31, 2008, 18,573,184 shares of the issuer's common stock, par value $0.01 per share, were outstanding.

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SENESCO TECHNOLOGIES, INC. AND SUBSIDIARY

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PART I. FINANCIAL INFORMATION.

Item 1. Financial Statements.

Certain information and footnote disclosures required under United States generally accepted accounting principles have been condensed or omitted from the following consolidated financial statements pursuant to the rules and regulations of the Securities and Exchange Commission. However, Senesco Technologies, Inc., a Delaware corporation, and its wholly owned subsidiary, Senesco, Inc., a New Jersey corporation (collectively, "Senesco" or the "Company"), believe that the disclosures are adequate to assure that the information presented is not misleading in any material respect.

The results of operations for the interim periods presented herein are not necessarily indicative of the results to be expected for the entire fiscal year.

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SENESCO TECHNOLOGIES, INC. AND SUBSIDIARY
(A DEVELOPMENT STAGE COMPANY)
CONDENSED CONSOLIDATED BALANCE SHEETS

	September 30, 2008 (unaudited)	June 30, 2008
ASSETS		
CURRENT ASSETS:		
Cash and cash equivalents	$ 2,457,202	$ 5,676,985
Short-term investments	2,450,000	500,000
Prepaid expenses and other current assets	784,241	180,556
Total Current Assets	5,691,443	6,357,541
Property and equipment, net	4,678	5,459
Intangibles, net	3,346,366	3,213,543

Deferred financing costs	953,308	1,059,230
Security deposit	7,187	7,187
TOTAL ASSETS	$ 10,002,982	$ 10,642,960
LIABILITIES AND STOCKHOLDERS' EQUITY		
CURRENT LIABILITIES:		
Accounts payable	$ 499,925	$ 370,167
Accrued expenses	386,884	314,267
Total Current Liabilities	886,809	684,434
Convertible notes, net of discount	190	57
Grant payable	99,728	99,728
Other liability	21,301	23,062
TOTAL LIABILITIES	1,008,028	807,281
STOCKHOLDERS' EQUITY:		
Preferred stock, $0.01 par value; authorized 5,000,000 shares, no shares issued	—	—
Common stock, $0.01 par value; authorized 100,000,000 shares, issued and outstanding 18,573,184 and 18,375,117, respectively	185,732	183,751
Capital in excess of par	40,213,658	39,874,958
Deficit accumulated during the development stage	(31,404,436)	(30,223,030)
TOTAL STOCKHOLDERS' EQUITY	8,994,954	9,835,679
TOTAL LIABILITIES AND STOCKHOLDERS' EQUITY	$ 10,002,982	$ 10,642,960

See Notes to Condensed Consolidated Financial Statements.

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SENESCO TECHNOLOGIES, INC. AND SUBSIDIARY
(A DEVELOPMENT STAGE COMPANY)
CONDENSED CONSOLIDATED STATEMENTS OF OPERATIONS
(unaudited)

	For the Three Months Ended September 30, 2008	For the Three Months Ended September 30, 2007	From Inception on July 1, 1998 through September 30, 2008
Revenue	$ 200,000	$ 371,250	$ 1,375,000
Operating Expenses:			
General and administrative	529,865	389,059	22,255,321
Research and development	504,386	352,895	10,461,981
Total Operating Expenses	1,034,251	741,954	32,717,302
Loss From Operations	(834,251)	(370,704)	(31,342,302)
Sale of state income tax loss, net	—	—	586,442
Other noncash income	—	—	321,259
Interest income, net	23,057	6,879	503,294
Amortization of debt discount and financing costs	(106,055)	(15,221)	(774,818)
Interest expense on convertible notes	(264,157)	(3,000)	(698,311)
Net Loss	$ (1,181,406)	$ (382,046)	$ (31,404,436)
Basic and Diluted Net Loss Per Common Share	$ (0.06)	$ (0.02)	
Basic and Diluted Weighted Average Number of Common Shares Outstanding	18,379,379	17,473,694	

See Notes to Condensed Consolidated Financial Statements.

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SENESCO TECHNOLOGIES, INC. AND SUBSIDIARY

(A DEVELOPMENT STAGE COMPANY)
CONDENSED CONSOLIDATED STATEMENT OF STOCKHOLDERS' EQUITY
FROM INCEPTION ON JULY 1, 1998 THROUGH SEPTEMBER 30, 2008
(unaudited)

	Common Stock		Capital in Excess of Par Value	Deficit Accumulated During the Development Stage	Total
	Shares	Amount			
Common stock outstanding	2,000,462	$ 20,005	$ (20,005)	—	—
Contribution of capital	—	—	85,179	—	$ 85,179
Issuance of common stock in reverse merger on January 22, 1999 at $0.01 per share	3,400,000	34,000	(34,000)	—	—
Issuance of common stock for cash on May 21, 1999 at $2.63437 per share	759,194	7,592	1,988,390	—	1,995,982
Issuance of common stock for placement fees on May 21, 1999 at $0.01 per share	53,144	531	(531)	—	—
Issuance of common stock for cash on January 26, 2000 at $2.867647 per share	17,436	174	49,826	—	50,000
Issuance of common stock for cash on January 31, 2000 at $2.87875 per share	34,737	347	99,653	—	100,000
Issuance of common stock for cash on February 4, 2000 at $2.934582 per share	85,191	852	249,148	—	250,000
Issuance of common stock for cash on March 15, 2000 at $2.527875 per share	51,428	514	129,486	—	130,000
Issuance of common stock for cash on June 22, 2000 at $1.50 per share	1,471,700	14,718	2,192,833	—	2,207,551
Commissions, legal and bank fees associated with issuances for the year ended June 30, 2000	—	—-	(260,595)	—	(260,595)
Fair market value of options and warrants vested during the year ended June 30, 2000	—-	—	1,475,927	—	1,475,927

See Notes to Condensed Consolidated Financial Statements.

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SENESCO TECHNOLOGIES, INC. AND SUBSIDIARY
(A DEVELOPMENT STAGE COMPANY)
CONDENSED CONSOLIDATED STATEMENT OF STOCKHOLDERS' EQUITY
FROM INCEPTION ON JULY 1, 1998 THROUGH SEPTEMBER 30, 2008
(unaudited)

	Common Stock		Capital in Excess of Par Value	Deficit Accumulated During the Development Stage	Total
	Shares	Amount			
Fair market value of options and warrants vesting during the year ended June 30, 2001	—	—	$ 308,619	—	$ 308,619
Issuance of common stock and warrants for cash from November 30, 2001 through April 17, 2002 at $1.75 per unit	3,701,430	$ 37,014	6,440,486	—	6,477,500
Issuance of common stock and warrants associated with bridge loan conversion on December 3, 2001	305,323	3,053	531,263	—	534,316
Commissions, legal and bank fees associated with issuances for the year ended June 30, 2002	—	—	(846,444)	—	(846,444)
Fair market value of options and warrants vested during the year ended June 30, 2002	—	—	1,848,726	—	1,848,726

Fair market value of options and warrants vested during the year ended June 30, 2003	—	—	848,842	—	848,842
Issuance of common stock and warrants for cash from January 15, 2004 through February 12, 2004 at $2.37 per unit	1,536,922	15,369	3,627,131	—	3,642,500
Allocation of proceeds to warrants	—	—	(2,099,090)	—	(2,099,090)
Reclassification of warrants	—		1,913,463	—	1,913,463
Commissions, legal and bank fees associated with issuances for the year ended June 30, 2004	—		(378,624)	—	(378,624)

See Notes to Condensed Consolidated Financial Statements.

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SENESCO TECHNOLOGIES, INC. AND SUBSIDIARY
(A DEVELOPMENT STAGE COMPANY)
CONDENSED CONSOLIDATED STATEMENT OF STOCKHOLDERS' EQUITY
FROM INCEPTION ON JULY 1, 1998 THROUGH SEPTEMBER 30, 2008
(unaudited)

	Common Stock		Capital in Excess of Par Value	Deficit Accumulated During the Development Stage	Total
	Shares	Amount			
Fair market value of options and warrants vested during the year ended June 30, 2004	—	—	$ 1,826,514	—	$ 1,826,514
Options and warrants exercised during the year ended June 30, 2004 at exercise prices ranging from $1.00 - $3.25	370,283	$ 3,704	692,945	—	696,649
Issuance of common stock and warrants for cash on May 9, 2005 at $2.11 per unit	1,595,651	15,957	3,350,872	—	3,366,829
Allocation of proceeds to warrants	—	—	(1,715,347)	—	(1,715,347)
Reclassification of warrants	—	—	1,579,715	—	1,579,715
Commissions, legal and bank fees associated with issuance on May 9, 2005	—	—	(428,863)	—	(428,863)
Options and warrants exercised during the year ended June 30, 2005 at exercise prices ranging from $1.50 to $3.25	84,487	844	60,281	—	61,125
Fair market value of options and warrants vested during the year ended June 30, 2005	—	—	974,235	—	974,235
Fair market value of options and Warrants granted and vested During the year ended June 30, 2006	—	—	677,000	—	677,000
Warrants exercised during the year ended June 30, 2006 at an exercise price of $0.01	10,000	100	—	—	100
Issuance of common stock and warrants for cash on October 11, 2006 at $1.135 per unit	1.986,306	19,863	2,229,628	—	2,249,491

See Notes to Condensed Consolidated Financial Statements

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SENESCO TECHNOLOGIES, INC. AND SUBSIDIARY
(A DEVELOPMENT STAGE COMPANY)
CONDENSED CONSOLIDATED STATEMENT OF STOCKHOLDERS' EQUITY

FROM INCEPTION ON JULY 1, 1998 THROUGH SEPTEMBER 30, 2008
(unaudited)

	Common Stock Shares	Common Stock Amount	Capital in Excess of Par Value	Deficit Accumulated During the Development Stage	Total
Commissions, legal and bank fees associated with issuance on October 11, 2006	—	—	$ (230,483)	—	$ (230,483)
Fair market value of options and warrants vested during the year ended June 30, 2007	—	—	970,162	—	970,162
Warrants exercised during the year ended June 30, 2007 at an exercise price of $0.01	10,000	$ 100	—	—	100
Fair market value of options and warrants vested during the year ended June 30, 2008	—	—	1,536,968	—	1,536,968
Allocation of proceeds from issuance of convertible notes and warrants from September 21, 2007 through June 30, 2008	—	—	9,340,000	—	9,340,000
Issuance of common stock in lieu of cash payment for interest during the year ended June 30, 2008	345,867	3,458	430,696	—	434,154
Convertible notes converted into common stock during the year ended June 30, 2008	565,556	5,556	430,952	—	436,508
Fair market value of options and warrants vested during the three months ended September 30, 2008	—	—	76,524	—	76,524
Warrants exercised during the three months ended September 30, 2008 at an exercise price of $0.74	2,395	24	(24)	—	—
Issuance of common stock in lieu of cash payment for interest during the three months ended September 30,2008	195,672	1,957	262,200	—	264,157
Net loss	—	—	—	$ (31,404,436)	(31,404,436)
Balance at September 30, 2008	18,573,184	$ 185,732	$ 40,213,658	$ (31,404,436)	$ 8,994,954

See Notes to Condensed Consolidated Financial Statements.

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SENESCO TECHNOLOGIES, INC. AND SUBSIDIARY
(A DEVELOPMENT STAGE COMPANY)
CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS
(unaudited)

	For the Three Months Ended September 30, 2008	For the Three Months Ended September 30, 2007	From Inception on July 1, 1998 through September 30, 2008
Cash flows from operating activities:			
Net loss	$ (1,181,406)	$ (382,046)	$ (31,404,436)
Adjustments to reconcile net loss to net cash used in operating activities:			
Noncash capital contribution	—	—	85,179
Noncash conversion of accrued expenses into equity	—	—	131,250
Noncash income related to change in fair value of warrant liability	—	—	(321,259)
Issuance of common stock and warrants for interest	264,157	—	707,626
Share-based compensation expense	76,524	63,500	9,772,621
Depreciation and amortization	26,280	21,754	486,968
Amortization of convertible note discount and deferred financing costs	106,055	15,221	774,818
(Increase) decrease in operating assets:			
Accounts receivable	—	(75,000)	—
Prepaid expense and other current assets	(603,685)	47,450	(784,241)
Security deposit	—	—	(7,187)
Increase (decrease) in operating liabilities:			
Accounts payable	129,758	196,565	499,925
Accrued expenses	72,617	127,906	386,884
Deferred revenue	—	(6,250)	—
Other liability	(1,761)	(1,534)	21,301

Net cash (used in) provided by operating activities	(1,111,461)	7,566	(19,650,551)
Cash flows from investing activities:			
Patent costs	(158,322)	(214,907)	(3,665,122)
(Purchase) redemption of investments, net	(1,950,000)	250,000	(2,450,000)
Purchase of property and equipment	—	—-	(172,890)
Net cash (used in) provided by investing activities	(2,108,322)	35,093	(6,288,012)
Cash flows from financing activities:			
Proceeds from grant	—	—	99,728
Proceeds from issuance of bridge notes	—	—	525,000
Proceeds from issuance of common stock, net and exercise of options and warrants	—	—	19,082,818
Proceeds from issuance of convertible note and warrants, net	—	1,395,000	9,340,000
Deferred financing costs	—	(204,717)	(651,781)
Net cash provided by financing activities	—	1,190,283	28,395,765
Net (decrease) increase in cash and cash equivalents	(3,219,783)	1,232,942	2,457,202
Cash and cash equivalents at beginning of period	5,676,985	408,061	—-
Cash and cash equivalents at end of period	$ 2,457,202	$ 1,641,003	$ 2,457,202
Supplemental disclosure of cash flow information:			
Cash paid during the period for interest	$ —	$ —-	$ 22,317
Supplemental schedule of noncash financing activity:			
Conversion of convertible note into common stock, net of unamortized financing costs of $63,492	$ —	$ —-	$ 500,000
Conversion of bridge notes into stock	$ —	$ —	$ 534,316
Allocation of convertible debt proceeds to warrants and beneficial conversion feature	$ —	$ 1,395,000	$ 9,340,000
Warrants issued for financing costs .	$ —	$ 89,833	$ 639,645
Issuance of common stock for interest payments on convertible notes	$ 264,157	$ —-	$ 707,626

See Notes to Condensed Consolidated Financial Statements

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SENESCO TECHNOLOGIES, INC. AND SUBSIDIARY
(A DEVELOPMENT STAGE COMPANY)
NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS
(unaudited)

Note 1 - Basis of Presentation:

The financial statements included herein have been prepared by Senesco Technologies, Inc. (the "Company"), without audit, pursuant to the rules and regulations of the Securities and Exchange Commission. Certain information and footnote disclosures normally included in financial statements prepared in accordance with United States generally accepted accounting principles have been condensed or omitted pursuant to such rules and regulations. These unaudited condensed consolidated financial statements should be read in conjunction with the audited consolidated financial statements and notes thereto included in the Company's Annual Report on Form 10-K for the fiscal year ended June 30, 2008.

In the opinion of the Company's management, the accompanying unaudited condensed consolidated financial statements contain all adjustments, consisting solely of those which are of a normal recurring nature, necessary to present fairly its financial position as of September 30, 2008, the results of its operations for the three-month period ended September 30, 2008 and 2007, cash flows for the three-month periods ended September 30, 2008 and 2007, and the results of its operations and cash flows for the period from inception on July 1, 1998 through September 30, 2008.

Interim results are not necessarily indicative of results for the full fiscal year.

Note 2 – Liquidity:

The Company has a limited operating history and limited assets and capital and has incurred losses each year since inception with a deficit accumulated during the development stage from inception on July 1, 1998 through September 30, 2008 of $31,404,436. The Company has generated minimal revenues by licensing its technology for certain crops to companies willing to share in its development costs. In addition, the Company's technology may not be ready for commercialization for several years. The Company expects to continue to incur losses for the next several years because it anticipates that its expenditures on research and development, and administrative activities will significantly exceed its revenues during that period. The Company cannot predict when, if ever, it will become profitable.

The Company's operations to date have required significant cash expenditures. The Company's future capital requirements will depend on the results of its research and development activities, preclinical and clinical studies, and competitive and technological advances.

The Company may not be able to obtain adequate funds for its operations when needed or on acceptable terms. If the Company is unable to raise additional funds, it will need to do one or more of the following:

- delay, scale-back or eliminate some or all of its research and product development programs;

- license third parties to develop and commercialize products or technologies that it would otherwise seek to develop and commercialize itself;
- seek strategic alliances or business combinations;
- attempt to sell the Company;
- cease operations; or
- declare bankruptcy.

As of September 30, 2008, the Company had cash and investments in the amount of $4,907,202, which consisted of money market funds and U.S. Treasury bills, The Company estimates that such amount will cover its expenses for approximately the next ten months. The accompanying financial statements do not include any adjustment from the outcome of this uncertainty.

Note 3 – Intangible Assets:

The Company conducts research and development activities, the cost of which is expensed as incurred, in order to generate patents that can be licensed to third parties in exchange for license fees and royalties. Because the patents are the basis of the Company's future revenue, the patent costs are capitalized. The capitalized patent costs represent the outside legal fees incurred by the Company to submit and undertake all necessary efforts to have such patent applications issued as patents.

The length of time that it takes for an initial patent application to be approved is generally between four to six years. However, due to the unique nature of each patent application, the actual length of time may vary. If a patent application is denied, the associated cost of that application would be written off. However, the Company has not had any patent applications denied as of September 30, 2008. Additionally, should a patent application become impaired during the application process, the Company would write down or write off the associated cost of that patent application.

Issued patents and agricultural patent applications pending are being amortized over a period of 17 years, the expected economic life of the patent.

The Company assesses the impairment in value of intangible assets whenever events or circumstances indicate that their carrying value may not be recoverable. Factors the Company considers important which could trigger an impairment review include the following:

- significant negative industry trends:
- significant underutilization of the assets:
- significant changes in how the Company uses the assets or its plans for their use; and
- changes in technology and the appearance of competing technology.

If the Company's review determines that the future discounted cash flows related to these assets will not be sufficient to recover their carrying value, the Company will reduce the carrying values of these assets down to its estimate of fair value and continue amortizing them over their remaining useful lives. To date, the Company has not recorded any impairment of intangible assets.

Note 4 - Loss Per Share:

Net loss per common share is computed by dividing the loss by the weighted-average number of common shares outstanding during the period. Shares to be issued upon the exercise of the outstanding options and warrants aggregating 23,518,284 and 9,294,982 as of September 30, 2008 and 2007, respectively, are not included in the computation of net loss per share as their effect is anti-dilutive. Additionally, as of September 30, 2008, 10,555,556 shares to be issued upon the conversion of convertible notes at a fixed conversion price of $0.90 are not included in the computation of diluted net loss per share as the effect is anti-dilutive.

Note 5 – Share-Based Transactions:

The terms and vesting schedules for share-based awards vary by type of grant and the employment status of the grantee. Generally, the awards vest based upon time-based conditions.

The fair value of each stock option and warrant granted has been determined using the Black-Scholes model. The material factors incorporated in the Black-Scholes model in estimating the value of the options and warrants include the following:

	Three Months Ended September,	
	2008	2007
Estimated life in years	4-6	8-10
Risk-free interest rate (1)	2.98%	4.7%
Volatility	100%	100%
Dividend paid	None	None

(1) Represents the interest rate on a U.S. Treasury security with a maturity date corresponding to that of the option term.

The economic values of the options will depend on the future price of the Company's common stock, par value $0.01 (the "Common Stock"), which cannot be forecast with reasonable accuracy.

A summary of changes in the stock option plan for the three month period ended September 30, 2008 is as follows:

	Number of	Weighted-Average

	Options	Exercise Price
Outstanding at July 1, 2008	3,715,600	$ 1.95
Granted	—	—
Exercised	—	—
Canceled	—	—
Outstanding at September 30, 2008	3,715,600	$ 1.95
Exercisable at September 30, 2008	2,778,336	$ 2.25

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A summary of changes to the non-vested stock options for the three month period ended September 30, 2008 is as follows:

	Weighted-Average	
	Number of Options	Grant-Date Fair Value
Non-vested stock options at July 1, 2008	937,264	$ 0.77
Granted	—	—
Vested	—	—
Forfeited	—	—
Non-vested stock options at September 30, 2008	937,264	$ 0.77

As of September 30, 2008, the aggregate intrinsic value of stock options outstanding was $470,266, with a weighted-average remaining term of 5.9 years. The aggregate intrinsic value of stock options exercisable at that same date was $140,541, with a weighted-average remaining term of 4.8 years. As of September 30, 2008, the Company has 1,856,700 shares available for future stock option grants.

As of September 30, 2008, total compensation expense not yet recognized related to stock option grants and restricted stock units amounted to approximately $82,000**,** which will be recognized over the next 15 months and an additional $640,000 which may be recognized as achievement of certain target goals under the Company's Long-Term Incentive Program become probable over the next 30 months.

Long-Term Incentive Program

On December 13, 2007, upon recommendation of the Company's Compensation Committee, the Board adopted a Long-Term Equity Incentive Program for the members of the executive management team. The Program is intended to ensure the achievement of certain goals of the Company, continuity of the Company's executive management, and to align the interests of the executive management with those of the shareholders.

Pursuant to and as defined in the Long-Term Equity Incentive Program, each executive would be awarded shares of the Company's Common Stock and options to acquire shares of the Company's Common Stock if the Company achieves certain target goals relating to its Multiple Myeloma research project over the next three fiscal years.

The number of eligible shares and options to be awarded to the executives is based upon the following weightings:

1. 20% of the eligible shares upon the execution of a research agreement to conduct a phase I/II clinical trial at a research facility;
2. 20% of the eligible shares upon the filing and acceptance by the FDA of an investigational new drug application; and
3. 60% of the eligible shares upon the successful completion of a FDA approved phase I/II clinical trial.

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If the target goals are achieved by the Company, the executive officers would be awarded the following number of shares and options:

	Goal 1	Goal 2	Goal 3
Number of Shares			
Bruce C. Galton	25,000	25,000	75,000
Joel Brooks	10,000	10,000	30,000
Sascha P. Fedyszyn	10,000	10,000	30,000
Total number of shares	45,000	45,000	135,000
Number of Options (1)			
John E. Thompson, Ph.D.	50,000	50,000	150,000
Richard Dondero	60,000	60,000	180,000
Total number of options	110,000	110,000	330,000

(1) Such options are exercisable at a strike price of $0.99, which represents the closing price of the common stock on December 12, 2007.

As of September 30, 2008, the Company is not able to determine if the achievement of the target goals under the Long-Term Equity Incentive Program are probable and, therefore, has not yet begun to recognize any of the $640,000 compensation expense that was computed on the date of adoption of the

program. The Company will begin recognizing such compensation expense ratably over the remaining term of the plan at such time that the Company is able to determine that the achievement of the target goals are probable.

Note 6 – Revenue Recognition:

The Company receives certain nonrefundable upfront fees in exchange for the transfer of its technology to licensees. Upon delivery of the technology, the Company has no further obligations to the licensee with respect to the basic technology transferred and, accordingly, recognizes revenue at that time. The Company may, however, receive additional payments from its licensees in the event such licensees achieve certain development or commercialization milestones in their particular field of use. Other nonrefundable upfront fees and milestone payments, where the milestone payments are a function of time as opposed to achievement of specific achievement-based milestones, are deferred and amortized ratably over the estimated research period of the license.

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Note 7 –Convertible Notes and Stockholders Equity:

During the year ended June 30, 2008, the Company issued $5,000,000 of convertible notes and warrants to YA Global Investments L.P. (“YA Global”) and $5,000,000 of convertible notes and warrants to Stanford Venture Capital Holdings, Inc. (“Stanford”), for an aggregate gross proceeds of $10,000,000. The convertible notes convert into the Company’s common stock at a fixed price of $0.90 per share subject to certain adjustments (the “Fixed Conversion Price”), for a period of two years immediately following the signing date. After the second anniversary of the signing date, the convertible notes may convert into shares of the Company’s common stock at the lower of the fixed conversion price or 80% of the lowest daily volume-weighted average price (the “VWAP”), of the common stock during the five trading days prior to the conversion date. The maturity date of each of the convertible notes for YA Global and Stanford is December 30, 2010 and December 31, 2010, respectively.

The convertible notes accrue interest on their outstanding principal balances at an annual rate of 8%. The Company has the option to pay interest in cash or, upon certain conditions, common stock. If the Company pays interest in common stock, the stock will be valued at a 10% discount to the average daily VWAP for the five day trading period prior to the interest payment date (the “Interest Shares”)

At the Company’s option, it can redeem a portion of, or all of, the principal owed under the convertible notes by providing the investors with at least 30 business days’ written notice, provided that, at the time of receipt of the notice, either: (A)(i) the VWAP of the common stock exceeds 130% of the Fixed Conversion Price for at least 20 of 30 prior trading days and (ii) there is an effective registration statement for the resale of the common stock that will be issued under the redemption or (B) it redeems a portion, or all, of the principal owed at a 20% premium above the principal then outstanding and any accrued interest thereupon. If the Company redeems all or any of the principal outstanding under the convertible notes, it will pay an amount equal to the principal being redeemed plus accrued interest.

If there is an effective registration statement for the resale of the shares underlying the convertible notes or if such shares become 144(k) eligible, the Company will have the option to force the investors to convert 50% and 100% of its then-outstanding convertible notes if its common stock price exceeds 150% and 175% of the Fixed Conversion Price, respectively, for any 20 out of 30 trading days; provided that such forced conversion meets certain conditions (the “Call Option”). If the Company exercises its Call Option prior to the third anniversary of the signing date, it will issue additional warrants to the investor equal to 50% of the number of shares underlying the convertible note subject to the forced conversion. These warrants will be exercisable at the fixed conversion price and will have the same maturity as the other warrants issued under the YA Global financing.

The Company’s obligations under the convertible notes are secured by all of its and its subsidiary’s assets and intellectual property, as evidenced by certain Security Agreements and certain Patent Security Agreements by and between the Company and each of YA Global and Stanford. Pursuant to a subordination agreement, YA Global is the senior secured creditor.

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The conversion rate of each convertible note is subject to adjustment for certain events, including dividends, stock splits, combinations and the sale of the Company’s Common Stock or securities convertible into or exercisable for the Company’s Common Stock at a price less than the then applicable conversion or exercise price.

The investors have a right of first refusal on any future funding that involves the issuance of the Company’s capital stock for so long as a portion of the convertible notes are outstanding.

Pursuant to the Registration Rights Agreement, the Company filed an initial registration statement on October 12, 2007 to register 3,333,333 shares of common stock, underlying the convertible notes, issuable to YA Global, and such registration statement became effective on November 1, 2007. The Company is required to register an additional 891,667 shares of common stock issuable to YA Global. However, YA Global has amended its Registration Rights Agreement deferring its right to have such additional shares registered. If the shares issuable to YA Global remain outstanding after all shares under the registration statements have been sold, the Company may be required to file additional registration statements for those shares. These registration rights will cease once the shares issuable to YA Global on January 22, 2008 are eligible for sale by the investor without restriction under Rule 144(k). Upon certain events, the Company has agreed to pay as partial liquidated damages an amount equal to 1.0% of the aggregate purchase price paid by the investors for any convertible debentures then held by the investors, but these payments may not exceed 12% of the aggregate purchase price paid by the investors. The maximum liquidated damages payable under the Registration Rights Agreement is $600,000. The Company has not recorded an estimated registration rights liability as the Company anticipates that it will fulfill its obligations under the Registration Rights Agreement.

The convertible notes and warrants issued to YA Global are subject to a maximum cap of 30,500,000 on the number of shares of common stock that can be issued upon the conversion of the convertible notes and the exercise of the warrants.

The convertible notes and warrants issued to Stanford are subject to a maximum cap of 31,888,888 on the number of shares of common stock that can be issued upon the conversion of the convertible notes and the exercise of the warrants.

Currently, at the fixed conversion price, the number of shares of common stock issuable upon conversion of the remaining $9,500,000 of convertible notes outstanding and shares of common stock to be issued upon exercise of the warrants outstanding at September 30, 2008 represents, in the aggregate, 24,438,888 shares, plus an estimated additional 1,400,000 shares for the payment of interest in stock under the convertible notes.

As of September 30, 2008, the outstanding balance of the Convertible Notes were $190, which is comprised of notes with an aggregate face amount of $9,500,000 less unamortized debt discount of $9,499,810. Debt discount associated with the Convertible Notes is amortized to interest expense, using the effective yield method, over the remaining life of the Convertible Notes. Upon conversion of the Convertible Notes into Common Stock, any unamortized debt discount relating to the portion converted will be charged to interest. Total charges to interest for amortization of debt discount were $133 for the three month period ended September 30, 2008.

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The costs associated with the issuances in the amount of $1,291,427 have been recorded as deferred financing costs and are being amortized ratably over the term of the convertible notes. The balance of deferred financing costs as of September 30, 2008 amounted to $953,308.

Note 8 – Income Taxes:

No provision for income taxes has been made in the three month periods ended September 30, 2008 and 2007 given the Company's losses in 2008 and 2007 and available net operating loss carryforwards. A benefit has not been recorded as the realization of the net operating losses is not assured and the timing in which the Company can utilize its net operating loss carryforwards in any year or in total may be limited by provisions of the Internal Revenue Code regarding changes in ownership of corporations.

Note 9 – Effects of New Accounting Pronouncements Applicable to the Company

EITF Issue No. 07-1 – Accounting for Collaborative Arrangements

This pronouncement defines a collaborative arrangement as a contractual arrangement that involves a joint operating activity that involves two or more parties who are both active participants in the activity and exposed to significant risks and rewards dependent on the commercial success of the activity. The pronouncement also defines how the costs incurred and revenues generated from transactions with third parties should be recorded and presented in each entity's income statement. This pronouncement is effective for financial statements issued for fiscal years beginning after December 15, 2008, and interim periods within those fiscal years, and shall be applied retrospectively to all prior periods presented for all collaborative arrangements existing as of the effective date. The Company does not believe that this pronouncement will have any material effect on its financial statements.

EITF Issue No. 07-3 – Accounting for Nonrefundable Advance Payments for Goods or Services Received for Use in Future Research and Development Activities.

This pronouncement states that nonrefundable advance payments for future research and development activities should be deferred and capitalized. This pronouncement is effective for financial statements issued for fiscal years beginning after December 15, 2007, and interim periods within those fiscal years. Early application is not permitted. This pronouncement has not had a material effect on the Company's financial statements.

SFAS No. 157 – Fair Value Measurements

In September 2006, the FASB issued SFAS No. 157, "Fair Value Measurements"("SFAS No. 157"). SFAS No. 157 defines fair value, establishes a framework for measuring fair value in generally accepted accounting principles, and expands disclosures about fair value measurements. SFAS No. 157 applies under other accounting standards that require or permit fair value measurements. Accordingly, SFAS No. 157 does not require any new fair value measurement. SFAS No. 157 emphasizes that fair value is a market-based measurement that

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should be determined based on the assumptions that market participants would use in pricing an asset or liability. Companies will be required to disclose the extent to which fair value is used to measure assets and liabilities, the inputs used to develop the measurements and the effect of certain of the measurements on earnings (or changes in net assets) for the period. SFAS No. 157 is effective for financial statements issued for fiscal years beginning after November 15, 2007, and interim periods within those fiscal years. This pronouncement has not had a material effect on the Companys financial statements.

SFAS No. 159 – The Fair Value Option for Financial Assets and Financial Liabilities—Including an Amendment of FASB Statement No. 115

In February 2007, the FASB issued SFAS No. 159, "The Fair Value Option for Financial Assets and Financial Liabilities—Including an Amendment of FASB Statement No. 115" ("SFAS No. 159"). SFAS No. 159 permits entities to choose to measure many financial instruments and certain other items at fair value that are not currently required to be measured at fair value. SFAS No. 159 is effective for fiscal years beginning after November 15, 2007. This pronouncement has not had a material effect on the Company's financial statements.

EITF Issue No. 07-5 – Determining Whether an Instrument (or Embedded Feature) is Indexed to an Entity's Own Stock.

In June 2008, the FASB ratified EITF Issue No. 07-5, "Determining Whether an Instrument (or Embedded Feature) is Indexed to an Entity's Own Stock" ("EITF 07-5"). EITF 07-5 provides guidance on how to determine if certain instruments or embedded features are considered indexed to our own stock, including instruments similar to our convertible notes and warrants to purchase our stock. EITF 07-5 requires companies to use a two-step approach to evaluate an instrument's contingent exercise provisions and settlement provisions in determining whether the instrument is considered to be indexed to its

own stock and exempt from the application of SFAS No. 133, "Accounting for Derivative Instruments and Hedging Activities". Although EITF 07-5 is effective for fiscal years beginning after December 15, 2008, any outstanding instrument at the date of adoption will require a retrospective application of the accounting through a cumulative effect adjustment to retained earnings upon adoption. The Company is currently evaluating the impact that adoption of EITF 07-5 will have on its consolidated financial statements.

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

The following discussion and analysis should be read in conjunction with our condensed consolidated financial statements and the related notes thereto included in this Quarterly Report on Form 10-Q. The discussion and analysis may contain forward-looking statements that are based upon current expectations and entail various risks and uncertainties. Our actual results and the timing of events could differ materially from those anticipated in the forward-looking statements as a result of various factors, including those set forth under "Factors That May Affect Our Business, Future Operating Results and Financial Condition" and elsewhere in this report.

Overview

Our Business

The primary business of Senesco Technologies, Inc., a Delaware corporation incorporated in 1999, and its wholly-owned subsidiary, Senesco, Inc., a New Jersey corporation incorporated in 1998, collectively referred to as "Senesco," "we," "us" or "our," is to utilize our patented and patent-pending genes, primarily eucaryotic translation initiation Factor 5A, or Factor 5A, and deoxyhypusine synthase, or DHS, and related technologies for their inhibition in human health applications to develop novel approaches to treat inflammatory diseases and cancer.

In agricultural applications we are developing and licensing Factor 5A, DHS and Lipase to enhance the quality and productivity of fruits, flowers, and vegetables and agronomic crops through the control of cell death, referred to herein as senescence, and growth in plants.

Human Health Applications

We believe that our gene technology could have broad applicability in the human health field, by either inhibiting or inducing apoptosis. Inhibiting apoptosis may be useful in preventing or treating a wide range of inflammatory and ischemic diseases attributed to premature apoptosis. Inducing apoptosis may be useful in treating certain forms of cancer because the cancerous cells have failed to initiate apoptosis on their own due to damaged or inhibited apoptotic pathways.

We have commenced preclinical *in-vivo* and *in-vitro* research to determine the ability of Factor 5A to regulate key execution genes, pro-inflammatory cytokines, receptors, and transcription factors, which are implicated in numerous apoptotic diseases.

Certain preclinical human health results to date include:

- demonstrated significant tumor regression and diminished rate of tumor growth of multiple myeloma tumors in SCID mice treated with Factor 5A technology encapsulated in nanoparticles;
- increased median survival by approximately 250% in a tumor model of mice injected with melanoma cancer cells;
- induced apoptosis in both human cancer cell lines derived from tumors and in lung tumors in mice;

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- induced apoptosis of cancer cells in a human multiple myeloma cell line;
- measured VEGF reduction in mouse lung tumors as a result of treatment with our genes;
- decreased ICAM and activation of NFKB in cancer cells employing siRNA against Factor 5A;
- reduced HIV-1 replication by approximately 50 percent as evidenced by an equal decrease in HIV replication markers p24 and IL-8 in an HIV-1 infected human cell line;
- increased the survival, while maintaining functionality, of mouse pancreatic islet cells isolated for transplantation, using intraperitaneal administration of our technology. Initial animal studies have shown that our technology administered prior to harvesting beta islet cells from a mouse, has a significant impact not only on the survival of the beta islet cells, but also on the retention of the cells' functionality when compared to the untreated beta islet cells. Additional studies have shown that the treated beta islet cells survive a pro-inflammatory cytokine challenge, while maintaining their functionality with respect to insulin production. These further studies also revealed eIF-5A's involvement in the modulation of inducible nitric oxide synthase (iNOS), an important indicator of inflammation;
- demonstrated that the efficacy of our technology is comparable to that of existing approved anti-inflammatory prescription drugs in reducing certain inflammatory cytokines in mice; and
- increased the survival rate of mice in a lethal challenge sepsis model. Additionally, a broad spectrum of systemic pro-inflammatory cytokines were down-regulated, while not effecting the anti-inflammatory cytokine IL-10.

Accelerating Apoptosis

The data from our pre-clinical studies indicate that the up-regulation of Factor 5A induces cell death in cancer cells through both the p53 (intrinsic) and cell death receptor (extrinsic) apoptotic pathways. Tumors arise when abnormal cells fail to undergo apoptosis due to an inability to activate their apoptotic pathways. Just as the Factor 5A gene appears to facilitate expression of the entire suite of genes required for programmed cell death in plants, the Factor 5A gene appears to regulate expression of a suite of genes required for programmed cell death in human cells. Because the Factor 5A gene appears to function at the initiation point of the apoptotic pathways, both intrinsic and extrinsic, we believe that our gene technology has potential application as a means of combating a broad range of cancers. Based on the results obtained through our *in-vitro* studies, we have found that up-regulating Factor 5A results in: (i) the up-regulation of p53; (ii) increased inflammatory cytokine production; (iii) increased cell death receptor formation; and (iv) increased caspase activity. These features, coupled with a simultaneous down-regulation Bcl-2, result in apoptosis of cancer cells. In addition, our *in-vitro* studies have shown that the up-regulation of Factor 5A also down-regulates VEGF, a growth factor which allows tumors to develop additional vascularization needed for growth beyond a small mass of cells.

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Inhibiting Apoptosis

Our preclinical studies indicate that down-regulation of our proprietary Factor 5A gene may have potential application as a means for controlling the effects of a broad range of diseases that are attributable to premature cell death, ischemia, or inflammation. Such inflammatory diseases include glaucoma, heart disease, and certain inflammatory diseases such as Crohn's disease, sepsis and diabetic retinopathy, among many others. We are engaged in preclinical research on certain inflammatory diseases. Using small inhibitory RNA's, or siRNA's, against Factor 5A to inhibit its expression, the results of our studies have indicated a reduction in pro-inflammatory cytokine formation and the formation of receptors for liposolysaccharide, or LPS, interferon-gamma and TNF-alpha. Our studies have also indicated that by inhibiting Factor 5A iNOS, MAPK, NFkB, JAK1 and ICAM are downregulated, which decreases the inflammatory cytokines formed through these pathways. Additionally, a mouse study has indicated that our siRNA is comparable to a steroid and to a prescription anti-TNF drug in its ability to reduce cytokine response to LPS. Other mouse studies have also indicated that the siRNA against Factor 5A (i) protects thymocyte cells from apoptosis and decreases formation of myeloperoxidase, or MPO, TNF-a, MIP-1alpha, and IL-1 in the lungs of mice challenged with LPS and (ii) increases the survival rate in which sepsis was induced by a lethal injection of LPS and reduced blood serum levels of inflammatory proteins, such as IL-1, IL-2, IL-6, IL-12, TNF-a, IFNg and MIP-1alpha, while not effecting IL-10, an anti-inflammatory cytokine. Other experiments utilizing siRNA to Factor 5A include inhibition of or apoptosis during the processing of mouse pancreatic beta islet cells for transplantation, the inhibition of early inflammatory changes associated with type-1 diabetes in an in-vivo rat model and the inhibition of viral replication in a human cell line infected with HIV-1.

Proteins required for cell death include p53, interleukins, TNF-a and other cytokines and caspases. Expression of these cell death proteins is required for the execution of apoptosis. Based on our studies, we believe that downregulating Factor 5A by treatment with siRNA inhibits the expression of p53, a major cell death transcription factor that in turn controls the formation of a suite of other cell death proteins. In addition, we believe that the down-regulation of Factor 5A up-regulates Bcl-2, a suppressor of apoptosis.

Human Health Target Markets

We believe that our gene technology could have broad applicability in the human health field, by either inhibiting or accelerating apoptosis. Inhibiting apoptosis may be useful in preventing or treating a wide range of inflammatory and ischemic diseases attributed to premature apoptosis, including diabetes, diabetic retinopathy and lung inflammation, among others. Accelerating apoptosis may be useful in treating certain forms of cancer because the body's immune system is not able to force cancerous cells to undergo apoptosis.

Our preclinical research has yielded data that we have presented to various biopharmaceutical companies that may be prospective licensees for the development and

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marketing of potential applications of our technology. Additionally, we plan on using the proceeds of our recent financing to advance our research in multiple myeloma with the goal of initiating a Phase I clinical trial, and may select additional human health indications, to bring into clinical trials on our own. We believe that the success of our future operations will likely depend on our ability to transform our research and development activities into a commercially feasible technology.

Human Health Research Program

Our human health research program, which has consisted of pre-clinical *in-vitro* and *in-vivo* experiments designed to assess the role and method of action of the Factor 5A genes in human diseases, is being performed by approximately thirteen (13) third party researchers, at our direction, at Mayo Clinic, the University of Virginia, and the University of Waterloo.

Our research and development expenses incurred on human health applications were approximately 66% and 49% of our total research and development expenses for the three months ended September 30, 2008 and 2007, respectively. Since inception, the proportion of our research and development expenses on human health applications has increased, as compared to our research and development expenses on agricultural applications. This change is primarily due to the fact that our research focus on human health has increased and some of our research costs for plant applications have shifted to our license partners.

Our planned future pre-clinical research and development initiatives for human health include:

- Multiple Myeloma. Our objective is to advance our technology for the potential treatment of multiple myeloma with the goal of initiating a clinical trial. In connection with the potential clinical trial, we have engaged a clinical research organization, or CRO, to assist us through the process. We

have also determined the delivery system for our technology, contracted for the supply of pharmaceutical grade materials to be used in toxicology and human studies and have contracted with a third party laboratory to conduct toxicoly studies, Together with the assistance of our CRO, we will have the toxicology studies performed with the goal of filing an investigational new drug application, or IND application, with the U.S. Food and Drug Administration, or FDA, for their review and consideration in order to initiate a clinical trial. We estimate that it will take less than twelve (12) months from September 30, 2008 to complete these objectives.

- Lung Inflammation. The objective of our planned future lung inflammation experiments is to optimize the delivery and dose of the siRNA to Factor 5A to the lungs. A mouse model system is currently being conducted to illustrate the siRNA to Factor 5A's ability to reduce morbidity and mortality of lung inflammation, caused by the up-regulation of pro-inflammatory cytokines induced by a pathogen.
- Beta-Islet Cells. We are currently reviewing the direction of our future research in beta-islet cell protection utilizing siRNA against Factor 5A.
- Other. We may continue to look at other disease states in order to determine the role of Factor 5A.

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In order to pursue the above research initiatives, as well as other research initiatives that may arise, we completed private placements of $10 million of convertible notes and warrants in fiscal 2008. However, it may be necessary for us to raise a significant amount of additional working capital in the future to continue to pursue some of the above and new initiatives. If we are unable to raise the necessary funds, we may be required to significantly curtail the future development of some of our research initiatives and we will be unable to pursue other possible research initiatives.

We may further expand our research and development program beyond the initiatives listed above to include other research centers.

Human Health Competition

Our competitors in human health that are presently attempting to distribute their technology have generally utilized one of the following distribution channels:

- Entering into strategic alliances, including licensing technology to major marketing and distribution partners; or
- developing in-house production and marketing capabilities.

In addition, some competitors are established distribution companies, which alleviates the need for strategic alliances, while others are attempting to create their own distribution and marketing channels.

There are many large companies and development stage companies working in the field of apoptosis research including: Amgen; Centocor; Genzyme; OSI Pharmaceuticals, Inc.; Novartis; Introgen Therapeutics, Inc.; Genta, Inc.; and Vertex Pharmaceuticals, Inc., amongst others.

Agricultural Applications

Our agricultural research focuses on the discovery and development of certain gene technologies, which are designed to confer positive traits on fruits, flowers, vegetables, forestry species and agronomic crops. To date, we have isolated and characterized the senescence-induced Lipase gene, DHS, and Factor 5A in certain species of plants. Our goal is to modulate the expression of these genes in order to achieve such traits as extended shelf life, increased biomass, increased yield and increased resistance to environmental stresses and disease, thereby demonstrating proof of concept in each category of crop.

Certain agricultural results to date include:

- longer shelf life of perishable produce;
- increased biomass and seed yield;
- greater tolerance to environmental stresses, such as drought and soil salinity;

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- greater tolerance to certain fungal and bacterial pathogens;
- more efficient use of fertilizer; and
- advancement to field trials in banana, lettuce, and trees.

The technology presently utilized by the industry for increasing the shelf life in certain flowers, fruits and vegetables relies primarily on reducing ethylene biosynthesis, and therefore only has application to the crops that are ethylene-sensitive. Because Factor 5A, DHS and Lipase are already present in all plant cells, our technology may be incorporated into crops by using either conventional breeding methods (non-genetically modified) or biotechnology techniques.

We have licensed this technology to various strategic partners and have entered into a joint venture. We may continue to license this technology, as the opportunities present themselves, to additional strategic partners and/or enter into additional joint ventures. Our commercial partners have licensed our technology for use in lettuce, turfgrass, canola, corn, soybean, cotton, banana, alfalfa, rice and certain species of trees and bedding plants, and we have obtained proof of concept for enhanced post harvest shelf life, seed yield, biomass, and resistance to disease in several of these plant species.

We have ongoing field trials of certain trees and bananas with our respective partners. The initial field trials conducted with ArborGen over a three year period in certain species of trees have concluded and the trees have been harvested for wood quality assessment. Preliminary data from our joint field

trials show significantly enhanced growth rates in some of the trees relative to controls. Additional field trials for enhanced growth rates and other traits are currently being performed with ArborGen.

To date, banana field trials have indicated that our technology extends the shelf life of banana fruit by 100%. In addition to the post harvest shelf life benefits, an additional field trial generated encouraging disease tolerance data specific to Black Sigatoka (Black Leaf Streak Disease), for banana plants. Additional field trials for banana plants are ongoing for the combined traits of disease tolerance and shelf life extension.

Commercialization by our partners may require a combination of traits in a crop, such as both post harvest shelf life and disease resistance, or other traits. Our near-term research and development initiatives include modulating the expression of DHS and Factor 5A genes in these plants and then propagation and phenotype testing of such plants.

Our ongoing research and development initiatives for agriculture include assisting our license and joint venture partners to:

- further develop and implement the DHS and Factor 5A gene technology in lettuce, melon, banana, canola, cotton, turfgrass, bedding plants, rice, alfalfa, corn, soybean and trees; and
- test the resultant crops for new beneficial traits such as increased yield, increased tolerance to environmental stress, disease resistance and more efficient use of

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fertilizer.

Agricultural Target Markets

In order to address the complexities associated with marketing and distribution in the worldwide market, we have adopted a multi-faceted commercialization strategy, in which we have entered into and plan to enter into, as the opportunities present themselves, additional licensing agreements or other strategic relationships with a variety of companies or other entities on a crop-by-crop basis. We anticipate revenues from these relationships in the form of licensing fees, royalties,, usage fees, or the sharing of gross profits. In addition, we anticipate payments from certain of our partners, which are described in the *Agricultural Development and License Agreements* section of this Form 10-Q, upon our achievement of certain research and development benchmarks. This commercialization strategy allows us to generate revenue at various stages of product development, while ensuring that our technology is incorporated into a wide variety of crops. Our optimal partners combine the technological expertise to incorporate our technology into their product line along with the ability to successfully market the enhanced final product, thereby eliminating the need for us to develop and maintain a sales force.

Because the agricultural market is dominated by privately held companies or subsidiaries of foreign owned companies, market size and market share data for the crops under our license and development agreements is not readily available. Additionally, because we have entered into confidentiality agreements with our license and development partners, we are unable to report the specific financial terms of the agreements as well as any market size and market share data that our partners may have disclosed to us regarding their companies.

Agricultural Development and License Agreements

Through October 31, 2008, we have entered into nine (9) license agreements and one joint collaboration with established agricultural biotechnology companies or, in the case of Poet, as more fully described below, an established ethanol company, as follows:

- In November 2001, we entered into a worldwide exclusive development and license agreement with the Harris Moran Seed Company, referred to herein as the Harris Moran License, to commercialize our technology in lettuce and certain melons for an indefinite term, unless terminated by either party pursuant to the terms of the agreement. To date, the development steps performed by Harris Moran and us have all been completed in accordance with the protocol set forth in the Harris Moran License. There has been extensive characterization of our genes in lettuce in a laboratory setting. The initial lab work has produced genetically modified seed under greenhouse containment, which has been followed by substantial field trials for evaluation. These field trials represent a vital step in the process necessary to develop a commercial product. Together with Harris Moran, we will evaluate all results to date to determine the direction of further research necessary for our work in lettuce and melon. Under the Harris Moran License, we have received an upfront payment and we may receive benchmark payments upon achievement of certain research and marketing milestones.

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- In June 2002, we entered into a three-year worldwide exclusive development and option agreement with ArborGen, LLC to develop our technology in certain species of trees. In June 2006, ArborGen exercised their option to license our technology and in December 2006, converted the development and option agreement into a license agreement, referred to herein as the ArborGen Agreement. To date, the research being conducted by ArborGen has proceeded according to schedule. ArborGen has seen promising positive growth responses in greenhouse-grown seedlings. These initial greenhouse data led to the initiation of field trials by ArborGen in the second half of calendar 2004. At the end of the 2005 growing season, certain trees which were enhanced by our technology had approximately double the increase in volume relative to control trees. Further field trials are ongoing to support these data and to analyze the growth rates of trees which incorporate our technology. Under the ArborGen Agreement, we have received an upfront payment and benchmark payments and we may receive additional benchmark payments upon achievement of certain development milestones and royalties upon commercialization.
- In September 2002, we entered into an exclusive development and license agreement with Cal/West Seeds, referred to herein as the Cal/West License, to commercialize our technology in certain varieties of alfalfa. The Cal/West License will continue until the expiration of the patents set forth in the agreement, unless terminated earlier by either party pursuant to the terms of the agreement. The Cal/West License also grants Cal/West an exclusive option to develop our technology in various other forage crops. The Cal/West development effort successfully incorporated our

technology into their alfalfa seed as of July 2004. Seed transformation and greenhouse trait analysis is ongoing. Under the Cal/West License, we have received an upfront payment and we may receive benchmark payments as certain development milestones are achieved and a royalty upon commercialization based upon the volume of alfalfa seed sold that contains our technology.

- In March 2004, we entered into an exclusive development and license agreement with The Scotts Company, referred to herein as the Scotts Agreement, to commercialize our technology in turfgrass and certain species of bedding plants. Scotts is working on incorporating our technology to enhance a variety of traits in these plants, including environmental stress resistance, disease resistance and enhanced bloom properties. We are collaborating with Scotts in the areas of ornamental bedding plants and turfgrass. A large-scale greenhouse evaluation of bedding plants was being conducted and additional greenhouse testing is planned. Transformation and initial tissue culture screening of events have been undertaken in turfgrass. In tissue culture, turfgrass containing our technology has grown more successfully than control turfgrass without our technology. Greenhouse testing of the grass containing our technology is the next planned development step. Under the Scotts Agreement, we have received an upfront payment and benchmark payments. In January 2006, the development and license agreement with The Scotts Company was amended. Due to a change in the corporate financial policy at

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Scotts, Scotts requested to defer certain milestone payments, which were to be made on a calendar basis. We agreed and these payments have now been deferred and incorporated in the amount to be paid to us upon commercialization. Additionally, the commercialization fee has been increased. All other aspects of the agreement remain unchanged, and the project continues to move forward without interruption. We may also receive royalties upon commercialization from the net sales of turfgrass seed and bedding plants containing our technology.

- In October 2005, we entered into an agreement with Poet to license our proprietary gene technology to Poet to improve aspects of Poet's ethanol production capabilities. We are currently revising our work plan to incorporate our technology into those aspects of Poet's ethanol production. We will receive an annual payment for each Poet facility that incorporates our technology. If Poet incorporates our technology into each of its facilities, we would be entitled to receive an annual payment in excess of $1,000,000.

- On November 8, 2006, we entered into a license agreement with Bayer CropScience GmbH for the development and commercialization of Canola. Under the terms of the agreement, we received an upfront payment, will receive milestone payments upon the achievement of certain development milestones and will receive commercialization fees based upon specified benchmarks. In August, 2008, Bayer CropScience GmbH successfully completed the first development milestone related to this license.

- On July 17, 2007 we entered into a license agreement with Bayer CropScience AG for the development and commercialization of cotton. Under the terms of the agreement, we received an upfront payment, will receive milestone payments upon the achievement of certain development milestones, and additionally, upon commercialization, and a royalty on net sales.

- On August 6, 2007 we entered into a license agreement with Monsanto for the development and commercialization of corn and soy. Under the terms of the agreement, we received an upfront payment, will receive milestone payments upon the achievement of certain development milestones, and additionally, upon commercialization, and a royalty on net sales.

- On September 11, 2007 we entered into a license agreement with Bayer CropScience AG for the development and commercialization of rice. Under the terms of the agreement, we received an upfront payment, will receive milestone payments upon the achievement of certain development milestones, and additionally, upon commercialization, and a royalty on net sales.

Joint Venture

On May 14, 1999, we entered into a agreement with Rahan Meristem Ltd., or Rahan Meristem, an Israeli company engaged in the worldwide export marketing of banana germplasm, referred to herein as the Rahan Joint Venture**.** In general, bananas are grown either for local domestic consumption or grown for export. According to the Food and Agriculture Organization of the United Nations, there were approximately 16 million metric tons of bananas exported in 2004. The level of production equates to the fruit of approximately 480 million banana plants.

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A percentage of these plants are replaced each year with new banana seedlings. Rahan Meristem accounts for approximately 10% of the worldwide export of enhanced banana seedlings.

We have contributed, by way of a limited, exclusive, worldwide license to the Rahan Joint Venture, access to our technology, discoveries, inventions and know-how, whether patentable or otherwise, pertaining to plant genes and their cognate expressed proteins that are induced during senescence for the purpose of developing, on a joint basis, genetically enhanced banana plants which will result in a banana that has a longer shelf life. Rahan Meristem has contributed its technology, inventions and know-how with respect to banana plants. Rahan Meristem and Senesco have equally shared the expense of field trials.

All aspects of the Rahan Joint Venture's research and development initiative are proceeding on time**.** Both the DHS and lipase genes have been identified and isolated in banana, and the Rahan Joint Venture is currently in the process of silencing these genes. Two Israeli field trials indicated that Senesco's proprietary technology extends the shelf life of the banana fruit up to 100%, while allowing the banana fruit to ripen normally. Later field trials have indicated what we believe are promising disease tolerance results and we are currently performing additional field trials to further assess disease tolerance. However, as the banana modified with our technology may be considered a genetically modified organism, or GMO, shelf life extension may have to be combined with disease tolerance to gain acceptance by the growers.

Agricultural Research Program

Our agricultural research and development is performed by three (3) researchers, at our direction, at the University of Waterloo, where the technology was developed. Additional agricultural research and development is performed by our partners in connection with the Harris Moran License, the Scotts Agreement, the ArborGen License, the Cal/West License, the Bayer Licenses, the Monsanto License and through the Rahan Joint Venture.

The discoverer of our technology, John E. Thompson, Ph.D., is the Associate Vice President, Research and former Dean of Science at the University of Waterloo in Ontario, Canada, and is our Executive Vice President and Chief Scientific Officer. Dr. Thompson is also one of our directors and owns 3.1% of the outstanding shares of our common stock as of September 30, 2008. On September 1, 1998, we entered into, and have extended through August 31, 2009, a research and development agreement with the University of Waterloo and Dr. Thompson as the principal inventor. The Research and Development Agreement provides that the University of Waterloo will perform research and development under our direction, and we will pay for the cost of this work and make certain payments to the University of Waterloo. In return for payments made under the Research and Development Agreements, we have all rights to the intellectual property derived from the research.

Agricultural Competition

Our competitors in both human health and agriculture that are presently attempting to distribute their technology have generally utilized one of the following distribution channels:

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- licensing technology to major marketing and distribution partners;
- entering into strategic alliances; or
- developing in-house production and marketing capabilities.

In addition, some competitors are established distribution companies, which alleviates the need for strategic alliances, while others are attempting to create their own distribution and marketing channels.

Our competitors in the field of delaying plant senescence are companies that develop and produce transformed plants with a variety of enhanced traits. Such companies include: Icora (formerly Paradigm Genetics); Mendel Biotechnology; Renessen LLC; Exelixis Plant Sciences, Inc.; Syngenta International AG; and Eden Bioscience, among others.

Agricultural Development Program

Generally, projects with our licensee's and joint venture partner begin by transforming seed or germplasm to incorporate our technology. Those seeds or germplasm are then grown in our partners' greenhouses. After successful greenhouse trials, our partners will transfer the plants to the field for field trials. After completion of successful field trials, our partners may have to apply for and receive regulatory approval prior to initiation of any commercialization activities.

Generally, the approximate time to complete each sequential development step is as follows:

Seed Transformation	approximately 1 to 2 years
Greenhouse	approximately 1 to 2 years
Field Trials	approximately 2 to 5 years

The actual amount of time spent on each development phase depends on the crop, its growth cycle and the success of the transformation achieving the desired results. As such, the amount of time for each phase of development could vary, or the time frames may change.

The development of our technology with Poet is different than our other licenses in that we are modifying certain production inputs for ethanol. That process involves modifying the inputs, testing such inputs in Poet's production process and if successful, implementing such inputs in Poet's production process on a plant by plant basis.

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The status of each of our projects with our partners is as follows:

Project	Partner	Status
Banana	Rahan Meristem	
- Shelf Life		Field trials
- Disease Resistance		Field trials
Lettuce	Harris Moran	Field trial data under evaluation
Melon	Harris Moran	Seed transformation
Trees	Arborgen	
- Growth		Field trials
Alfalfa	Cal/West	Greenhouse
Corn	Monsanto	Recently initiated
Cotton	Bayer	Recently initiated
Canola	Bayer	Seed transformation

Rice	Bayer	Recently initiated
Soybean	Monsanto	Recently initiated
Turfgrass	The Scotts Company	Greenhouse
Bedding Plants	The Scotts Company	Greenhouse
Ethanol	Poet	Modify inputs

Commercialization by our partners may require a combination of traits in a crop, such as both shelf life and disease resistance, or other traits.

Based upon our commercialization strategy, we anticipate that there may be a significant period of time before plants enhanced using our technology reach consumers. Thus, we have not begun to actively market our technology directly to consumers, but rather, we have sought to establish ourselves within the industry through presentations at industry conferences, our website and direct communication with prospective licensees.

Consistent with our commercialization strategy, we intend to attract other companies interested in strategic partnerships or licensing our technology, which may result in additional license fees, revenues from contract research and other related revenues. Successful future operations will depend on our ability to transform our research and development activities into a commercially feasible technology.

Intellectual Property

We have nineteen (19) issued patents from the United States Patent and Trademark Office, or PTO, and twenty-three (23) issued patents from foreign countries, thirty-one (31) of

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which are for the use of our technology in agricultural applications and eleven (11) of which relate to human health applications.

In addition to our forty-two (42) patents, we have a wide variety of patent applications, including divisional applications and continuations-in-part, in process with the PTO and internationally. We intend to continue our strategy of enhancing these new patent applications through the addition of data as it is collected.

Government Regulation

At present, the U.S. federal government regulation of biotechnology is divided among three agencies: (i) the U.S. Department of Agriculture regulates the import, field-testing and interstate movement of specific types of genetic engineering that may be used in the creation of transformed plants; (ii) the Environmental Protection Agency regulates activity related to the invention of plant pesticides and herbicides, which may include certain kinds of transformed plants; and (iii) the FDA regulates foods derived from new plant varieties. The FDA requires that transformed plants meet the same standards for safety that are required for all other plants and foods in general. Except in the case of additives that significantly alter a food's structure, the FDA does not require any additional standards or specific approval for genetically engineered foods but expects transformed plant developers to consult the FDA before introducing a new food into the market place.

In addition, our ongoing preclinical research with cell lines and lab animal models of human disease is not currently subject to the FDA requirements that govern clinical trials. However, use of our technology, if developed for human health applications, will also be subject to FDA regulation. Generally, the FDA must approve any drug or biologic product before it can be marketed in the United States. In addition, prior to being sold outside of the U.S., any products resulting from the application of our human health technology must be approved by the regulatory agencies of foreign governments. Prior to filing a new drug application or biologics license application with the FDA, we would have to perform extensive clinical trials, and prior to beginning any clinical trial, we need to perform extensive preclinical testing which could take several years and may require substantial expenditures.

We believe that our current activities, which to date have been confined to research and development efforts, do not require licensing or approval by any governmental regulatory agency. However, we, or our licensees, may be required to obtain such licensing or approval from governmental regulatory agencies prior to the commercialization of our genetically transformed plants and the application of our human health technology.

Patent and Patent Applications

To date, we have been granted nineteen patents by the United States Patent and Trademark Office, or PTO, and twenty-three patents from foreign countries, thirty-four of which are for use of our technology in agricultural applications and eight of which relates to human health applications.

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In addition to our thirty-six patents, we have a wide variety of patent applications, including divisional applications and continuations-in-part, in process with the PTO and internationally. We intend to continue our strategy of enhancing these new patent applications through the addition of data as it is collected.

Liquidity and Capital Resources

Overview

As of September 30, 2008, our cash balance and investments, which consisted of money market funds and U.S. treasury bills, totaled $4,907,202**,** and we had working capital of $4,804,634. As of September 30, 2008, we had a federal tax loss carryforward of approximately $19,950,000 and a state tax loss carry-forward of approximately $12,588,000 to offset future taxable income. We cannot assure you that we will be able to take advantage of any or all of such tax loss carryforwards, if at all, in future fiscal years.

Contractual Obligations

The following table lists our cash contractual obligations as of September 30, 2008:

	Payments Due by Period				
Contractual Obligations	**Total**	**Less than 1 year**	**1 - 3 years**	**4 - 5 years**	**More than 5 years**
Research and Development Agreements (1)	$ 2,598,620	$ 2,598,620	$ —	$ —	$ —
Facility, Rent and Operating Leases (2)	$ 211,888	$ 78,736	$ 133,152	$ —	$ —
Employment, Consulting and Scientific Advisory Board Agreements (3)	$ 726,730	$ 695,317	$ 31,413	$ —	$ —
Total Contractual Cash Obligations	$ 3,537,238	$ 3,372,673	$ 164,565	$ —	$ —

(1) Certain of our research and development agreements disclosed herein provide that payment is to be made in Canadian dollars and, therefore, the contractual obligations are subject to fluctuations in the exchange rate.

(2) The lease for our office space in New Brunswick, New Jersey is subject to certain escalations for our proportionate share of increases in the building's operating costs.

(3) Certain of our employment and consulting agreements provide for automatic renewal, which is not reflected in the table, unless terminated earlier by the parties to the respective agreements.

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We expect our capital requirements to increase significantly over the next several years as we commence new research and development efforts. Our future liquidity and capital funding requirements will depend on numerous factors, including, but not limited to, the levels and costs of our research and development initiatives and the cost and timing of the expansion of our business development and administrative staff.

Effective September 1, 2008, we extended our research and development agreement with the University of Waterloo for an additional one-year period through August 31, 2009, in the amount of CAD $735,000 or approximately USD $700,000. Research and development expenses under this agreement aggregated $169,518 for the three month period ended September 30, 2008 and USD $192,256 for the three month period ended September 30, 2007 and USD $4,796,782 for the cumulative period from inception through September 30, 2008.

Capital Resources

Since inception, we have generated revenues of $1,375,000 in connection with the initial fees and milestone payments received under our license and development agreements. We have not been profitable since inception, we will continue to incur additional operating losses in the future, and we will require additional financing to continue the development and subsequent commercialization of our technology. While we do not expect to generate significant revenues from the licensing of our technology for the next one to three years, or longer, we may enter into additional licensing or other agreements with marketing and distribution partners that may result in additional license fees, receive revenues from contract research, or other related revenue.

We anticipate that, based upon our current cash and investments, as of September 30, 2008 we will be able to fund our operations for the next ten (10) months. Over the next twelve months, we plan to fund our research and development and commercialization activities by:

- utilizing our current cash balance and investments;
- achieving some of the milestones set forth in our current licensing agreements;
- through the possible execution of additional licensing agreements for our technology; and
- through the placement of equity or debt instruments.

We cannot assure you that we will be able to raise money through any of the foregoing transactions, or on favorable terms, if at all.

Changes to Critical Accounting Policies and Estimates

There have been no changes to our critical accounting policies and estimates as set forth in our Annual Report on Form 10-K for the fiscal year ended June 30, 2008.

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Results of Operations

Three Months Ended September 30, 2008 and Three Months Ended September 30, 2007

The net loss for the three-month period ended September 30, 2008 was $1,181,406. The net loss for the three-month period ended September 30, 2007 was $382,046. Such a change represents an increase in net loss of $799,360**,** or 209.2%. This increase in net loss was primarily the result of an increase in non-cash expenses associated with the outstanding convertible notes that were issued during the year ended June 30, 2008, an increase in operating expenses and a decrease in revenue.

Revenue

Total revenues of $200,000 for the three-month period ended September 30, 2008 consisted of milestone payments in connection with certain agricultural license agreements. Total revenues of $371,250 for the three-month period ended September 30, 2007 consisted of the initial payments and the amortized portion of previous milestone payments received in connection with certain agricultural license agreements.

We anticipate that we will continue to receive milestone payments in connection with our current agricultural development and license agreements while we continue to pursue our goal of attracting other companies to license our technologies in various other crops. Additionally, we anticipate that we will receive royalty payments from our license agreements when our partners commercialize their crops containing our technology. However, it is difficult for us to determine our future revenue expectations because we are a development stage biotechnology company. As such, the timing and outcome of our experiments, the timing of signing new partners and the timing of our partners moving through the development process into commercialization is difficult to accurately predict.

Operating Expenses

	Three Months Ended September 30,			
	2008	2007	Change	%
	(in thousands, except % values)			
General and administrative	$ 530	$ 389	$ 141	36.2%
Research and development	504	353	151	42.8%
Total operating expenses	$ 1,034	$ 742	$ 292	39.4%

We expect operating expenses to increase over the next twelve months as we anticipate that research and development expenses will increase as we continue to expand our research and development activities.

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General and Administrative Expenses

	Three Months Ended September 30,			
	2008	2007	Change	%
	(in thousands, except % values)			
Stock-based compensation	$ 72	$ 49	$ 23	46.9%
Payroll and benefits	164	154	10	6.5%
Investor relations	46	51	(5)	(9.8)%
Professional fees	142	59	83	140.7%
Depreciation and amortization	26	22	4	18.2%
Director fees	28	—	28	—
Other general and administrative	52	54	(2)	(3.7)%
Total general and administrative	$ 530	$ 389	$ 141	36.2%

- Stock-based compensation for the three months ended September 30, 2008 and, 2007 consisted of the amortized portion of the Black-Scholes value of options and warrants previously granted to directors, employees and consultants. During the three month periods ended September 30, 2008 and 2007, there were no option and warrant grants.

- Payroll and benefits increased primarily as a result of salary and health insurance rate increases.

- Investor relations decreased primarily as a result of a decrease in investor relations consulting costs.

- Professional fees increased primarily as a result of an increase in legal fees and accounting fees primarily due to an increase in legal fees related to our multiple myeloma project and accounting fees related to the review and filing of our securities filings.

- Depreciation and amortization decreased primarily as a result of additional agricultural and human health patent costs being amortized.

- Director fees increased due to the Company implementing a cash compensation plan for non-employee directors beginning July 1, 2008. During the three month period ended September 30, 2007, the non-employee directors did not receive any cash compensation.

We expect general and administrative expenses to modestly increase over the next twelve months primarily due to an increase in payroll and benefits and legal and accounting fees related to the increased regulatory environment surrounding our business.

Research and Development Expenses

	Three Months Ended September 30,			
	2008	2007	Change	%
	(in thousands, except % values)			
Stock-based compensation	$ 4	$ 15	$ (11)	(73.3)%
Other research and development	500	338	162	47.9%
Total research and development	$ 504	$ 353	$ 151	42.8%

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- Stock-based compensation consists primarily of the amortized portion of Black-Scholes value of options and warrants granted to research and development consultants and employees.

- Other research and development costs increased primarily as a result of an expansion of our human health programs, specifically our multiple myeloma research program, which was partially offset by a decrease in the cost of our research agreement with the University of Waterloo due to the strengthening of the U.S. dollar against the Canadian dollar.

The breakdown of our research and development expenses between our agricultural and human health research programs is as follows:

	Three Months Ended September 30,			
	2008	%	2007	%
	(in thousands, except % values)			
Agricultural	$ 170	34%	$ 180	51%
Human health	334	66%	173	49%
Total research and development	$ 504	100%	$ 353	100%

- Agricultural research expenses decreased during the three-month period ended September 30, 2008 primarily as a result of a decrease in the cost of our research with the University of Waterloo due to the strengthening of the U.S. dollar against the Canadian dollar.

- Human health research expenses increased during the three-month period ended September 30, 2008 primarily as a result of the initiation of the multiple myeloma project.

We expect the percentage of human health research programs to continue to increase as a percentage of the total research and development expenses as we continue our current research projects and begin new human health initiatives.

Amortization of debt discount, financing costs and interest expense

During the year ended June 30, 2008, we issued $10,000,000 in convertible notes and warrants. The net proceeds of those notes and warrants were recorded as equity. The discount on the convertible notes is being amortized, using the effective yield method, over the term of the convertible notes. The related costs of issuance were recorded as deferred financing costs and are being amortized on a straight line basis over the term of the convertible notes. At September 30, 2008 there were $9,500,000 of convertible notes outstanding. At September 30, 2007, there were $1,500,000 of convertible notes outstanding.

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Interest Income, net

Interest income was higher during the three-month period ended September 30, 2008 as a result of an higher average cash balance compared to the three-month period ended September 30, 2007.

Period From Inception on July 1, 1998 through September 30, 2008

From inception of operations on July 1, 1998 through September 30, 2008, we had revenues of $1,375,000, which consisted of the initial license fees and milestone payments in connection with our various development and license agreements. We do not expect to generate significant revenues for approximately the next one to three years, during which time we will continue to engage in significant research and development efforts.

We have incurred losses each year since inception and have an accumulated deficit of $31,404,436 at September 30, 2008. We expect to continue to incur losses as a result of expenditures on research and development and administrative activities.

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Item 3. Quantitative and Qualitative Disclosures about Market Risk.

Foreign Currency Risk

Our financial statements are denominated in United States dollars and, except for our agreement with the University of Waterloo, which is denominated in Canadian dollars, all of our contracts are denominated in United States dollars. Therefore, we believe that fluctuations in foreign currency exchange rates will not result in any material adverse effect on our financial condition or results of operations. In the event we derive a greater portion of our revenues from international operations or in the event a greater portion of our expenses are incurred internationally and denominated in a foreign currency, then changes in foreign currency exchange rates could effect our results of operations and financial condition.

Interest Rate Risk

We invest in high-quality financial instruments, primarily money market funds, federal agency notes, corporate debt securities and United States treasury notes, with an effective duration of the portfolio of less than one year, and no security with an effective duration in excess of one year, which we believe are subject to limited credit risk. We currently do not hedge our interest rate exposure. Due to the short-term nature of our investments, which we plan to hold until maturity, we do not believe that we have any material exposure to interest rate risk arising from our investments.

Item 4T. Controls and Procedures.

(a) Evaluation of disclosure controls and procedures.

The principal executive officer and principal financial officer have evaluated our disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) under the Exchange Act) as of September 30, 2008. Based on this evaluation, they have concluded that our disclosure controls and procedures were effective to ensure that the information required to be disclosed by us in our reports that we file or submit under the Securities Exchange Act of 1934 is recorded, processed, summarized and reported, within the time periods specified in the Commission's rules and forms and to ensure that information required to be disclosed by us in the reports that we file or submit under the Securities Exchange Act of 1934 is accumulated and communicated to our management, including our principal executive and principal financial officers, to allow timely decisions regarding required disclosure.

(b) Changes in internal controls.

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No change in our internal controls over financial reporting (as defined in Rules 13a-15(f) and 15d-15(f) under the Exchange Act) occurred during the three-month ended September 30, 2008 that has materially affected, or is reasonably likely to materially affect, our internal controls over financial reporting.

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PART II. OTHER INFORMATION.

Item 1A. Risk Factors.

The more prominent risks and uncertainties inherent in our business are described below. However, additional risks and uncertainties may also impair our business operations. If any of the following risks actually occur, our business, financial condition or results of operations may suffer.

Risks Related to Our Business

We have a limited operating history and have incurred substantial losses and expect future losses.

We are a development stage biotechnology company with a limited operating history and limited assets and capital. We have incurred losses each year since inception and had an accumulated deficit of $31,404,436 at September 30, 2008. We have generated minimal revenues by licensing our technology for certain crops to companies willing to share in our development costs. In addition, our technology may not be ready for commercialization for several years. We expect to continue to incur losses for the next several years because we anticipate that our expenditures on research and development, and administrative activities will significantly exceed our revenues during that period. We cannot predict when, if ever, we will become profitable.

We may need additional capital to fund our operations until we are able to generate a profit.

Our operations to date have required significant cash expenditures. Our future capital requirements will depend on the results of our research and development activities, preclinical and clinical studies, and competitive and technological advances.

In addition, the recent financings with YA Global Investments, L.P., referred to herein as YA Global, and Stanford Venture Capital Holdings, Inc., referred to herein as Stanford, are secured by all of our assets. If we default under the convertible notes, the investors may foreclose on our assets and our business. As a result, we may need to obtain more funding in the future through collaborations or other arrangements with research institutions and corporate partners or public and private offerings of our securities, including debt or equity financing. We may not be able to obtain adequate funds for our operations from these sources when needed or on acceptable terms. Future collaborations or similar arrangements may require us to license valuable intellectual property to, or to share substantial economic benefits with, our collaborators. If we raise additional capital by issuing additional equity or securities convertible into equity, our stockholders may experience dilution and our share price may decline. Any debt financing may result in restrictions on our spending.

If we are unable to raise additional funds, we will need to do one or more of the following:

- delay, scale-back or eliminate some or all of our research and product development programs;

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- license third parties to develop and commercialize products or technologies that we would otherwise seek to develop and commercialize ourselves;
- seek strategic alliances or business combinations;
- attempt to sell our company;
- cease operations; or
- declare bankruptcy.

We believe that at the projected rate of spending we should have sufficient cash and investments to maintain our present operations for the next 10 months as of September 30, 2008.

We depend on a single principal technology and, if our technology is not commercially successful, we will have no alternative source of revenue.

Our primary business is the development and licensing of technology to identify, isolate, characterize and promote or silence genes which control the death of cells in humans and plants. Our future revenue and profitability critically depend upon our ability to successfully develop apoptosis and senescence gene technology and later license or market such technology. We have conducted experiments on certain crops with favorable results and have conducted certain preliminary cell-line and animal experiments, which have provided us with data upon which we have designed additional research programs. However, we cannot give any assurance that our technology will be commercially successful or economically viable for any crops or human health applications.

In addition, no assurance can be given that adverse consequences might not result from the use of our technology such as the development of negative effects on humans or plants or reduced benefits in terms of crop yield or protection. Our failure to obtain market acceptance of our technology or of our current or potential licensees to successfully commercialize such technology would have a material adverse effect on our business.

We outsource all of our research and development activities and, if we are unsuccessful in maintaining our alliances with these third parties, our research and development efforts may be delayed or curtailed.

We rely on third parties to perform all of our research and development activities. Our research and development efforts take place at the University of Waterloo in Ontario, Canada, where our technology was discovered, the University of Colorado, Mayo Clinic, the University of Virginia, and with our commercial partners. At this time, we do not have the internal capabilities to perform our research and development activities. Accordingly, the failure of third-party research partners to perform under agreements entered into with us, or our failure to renew important research agreements with these third parties, may delay or curtail our research and development efforts.

We have significant future capital needs and may be unable to raise capital when needed, which could force us to delay or reduce our research and development efforts.

As of September 30, 2008, we had cash and highly-liquid investments of $4,907,202 and working capital of $4,804,634. Using our available reserves as of September 30, 2008, we

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believe that we can operate according to our current business plan for the next 10 months from September 30, 2008. To date, we have generated minimal revenues and anticipate that our operating costs will exceed any revenues generated over the next several years. Therefore, we will be required to raise additional capital in the future in order to operate according to our current business plan, and this funding may not be available on favorable terms, if at all. If we are unable to raise additional funds, we will need to do one or more of the following:

- delay, scale back or eliminate some or all of our research and development programs;
- license third parties to develop and commercialize our technology that we would otherwise seek to develop and commercialize ourselves;
- seek strategic alliances or business combinations;
- attempt to sell our company;
- cease operations; or
- declare bankruptcy.

In addition, in connection with any funding, if we need to issue more equity securities than our certificate of incorporation currently authorizes, or more than 20% of the shares of our common stock outstanding, we may need stockholder approval. If stockholder approval is not obtained or if adequate funds are not available, we may be required to curtail operations significantly or to obtain funds through arrangements with collaborative partners or others that may require us to relinquish rights to certain of our technologies, product candidates, products or potential markets. Investors may experience dilution in their investment from future offerings of our common stock. For example, if we raise additional capital by issuing equity securities, such an issuance would reduce the percentage ownership of existing stockholders. In addition, assuming the exercise of all options and warrants outstanding and the conversion of the notes into common stock, as of September 30, 2008, we had 7,764,132 shares of common stock authorized but unissued and unreserved, which may be issued from time to time by our board of directors without stockholder approval. The total number of shares that may be issued under the financing is subject to certain caps as more fully described in this Form 10-K. Furthermore, we may need to issue securities that have rights, preferences and privileges senior to our common stock. Failure to obtain financing on acceptable terms would have a material adverse effect on our liquidity.

Since our inception, we have financed all of our operations through private equity and debt financings. Our future capital requirements depend on numerous factors, including:

- the scope of our research and development;
- our ability to attract business partners willing to share in our development costs;
- our ability to successfully commercialize our technology;
- competing technological and market developments;
- our ability to enter into collaborative arrangements for the development, regulatory approval and commercialization of other products; and
- the cost of filing, prosecuting, defending and enforcing patent claims and other intellectual property rights.

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Our business depends upon our patents and proprietary rights and the enforcement of these rights. Our failure to obtain and maintain patent protection may increase competition and reduce demand for our technology.

As a result of the substantial length of time and expense associated with developing products and bringing them to the marketplace in the biotechnology and agricultural industries, obtaining and maintaining patent and trade secret protection for technologies, products and processes is of vital importance. Our success will depend in part on several factors, including, without limitation:

- our ability to obtain patent protection for our technologies and processes;
- our ability to preserve our trade secrets; and
- our ability to operate without infringing the proprietary rights of other parties both in the United States and in foreign countries.

As of September 30, 2008, we have been issued nineteen (19) patents by the PTO and twenty-three (23) patents from foreign countries. We have also filed numerous patent applications for our technology in the United States and in several foreign countries, which technology is vital to our primary business, as well as several Continuations in Part on these patent applications. Our success depends in part upon the grant of patents from our pending patent applications.

Although we believe that our technology is unique and will not violate or infringe upon the proprietary rights of any third party, we cannot assure you that these claims will not be made or if made, could be successfully defended against. If we do not obtain and maintain patent protection, we may face increased competition in the United States and internationally, which would have a material adverse effect on our business.

Since patent applications in the United States are maintained in secrecy until patents are issued, and since publication of discoveries in the scientific and patent literature tend to lag behind actual discoveries by several months, we cannot be certain that we were the first creator of the inventions covered by our pending patent applications or that we were the first to file patent applications for these inventions.

In addition, among other things, we cannot assure you that:

- our patent applications will result in the issuance of patents;
- any patents issued or licensed to us will be free from challenge and that if challenged, would be held to be valid;
- any patents issued or licensed to us will provide commercially significant protection for our technology, products and processes;
- other companies will not independently develop substantially equivalent proprietary information which is not covered by our patent rights;
- other companies will not obtain access to our know-how;
- other companies will not be granted patents that may prevent the commercialization of our technology; or

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- we will not incur licensing fees and the payment of significant other fees or royalties to third parties for the use of their intellectual property in order to enable us to conduct our business.

Our competitors may allege that we are infringing upon their intellectual property rights, forcing us to incur substantial costs and expenses in resulting litigation, the outcome of which would be uncertain.

Patent law is still evolving relative to the scope and enforceability of claims in the fields in which we operate. We are like most biotechnology companies in that our patent protection is highly uncertain and involves complex legal and technical questions for which legal principles are not yet firmly established. In addition, if issued, our patents may not contain claims sufficiently broad to protect us against third parties with similar technologies or products, or provide us with any competitive advantage.

The PTO and the courts have not established a consistent policy regarding the breadth of claims allowed in biotechnology patents. The allowance of broader claims may increase the incidence and cost of patent interference proceedings and the risk of infringement litigation. On the other hand, the allowance of narrower claims may limit the value of our proprietary rights.

The laws of some foreign countries do not protect proprietary rights to the same extent as the laws of the United States, and many companies have encountered significant problems and costs in protecting their proprietary rights in these foreign countries.

We could become involved in infringement actions to enforce and/or protect our patents. Regardless of the outcome, patent litigation is expensive and time consuming and would distract our management from other activities. Some of our competitors may be able to sustain the costs of complex patent litigation more effectively than we could because they have substantially greater resources. Uncertainties resulting from the initiation and continuation of any patent litigation could limit our ability to continue our operations.

If our technology infringes the intellectual property of our competitors or other third parties, we may be required to pay license fees or damages.

If any relevant claims of third-party patents that are adverse to us are upheld as valid and enforceable, we could be prevented from commercializing our technology or could be required to obtain licenses from the owners of such patents. We cannot assure you that such licenses would be available or, if available, would be on acceptable terms. Some licenses may be non-exclusive and, therefore, our competitors may have access to the same technology licensed to us. In addition, if any parties successfully claim that the creation or use of our technology infringes upon their intellectual property rights, we may be forced to pay damages, including treble damages.

Our security measures may not adequately protect our unpatented technology and, if we are unable to protect the confidentiality of our proprietary information and know-how, the value of our technology may be adversely affected.

Our success depends upon know-how, unpatentable trade secrets, and the skills, knowledge and experience of our scientific and technical personnel. As a result, we require all employees to agree to a confidentiality provision in their employment agreement that prohibits the disclosure of confidential information to anyone outside of our company, during the term of

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employment and thereafter. We also require all employees to disclose and assign to us the rights to their ideas, developments, discoveries and inventions. We also attempt to enter into similar agreements with our consultants, advisors and research collaborators. We cannot assure you that adequate protection for our

trade secrets, know-how or other proprietary information against unauthorized use or disclosure will be available.

We occasionally provide information to research collaborators in academic institutions and request the collaborators conduct certain tests. We cannot assure you that the academic institutions will not assert intellectual property rights in the results of the tests conducted by the research collaborators, or that the academic institutions will grant licenses under such intellectual property rights to us on acceptable terms, if at all. If the assertion of intellectual property rights by an academic institution is substantiated, and the academic institution does not grant intellectual property rights to us, these events could limit our ability to commercialize our technology.

As we evolve from a company primarily involved in the research and development of our technology into one that is also involved in the commercialization of our technology, we may have difficulty managing our growth and expanding our operations.

As our business grows, we may need to add employees and enhance our management, systems and procedures. We may need to successfully integrate our internal operations with the operations of our marketing partners, manufacturers, distributors and suppliers to produce and market commercially viable products. We may also need to manage additional relationships with various collaborative partners, suppliers and other organizations. Although we do not presently conduct research and development activities in-house, we may undertake those activities in the future. Expanding our business may place a significant burden on our management and operations. We may not be able to implement improvements to our management information and control systems in an efficient and timely manner and we may discover deficiencies in our existing systems and controls. Our failure to effectively respond to changes may make it difficult for us to manage our growth and expand our operations.

We have no marketing or sales history and depend on third-party marketing partners. Any failure of these parties to perform would delay or limit our commercialization efforts.

We have no history of marketing, distributing or selling biotechnology products and we are relying on our ability to successfully establish marketing partners or other arrangements with third parties to market, distribute and sell a commercially viable product both here and abroad. Our business plan envisions creating strategic alliances to access needed commercialization and marketing expertise. We may not be able to attract qualified sub-licensees, distributors or marketing partners, and even if qualified, these marketing partners may not be able to successfully market agricultural products or human health applications developed with our technology. If our current or potential future marketing partners fail to provide adequate levels of sales, our commercialization efforts will be delayed or limited and we may not be able to generate revenue.

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We will depend on joint ventures and strategic alliances to develop and market our technology and, if these arrangements are not successful, our technology may not be developed and the expenses to commercialize our technology will increase.

In its current state of development, our technology is not ready to be marketed to consumers. We intend to follow a multi-faceted commercialization strategy that involves the licensing of our technology to business partners for the purpose of further technological development, marketing and distribution. We have and are seeking business partners who will share the burden of our development costs while our technology is still being developed, and who will pay us royalties when they market and distribute products incorporating our technology upon commercialization. The establishment of joint ventures and strategic alliances may create future competitors, especially in certain regions abroad where we do not pursue patent protection. If we fail to establish beneficial business partners and strategic alliances, our growth will suffer and the continued development of our technology may be harmed.

Competition in the human health and agricultural biotechnology industries is intense and technology is changing rapidly. If our competitors market their technology faster than we do, we may not be able to generate revenues from the commercialization of our technology.

Many human health and agricultural biotechnology companies are engaged in research and development activities relating to apoptosis and senescence. The market for plant protection and yield enhancement products is intensely competitive, rapidly changing and undergoing consolidation. We may be unable to compete successfully against our current and future competitors, which may result in price reductions, reduced margins and the inability to achieve market acceptance for products containing our technology. Our competitors in the field of plant senescence gene technology are companies that develop and produce transgenic plants and include major international agricultural companies, specialized biotechnology companies, research and academic institutions and, potentially, our joint venture and strategic alliance partners. These companies include: Icoria (formerly Paradigm Genetics); Mendel Biotechnology; Renessen LLC; Exelixis Plant Sciences, Inc.; Syngenta International AG; and Eden Bioscience, among others. Some of our competitors that are involved in apoptosis research include: Amgen; Centocor; Genzyme; OSI Pharmaceuticals, Inc.; Novartis; Introgen Therapeutics, Inc.; Genta, Inc.; and Vertex Pharmaceuticals, Inc. Many of these competitors have substantially greater financial, marketing, sales, distribution and technical resources than us and have more experience in research and development, clinical trials, regulatory matters, manufacturing and marketing. We anticipate increased competition in the future as new companies enter the market and new technologies become available. Our technology may be rendered obsolete or uneconomical by technological advances or entirely different approaches developed by one or more of our competitors, which will prevent or limit our ability to generate revenues from the commercialization of our technology.

Our business is subject to various government regulations and, if we or our licensees are unable to obtain regulatory approval, we may not be able to continue our operations.

At present, the U.S. federal government regulation of biotechnology is divided among three agencies:

- the USDA regulates the import, field testing and interstate movement of specific

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types of genetic engineering that may be used in the creation of transgenic plants;
- the EPA regulates activity related to the invention of plant pesticides and herbicides, which may include certain kinds of transgenic plants; and
- the FDA regulates foods derived from new plant varieties.

The FDA requires that transgenic plants meet the same standards for safety that are required for all other plants and foods in general. Except in the case of additives that significantly alter a food's structure, the FDA does not require any additional standards or specific approval for genetically engineered foods, but expects transgenic plant developers to consult the FDA before introducing a new food into the marketplace.

Use of our technology, if developed for human health applications, will also be subject to FDA regulation. The FDA must approve any drug or biologic product before it can be marketed in the United States. In addition, prior to being sold outside of the U.S., any products resulting from the application of our human health technology must be approved by the regulatory agencies of foreign governments. Prior to filing a new drug application or biologics license application with the FDA, we would have to perform extensive clinical trials, and prior to beginning any clinical trial, we need to perform extensive preclinical testing which could take several years and may require substantial expenditures.

We believe that our current activities, which to date have been confined to research and development efforts, do not require licensing or approval by any governmental regulatory agency. However, we are planning on performing clinical trials, which would be subject to FDA approval. Additionally, federal, state and foreign regulations relating to crop protection products and human health applications developed through biotechnology are subject to public concerns and political circumstances, and, as a result, regulations have changed and may change substantially in the future. Accordingly, we may become subject to governmental regulations or approvals or become subject to licensing requirements in connection with our research and development efforts. We may also be required to obtain such licensing or approval from the governmental regulatory agencies described above, or from state agencies, prior to the commercialization of our genetically transformed plants and human health technology. In addition, our marketing partners who utilize our technology or sell products grown with our technology may be subject to government regulations. If unfavorable governmental regulations are imposed on our technology or if we fail to obtain licenses or approvals in a timely manner, we may not be able to continue our operations.

Preclinical studies and clinical trials of our human health applications may be unsuccessful, which could delay or prevent regulatory approval.

Preclinical studies may reveal that our human health technology is ineffective or harmful, and/or clinical trials may be unsuccessful in demonstrating efficacy and safety of our human health technology, which would significantly limit the possibility of obtaining regulatory approval for any drug or biologic product manufactured with our technology. The FDA requires submission of extensive preclinical, clinical and manufacturing data to assess the efficacy and safety of potential products. Furthermore, the success of preliminary studies does not ensure commercial success, and later-stage clinical trials may fail to confirm the results of the preliminary studies.

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Any inability to license from third parties their proprietary technologies or processes which we use in connection with the development of our technology may impair our business.

Other companies, universities and research institutions have or may obtain patents that could limit our ability to use our technology in a product candidate or impair our competitive position. As a result, we would have to obtain licenses from other parties before we could continue using our technology in a product candidate. Any necessary licenses may not be available on commercially acceptable terms, if at all. If we do not obtain required licenses, we may not be able to develop our technology into a product candidate or we may encounter significant delays in development while we redesign methods that are found to infringe on the patents held by others.

Clinical trials for our human health technology will be lengthy and expensive and their outcome is uncertain

Before obtaining regulatory approval for the commercial sales of any product containing our technology, we must demonstrate through clinical testing that our technology and product containing our technology is safe and effective for use in humans. Conducting clinical trials is a time-consuming, expensive and uncertain process and typically requires years to complete. In our industry, the results from preclinical studies and early clinical trials often are not predictive of results obtained in later-stage clinical trials. Some products and technologies that have shown promising results in preclinical studies or early clinical trials subsequently fail to establish sufficient safety and efficacy data necessary to obtain regulatory approval. At any time during clinical trials we or the FDA might delay or halt any clinical trial for various reasons, including:

- occurrence of unacceptable toxicities or side effects;
- ineffectiveness of the product candidate;
- negative or inconclusive results from the clinical trials, or results that necessitate additional studies or clinical trials;
- delays in obtaining or maintaining required approvals from institutions, review boards or other reviewing entities at clinical sites;
- delays in patient enrollment; or
- insufficient funding or a reprioritization of financial or other resources.

Any failure or substantial delay in successfully completing clinical trials and obtaining regulatory approval for our product candidates could severely harm our business.

Even if we receive regulatory approval, consumers may not accept products containing our technology, which will prevent us from being profitable since we have no other source of revenue.

We cannot guarantee that consumers will accept products containing our technology. Recently, there has been consumer concern and consumer advocate activism with respect to genetically engineered agricultural consumer products. The adverse consequences from heightened consumer concern in this regard could affect the markets for agricultural products

developed with our technology and could also result in increased government regulation in response to that concern. If the public or potential customers perceive our technology to be genetic modification or genetic engineering, agricultural products grown with our technology may not gain market acceptance.

We depend on our key personnel and, if we are not able to attract and retain qualified scientific and business personnel, we may not be able to grow our business or develop and commercialize our technology.

We are highly dependent on our scientific advisors, consultants and third-party research partners. Our success will also depend in part on the continued service of our key employees and our ability to identify, hire and retain additional qualified personnel in an intensely competitive market. Although we have employment agreements with all of our key employees and a research agreement with Dr. Thompson, these agreements may be terminated upon short or no notice. We do not maintain key person life insurance on any member of management. The failure to attract and retain key personnel could limit our growth and hinder our research and development efforts.

Certain provisions of our charter, by-laws and Delaware law could make a takeover difficult.

Certain provisions of our certificate of incorporation and by-laws could make it more difficult for a third party to acquire control of us, even if the change in control would be beneficial to stockholders. Our certificate of incorporation authorizes our board of directors to issue, without stockholder approval, except as may be required by the rules of the American Stock Exchange, 5,000,000 shares of preferred stock with voting, conversion and other rights and preferences that could adversely affect the voting power or other rights of the holders of our common stock. Similarly, our by-laws do not restrict our board of directors from issuing preferred stock without stockholder approval.

In addition, we are subject to the Business Combination Act of the Delaware General Corporation Law which, subject to certain exceptions, restricts certain transactions and business combinations between a corporation and a stockholder owning 15% or more of the corporation's outstanding voting stock for a period of three years from the date such stockholder becomes a 15% owner. These provisions may have the effect of delaying or preventing a change of control of us without action by our stockholders and, therefore, could adversely affect the value of our common stock.

Furthermore, in the event of our merger or consolidation with or into another corporation, or the sale of all or substantially all of our assets in which the successor corporation does not assume outstanding options or issue equivalent options, our board of directors is required to provide accelerated vesting of outstanding options.

Increasing political and social turmoil, such as terrorist and military actions, increase the difficulty for us and our strategic partners to forecast accurately and plan future business activities.

Recent political and social turmoil, can be expected to put further pressure on economic conditions in the United States and worldwide. These political, social and economic conditions may make it difficult for us to plan future business activities.

Risks Related to Our Common Stock

Our management and other affiliates have significant control of our common stock and could significantly influence our actions in a manner that conflicts with our interests and the interests of other stockholders.

As of September 30, 2008, our executive officers, directors and affiliated entities together beneficially own approximately 70.9% of the outstanding shares of our common stock, assuming the exercise of options and warrants which are currently exercisable or will become exercisable within 60 days of September 30, 2008, held by these stockholders. As a result, these stockholders, acting together, will be able to exercise significant influence over matters requiring approval by our stockholders, including the election of directors, and may not always act in the best interests of other stockholders. Such a concentration of ownership may have the effect of delaying or preventing a change in control of us, including transactions in which our stockholders might otherwise receive a premium for their shares over then current market prices.

A significant portion of our total outstanding shares of common stock may be sold in the market in the near future, which could cause the market price of our common stock to drop significantly.

As of September 30, 2008, we had 18,573,184 shares of our common stock issued and outstanding, of which approximately 5,319,639 shares are registered pursuant to registration statements on Form S-3 and the remainder of which are either eligible to be sold under SEC Rule 144 or are in the public float. In addition, we have registered 2,632,194 shares of our common stock underlying warrants previously issued on the Form S-3 registration statement and we registered 6,000,000 shares of our common stock underlying options granted or to be granted under our stock option plan. Consequently, sales of substantial amounts of our common stock in the public market, or the perception that such sales could occur, may have a material adverse effect on our stock price.

Our common stock has a limited trading market, which could limit your ability to resell your shares of common stock at or above your purchase price.

Our common stock is quoted on the NYSE Alternext US Exchange and currently has a limited trading market. The NYSE Alternext US requires us to meet minimum financial requirements in order to maintain our listing. We currently believe that we meet the continued listing requirements of the NYSE Alternext US Exchange. However, we cannot assure you that we will continue to meet such standards. If we do not meet the continued listing standards, we could be delisted. We cannot assure you that an active trading market will develop or, if developed, will be maintained. As a result, our stockholders may find it difficult to dispose of

shares of our common stock and, as a result, may suffer a loss of all or a substantial portion of their investment.

If our common stock is delisted from the NYSE Alternext US Exchange, we may not be able to list on any other stock exchange, and our common stock may be subject to the "penny stock" regulations which may affect the ability of our stockholders to sell their shares.

The NYSE Alternext US Exchange requires us to meet minimum financial requirements in order to maintain our listing. As of September 30, 2008, we believe that we continue to be in compliance with the NYSE Alternext US Exchange's continued listing requirements. However, if we are unable to continue to be in compliance with the continued listing requirements, it is possible that we will be delisted. If we are delisted from the NYSE Alternext US Exchange, our common stock likely will become a "penny stock." In general, regulations of the SEC define a "penny stock" to be an equity security that is not listed on a national securities exchange or the NASDAQ Stock Market and that has a market price of less than $5.00 per share or with an exercise price of less than $5.00 per share, subject to certain exceptions. If our common stock becomes a penny stock, additional sales practice requirements would be imposed on broker-dealers that sell such securities to persons other than certain qualified investors. For transactions involving a penny stock, unless exempt, a broker-dealer must make a special suitability determination for the purchaser and receive the purchaser's written consent to the transaction prior to the sale. In addition, the rules on penny stocks require delivery, prior to and after any penny stock transaction, of disclosures required by the SEC.

If our stock is not accepted for listing on the NYSE Alternext US Exchange, we will make every possible effort to have it listed on the Over the Counter Bulletin Board, or the OTC Bulletin Board. If our common stock were to be traded on the OTC Bulletin Board, the Securities Exchange Act of 1934, as amended, and related SEC rules would impose additional sales practice requirements on broker-dealers that sell our securities. These rules may adversely affect the ability of stockholders to sell our common stock and otherwise negatively affect the liquidity, trading market and price of our common stock.

We believe that the listing of our common stock on a recognized national trading market, such as the NYSE Alternext US Exchange, is an important part of our business and strategy. Such a listing helps our stockholders by providing a readily available trading market with current quotations. Without that, stockholders may have a difficult time getting a quote for the sale or purchase of our stock, the sale or purchase of our stock would likely be made more difficult and the trading volume and liquidity of our stock would likely decline. The absence of such a listing may adversely affect the acceptance of our common stock as currency or the value accorded it by other parties. In that regard, the absence of a listing on a recognized national trading market will also affect our ability to benefit from the use of our operations and expansion plans, including for use in licensing agreements, joint ventures, the development of strategic relationships and acquisitions, which are critical to our business and strategy and none of which is currently the subject of any agreement, arrangement or understanding, with respect to any future financing or strategic relationship it may undertake. The delisting from the NYSE Alternext US Exchange would result in negative publicity and would negatively impact our ability to raise capital in the future.

The market price of our common stock may fluctuate and may drop below the price you paid.

We cannot assure you that you will be able to resell the shares of our common stock at or above your purchase price. The market price of our common stock may fluctuate significantly in response to a number of factors, some of which are beyond our control. These factors include:

- quarterly variations in operating results;
- the progress or perceived progress of our research and development efforts;
- changes in accounting treatments or principles;
- announcements by us or our competitors of new technology, product and service offerings, significant contracts, acquisitions or strategic relationships;
- additions or departures of key personnel;
- future offerings or resales of our common stock or other securities;
- stock market price and volume fluctuations of publicly-traded companies in general and development companies in particular; and
- general political, economic and market conditions.

Because we do not intend to pay, and have not paid, any cash dividends on our shares of common stock, our stockholders will not be able to receive a return on their shares unless the value of our common stock appreciates and they sell their shares.

We have never paid or declared any cash dividends on our common stock and we intend to retain any future earnings to finance the development and expansion of our business. We do not anticipate paying any cash dividends on our common stock in the foreseeable future. Therefore, our stockholders will not be able to receive a return on their investment unless the value of our common stock appreciates and they sell their shares.

Our stockholders may experience substantial dilution as a result of the conversion of outstanding convertible debentures, or the exercise of options and warrants to purchase our common stock.

As of September 30, 2008, we have granted options outside of our stock option plan to purchase 10,000 shares of our common stock and outstanding warrants to purchase 19,792,684 shares of our common stock. In addition, as of September 30, 2008, we have reserved 6,000,000 shares of our common stock for issuance upon the exercise of options granted pursuant to our stock option plan, 3,805,600 of which have been granted, 90,000 of which have been exercised since inception, 3,715,600 of which are outstanding, and 2,194,400 of which may be granted in the future. The exercise of these options and warrants will result in dilution to our existing stockholders and could have a material adverse effect on our stock price. In addition, any shares issued in connection with the YA Global financing or Stanford Financing, as further discussed elsewhere in this Form 10-Q, can also have a dilutive effect and a possible material adverse effect on our stock price. The conversion price of the warrants are also subject to certain anti-dilution adjustments. The agreements with YA Global and Stanford provide for the potential issuance of up to an additional 61,833,332 shares of our common stock.

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Item 6. Exhibits.

Exhibits.

10.1+	Proposal for Manufacture and Supply by and between Avecia Biotechnology, Inc. and Senesco Technologies, Inc. dated as of September 4, 2008. (filed herewith)
10.2+	Proposal for Biodistribution and Repeat Dose Toxicity Studies in Mice by and between BioReliance and Senesco Technologies, Inc. dated as of September 5, 2008. (filed herewith)
10.3+	Services Agreement by and between KBI BioPharma, Inc. and Senesco Technologies, Inc. dated as of September 15, 2008. (filed herewith)
31.1	Certification of principal executive officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002. (filed herewith)
31.2	Certification of principal financial and accounting officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002. (filed herewith)
32.1	Certification of principal executive officer pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, 18 U.S.C. 1350. (furnished herewith)
32.2	Certification of principal financial and accounting officer pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, 18 U.S.C. 1350. (furnished herewith)

+ Confidential treatment for portions of this Exhibit has been requested from the SEC.

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SIGNATURES

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

SENESCO TECHNOLOGIES, INC.

DATE: November 14, 2008

By: /s/ Bruce C. Galton
Bruce C. Galton, President
and Chief Executive Officer
(Principal Executive Officer)

DATE: November 14, 2008

By: /s/ Joel Brooks
Joel Brooks, Chief Financial Officer
and Treasurer
(Principal Financial and Accounting Officer)

Confidential Treatment has been requested for portions of this exhibit. The copy filed herewith omits the information subject to the confidentiality request. Omissions are designated as "*". A complete version of this exhibit has been filed separately with the Securities and Exchange Commission.**

Avecia

Proposal for manufacture and supply of cGMP
Polyribonucleotide Duplex for Phase - I Clinical Trials

F.A.O.	**Richard S. Dondero** **Senesco Technologies, Inc** **303 George St., Suite 420** **New Brunswick, New Jersey 08901**
Prepared by:	**Kristy Bazaire** **Commercial Development Manager**
	Charles J Shields **VP, Global Business Development** **Avecia Biotechnology**
Proposal Number:	**SNT071608**
Version Number:	**4**
Date:	**September 4, 2008**

1. REQUEST FOR PROPOSAL

Senesco Technologies, Inc (Senesco) requested Avecia to prepare a proposal for the supply of 3g of material for Toxicology Studies and 15g of material for use in Phase I Clinical Trials. A stability study of the siRNA active pharmaceutical ingredient is also included in this proposal.

2. BENEFITS AVECIA CAN BRING

- Extensive experience in oligonucleotide manufacture, >1000 sequences prepared >700 Man-years oligonucleotide technology and manufacturing experience
- Available capacity: 100's of kg
- Experienced in supply through all Phases of clinical trials
- Experienced in process validation for oligonucleotides
- Registered and FDA inspected USA facility (Milford, Mass)
- Experience in preparation of DMF's, CMC's and CTD's
- Intimate knowledge and control of supply chain to ensure quality and viral safety
- Expertise in process and analytical method development
- Industry leading track record of compliant supply
- Access – via our exclusive license – to optimum deprotection technology for RNA production

3. PROJECT SCOPE

3.1 Product Description:

PRODUCT:	RNA Duplex
DESCRIPTION:	Duplex of two 21mer single strand RNAs
SEQUENCE	***
	SENESCO IS REQUESTED TO CONFIRM THE SEQUENCES ABOVE

3.2 Product Specifications

To be discussed and agreed after the limited development studies. For Senesco's reference, provisional specifications which reflect Avecia experience with other siRNA compounds have been provided in Appendix A. These are for information purposes only and should not be considered as agreed or appropriate for this compound.

3.3 **Project Structure**

Stage 1 Limited Development Studies and Supply of Toxicology Material

Define from Avecia experience the most appropriate operating conditions for synthesis, cleavage, deprotection, purification, ultra-filtration of the RNA single strands and for duplexation and lyophilization of the RNA duplex.

Carry out a limited number of small scale runs to confirm process suitability specifically for the Senesco RNA duplex and refine process as necessary

Manufacture and supply *** grams of material for use in Toxicology studies.

This is expected to take 8 labor weeks and includes as a deliverable a process description to support the GMP manufacturing campaign and CMC sections of IND submission.

The material produced during the experimental runs will also be used to support an analytical method suitability assessment. A limited forced degradation study (base and thermal exposure) will be carried out to support stability testing. The analytical method assessment and forced degradation study are each expected to take 2 labor weeks, for at a total of four weeks.

Deliverable – Technical development reports to support cGMP manufacturing campaign, analytical methods and data summary.

Stage 2 cGMP Manufacture and Supply of API

Manufacturing will be carried out at a 1 x 6 mmol synthesis scale for each single strand, cleavage and deprotection and purification/UF followed by a 1 x 6 mmol duplexation. Manufacturing scale is expected to produce approximately *** g of cGMP material.

During stage 2 Avecia will execute the following:

Prepare process instructions as appropriate for manufacture of a batch suitable for use in Phase - I Clinical Trials.

Confirm suitability of analytical methods for raw materials, in-process and final product analysis and equipment cleaning

Confirm specification for raw material, in-process and final product Safety, Health and Environment assessment

Engineering Review

Agree primary packaging and labels and required aliquots

Manufacture single strand intermediates and subsequent duplexation

Carry out product analysis and release

Deliverable – Sufficient material to satisfy requirement of testing and regulatory retain (***), ICH stability study (***) and supply of *** cGMP API to Senesco. QA reviewed Certificate of Analysis will also be provided.

Stage 3 Drug Substance ICH Derived Stability Study

Under the guidance of a customer approved protocol, Avecia will perform a stability study as described below. Should Senesco wish to extend the -209C study beyond *** months, sufficient material will be available to accommodate two additional time points to be detailed in a separate proposal. It is expected that this stability study will require approximately ***g of the material produced from stage 2.

***

Deliverable – Avecia will supply Senesco with interim stability reports for each intermediate pull point (*** and *** months) with a final stability report at the conclusion of the study (*** months).

4. PROJECT ASSUMPTIONS

The following assumptions are applicable to this proposal. Changes to these conditions and/or the scope of the project may change the project timing and cost. All changes will be executed using a mutually agreed change order.

	Assumptions
Pricing	Prices are in US Dollar Pricing includes raw materials
Reference Material	If available, Senesco will supply small quantities of reference material
Material Use	The material will be used for Toxicology Studies and Phase I Clinical Trials Senesco will conduct appropriate Toxicology studies in advance of any use of material in human clinical trials
Timelines	*** weeks for Tox material from project acceptance *** months for GMP material from project acceptance * Timelines dependant on Raw Material availability
API Analysis	Avecia will carry out product analysis and release
Development	Pricing assumes Avecia's existing collection of processes for RNAi manufacture and methods for RNAi

	analyses are suitable for use with this compound without the requirement for substantial development.
Stability Study Cancellation	Senesco retains the option to cancel the stability study at their sole discretion. Avecia will prorate the stability

	study accordingly and will include any outstanding storage fees incurred to date.
Confidentiality	All confidential information will be managed in accordance with the executed Mutual Confidentiality Agreement dated July 28, 2008
Intellectual Property	Nothing in this Agreement shall affect the ownership by either party of any intellectual property or process owned by that party.

5. PROJECT TIMELINES

A detailed project plan will be shared with Senesco Technologies upon commencing.

6. FACILITIES

Avecia will use its FDA inspected Manufacturing Facility at Milford, Massachusetts USA

7. COMPLIANCE

Material from Stage 1 will be non-GMP and will not be suitable for use in human clinical trials.

Final API material from Stage 2 will be supplied to cGMP as interpreted by ICH Harmonized Tripartite Guideline Q7, Good Manufacturing Practice Guide for Active Pharmaceutical Ingredients.

Material is supplied under the strict understanding that Senesco Technologies will conduct appropriate Toxicology studies to ensure material is safe for human clinical trials before any human trials commence.

8. FINANCIAL SUMMARY

Stage 1 Limited Development Studies and supply of *** grams duplex for Toxicology Studies ***

Analytical method assessment and limited forced degradation ***

Stage 2 Manufacture and Supply of *** grams cGMP material, *** grams for stability study and approximately *** grams for QC release and regulatory retains ***.

Pricing assumes orders will be placed at the same time for Toxicology and P-I material.

Pricing includes at no additional cost:

A copy of batch records

Reasonable assistance in regulatory submissions

BSE/TSE traceability documentation

Access as required within project scope to analytical, technical and validation expertise

Project management services

Stage 3 ICH Derived Stability Studies ***. Pricing assumes T0 testing is conducted during lot release in stage 2.

9. MILESTONE INVOICING

Project Milestone	Approximate Timing	Payment
Project Acceptance	August 2008	***
Start of cGMP Manufacture	***	***
Release of cGMP Batch	***	***
2009 Stability Activities	***	***
2010 Stability Activities	***	***

10. EARLY TERMINATION

With acceptance of this proposal, Avecia is reserving equipment time and resources in our manufacturing facility for Senesco. In the event that Senesco terminates the project, as detailed within this proposal, a cancellation fee will be applied. The structure of the fee will be:

- If Senesco cancel the manufacture prior to 90 days before the planned manufacturing start date, no cancellation fee will be applied.

- If Senesco cancel the manufacture between 90 and 60 days before the planned manufacturing start date 40% of the total project cost will be charged as a cancellation fee, all payments to date will be credited towards this fee.
- If Senesco cancel the manufacture between 60 and 30 days before the planned manufacturing start date 60% of the total project cost will be charged as a cancellation fee, all payments to date will be credited towards this fee.
- If Senesco cancel the manufacture <30 days before the planned manufacturing start date 80% of the total project cost will be charged as a cancellation fee, all payments to date will be credited towards this fee.

11. PROPOSAL REVISION HISTORY

Proposal Version Number	Date	Comments/Changes
Version 1	July 24, 2008	Original Version
Version 2	August 5, 2008	stage 1 deliverable to 3g GLP
Version 3	August 27, 2008	Amend stability study
Version 4	September 4, 2008	Correct name, add confidentiality and IP statement

12. PROPOSAL ACCEPTANCE

Senesco and Avecia by signing below hereby accept the scope of Proposal SNT071608 Version 4 and the terms and conditions contained herein.

/s/ Richard S. Dondero
Name: Richard S. Dondero
Title:
Senesco Technologies, Inc.

/s/ CJ Shields
Name: CJ Shields
Title: VP Global Business Development
Avecia Biotechnology, Inc.

13. TERMS AND CONDITIONS

Avecia Biotechnology Inc standard terms and conditions are outlined below. These terms would apply in the absence of a supply agreement. We would be happy to discuss and agree a supply agreement at Senesco Technologies convenience.

This proposal is valid until September 19, 2008.

Avecia Biotechnology Inc standard terms and conditions are outlined below. These terms would apply in the absence of a supply agreement. Terms of payment are thirty (30) days net from the date of the invoice.

Prices:	This quotation is valid for thirty (30) days from the date issued and subject to satisfactory credit check. Prices are quoted in US dollars.
Payment by Check:	Payment should be made to: Avecia Biotechnology Inc. 125 Fortune Blvd. Milford, MA 01757

Payment by Wire Transfer:	Payment should be made to: Citizens Bank Acct #: *** ABA Routing #: ***

GENERAL CONDITIONS

This document entitled “Proposal” once signed and authorized by the parties becomes a legally binding Agreement. The terms and conditions for sale and purchase of Product and Services under this Agreement are as follows:

1. Miscellaneous The Agreement contains all the terms and conditions of sale and purchase of the Product and Services listed within this Agreement. No modification of any terms and condition, or of any aspect of the project scope, shall be effected unless mutually agreed by the parties in writing. This Agreement and performance hereunder shall be construed and governed by the laws of Delaware.

2. Term This Agreement shall take effect on the date of the final authorizing signature and shall remain in effect until the later to occur of (i) completion of all Services listed within this Agreement or (ii) 30 days following delivery of the final shipment of Product.

3. Shipments Product will be delivered EX WORKS AVECIA’s facilities at Milford, Massachusetts. Title to and risk in the Product shall pass to CUSTOMER at the earliest to occur of (i) the time at which the Product is placed at CUSTOMER’s request in AVECIA storage or (ii) the time at

which the Product is delivered to CUSTOMER's designated carrier at AVECIA's facilities at Milford, Massachusetts.

4. Invoices and Payment AVECIA shall issue to CUSTOMER invoices for payment for the Products and Services in accordance with the payment milestone schedule within this Agreement. Within thirty (30) days following the receipt of each invoice, absent a good faith dispute, CUSTOMER shall pay the invoice. AVECIA reserves the right, among other remedies, to suspend further work or Product deliveries in the event CUSTOMER fails to pay any invoice when same becomes due. Unless otherwise stated in the project assumptions within this Agreement, the invoice price for Product shall be calculated on the weight of the Product discharged from the lyophilizer.

5. Excuse of performance Neither party shall be subject to any liability for delay in performance, or non performance, as a result of fire, flood, natural catastrophe, strike, labor trouble, accident, riot, act of governmental authority or compliance with government request, act of god, or other contingencies and circumstances beyond its reasonable control interfering with the manufacture or delivery of Product or Services covered by this Agreement or with the supply of any raw materials or utilities used in connection therewith, or in the event AVECIA suspends the operation of the facility because operation thereof fails to comply with applicable governmental law, regulation, ordinance, standard order or decree relating to pollution, ecology, occupational safety and

health, or environmental matters. AVECIA may, during any period of shortage due to any cause, prorate and allocate its supply of raw materials or resources, and delivery of contractual commitments in such manner as may be deemed fair and reasonable by AVECIA. In no event shall AVECIA be obligated to purchase Product in the marketplace to satisfy its obligations hereunder.

6. Taxes The prices quoted exclude any applicable sales, use, consumption, value added or excise taxes duties, tariffs and other similar assessments which may be imposed by any governmental authority an the sale to CUSTOMER (other than with respect to any income, corporate or similar taxation on AVECIA); provided, however, that the Parties shall cooperate and take any reasonable and proper steps to reduce or eliminate taxes.

7. Limited Warranty. AVECIA warrants title and that all Product sold hereunder conforms to the agreed specifications and where appropriate cGMP requirements. AVECIA MAKES NO OTHER REPRESENTATION OR WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, AS TO MERCHANTABILITY, FITNESS FOR PARTICULAR PURPOSE, OR ANY OTHER MATTER WITH RESPECT TO THE PRODUCT OR SERVICES. Any suggestions made by AVECIA concerning regulatory requirements, regulatory strategy, uses or applications of Product reflect AVECIA's opinion only, and AVECIA makes no warranty of results to be obtained.

8. Limitation of Liability. Within fifteen days after receipt of each shipment of Product sold hereunder, CUSTOMER shall examine such Product for any damage, defects or shortage. All claims, including claims for alleged damaged or defective goods, shortage or non-deliverance of goods, negligence or any other causes whatsoever, shall be deemed waived unless made in writing and received by AVECIA within thirty days after CUSTOMER's receipt of the Product. Failure of CUSTOMER to give notice of any claims within the thirty (30) day period shall be deemed an absolute and unconditional waiver of such claim. CUSTOMER'S EXCLUSIVE REMEDY SHALL BE FOR DAMAGES AND AVECIA'S LIABILITY FOR ANY AND ALL LOSSES OR DAMAGES RESULTING FROM ANY CAUSE WHATSOEVER, INCLUDING ALLEGED NEGLIGENCE, SHALL IN NO EVENT EXCEED THE PURCHASE PRICE OF THE PRODUCT OR SERVICE IN RESPECT TO WHICH THE CLAIM IS MADE. AVECIA shall not be liable for, and CUSTOMER assumes responsibility for, all personal injury and property damage resulting from the handling, possession, use or resale of the Product. In no event shall AVECIA be liable for special, incidental, or consequential damages, whether CUSTOMER's claim is in contract, negligence, strict liability or otherwise.

9. Intellectual Property CUSTOMER represents and warrants to AVECIA that CUSTOMER has all necessary rights to have the Product made and that AVECIA's manufacture of Product for CUSTOMER will not infringe the intellectual property or other rights of any third party. CUSTOMER shall indemnify and hold AVECIA harmless from all liability, damages, costs and expenses relating to any claims brought by third parties for infringement of any intellectual property rights covering the Product manufactured to designs or specifications of CUSTOMER. Nothing in this Agreement shall affect the ownership by either party of any intellectual property or process owned by that party. Other than giving AVECIA the right to manufacture the Product for the

CUSTOMER, nothing in this Agreement shall give either party the right to use the other party's intellectual property. Intellectual property generated, developed, discovered or invented in connection with work conducted under this Agreement by the parties relating solely to the composition of the Product shall belong to CUSTOMER. All other intellectual property generated, developed, discovered or invented by the parties in connection with work conducted under this Agreement shall belong to AVECIA.

Confidential Treatment has been requested for portions of this exhibit. The copy filed herewith omits the information subject to the confidentiality request. Omissions are designated as "*". A complete version of this exhibit has been filed separately with the Securities and Exchange Commission.**

BioReliance

BioReliance
14920 Broschart Road
Rockville, Maryland 20850-3349 USA
Phone: 301.738.1000 · Fax: 301138.1605
www.bioreliance.com

Proposal for Biodistribution and Repeat Dose Toxicity Studies in Mice

Submitted by:
BioReliance
14920 Broschart Road
Rockville, MD 20850

To:
Cato Research Ltd.
and
Senesco Technologies, Inc

Date
September 5, 2008

THE INFORMATION CONTAINED IN THIS PROPOSAL IS SUBJECT TO THE FOLLOWING RESTRICTIONS:

The information contained herein is submitted upon the understanding that it is privileged or confidential within the meaning of the Freedom of Information Act 5 U_S_C., Sec 552 (b) 4.

Data contained in all pages of this proposal shall not be used or disclosed, except for evaluation purposes

This proposal is valid for the next ninety (90) days from the submission date.

1.0 Objective: To perform biodistribution and toxicity studies in mice analyzing Senesco test materials eIF-5A DNA and siRNA

2.0 Scope of Work :

Based on the documentation provided by Cato Research and Senesco, technical meetings and the technical review of BioReliance, the following were determined to be distinct milestones of this project:

I. Development of DNA QPCR Assay
   a. Design and Development
   b. Characterization and Qualification
   c. Non-GLP Final Report

II. Development of RNA QPCR Assay
   a. Assay Feasibility
   b. Design and Development
   c. Characterization and Qualification
   d. Non-GLP Final Report

NOTE: BioReliance recommends initiating Milestone II first. Due to unfamiliarity with the best technology suitable for this project, BioReliance does not guarantee a successful outcome. BioReliance will make best effort to design an assay that can be used in support of the biodistribution study. In case the outcome is unsuccessful (i.e., no assay), BioReliance will consult with Cato to assist in the identification of path forward.

III. Repeat Dose ***-Day Acute Toxicity Study *** (*** *** of ***, *** of ***, *** and *** and ***); *** ***; *** ***; *** *** and *** on *** ***; ***

IV. Repeat Dose Toxicity and Biodistribution Study in Mice *** *** (*** *** of ***, *** of ***, *** and ***, ***); *** ***; *** for *** ***; *** on *** *** and *** *** for ***, *** for *** from *** and ***; *** and ***; clinical *** at *** *** (***); *** *** and ***; *** ***; *** ***and*** ***, and ***

V. Development of Immunoassay for detection of ***

   a. ***
      i. ***
      ii. ***
      iii. ***

b. ***
    i. ***
    ii. ***

VI. ***
a. *** *** to ***
b. *** of ***
c. ***
d. *** to ***

VII. ***
a. *** of *** to ***
b. *** of ***
c. ***
d. ***to ***

VIII. Immunoassay Antibody Detection Sample Analysis

Note: Any changes to the scope of this study including, but not limited to, design, development, performance, materials andlor equipment are subject to BioReliance change control process, which may result in additional cost to the client.

3.0 Required from Cato Research or Senesco Technologies:

- siRNA for Milestones II
- Test Samples for Milestones III, IV and V
- Purchase Order prior to project commencement

4.0 Deliverables :

- GLP final report for Milestones III and IV

Note: Unless otherwise stated or requested, all studies conducted by BioReliance are performed in compliance with the requirements of the UK and German GLP Regulations, the US FDA Good Laboratory Practice Regulations (21 CFR 58), the Japanese GLP Standard and the OECD Principles of Good Laboratory Practice. BioReliance is fully accredited for GLP.

5.0 Contacts:

BioReliance point of contact for this project that will be:
Diane Brecha
Senior Technical Sales Specialist
(301) 260-7544
Diane.brecha@bioreliance.com

Cato Research point of contact for this project:
Sharon Daily
(732) 241-0480

6.0 Study Costs:

Milestone I:	***
Milestone II:	***
Milestone III:	***
Milestone IV:	***
Milestone V:	***
Milestone VI:	***
Milestone VII:	***
Milestone VIII:	***
Total for Project:	***

Note: the pricing information provided in this proposal is best estimated of BioReliance based on the details available at this time. The price may vary upon further investigation by BioReliance and additional information provided by Cato Research and Senesco. If the number of tissue samples and/or mice for the project changes the price of testing will change. In this case this holds *true,* BioReliance will issue an amended proposal.

All data and results generated in this study are confidential and are solely owed by Senesco Technologies, Inc. All information from this study can not be shared with any other entity beside Cato Research without first receiving written permission from Senesco.

All materials relating to eIF-5A and siRNA against eIF-5A, or their detection or modification, employed in *this* study are owned by Senesco Technologies, Inc. and will be disposed of properly at the conclusion of the study by BioReliance.

By initiating this study neither party grants or implies *the* transfer of any Intellectual Property to the other party.

7.0 Payment Terms

The project will be billed to responsible party in installments. Invoicing and Payment terms will be discussed with Cato and Senesco at upon finalization of project requirements.

8.0 Cancellation Policy

BioReliance charges a cancellation fee for studies cancelled within 120 days of scheduled study start. The cancellation fee is based on time of cancellation prior to study start as described in the following table:

Months before study start*	Cancellation charge
1 month or less	$ ***
2 months	$ ***
3 months	$ ***
4 months	$ ***
Greater than 4 months	No charge

* Study start is defined as first day of dosing.

Once this agreement is signed, a study start date will be agreed to by both BioReliance and the Sponsor

- If more than 4 months (120 days) ahead of scheduled animal arrival there is a change to the schedule, this will be at no charge. However, we are not able to guarantee availability of a new slot within a similar time frame, but will work with the Sponsor to find an appropriate time slot.

- In all other cases of date changes, a charge of $7,500 per week will be assessed. This change fee is in addition to the cost of the study and will be added to the initial invoice. We will not be able to guarantee availability of a new slot within a similar time frame, but will work with the Sponsor to find an appropriate time slot.

9.0 Risk Assessments and Safety

Any known safety hazards associated with the test articles or reagents supplied for use in these studies must be reported to BioReliance in order to allow a full risk assessment of the study to be conducted. Please be aware that there may be a requirement for licences to import and/or handle certain biological or infectious materials, and it is essential that these be in place before shipment of materials is arranged. Please note that no work shall commence until all relevant risk assessments and licences are in place.

Please also note that for studies under consideration at our UK facilities, BioReliance is required by the UK Health and Safety Executive under European Commission Directive 94151/EC to have a risk assessment of any GMO present in its facility. Therefore, if the material to be supplied is classified as a Genetically Modified Organism (GMO), we request that you inform us of the safety assessment for the test article. Alternatively, if requested by you, BioReliance's own Genetic Safety Committee can do an assessment for you.

10.0 Signatures

Client:	**BioReliance:**
/s/ Richard S. Dondero	/s/ Diane Brecha
Name	**Name**
VP of Research and Development	Sr. Technical Sales Specialist
Title	**Title**

Confidentiality

This document has been prepared by and remains the sole property of BioReliance. It is submitted to the Client solely for use in evaluating BioReliance's qualifications and/or quotations concerning the particular projects for which it was prepared. This document is confidential to BioReliance, and the Client agrees to treat the document in accordance with the terms of any Confidentiality Agreements previously signed and, in any event, shall not disclose to any third party without the consent of BioReliance not to be unreasonably withheld.

BioReliance Overview:

BioReliance Corporation is a leading contract services organization, offering more than 1,000 tests or services related to biologics safety testing, in vitro and in vivo toxicology, viral manufacturing and lab animal health diagnostics for the biopharmaceutical and pharmaceutical industries. The Company

provides cost-effective services to over 600 clients annually, including most of the largest pharmaceutical and biopharmaceutical companies in the world. BioReliance is headquartered in Rockville, Maryland and has additional facilities in Glasgow, Scotland and Stirling, Scotland.

Experience	·	Leader in biologics safety testing, viral clearance, viral manufacturing, genetic toxicology and simian testing
	·	Global services provided through Rockville, MD; GIasgow and Stirling, Scotland
	·	More than 140 employees with advanced degrees in science
	·	Have provided regulatory support for 20% of marketed biologics
	·	Over 1,000 customers worldwide — 50% of companies that develop biologics perform work with BioReliance
Services	·	*Biologics Testing* - more than 700 testing services for the detection of viral and microbial contaminants
	·	*Toxicology Testing* - provider of 100 *in vitro* and *in vivo* toxicology services
	·	*Lab Animal Diagnostics* - More than 300 full-service diagnostic assays for laboratory animals used in research studies. Services for testing health of animal research models
	·	*Viral Manufacturing* - production services for viral vaccines and gene therapy products. Viral oncolytics and cell therapies at all stages of development
Quality & Regulatory	·	Majority of assays are validated.
	·	GLP and GMP infrastructure and compliance.
	·	Dedicated QA personnel audit specific steps and procedures during each study.
	·	Senior personnel available to meet directly with the regulatory authorities, if required, to review study results and data.
	·	Regulatory advice - regular dialogue with the FDA, EMEA and other
	·	Regulatory Authorities help ensure the advice we give is up to date and relevant.
	·	Expert scientists provide technical and regulatory support before, during and after completion of the study.

History of Innovation	·	**1951** - First commercial supplier of cell cultures
	·	**1955** - First polio vaccine biosafety protocols
	·	**1960** - First mouse antibody (MAP) test in collaboration with the NIH
	·	**1978** - First ELISA Dx test for the detection of cytomegalovirus (CMV)
	·	**1981 —** Biosafety protocol for first mammalian derived biologic (Activase)
	·	**1990** - Developed safety protocol for first gene therapy to enter human clinical trials
	·	**1994** - First xeno-transplantation safety testing program
	·	**1997** - Commercial TSE Western Blot offered
	·	**2000** - First use of molecular quantification for viral infectivity
	·	**2007** Selected to characterize first US national stem cell banks
	·	**2007** - Introduction of iNet for real-time sample tracking
	·	**2007** - HyMy assay for rapid detection of mycoplasma

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KBI BioPharma, Inc. Services Agreement

This Services Agreement ("Agreement") dated 5 September, 2008 between Senesco Technologies, Inc, a Delaware company ("Client") having its principal place of business at 303 George Street, Suite 420, New Brunswick, NJ 08901 and KBI BioPharma, Inc., a Delaware company ("KBI BioPharma") having its principal place of business at 1101 Hamlin Road, Durham, North Carolina 27704 (each a "Party", collectively the "Parties").

Whereas:

Client desires KBI BioPharma to perform services in accordance with the terms of this Agreement and KBI BioPharma desires to perform such services.

In consideration of the above statements, which form part of this Agreement, and other good and valuable consideration, the sufficiency and receipt of which are hereby acknowledged, the Parties hereto agree as follows:

1. Performance

KBI BioPharma will perform the services (the "Services") detailed in the proposal and/or scope-of-work set forth in Attachment One (the "Proposal") on behalf of Client in accordance with this Agreement herein incorporating the Proposal and incorporating the Quality Agreement (applicable only for projects with cGMP activities) attached hereto as Attachment Two. In the event of any conflict between this Agreement and the Proposal, this Agreement shall control. In the event of any conflict between the Proposal and any applicable Quality Agreement, the Quality Agreement shall control.

Client shall support and cooperate with the execution of the services and shall not engage in any act or omission, which may reasonably be expected to prevent or delay the successful execution of the Services. Such support and cooperation shall include, but not be limited to, informing KBI BioPharma of global regulatory strategy for development and approval of the product(s) to the extent relevant to the Proposal, prompt review and approval of documents requiring Client's signature, timely delivery of methods and materials and prompt response to other similar issues.

2. Compliance with Applicable Government Regulations

KBI BioPharma will undertake the Services in compliance in all material respects with applicable laws, rules, regulations and guidelines; provided that the U.S. Food and Drug Administration (FDA) current Good Manufacturing Practices (cGMP) shall apply if and only to the extent cGMP activities are specified in the Proposal.

3. Client Obligations

Unless otherwise agreed to by the Parties in writing, Client is solely responsible, in each case in accordance with the Proposal, for: (a) provision of complete and accurate scientific data regarding the Proposal; (b) provision of all information necessary to effect the reliable transfer of methods to KBI BioPharma; (c) provision of specific reagents, reference standards or other materials

necessary for execution of the Proposal; (d) if applicable, review and approve in-process and finished product test results to ensure conformity of such results with product specifications, regardless of which party is responsible for finished product release; (e) preparation of all submissions to regulatory authorities; and (f) performance of other obligations of Client set forth in the Proposal.

4. Hazardous Materials

Client warrants to KBI BioPharma that no specific safe handling instructions are applicable to any substance or material provided by Client to KBI BioPharma, except as disclosed to KBI BioPharma in sufficient time for review and training by KBI BioPharma prior to delivery. Where appropriate or required by law Client shall provide a Material Safety Data Sheet and instructions for proper storage for all Client-provided materials, finished product and reference standards.

5. Facility Visits and Audits

Client's representatives may visit KBI BioPharma's facilities during normal business hours and with prior written notice to observe the progress of the Proposal, provided that such access does not compromise cGMP compliance or safety. KBI BioPharma will assist Client in scheduling such visits, which will be conducted in a manner reasonably required to protect confidentiality of other clients.Client may conduct one quality assurance audit per calendar year at no cost in accordance with the provisions of the Quality Agreement (if applicable). Additional audits will be invoiced separately on a time and materials basis at the then current rate for such services.

6. Regulatory Inspections

KBI BioPharma will promptly notify Client of any regulatory inspections directly relating to the Proposal in accordance with the terms of the Quality Agreement (if applicable) incorporated herein. Client accepts reasonable and documented costs charged by a regulatory authority for inspections directly related to the Proposal.

7. Compensation

KBI BioPharma will invoice Client as set forth in the Proposal. Payments are due thirty (30) days from date of invoice. Late payments are subject to an interest charge of one and one half percent (1½%) per month or, if less, the maximum legal interest rate per month. Failure to bill for interest due shall not be

a waiver of KBI BioPharma's right to charge interest.

KBI BioPharma requires payment of an initial fee, specified in the proposal, prior to commencement of Services, to account for facilities preparation costs and resource allocation commitments with respect to Client's project(s). Unless otherwise provided in the applicable Proposal, initial fees are nonrefundable (absent an uncured breach by KBI BioPharma) and are due and payable at signing, or in any event within five (5) days, without issuance of an invoice by KBI BioPharma.

8. Taxes

Client will pay (or reimburse in full to KBI BioPharma) any sales, use, gross receipts, compensating or other taxes, licenses or fees (excluding KBI BioPharma's net income and franchise taxes) to be paid by KBI BioPharma to any tax jurisdiction arising from the Proposal.

9. Change Orders

KBI BioPharma may revise the price for the Services as set forth in the Proposal if (a) Client revises KBI BioPharma's responsibilities, the specifications, the Proposal instructions, procedures, assumptions, processes, test protocols, test methods, analytical requirements or otherwise requests a modification to the Proposal, (b) Client's requirements or any Client-provided

information is inaccurate or incomplete and such inaccuracy or incompleteness results in increased costs to KBI BioPharma, (c) necessitated by changes to applicable laws, rules or regulations (d) if necessitated by an event outside the control of KBI BioPharma, including , without limitation, the events described in section 16 (Force Majeure) or (e) for other such reasons set out in the Proposal. Client will be notified of such revision via issuance of a Change Order detailing the reasons for the price revision and subject to Client's written consent.

10. Shipment

Unless otherwise agreed in writing by the parties, all products, raw materials, samples components or other materials shipped by KBI BioPharma are delivered F.O.B. KBI BioPharma's facilities. KBI BioPharma shall package for shipment such product, raw materials, samples, components or other materials at Client's expense (including insurance) and in accordance with Client's full written and reasonable instructions.

11. Limitations of Liability

Notwithstanding any other provision in this Agreement, KBI BioPharma's liability for losses to Active Pharmaceutical Ingredient, bulk drug product, intermediates, samples, reagents or other materials provided by Client, whether or not incorporated into finished product, shall in no event exceed the undisputed fair market value thereof.

Notwithstanding anything herein to the contrary, **UNDER NO CIRCUMSTANCES SHALL EITHER PARTY BE ENTITLED TO INCIDENTAL, INDIRECT, CONSEQUENTIAL, EXEMPLARY OR SPECIAL DAMAGES, WHETHER OR NOT FORESEEABLE, ARISING IN CONNECTION WITH THE DEFAULT OR BREACH OF ANY OBLIGATION OF THE OTHER PARTY UNDER THIS AGREEMENT, THE PROPOSAL, THE QUALITY AGREEMENT OR ANY APPENDICES OR DOCUMENTS RELATED THERETO, SUBJECT TO SECTION 15 HEREOF.**

12. Warranties

KBI BioPharma warrants to Client that (i) it will render the Services in a manner that meets professional and industry standards for work of a similar nature and (ii) it will use commercially reasonable efforts to perform the Services and, to the extent applicable for cGMP services, the Quality Agreement. **EXCEPT AS EXPRESSLY STATED IN THIS SECTION 12, KBI BIOPHARMA DISCLAIMS ALL WARRANTIES, EXPRESS OR IMPLIED WITH RESPECT TO THE SERVICES AND ANY MATERIALS PROVIDED HEREUNDER, AND CLIENT HEREBY WAIVES ALL SUCH WARRANTIES, EXPRESS OR IMPLIED, INCLUDING WITHOUT LIMITATION ANY IMPLIED WARRANTIES OF MERCHANTABILITY, NONINFRINGEMENT OR FITNESS FOR A PARTICULAR PURPOSE.** Except as otherwise provided in this Agreement, Client's sole remedy and KBI BioPharma's exclusive obligation under the foregoing warranty in this Section 12 is for KBI BioPharma, at its option, to either re-perform or correct such services (without cost or expense to Client, including shipping conforming KBI BioPharma deliverables to Client) or to refund to Client the amount paid therefore, including the cost of shipping. For avoidance of doubt, Client understands and agrees that the Services are experimental in nature, that biopharmaceutical process development is subject to certain inherent risks, and as such nothing in this Agreement shall be construed as a guarantee or warranty by KBI BioPharma that the Services, or the materials, data, information of other results produced in connection therewith, will meet or otherwise satisfy any of the objectives, goals or targets stated in the Proposal.

13. Confidentiality

All information disclosed by a party in connection with the Proposal shall be considered confidential information. For the duration of the Proposal and for a period of five (5) years thereafter, neither Party shall disclose confidential information disclosed by the other Party without prior written permission unless such information is (i) disclosed to an affiliate that is under similar obligation to

keep such information confidential; (ii) is or becomes publicly available through no fault of the receiving Party; (iii) is disclosed by a third party entitled to disclose it; (iv) is already known to the receiving Party as shown by its prior written records; or (v) is required to be disclosed by any law, rule, regulation, order, decision, decree, subpoena or other legal process provided that the receiving Party shall give prompt notice thereof to the disclosing Party and shall cooperate with the disclosing Party to obtain a confidentiality order or other similar protection.

14. Intellectual Property

All Client Materials that KBI BioPharma may have access to in order to perform the Services shall be owned exclusively by the Client. Nothing in this Agreement shall be deemed to grant any rights to KBI BioPharma in any Client Materials, other than the right for KBI BioPharma to perform the Services in accordance with the terms of this Agreement. For the purposes hereof, "Client Materials" means all Client proprietary information, intellectual property and developments, including without limitation, all patents, patent applications, know-how, inventions, design, concepts, technical information, manuals, instructions which are owned, licensed or controlled by Client relating to pharmaceutical or diagnostic products or the development, formulation, manufacture, processing, packaging, analysis or testing thereof. In the event that Client loses or forfeits its rights in such proprietary technologies during the term of this Agreement for any reason, Client shall provide notice of same to KBI BioPharma immediately and this Agreement shall be subject to immediate termination by KBI BioPharma at that time.

Any and all ***, and ***, whether *** of this Agreement ("***"), including without limitation any *** and *** which are based on Client Materials, shall be *** KBI BioPharma shall at Client's request assign to Client or its designee all of its rights and title in the Custom Intellectual Property, which assignment is accepted by Client. Prior to the commencement of work hereunder, KBI BioPharma has or shall enter into agreements with all employees and consultants involved in the carrying out of this Agreement sufficient to provide Client with the assignments and licenses set forth in this Agreement.

Client acknowledges that KBI BioPharma, and KBI BioPharma's personnel, possess and continuously update proprietary inventions, tools, templates, models, methodologies, processes, know-how, trade secrets, improvements, and other intellectual properties and other assets (including but not limited, to analytical methods, procedures and techniques, computer technical expertise and software, and business practices, related to the development and commercialization of biopharmaceuticals, as well as other areas, which have been independently developed by KBI BioPharma and its personnel), certain of which may be used, improved, modified or developed by KBI BioPharma in the course of a rendering Services (collectively, "KBI BioPharma Process Technology"). Except as otherwise specified herein, KBI BioPharma, and KBI BioPharma's personnel, shall retain exclusive right, title and interest in and to all KBI BioPharma Process Technology and improvements thereto.

15. Indemnification

KBI BioPharma will indemnify and hold harmless Client, its affiliates and their officers, directors, agents, and employees against any loss, cost, damage or expense (a "Loss") from any lawsuit, action, claim, demand, assessment or proceeding brought by a third party (a "Claim") arising directly or indirectly from (i) the conduct of the Proposal as a result of KBI BioPharma's gross negligence or intentional misconduct or inaction or (ii) KBI BioPharma's material breach or non-performance of this Agreement; provided that if such Loss or Claim arises in whole or part from Client's gross negligence or intentional misconduct or inaction, then the amount of such loss that KBI BioPharma shall indemnify Client for shall be reduced by an amount proportional to Client's responsibilities for such Loss as determined by a court of competent jurisdiction.

Client will indemnify and hold harmless KBI BioPharma, its affiliates and their officers, directors, agents, and employees against any Loss or Claim arising directly or indirectly from (i) Client's gross negligence or intentional misconduct or inaction, (ii) Client's material breach or non-performance of this Agreement, or (iii) Client's use, handling, distribution or sale of the products or other deliverables resulting from a Proposal; provided that if such Loss or Claim arises in whole or part from KBI BioPharma's gross negligence or intentional misconduct or inaction, then the amount of such loss that Client shall indemnify KBI BioPharma for shall be reduced by an amount proportional to KBI BioPharma's responsibilities for such Loss as determined by a court of competent jurisdiction.

16. Force Majeure

Neither party will be liable for any failure to perform or for delay in performance resulting from any cause beyond its reasonable control, including, without limitation, acts of God, fires, floods, or weather, disease, strikes or lockouts, factory shutdowns, embargoes, wars, hostilities or riots, acts of terrorism, shortages in transportation, government action or power failure, provided that such failure to perform shall be excused only to the extent of and during such disability. Any time specified or estimated for completion of performance of Services falling due during or subsequent to the occurrence of any such events shall be automatically extended for a period of ninety (90) days to recover from such disability. If any part of the Proposal is invalid as a result of such disability, KBI BioPharma will, upon written request from Client, and at Client's sole cost and expense, repeat that part of the Proposal affected by the disability.

17. Use and Disposal

Client represents and warrants to KBI BioPharma that it has legal title and/or a valid license to materials, process patents and other intellectual property necessary to conduct the Proposal and that KBI BioPharma's performance of the Proposal will not violate or infringe on the patents, trademarks, service marks or copyrights of any third party. Client further represents and warrants to KBI BioPharma that it will hold, use and/or dispose of Product and materials provided by KBI BioPharma in accordance with all applicable laws, rules and regulations.

KBI BioPharma represents and warrants to Client that it has legal title and/or a valid license to those materials, process patents and other intellectual property not furnished by Client that are necessary to conduct the Services, and that KBI BioPharma's use or application thereof in its performance of the Services will not violate or infringe on the patents, trademarks, service marks or copyrights of any third party. KBI BioPharma further represents and warrants to Client that it will hold, use and/or dispose of information and materials provided by Client in accordance with all applicable laws, rules and regulations.

18. Independent Contractor

KBI BioPharma shall perform the Proposal as an independent contractor of the Client and shall have complete and exclusive control over its facilities, equipment, employees and agents. The relationship between the parties shall not constitute a partnership, joint venture or agency nor constitute either party as the agent, employee or legal representative of the other.

19. Publicity

Neither Party will make any press release or public disclosure or use the name of the other party or its employees in any advertising or sales promotional material without the other Party's express prior written consent.

20. Authority

Client grants KBI BioPharma full authority to use any Client supplied materials or substances *** for the ***. Each party represents and warrants to the other party that it has the full right and authority to enter into this Agreement and to perform in accordance with the terms and conditions set forth herein. Each Party further represents and warrants to the other Party that it has obtained and will, at all times during the term of this Agreement, hold and comply with all licenses, permits and authorizations necessary to perform this Agreement as now or hereafter required under any applicable statutes, laws, ordinances, rules and regulations of the United States and any applicable foreign, state and local governments and governmental agencies.

21. Amendment and Precedence

The Proposal, the terms and conditions herein and any applicable Quality Agreement constitute the entire agreement between the Parties relative to the Proposal and may not be modified without the mutual written consent of both Parties. The Parties agree that the terms and conditions contained in this Agreement shall prevail over any terms and conditions of any purchase order, acknowledgment form or other instrument. Each Party has had the opportunity to consult with counsel in connection with the review, drafting and negotiation of this Agreement. Accordingly, the rule of construction that any ambiguity in this Agreement shall be construed against the drafting Party shall not apply.

22. Choice of Law

This Agreement between the Parties governed by these standard terms and conditions shall be construed and enforced in accordance with the laws of and in the venue of the State of North Carolina except for its rules regarding conflict of laws.

23. Dispute Resolution

If a dispute arises between the Parties in connection with this Agreement, the respective presidents or senior executives of KBI BioPharma and Client shall first meet as promptly as practicable and attempt to resolve in good faith such dispute. If such parties cannot resolve the dispute, then such dispute shall be referred to mediation in accordance with the rules of the American Arbitration Association. The Parties shall participate in the mediation in a good faith attempt to settle the dispute. The mediation shall be held in Durham County, North Carolina. If mediation fails to resolve the dispute, such dispute shall be resolved in the jurisdiction of the defendant by binding arbitration, by a neutral arbitrator, under the rules of the American Arbitration Association.

24. Assignment

This Agreement between the Parties shall not be assigned in whole or in part by either Party without the prior written consent of the other, which consent shall not be unreasonably withheld or delayed except that no such consent shall be required for an assignment by a Party in whole or in part in connection with a merger or other business combination or sale of all or substantially all assets.

25. Termination

Client may terminate this Agreement prior to completion of the Proposal by providing sixty (60) days written notice to KBI BioPharma. Upon receipt of such notice of termination, KBI BioPharma will promptly scale down the affected portion of the Proposal and avoid (or minimize, where non-cancellable) any further related expenses. In the event that Client elects to terminate for reasons other than a material breach of this Agreement by KBI BioPharma that KBI BioPharma fails to cure or commence such cure within thirty (30) days of written notice of such breach, Client shall pay KBI BioPharma upon receipt of invoice all of its costs incurred or irrevocably obligated related

to the Proposal, plus, as liquidated damages and not as a penalty, a cancellation fee equal to twenty percent (20%) of the uninvoiced portion of the total Proposal as of the effective date of termination.

In the event of a material breach of this Agreement by Client that is not cured after a thirty (30) day written notice of such breach, KBI BioPharma may terminate this Agreement prior to completion of the Proposal by giving sixty (60) days written notice to Client. Upon such termination, KBI BioPharma will promptly scale down the affected portion of the Proposal and avoid (or minimize, where non-cancellable) any further related expenses. In addition, Client shall pay KBI BioPharma upon receipt of invoice all of its costs incurred or irrevocably obligated related to the Proposal, plus, as liquidated damages and not as a penalty, a cancellation fee equal to twenty percent (20%) of the uninvoiced portion of the total Proposal as of the effective date of termination.

The termination of this Agreement for any reason shall not relieve either Party of its obligations to the other in respect of: (i) confidentiality; (ii) consents for advertising purposes and publications; (iii) indemnification; (iv) intellectual property; and (v) compensation for Services performed.

26. Survival

Sections 13, 14, 15, 18, 19, 22, 23 and this Section 26 of the terms and conditions herein shall survive termination or expiration of this Agreement.

27. Notice

Any notice required to be given pursuant to the terms and provisions hereof shall be in writing and shall be sent by certified or registered mail, postage prepaid with return receipt requested, or by nationally recognized overnight courier, postage prepaid with return receipt requested, or by confirmed facsimile (with printed confirmation of receipt), to the other Party at the address first indicated above, or at such other address or addresses indicated in written notice by a Party from time to time hereafter. Each notice shall be deemed sufficiently given, served, sent, or received for all purposes at such time as it is delivered to the addressee or at such time as delivery is refused by the addressee upon presentation.

28. Severability

In the event that any one or more of the provisions of this Agreement should be held for any reason by any court or authority having jurisdiction over this Agreement, or over any of the Parties to this Agreement, to be invalid, illegal, or unenforceable, such provision or provisions shall be reformed to approximate as nearly as possible the intent of the parties, and if unreformable, shall be divisible and deleted in such jurisdictions; elsewhere, this Agreement shall not be affected.

29. Waiver.

The waiver by either Party hereto of any right hereunder, or of any failure of the other Party to perform, or of any breach by the other Party, shall not be deemed a waiver of any other right hereunder or of any other breach by or failure of such other Party, whether of a similar nature or otherwise. No remedy referred to in this Agreement is intended to be exclusive, but each shall be cumulative and in addition to any other remedy referred to in this Agreement or otherwise available under law.

30. Counterparts

This Agreement may be executed in duplicate and either copy or both copies are considered originals.

In Witness Whereof, the Parties by their authorized representatives execute this Agreement as of the date first above written

KBI BioPharma, Inc.		**Client**	
By:	/s/ KHURSHID IQBAL	By:	/s/ Richard S. Dondero
Name:	KHURSHID IQBAL	Name:	Richard S. Dondero
Title:	Senior VP and CSO	Title:	VP of Research and Development

Exhibit 31.1

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

I, Bruce C. Galton, President and Chief Executive Officer of Senesco Technologies, Inc., certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of Senesco Technologies, 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)) for the registrant and have:

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

   b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

   c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

   d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

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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: November 14, 2008

/s/ Bruce C. Galton
Bruce C. Galton
President and Chief Executive Officer
(principal executive officer)

Exhibit 31.2

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

I, Joel Brooks, Chief Financial Officer and Treasurer of Senesco Technologies, Inc., certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of Senesco Technologies, 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)) for the registrant and have:

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

   b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

   c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

   d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the

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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: November 14, 2008

/s/ Joel Brooks
Joel Brooks
Chief Financial Officer and Treasurer
(principal financial and accounting officer)

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 Senesco Technologies, Inc. for the period ended September 30, 2008 as filed with the Securities and Exchange Commission on the date hereof, the undersigned, Bruce C. Galton, President and Chief Executive Officer, hereby certifies, pursuant to 18 U.S.C. Section 1350, that:

(1) The Quarterly Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and

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

Dated: November 14, 2008

/s/ Bruce C. Galton *
Bruce C. Galton
President and Chief Executive Officer
(principal executive officer)

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

Exhibit 32.2

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 Senesco Technologies, Inc. for the period ended September 30, 2008 as filed with the Securities and Exchange Commission on the date hereof, the undersigned, Joel Brooks, Chief Financial Officer and Treasurer, hereby certifies, pursuant to 18 U.S.C. Section 1350, that:

(1) The Quarterly Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and

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

Dated: November 14, 2008

/s/ Joel Brooks *
Joel Brooks
Chief Financial Officer and Treasurer
(principal financial and accounting officer)

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