

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

**FORM 10-Q**

(Mark One)

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

For the quarterly period ended September 30, 2005

OR

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

For the transition period from \_\_\_\_\_ to \_\_\_\_\_

Commission File No. 001-31326

**SENESCO TECHNOLOGIES, INC.**

(exact name of registrant as specified in its charter)

**Delaware**

(State or other jurisdiction of incorporation or organization)

**84-1368850**

(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: ☒

No: ☐

Indicate by check mark whether the registrant is an accelerated filer (as defined in Rule 12b-2 of the Exchange Act).

Yes: ☐

No: ☒

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

Yes: ☐

No: ☒

As of October 31, 2005, 15,467,388 shares of the issuer's common stock, par value \$0.01 per share, were outstanding.

SENESCO TECHNOLOGIES, INC. AND SUBSIDIARY

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**PART I. FINANCIAL INFORMATION.**

**Item 1. Financial Statements.**

Certain information and footnote disclosures required under 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.

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

	<b>September 30, 2005</b>	<b>June 30, 2005</b>
<b><u>ASSETS</u></b>		
<b>CURRENT ASSETS:</b>		
Cash and cash equivalents	\$ 584,283	\$ 291,858
Short-term investments	3,130,355	3,941,627
Prepaid expenses and other current assets	129,884	156,544
Total Current Assets	3,844,522	4,390,029
Long-term investments	—	247,768
Property and equipment, net	25,104	30,038
Intangibles, net	1,591,150	1,438,119
Security deposit	7,187	7,187
TOTAL ASSETS	<u>\$ 5,467,963</u>	<u>\$ 6,113,141</u>
<b><u>LIABILITIES AND STOCKHOLDERS' EQUITY</u></b>		
<b>CURRENT LIABILITIES:</b>		
Accounts payable	\$ 139,619	\$ 217,569
Accrued expenses	273,816	180,002
Deferred revenue	20,833	33,333
Total Current Liabilities	434,268	430,904

Grant payable	90,150	90,150
Other liability	10,357	2,336
<b>TOTAL LIABILITIES</b>	<b>534,775</b>	<b>523,390</b>

#### STOCKHOLDERS' EQUITY:

Preferred stock, \$0.01 par value; authorized 5,000,000 shares, no shares issued	—	—
Common stock, \$0.01 par value; authorized 30,000,000 shares, issued and outstanding 15,467,388	154,674	154,674
Capital in excess of par	24,730,594	24,490,035
Deficit accumulated during the development stage	(19,952,080)	(19,054,958)
<b>Total Stockholders' Equity</b>	<b>4,933,188</b>	<b>5,589,751</b>

<b>TOTAL LIABILITIES AND STOCKHOLDERS' EQUITY</b>	<b>\$ 5,467,963</b>	<b>\$ 6,113,141</b>
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Prior year amounts have been adjusted for adoption of FAS 123R on July 1, 2005.

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, 2005	For the Three Months Ended September 30, 2004	From Inception on July 1, 1998 through September 30, 2005
Revenue	\$ 12,500	\$ 12,498	\$ 364,167
Operating Expenses:			
General and administrative	522,449	486,402	15,624,223
Research and development	419,541	257,585	5,838,122
<b>Total Operating Expenses</b>	<b>941,990</b>	<b>743,987</b>	<b>21,462,345</b>
<b>Loss From Operations</b>	<b>(929,490)</b>	<b>(731,489)</b>	<b>(21,098,178)</b>
Sale of state income tax loss	—	—	586,442
Other noncash income	—	—	321,259
Interest income, net	32,368	7,868	238,397
<b>Net Loss</b>	<b>\$ (897,122)</b>	<b>\$ (723,621)</b>	<b>\$ (19,952,080)</b>
<b>Basic and Diluted Net Loss Per Common Share</b>	<b>\$ (0.06)</b>	<b>\$ (0.05)</b>	
<b>Basic and Diluted Weighted Average Number of Common Shares Outstanding</b>	<b>15,467,388</b>	<b>13,787,848</b>	

Prior year amounts have been adjusted for adoption of FAS 123R on July 1, 2005.

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, 2005  
(unaudited)

	Common Stock Shares	Common Stock Amount	Capital in Excess of Par Value	Deficit Accumulated During the Development Stage	Total
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

(continued)

Prior year amounts have been adjusted for adoption of FAS 123R on July 1, 2005.

See Notes to Condensed Consolidated Financial Statements.

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	Common Stock		Capital in	Deficit	
	Shares	Amount	Excess of	Accumulated	Total
			Par Value	During the	
				Development	
				Stage	
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	—	—	1,775,399	—	1,775,399
Fair market value of options and warrant vested during the year ended June 30, 2001	—	—	237,599	—	237,599
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	—	—	1,659,998	—	1,659,998
Fair market value of options and warrants vested during the year ended June 30, 2003	—	—	809,163	—	809,163

(continued)

Prior year amounts have been adjusted for adoption of FAS 123R on July 1, 2005.

See Notes to Condensed Consolidated Financial Statements.

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	Common Stock		Capital in	Deficit	
	Shares	Amount	Excess of	Accumulated	Total
			Par Value	During the	
				Development	
				Stage	

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)
Fair market value of options and warrants vested during the year ended June 30, 2004	—		—		1,826,469	—		1,826,469
Options and warrants exercised (continued) 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)

(continued)

Prior year amounts have been adjusted for adoption of FAS 123R on July 1, 2005.

See Notes to Condensed Consolidated Financial Statements.

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	Common Stock		Capital in Excess of Par Value	Deficit Accumulated During the Development Stage	Total
	Shares	Amount			
Options and warrants exercised during the year ended June 30, 2005 at exercise prices ranging from \$1.50 to \$3.19	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 vested during the three months ended September 30, 2005	—	—	240,559	—	240,559
Net loss	—	—	—	\$ (19,952,080)	(19,952,080)
Balance at September 30, 2005	15,467,388	\$ 154,674	\$ 24,730,594	\$ (19,952,080)	\$ 4,933,188

Prior year amounts have been adjusted for adoption of FAS 123R on July 1, 2005.

See Notes to Condensed Consolidated Financial Statements.

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

	For the Three Months Ended September 30,		From Inception on July 1, 1998 through September 30, 2005
	2005	2004	
Cash flows from operating activities:			
Net loss	\$ (897,122)	\$ (723,621)	\$ (19,952,080)
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	—	—	9,316
Fair value of stock options and warrants issued for services	240,559	170,239	7,392,173
Depreciation and amortization	9,751	10,004	167,307
(Increase) decrease in operating assets:			
Prepaid expense and other current assets	26,660	34,151	(129,884)
Security deposit	—	—	(7,187)
Increase (decrease) in operating liabilities:			
Accounts payable	(77,950)	79,844	139,619
Accrued expenses	93,814	(59,967)	273,816
Deferred revenue	(12,500)	(12,498)	20,833
Other liability	8,021	—	10,357
Net cash used in operating activities	(608,767)	(501,848)	(12,180,560)
Cash flows from investing activities:			
Patent costs	(157,848)	(169,963)	(1,615,634)
Redemption (purchase) of investments, net	1,059,040	601,416	(3,130,355)
Purchase of property and equipment	—	(1,684)	(167,928)
Net cash provided by (used in) investing activities	901,192	429,769	(4,913,917)
Cash flows from financing activities:			
Proceeds from grant	—	—	90,150
Proceeds from issuance of bridge notes	—	—	525,000
Proceeds from issuance of common stock	—	5,125	17,063,610
Cash provided by financing activities	—	5,125	17,678,760
Net increase (decrease) in cash and cash equivalents	292,425	(66,954)	584,283
Cash and cash equivalents at beginning of period	291,858	186,248	—
Cash and cash equivalents at end of period	\$ 584,283	\$ 119,294	\$ 584,283
Supplemental disclosure of cash flow information:			
Cash paid during the period for interest	\$ —	\$ —	\$ 22,317
Supplemental schedule of noncash financing activity:			
Conversion of bridge notes into stock	\$ —	\$ —	\$ 534,316

Prior year amounts have been adjusted for adoption of FAB 123R on July 1, 2005.

See Notes to Condensed Consolidated Financial Statements.

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 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 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-KSB for the fiscal year ended June 30, 2005.

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, 2005, the results of its operations for the three-month periods ended September 30, 2005 and 2004, cash flows for three-month periods ended September 30, 2005 and 2004, the results of its operations and cash flows for the period from inception on July 1, 1998 through September 30, 2005.

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

As further discussed in Note 3, the Company adopted FAS No. 123R, "Share-Based Payment" ("FAS No. 123R") effective July 1, 2005 using the modified-retrospective method. The adoption of this standard requires the recognition of stock-based compensation expense in the consolidated financial statements. Prior to July 1, 2005, the Company followed Accounting Principles Board Opinion 25, "Accounting for Stock Issued to Employees" ("APB No. 25"), and related interpretations. In accordance with APB No. 25, no stock-based compensation expense had been recognized related to the Company's stock options granted to employees and directors, as all options had an exercise price equal to the market value of the underlying common stock on the date of grant. In accordance with the modified-retrospective method, we have adjusted previously reported results to reflect the effect of expensing those stock

options. The cumulative adjustment associated with the adoption of the modified-retrospective method increased capital in excess of par and deficit accumulated during the development stage by \$4,291,051 as of June 30, 2005.

## Note 2 - Loss Per Share:

Net loss per common share is computed by dividing the net loss by the weighted average number of common shares outstanding during the period. As of September 30, 2005 and 2004, shares to be issued upon the exercise of options and warrants aggregating 8,015,591 and 6,849,586 respectively, at an average exercise price of \$2.94 and \$2.83, respectively, are not included in the computation of diluted loss per share as the effect is anti-dilutive.

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## Note 3 – Share-Based Transactions:

Effective July 1, 2005, the Company adopted FAS No. 123R, utilizing the modified-retrospective method. FAS No. 123R requires the recognition of stock-based compensation expense in the consolidated financial statements. Under the modified-retrospective method, the provisions of FAS No. 123R apply to all awards granted or modified after the date of adoption. Prior year results have been adjusted reflect the amortized portion of the fair value of the options granted prior to the date of adoption which have been measured under the original provisions of FAS No. 123. In addition, the unamortized portion of the options that were granted prior to the date of adoption, also determined under the original provisions of FAS No. 123, shall be recognized in the periods after the date of adoption.

The cumulative effect of the change to capital in excess of par and deficit accumulated during the development stage as of July 1, 2004 is as follows:

	Capital in Excess of Par	Deficit Accumulated During the Development Stage
July 1, 2004, as originally reported	\$ 17,168,043	\$ (12,574,941)
Cumulative effect of change in accounting principle	3,501,099	(3,501,099)
July 1, 2004, as adjusted	\$ 20,669,142	\$ (16,076,040)

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 following stock-based compensation expense of \$240,559 and \$170,238 was recognized for the three month periods ended September 30, 2005 and 2004, respectively:

	Three Months Ended September 30,	
	2005	2004
General and administrative expenses	\$ 180,508	\$ 158,638
Research and development expenses	60,051	11,600
Total stock-based compensation expense	\$ 240,559	\$ 170,238
Basic and diluted loss per common share	\$ .02	\$ .01

The fair value of each stock option granted prior to July 1, 2005 has been determined using the Black-Scholes model. The material factors incorporated in the Black-Scholes model in estimating the value of the options reflected in the above table for the three month periods ended September 30, 2005 and 2004 include the following: (i) estimated life of 10 years; (ii) a risk-free rate range of 4.19% and 3.00% to 4.27%, respectively, that represents the interest rate on a U.S. Treasury security with a maturity date corresponding to that of the option term; (iii) volatility of 111.00% and 147.83%, respectively; and (iv) no annualized dividends paid with respect to a share of Common Stock at the date of grant. The ultimate values of the options will depend on the future price of the Company's Common Stock, which cannot be forecast with reasonable accuracy.

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A summary of changes in the stock option plan for the three month period ended September 30, 2005 is as follows:

	Number of Options	Weighted-Average Exercise Price
Outstanding at July 1, 2005	2,111,500	\$ 2.74
Granted	—	—
Exercised	—	—
Canceled	—	—
Outstanding at September 30, 2005	2,111,500	\$ 2.74
Exercisable at September 30, 2005	1,834,508	\$ 2.68

As of September 30, 2005, the aggregate intrinsic value of stock options outstanding was \$12,225, with a weighted-average remaining term of 6.6 years. The aggregate intrinsic value of stock options exercisable at that same date was \$12,150, with a weighted-average remaining term of 6.3 years. As of September 30, 2005, the Company has 798,500 shares available for future stock option grants.

As of September 30, 2005, total compensation expense not yet recognized related to stock option grants amounted to \$350,683, which will be recognized over the next 15 months.

## Note 4 – 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.

## 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 the Quarterly Report on Form 10-QSB. 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*

We are a development stage biotechnology company whose mission is to utilize its patented and patent-pending genes, primarily Factor 5A, DHS and Lipase in agricultural applications and Factor 5A and DHS in human health applications, to:

- enhance the quality and productivity of fruits, flowers, vegetables and agronomic crops through the control of cell death, referred to as senescence, in plants;
- develop novel approaches to treat inflammatory and / or programmed cell death, referred to as apoptosis, related diseases in humans; and
- develop novel approaches to treat cancer, a group of diseases in which apoptosis does not occur normally.

Agricultural results to date include:

- longer shelf life of perishable produce;
- increased biomass and seed yield;
- greater tolerance to environmental stresses, such as drought;
- greater tolerance to certain fungal pathogens; and
- advancement to field trials in banana, lettuce, trees, and bedding plants.

Human health results to date include:

- determining the expression of our patent-pending genes in both ischemic and non-ischemic heart tissue;
- correlating such genes to certain key immune regulators, known as cytokines, that have been found to be involved in apoptosis;
- reducing cytokine induced apoptosis in human optic nerve cell lines and in human epithelial cell lines of the intestine;
- inducing apoptosis in both human cancer cell lines derived from tumors and in lung tumors in mice which have the same genetic defect that can cause lung cancer in humans; and
- increasing the survival rate in mice in which sepsis has been induced by a lethal injection of LPS.

#### *Human Health Applications*

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. 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. We are currently working on certain ocular diseases, lung cancer, bladder cancer, multiple myeloma, Crohn’s disease, viral replication, lung and other organ inflammation.

Our preliminary research reveals that the DHS and Factor 5A genes may regulate apoptosis in human cells. In humans, there are two different isoforms of Factor 5A: the apoptosis isoform, which carries out cell death and the growth isoform, which carries out cell proliferation. We believe that our Factor 5A technology may have potential application as a means for controlling a broad range of apoptotic diseases, both inflammatory/ischemic diseases and cancers. We have commenced preclinical *in-vivo* and *in-vitro* research to determine Factor 5A’s ability to regulate key execution genes, inflammatory cytokines, receptors, and transcription factors, which are implicated in numerous apoptotic diseases.

We believe that our technology’s down-regulation of the cell death isoform of Factor 5A may have potential application as a means for controlling a broad range of diseases that are attributable to either premature apoptosis, ischemia, or inflammation. Apoptotic diseases include glaucoma, heart disease, and certain inflammatory diseases such as Crohn’s disease, sepsis and rheumatoid arthritis, among others. We have commenced preclinical research on a variety of these diseases. Using small inhibitory RNA’s, or siRNA’s, against the apoptosis isoform of Factor 5A to inhibit its expression, we have reduced pro-inflammatory cytokine formation and formation of receptors for LPS, interferon-gamma and TNF-alpha. *In-vitro* experiments have shown that siRNA’s



against Factor 5A protected human lamina cribrosa (optic nerve) and colon epithelial (HT-29) cells from TNF alpha induced apoptosis. *In-vivo* mouse studies have shown that the siRNAs against Factor 5A (i) protect thymocyte cells from apoptosis and decreases formation of myeloperoxidase, TNF, MIP-1alpha, and IL-1 in the lungs of mice challenged with LPS; and (ii) increases the survival rate in which sepsis had been induced by a lethal injection of LPS. We have also determined that inhibiting the apoptosis isoform of Factor 5A down-regulates NFkB and JAK1 and decreases the inflammatory cytokines formed through the NFkB and JAK/STAT pathways. The siRNA's against Factor 5A are currently being tested in several preclinical *in-vivo* inflammatory disease models.

Proteins required for cell death include p53, interleukins and other cytokines, caspases, and TNF-a. Expression of these cell death proteins is required for the execution of apoptosis. We have found that blocking 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, down-regulation of Factor 5A up-regulates Bcl-2, a major suppressor of apoptosis. Inhibiting Factor 5A also reduces the number of cells undergoing apoptosis. These data were collected in tests in human lamina cribrosa cells grown from human optic nerve heads

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and from human intestinal epithelial cells. The use of primary human cells and cell lines has direct application to the study of glaucoma and inflammatory bowel disease. By inhibiting Factor 5A, we were able to reduce TNF-a induced apoptosis by 80% in lamina cribrosa cells. TNF-a is strongly up-regulated in the optic nerve head of the glaucomatous eye, and TNF-a induced apoptosis appears to be an important determinant of the progressive neurodegeneration characteristic of glaucoma. Thus, inhibition of TNF-a induced apoptosis may reduce damage to the optic nerve during glaucoma. Crohn's disease can lead to apoptosis of intestinal epithelial cells and destruction of the lining of the bowel through production of cytokines, such as TNF-a. We have found that inhibition of Factor 5A in a human intestinal epithelial cell line not only protects these cells from cytokine induced apoptosis, but it also decreases production of TNF-a protein by 90%. This dual effect of our inhibitor of Factor 5A has led us to study inflammatory bowel disease in an animal model.

In addition to this *in vitro* work, several preclinical mouse studies showed a reduction of inflammation and general protection of the immune system. In one experiment, we pretreated mice intranasally with an inhibitor of Factor 5A and then introduced lipopolysaccharide, or LPS, a toxic agent that triggers inflammation through the immune system in response to bacterial infections. The mice that had been pretreated with the inhibitor of Factor 5A had approximately 90% lower levels of myeloperoxidase, or MPO, in their lung tissue, indicating that inflammation of the lung was correspondingly reduced. MPO is a marker of inflammation and has been associated with inflammatory disease of organs such as the heart, lungs and bowels. In another experiment, we similarly pretreated mice with an inhibitor of Factor 5A and introduced LPS to induce inflammation and an immune system response. Under control conditions, LPS kills thymocytes, which are important immune system precursor cells, known as T cells, created in the thymus to fend off infection. Senesco's technology allowed for approximately 90% greater survival of these thymocytes in the presence of LPS. In another study designed to test Factor 5A's ability to protect mice from death due to sepsis, a condition in which the immune system's rapid inflammatory response to a severe infection can cause organ damage and result in death, we treated mice with Factor 5A inhibitor using different dosing schedules. In the groups that received Factor 5A inhibitor, survival ranged from 20% to 100% of the mice, depending upon the mouse strain and dosing regime, while none of the untreated mice survived.

We have also established in preclinical studies that up-regulation of the apoptosis Factor 5A isoform carries out cell death in cancer cells through both the p53 (intrinsic) and cell death receptor (extrinsic) immune pathways. Tumors arise when cells that have been targeted by the immune system to undergo apoptosis are unable to do so because of an inability to activate the apoptotic pathways. Just as the senescence Factor 5A gene appears to facilitate expression of the entire suite of genes required for programmed cell death in plants, the apoptosis Factor 5A gene appears to regulate expression of a suite of genes required for programmed cell death in humans. 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. We have found, in *in-vitro* studies, that up-regulating the apoptosis isoform of Factor 5A results in the up-regulation of p53, an important tumor suppressor gene that promotes apoptosis in cells with damaged DNA, inflammatory cytokine production, increased cell death receptor formation and caspase activity. These features, coupled with a simultaneous down-regulation Bcl-2, a suppressor of apoptosis, and

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telomerase, result in apoptosis of cancer cells. In addition, *in-vitro* studies have shown that 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.

We believe that our data in mouse cancer models support this theory. Preclinical studies using mice with the same genetic defect that causes lung cancer in humans showed that we can induce apoptosis in cancerous cells while leaving healthy cells unaffected. Factor 5A, without any targeted delivery technologies, was injected into the blood stream of the mice, and the lung tissue was subsequently analyzed for apoptosis. The data from this study revealed that the lung tumor cells underwent cell death, while the surrounding healthy tissue was unaffected. Additionally, there was no evidence of systemic toxicity in the mice as evidenced by no weight loss, mortality or any signs of abnormal apoptosis in any of the vital organs. This study has recently been successfully repeated with testing taking place over an extended period of time. In a separate study, we have shown that when mice with a type of melanoma that has an affinity for lung tissue, which results in aggressive metastatic lung tumors, were treated with Factor 5A, there was a 41% reduction in tumor weight relative to the untreated mice. Furthermore, nearly half of the treated mice had lung weights that were statistically comparable to the control (healthy) mice that did not have any tumors. Additional studies are planned in which dosing and delivery mechanisms will be addressed.

### *Agricultural Applications*

Our technology neither deletes nor adds genes to the cell. Factor 5A, DHS and lipase are already present in all plant cells. Additionally, our technology may be incorporated into crops by using either conventional breeding, or non genetically modified, methods or biotechnology gene suppression techniques.

We are currently working with lettuce, turfgrass, tomato, canola, *Arabidopsis* (a model plant that is similar to canola), banana, alfalfa, and certain species of trees and bedding plants, and we have obtained proof of concept for the use of the Factor 5A, DHS and lipase genes in several of these plants. We have ongoing field trials of certain bedding plants, trees, lettuce and bananas with our respective partners. The first round of lettuce field trials showed that our technology effectively reduces browning in cut lettuce. The first and second round of banana field trials have shown that our technology extends the shelf life of banana fruit by 100%. In addition to the shelf life benefits, field trials conducted during the 2004-2005 winter generated encouraging disease resistance data, specific to Black Sigatoka (Black Leaf Streak Disease), for banana plants. Additional field trials for banana plants are planned for Black Sigatoka. Commercialization may require a combination of traits in a crop, such as both shelf life and disease resistance, or other traits. Our near-term

Research Program

Our subsequent research and development initiatives include:

- further developing and implementing the DHS and Factor 5A gene technology in lettuce, banana, and a variety of other commercially important crops such as oil seed crops, turfgrass, bedding plants, tomato, alfalfa and trees;
- testing the resultant crops for new beneficial traits such as increased yield, increased tolerance to environmental stress and disease resistance; and
- assessing the role of the Factor 5A genes in human diseases through the accumulation of additional data from preclinical experiments with cell lines and animal models.

Our strategy for agriculture focuses on various plants to maximize possible future market penetration among the different sectors of the broad agricultural and horticultural markets.

Patent and Patent Applications

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

In addition to our ten 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.

Commercialization Strategy

We presently license our technology to agricultural companies capable of incorporating our technology into crops grown for commercial agriculture. We anticipate revenues from these relationships in the form of licensing fees and royalties from our partners, usage fees in the case of the agreement with the Broin Company, or sharing gross profits in the case of the joint venture with Rahan Meristem. In addition, we anticipate payments from our partners 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. Through September 30, 2005, we have entered into five license and development agreements and one joint venture with established agricultural biotechnology companies. Additionally, we continue to have discussions with Asian companies that could directly commercialize our technology without government or research academy involvement. While such discussions with Asian companies are currently in process, we cannot assure you that any final agreements may be consummated.

Generally, projects with our license and joint venture partners begin by transforming seed or germplasm to incorporate our technology. Those seeds or germplasm are then grown in a greenhouse. After successful greenhouse trials, the plants are then transferred to the field for field trials. After completion of successful field trials, the crops may be commercialized. The 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 follows:

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

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

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

Project	Partner	Status
Banana	Rahan Meristem	
• Shelf Life		Field Trials
• Disease		Field Trials
Lettuce	Harris Moran	
• Browning		Field Trials
• Disease		Field Trials
Trees	Arborgen	

• Growth	Field Trials	
Alfalfa	Cal / West	Greenhouse
Turfgrass	The Scotts Company	Seed Transformation
Bedding Plants	The Scotts Company	Field Trials
Ethanol	The Broin Company	Modify Inputs

Commercialization 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.

We plan to employ the same partnering strategy in both the human health and agricultural target markets. Our preclinical research has yielded data that we have presented to various biopharmaceutical companies that may be prospective licensees for the development and marketing of potential applications of our technology. 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 commercially feasible technology.

### **Factors That May Affect Our Business, Future Operating Results and Financial Condition**

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 have an accumulated deficit of \$19,952,080 at September 30, 2005. We have generated minimal revenues by licensing certain of our technology to companies willing to share in our development costs. However, our technology may not be ready for widespread 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, commercialization and administrative activities will significantly exceed our revenues during that period. We cannot predict when, if ever, we will become profitable.

***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 commercial exploitation of technology to identify, isolate, characterize and silence genes which control the death of cells in plants and humans. Our future revenue and profitability critically depend upon our ability to successfully develop senescence and apoptosis gene technology and later market and license such technology at a profit. 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 plants or humans or reduced benefits in terms of crop yield or protection. Our failure to obtain market acceptance of our technology or to successfully commercialize such technology or develop a commercially viable product 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 primary research and development efforts take place at the University of Waterloo in Ontario, Canada, where our technology was discovered, the University of Colorado, the Mayo Clinic, the University of Virginia, the University of Pittsburgh, a research hospital in Canada, 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, such as the University of Waterloo, 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, 2005, we had cash and highly-liquid investments valued at \$3,714,638 and working capital of \$3,410,254. Using our available reserves as of September 30, 2005, we believe that we can operate according to our current business plan for at least the next twelve months. 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 may 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. 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, as of September 30, 2005, we had 6,517,021 shares of common stock authorized but unissued, which may be issued from time to time by our board of directors without stockholder approval. 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 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 agricultural and biotechnology 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.

We have been issued eight patents by the U.S. Patent and Trademark Office, or PTO, and two 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 require licensing and the payment of significant 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 that prohibits the disclosure of confidential information to anyone outside of our company, during the term of 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 to 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 will 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 intend to conduct research and development activities in-house, we may undertake those activities in the future. Expanding our business will 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 also 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 we fail to successfully establish distribution channels, or if our marketing partners fail to provide adequate levels of sales, our commercialization efforts will be delayed or limited and we will not be able to generate revenue.

***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 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 agricultural and human health 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 agricultural and human health biotechnology companies are engaged in research and development activities relating to senescence and apoptosis. 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); Bayer Crop Science; Mendel Biotechnology; Renessen LLC; Exelixis Plant Sciences, Inc.; PlantGenix, 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.; Idun Pharmaceuticals; 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 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 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

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- 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, 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.

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

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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 consumer products. The adverse consequences from heightened consumer concern in this regard could affect the markets for 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.***

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Recent political and social turmoil, including the conflict in Iraq and the current crisis in the Middle East, 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. Specifically, if the current crisis in Israel continues to escalate, our joint venture with Rahan Meristem Ltd. could be adversely affected.

**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, 2005, our executive officers, directors and affiliated entities together beneficially own approximately 40.5% 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, 2005, 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.

***Our stockholders may experience substantial dilution as a result of the exercise of outstanding options and warrants to purchase our common stock.***

As of September 30, 2005, we have granted options outside of our stock option plan to purchase 10,000 shares of our common stock and outstanding warrants to purchase 5,894,091 shares of our common stock. In addition, as of September 30, 2005, we have reserved 3,000,000 shares of our common stock for issuance upon the exercise of options granted pursuant to our stock option plan, 2,201,500 of which have been granted, 90,000 of which have been exercised, 2,111,500 of which are outstanding, and 798,500 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.

***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, 2005, we had 15,467,388 shares of our common stock issued and outstanding, of which approximately 1,595,651 and 1,536,922 shares are registered pursuant to registration statements on Form S-3, which was declared effective on June 17, 2005 and May 14, 2004, 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 965,380 and 1,114,741 shares of our Common Stock underlying warrants previously issued on the Form S-3 registration statements that were declared effective on June 17, 2005 and May 14, 2004, and we registered 3,000,000 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.

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***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 American Stock Exchange and currently has a limited trading market. 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.

***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.

***If our common stock is delisted from the American Stock Exchange, it may be subject to the “penny stock” regulations which may affect the ability of our stockholders to sell their shares.***

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 the American Stock Exchange delists our common stock, it could be deemed a penny stock, which imposes additional sales practice requirements 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.

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If our common stock were subject to the rules on penny stocks, the market liquidity for our common stock could be severely and adversely affected. Accordingly, the ability of holders of our common stock to sell their shares in the secondary market may also be adversely affected

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## Liquidity and Capital Resources

### Overview

As of September 30, 2005, our cash balance and investments totaled \$3,714,638, and we had working capital of \$3,410,254. As of September 30, 2005, we had a federal tax loss carry-forward of approximately \$11,500,000 and a state tax loss carry-forward of approximately \$5,100,000 to offset future taxable income. There can be no assurance, however, that we will be able to take advantage of any or all of such tax loss carry-forwards, if at all, in future fiscal years.

### Contractual Obligations

The following table lists our cash contractual obligations as of September 30, 2005:

Contractual Obligations	Payments Due by Period				
	Total	Less than 1 year	1 - 3 years	4 - 5 years	More than 5 years
Research and Development Agreements (1)	\$ 616,620	\$ 616,620	\$ —	\$ —	\$ —
Facility, Rent and Operating Leases (2)	\$ 405,087	\$ 39,375	\$ 154,280	\$ 157,928	\$ 53,504
Employment, Consulting and Scientific Advisory Board Agreements (3)	\$ 846,563	\$ 676,275	\$ 170,288	\$ —	\$ —
<b>Total Contractual Cash Obligations</b>	<b>\$ 1,868,270</b>	<b>\$ 1,332,270</b>	<b>\$ 324,568</b>	<b>\$ 157,928</b>	<b>\$ 53,504</b>

(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.

We expect our capital requirements to increase over the next several years as we commence new research and development efforts, increase our business and administrative infrastructure and embark on developing in-house business capabilities and facilities. 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.

### *Capital Resources*

Since inception, we have generated revenues of \$364,167 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, we may enter into additional licensing or other agreements with marketing and distribution partners that may result in additional license fees. We may also receive revenues from contract research, or other related revenue.

We anticipate that, based upon our current cash and investments, we will be able to fund our operations for at least the next twelve months. Over the next twelve months, we plan to fund our research and development and commercialization activities by (i) utilizing our current cash balance and investments, (ii) achieving some of the milestones set forth in our current licensing agreements, (iii) through the execution of additional licensing agreements for our technology, and (iv) through a sale of our securities, if necessary.

### **Changes to Critical Accounting Policies and Estimates**

Our critical accounting policies and estimates are set forth in our Annual Report on Form 10-KSB for the fiscal year ended June 30, 2005. There have been no changes to such critical accounting policies and estimates except as follows:

We adopted FAS No. 123R, "Share-Based Payment" effective July 1, 2005 using the modified-retrospective method. The adoption of this standard requires the recognition of stock-based compensation expense in the consolidated financial statements. Prior to July 1, 2005, we followed Accounting Principles Board Opinion 25, "Accounting for Stock Issued to Employees", and related interpretations. In accordance with Accounting Principles Board Opinion 25, no stock-based compensation expense had been recognized related to the Company's stock options granted to employees and directors, as all options had an exercise price equal to the market value of the underlying common stock on the date of grant. In accordance with the modified-retrospective method, we have adjusted previously reported results to reflect the effect of expensing those stock options. The cumulative adjustment associated with the adoption of the modified-retrospective method increased capital in excess of par and deficit accumulated during the development stage by \$4,291,051 as of June 30, 2005.

### **Results of Operations**

#### Three Months Ended September, 2005 and Three Months Ended September 30, 2004

The net loss for the three-month periods ended September 30, 2005 and 2004 was \$897,122 and \$723,621, respectively, an increase of \$173,501, or 24.0%. This increase was primarily the result of an increase in general and administrative expenses and research and development expenses, which was partially offset by an increase in interest income.

We had revenue of \$12,500 and \$12,498 during the three-month periods ended September 30, 2005 and 2004, respectively, which consisted of the amortized portion of the initial fee and milestone payment on a development and license agreement. 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 consist of general and administrative, and research and development expenses. Operating expenses for the three-month periods ended September 30, 2005 and 2004 were \$941,990 and \$743,987, respectively, an increase of \$198,003, or 26.6%. This increase was primarily the result of a 62.8% increase in research and development expenses and a 7.4% increase in general and administrative expenses. We expect operating expenses to increase over the next twelve months as we anticipate that research and development and general and administrative expenses will increase as we continue to expand our research and development activities.

General and administrative expenses for the three-month periods ended September 30, 2005 and 2004 were \$522,449 and \$486,402, respectively, an increase of \$36,047, or 7.4%. General and administrative expenses consist of the following:

	<b>Three months ended September 30,</b>	
	<b>2005</b>	<b>2004</b>
Stock-based compensation	\$ 180,508	\$ 158,638
Payroll and benefits	148,602	141,135
Investor relations	68,045	74,240
Professional fees	61,022	53,991
Other general and administrative expenses	64,272	58,398
<b>Total general and administrative expenses</b>	<b>\$ 522,449</b>	<b>\$ 486,402</b>

- Stock-based compensation consists primarily of the amortized portion of Black-Scholes value of options previously granted to directors and employees. There were no options granted during the three month periods ended September 30, 2005 and 2004.
- Payroll and benefits increased primarily as a result of salary and health insurance rate increases.

- Investor relations expense decreased primarily as a result of a decrease in the amount of financial advisory fees.
- Professional fees increased primarily as a result of the initial costs of compliance incurred in connection with Section 404 of Sarbanes-Oxley.

We expect general and administrative expenses to modestly increase over the next twelve months primarily due to an increase in legal and accounting fees related to the increased regulatory environment and an increase in rent due to moving into larger office space in June 2005.

Research and development expenses, for the three-month periods ended September 30, 2005 and 2004 were \$419,541 and \$257,585, respectively, an increase of \$161,956, or 62.8%. This increase was primarily the result of the expanded research programs in both the agricultural and human health applications of our technology, as well as an increase in stock-based compensation.

The breakdown of our research and development expenses between stock-based compensation and other research and development expenses is as follows:

	Three months ended September 30,	
	2005	2004
Other research and development expenses	\$ 359,490	\$ 245,985
Stock-based compensation	60,051	11,600
Total research and development expenses	<u>\$ 419,541</u>	<u>\$ 257,585</u>

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

	Three months ended September 30,			
	2005	%	2004	%
Agricultural research programs	\$ 200,705	48%	\$ 119,696	47%
Human health research programs	218,836	52	137,889	53
Total research and development expenses	<u>\$ 419,541</u>	<u>100%</u>	<u>\$ 257,585</u>	<u>100%</u>

We expect the percentage of human health research programs to modestly increase as a percentage of the total research and development expenses as we continue to expand our human health initiatives.

Interest income increased during the three month period ended September 30, 2005 primarily as a result of an increase in interest rates.

#### Period From Inception on July 1, 1998 through September 30, 2005

From inception of operations on July 1, 1998 through September 30, 2005, we had revenues of \$364,167, 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 engage in significant research and development efforts.

We have incurred losses each year since inception and have an accumulated deficit of \$19,952,080 at September 30, 2005. We expect to continue to incur losses as a result of expenditures on research, product development and administrative activities.

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

#### *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 nine months, and no security with an effective duration in excess of two years, 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.

#### *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.

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

Our management, with the participation of our chief executive officer and chief financial officer, evaluated the effectiveness of our disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) under the Exchange Act) as of September 30, 2005. Based on this evaluation, our chief executive officer and chief financial officer concluded that as of September 30, 2005, our disclosure controls and procedures were (1) designed to ensure that material information relating to us, including our consolidated subsidiaries, is made known to our chief executive officer and chief financial officer by others within those entities, particularly during the period in which this report was being prepared and (2) effective, in that they provide reasonable assurance that information required to be disclosed by us in the reports that we file or submit under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in the SEC's rules and forms.

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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 months ended September 30, 2005 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 6. Exhibits.**

#### Exhibits.

- 31.1\* Certification of principal executive officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
- 31.2\* Certification of principal financial and accounting officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
- 32.1\* Certification of principal executive officer pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, 18 U.S.C. 1350.
- 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.

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\* Filed herewith.

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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, 2005

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

DATE: November 14, 2005

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

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**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) [Paragraph omitted in accordance with SEC transition instructions contained in SEC Release 34-47986]
  - c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
  - d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
  - a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
  - b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: November 14, 2005

/s/ Bruce C. Galton

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

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**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) [Paragraph omitted in accordance with SEC transition instructions contained in SEC Release 34-47986]
  - c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
  - d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
  - a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
  - b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: November 14, 2005

/s/ Joel Brooks

Joel Brooks

Chief Financial Officer and Treasurer

(principal financial and accounting officer)

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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, 2005 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, 2005

/s/ Bruce C. Galton \*

Bruce C. Galton

President and Chief Executive Officer  
(principal executive officer)

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\* 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.

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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, 2005 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, 2005

/s/ Joel Brooks \*

Joel Brooks

Chief Financial Officer and Treasurer

(principal financial and accounting officer)

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\* 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.

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