

**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION**

Washington, D.C. 20549

FORM 10-QSB

(Mark One)

☒ **Quarterly Report pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934**

For the quarterly period ended March 31, 2005

☐ **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 Small Business Issuer as Specified in Its Charter)

Delaware

(State or Other Jurisdiction of
Incorporation or Organization)

84-1368850

(I.R.S. Employer Identification No.)

303 George Street, Suite 420, New Brunswick, New Jersey

(Address of Principal Executive Offices)

08901

(732) 296-8400

(Issuer's Telephone Number, Including Area Code)

Check whether the Issuer: (1) filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the 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: ☐

State the number of shares outstanding of each of the Issuer's classes of common stock, as of May 11, 2005:

| Class | Number of Shares |
|--------------------------------|------------------|
| Common Stock, \$0.01 par value | 15,467,388 |

Transitional Small Business Disclosure Format (check one):

Yes: ☐

No: ☒

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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.

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

| | <u>March 31,</u> <u>2005</u> <u>(unaudited)</u> | <u>June 30,</u> <u>2004</u> |
|--|---|--------------------------------|
| <u>ASSETS</u> | | |
| CURRENT ASSETS: | | |
| Cash and cash equivalents | \$ 194,953 | \$ 186,248 |
| Short-term investments | 2,091,520 | 3,949,774 |
| Prepaid expenses and other current assets | 74,521 | 93,967 |
| Total Current Assets | 2,360,994 | 4,229,989 |
| Property and equipment, net | 33,051 | 51,702 |
| Intangibles, net | 1,301,606 | 922,214 |
| Security deposit | 7,187 | 7,187 |
| TOTAL ASSETS | \$ 3,702,838 | \$ 5,211,092 |
| <u>LIABILITIES AND STOCKHOLDERS' EQUITY</u> | | |
| CURRENT LIABILITIES: | | |
| Accounts payable | \$ 109,567 | \$ 69,008 |
| Accrued expenses | 198,201 | 287,626 |
| Deferred revenue | 45,833 | 33,333 |
| Total Current Liabilities | 353,601 | 389,967 |

| | | |
|---|---------------------|---------------------|
| Grant payable | 90,150 | 90,150 |
| TOTAL LIABILITIES | 443,751 | 480,117 |
| 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 13,871,737 and 13,787,250 shares, respectively | 138,717 | 137,873 |
| Capital in excess of par | 17,412,607 | 17,168,043 |
| Deficit accumulated during the development stage | (14,292,237) | (12,574,941) |
| Total Stockholders' Equity | 3,259,087 | 4,730,975 |
| TOTAL LIABILITIES AND STOCKHOLDERS' EQUITY | \$ 3,702,838 | \$ 5,211,092 |

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)

| | <u>For the Three Months Ended March 31, 2005</u> | <u>For the Three Months Ended March 31, 2004</u> | <u>For the Nine Months Ended March 31, 2005</u> | <u>For the Nine Months Ended March 31, 2004</u> | <u>From Inception on July 1, 1998 through March 31, 2005</u> |
|---|--|--|---|---|--|
| Revenue | \$ 12,500 | \$ 4,167 | \$ 112,500 | \$ 4,167 | \$ 339,167 |
| Operating Expenses: | | | | | |
| General and administrative | 340,950 | 294,125 | 1,065,808 | 2,031,044 | 10,975,211 |
| Research and development | 364,080 | 320,559 | 947,994 | 893,704 | 4,611,110 |
| Total Operating Expenses | 705,030 | 614,684 | 2,013,802 | 2,924,748 | 15,586,321 |
| Loss From Operations | (692,530) | (610,517) | (1,901,302) | (2,920,581) | (15,247,154) |
| Sale of state income tax loss | — | — | 153,160 | 91,448 | 586,442 |
| Other noncash income | — | 185,627 | — | 185,627 | 185,627 |
| Interest income, net | 13,127 | 7,879 | 30,846 | 27,827 | 182,848 |
| Net Loss | \$ (679,403) | \$ (417,011) | \$ (1,717,296) | \$ (2,615,679) | \$ (14,292,237) |
| Basic and Diluted Net Loss Per Common Share | \$ (0.05) | \$ (0.03) | \$ (0.12) | \$ (0.21) | |
| Basic and Diluted Weighted Average Number of Common Shares Outstanding | 13,827,151 | 13,137,522 | 13,805,629 | 12,319,576 | |

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 MARCH 31, 2005
(unaudited)

| | <u>Common Stock</u> | <u>Capital in Excess of Par Value</u> | <u>Deficit Accumulated During the Development Stage</u> | <u>Total</u> |
|---|---------------------|---|---|--------------|
| | <u>Shares</u> | <u>Amount</u> | | |
| 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 | 759,194 | 7,592 | 1,988,390 | 1,995,982 |

| | | | | | |
|---|-----------|--------|-----------|---|-----------|
| at \$2.63437 per share | | | | | |
| 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)

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 | | | |
| 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 | — | — | 873,779 | — | 873,779 |
| Fair market value of options granted on October 2, 2000 | — | — | 80,700 | — | 80,700 |
| 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 | — | — | 577,708 | — | 577,708 |
| Fair market value of options and warrants vested during the year ended June 30, 2003 | — | — | 97,497 | — | 97,497 |

(continued)

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 | | | |
| 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 | — | — | 1,177,845 | — | 1,177,845 |
| Options and warrants exercised during the year ended June 30, 2004 at exercise prices ranging from \$1.00 - \$3.25 | 370,283 | 3,704 | 692,945 | — | 696,649 |
| Options and warrants exercised during the nine months ended March 31, 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 nine months ended March 31, 2005 | — | — | 184,283 | — | 184,283 |
| Net loss | — | — | — | \$ (14,292,237) | (14,292,237) |
| Balance at March 31, 2005 | 13,871,737 | \$ 138,717 | \$ 17,412,607 | \$ (14,292,237) | \$ 3,259,087 |

See Notes to Condensed Consolidated Financial Statements.

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

| | For the Nine Months Ended March 31, | | From Inception on July 1, 1998 through March 31, 2005 |
|---|--|----------------|--|
| | 2005 | 2004 | |
| Cash flows from operating activities: | | | |
| Net loss | \$ (1,717,296) | \$ (2,615,679) | \$ (14,292,237) |
| 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 | — | (185,627) | (185,627) |
| Issuance of common stock and warrants for interest | — | — | 9,316 |
| Issuance of stock options and warrants for services | 184,283 | 1,177,845 | 2,860,563 |
| Depreciation and amortization | 31,764 | 22,820 | 145,601 |
| (Increase) decrease in operating assets: | | | |
| Prepaid expense and other current assets | 19,446 | 117,925 | (74,521) |
| Security deposit | — | — | (7,187) |
| Increase (decrease) in operating liabilities: | | | |
| Accounts payable | 40,559 | (31,346) | 109,567 |
| Accrued expenses | (89,425) | 201,098 | 198,201 |
| Deferred revenue | 12,500 | 45,833 | 45,833 |
| Net cash used in operating activities | (1,518,169) | (1,267,131) | (10,974,062) |
| Cash flows from investing activities: | | | |
| Patent costs | (390,821) | (196,255) | (1,316,619) |
| Redemption (purchase) of investments, net | 1,858,254 | 1,298,616 | (2,091,520) |
| Purchase of property and equipment | (1,684) | (1,720) | (163,640) |
| Net cash provided by (used in) investing activities | 1,465,749 | 1,100,641 | (3,571,779) |
| Cash flows from financing activities: | | | |
| Proceeds from grant | — | — | 90,150 |
| Proceeds from issuance of bridge notes | — | — | 525,000 |
| Proceeds from issuance of common stock | 61,125 | 3,602,820 | 14,125,644 |
| Cash provided by financing activities | 61,125 | 3,602,820 | 14,740,794 |
| Net increase in cash and cash equivalents | 8,705 | 3,436,330 | 194,953 |
| Cash and cash equivalents at beginning of period | 186,248 | 319,930 | — |
| Cash and cash equivalents at end of period | \$ 194,953 | \$ 3,756,260 | \$ 194,953 |

| | | | |
|--|----|---|------------|
| 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 |

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, 2004.

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 March 31, 2005, the results of its operations for the three-month and nine-month periods ended March 31, 2005, cash flows for nine-month periods ended March 31, 2005 and 2004, the results of its operations and cash flows for the period from inception on July 1, 1998 through March 31, 2005.

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

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 March 31, 2005 and 2004, shares to be issued upon the exercise of options and warrants aggregating 7,050,211 and 7,077,486 respectively, at an average exercise price of \$2.88 and \$2.81, respectively, are not included in the computation of diluted loss per share as the effect is anti-dilutive.

Note 3 - Stock Options and Warrants:

The Company applies APB Opinion No. 25 and related interpretations in accounting for its stock option plan. Options to purchase Common Stock have been granted at or above the fair market value of the stock as of the date of grant. Accordingly, no compensation costs have been recognized for the stock option plan. Had compensation cost been determined based on the fair value at the grant dates for those awards consistent with the method of FASB No. 123, the Company's net loss and net loss per share would have been increased to the pro forma amounts indicated below:

| Three month periods ended March 31, | 2005 | 2004 |
|---|----------------|----------------|
| Net loss: | | |
| As reported | \$ (679,403) | \$ (417,011) |
| Stock-based employee compensation expense | (209,310) | (170,239) |
| Pro forma | \$ (888,713) | \$ (587,250) |
| Loss per share: | | |
| As reported | \$ (0.05) | \$ (0.03) |
| Pro forma | \$ (0.06) | \$ (0.04) |
| Nine month periods ended March 31, | 2005 | 2004 |
| Net loss: | | |
| As reported | \$ (1,717,296) | \$ (2,615,679) |
| Stock-based employee compensation expense | (536,904) | (478,385) |
| Pro forma | \$ (2,254,200) | \$ (3,094,064) |
| Loss per share: | | |
| As reported | \$ (0.12) | \$ (0.21) |
| Pro forma | \$ (0.16) | \$ (0.25) |

The estimated grant date present value reflected in the above table is 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 and nine-month periods ended March 31, 2005 and 2004 include the following: (i) an estimated life of 5 and 10 years; (ii) a risk-free rate range of 3.30% to 4.19% and 3.80% to 4.24%, 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 111.0% and 147.8%, 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.

In December 2004, and as amended in April 2005, the Financial Accounting Standards Board ("FASB") issued Statement of Financial Accounting Standards ("SFAS") No. 123R, "Share-Based Payment," which establishes standards for the accounting for transactions in which an entity exchanges its equity instruments for goods or services. A key provision of this statement is the requirement of a public entity to measure the cost of employee services received in exchange for an award of equity instruments (including stock options) based on the grant-date fair value of the award. That cost will be recognized over the period during which an employee is required to provide service in exchange for the award (i.e., the requisite service period or vesting period). The Company anticipates applying the standard beginning July 1, 2005. The table above reflects the estimated impact that such a change in accounting treatment would have had on the Company's

net income and net income per share if it had been in effect during the three and nine month periods ended March 31, 2005 and 2004.

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.

Note 5 – Significant Events:

On January 3, 2005, the Company terminated the Collaboration Agreement with Anawah, Inc. Under the terms of the agreement, Senesco will retain its exclusive license to Anawah's DHS Gene Mutation technology for the selected gene target in the specific field of use.

Note 6 – Subsequent Event:

On May 9, 2005, the Company completed a private placement to certain institutional and accredited investors (the "Private Placement") for an aggregate amount of 1,595,651 shares of Common Stock and warrants to purchase 797,836 shares of Common Stock for the aggregate cash consideration of \$3,366,829. The Private Placement offered units of one share of Common Stock and a five-year warrant to purchase 0.50 shares of Common Stock at a price equal to \$2.11 per unit. The warrants were issued at an exercise price equal to \$3.38 per share, with such warrants vesting on the date of grant. The estimated costs associated with the Private Placement totaled approximately \$400,000. In addition, the Company entered into a Registration Rights Agreement with these purchasers. The Registration Rights Agreement requires the Company to file a registration statement on Form S-3 for the shares within 30 days of the closing date, and to have such registration statement declared effective within 90 days of the closing date to register the securities acquired by the purchasers in the Private Placement. If the Company fails to file a registration statement or have such registration statement declared effective by those dates, it is required to pay to each purchaser in the Private Placement 1.5% of the aggregate purchase price paid by such purchaser.

Oppenheimer & Co. Inc. acted as the placement agent for the Private Placement. As consideration for their services to the Company, Oppenheimer was issued warrants to purchase 167,544 shares of Common Stock, on the same terms and conditions as the warrants issued to the purchasers in the Private Placement.

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 DHS, Factor 5A and Lipase, to:

- enhance the quality and productivity of fruits, flowers, vegetables and agronomic crops through the control of cell death in plants, referred to as senescence;
- develop novel approaches to treat inflammatory and / or programmed cell death diseases in humans, referred to as apoptosis, such as rheumatoid arthritis, Crohn's disease, glaucoma, or heart disease, which are the result of inflammation and / or premature apoptosis; 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 seed and biomass yield;
- greater tolerance to environmental stresses, such as drought; and
- greater tolerance to certain fungal diseases.

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, while retarding cell proliferation, 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.

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Our preliminary research reveals that DHS and Factor 5A genes regulate apoptosis in human cells. We have shown that there are multiple, functionally distinct, isoforms of Factor 5A. 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 downregulation 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 neurodegenerative diseases, ocular diseases, such as 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 siRNAs 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 siRNAs 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 downregulates NFkB and JAK1 and decreases the inflammatory cytokines formed through the NFkB and JAK/STAT pathways. The siRNAs against Factor 5A are currently being tested in several preclinical *in-vivo* inflammatory disease models.

We have established in preclinical studies that upregulation 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. Since the Factor 5A gene appears to function at the initiation point of the apoptotic pathways, we believe that our gene technology may have potential application as a means of combating a broad range of cancers and have initiated studies with *in-vivo* cancer models to determine Factor 5A's ability to selectively cause cell death in human tumors grafted onto mice. We have found that upregulating the apoptosis isoform results in upregulation of p53, inflammatory cytokine production, increased cell death receptor formation, and caspase activity. These features, coupled with a simultaneous downregulation of bcl-2 and telomerase, result in apoptosis of cancer cells, while normal cells do not show any signs of irregular apoptosis or toxicity.

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Human Health Applications

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

In April 2005, we reported on a preclinical lethal sepsis mouse study we conducted in which our Factor 5A inhibition technology was tested. The results revealed that the survival rate of the treated mice ranged from 20-100% depending on the dosing regimen and the strain of mouse utilized. None of the untreated mice survived. Based on these results, future experiments will focus on determining the mechanism of survival enhancement, examining the cytokine profile and ascertaining the most effective dosing and route of administration.

In April 2004, we reported on a preclinical study that had shown that Factor 5A induced apoptosis in lung cancer tumors of mice, while healthy tissue remained unaffected. We conducted this study using mice with the same genetic defect that causes lung cancer in humans. The mice spontaneously develop lung tumors due to this defect. 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 reveal that lung tumor cells underwent cell death, while the surrounding healthy tissue was unaffected. 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. Additional studies are planned in which dosing and delivery mechanisms will be addressed.

Agricultural Applications

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 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. Commercialization may require a combination of traits in a crop, such as both shelf life and

Research Program

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 expect to spend significant amounts on the research and development of our technology. We also expect our research and development costs to increase as we continue to develop and ultimately commercialize our technology. However, the successful development and commercialization of our technology is highly uncertain. We cannot reasonably estimate or know the nature, timing and expenses of the efforts necessary to complete the development of our technology, or the period in which material net cash inflows may commence from the commercialization of our technology, including the uncertainty of:

- the scope, rate of progress and expense of our research activities;
- the interim results of our research;
- the expense of additional research that may be required after review of the interim results;
- the terms and timing of any collaborative, licensing and other arrangements that we may establish;
- the expense and timing of regulatory approvals;
- the effect of competing technological and market developments; and
- the expense of filing, prosecuting, defending and enforcing any patent claims or other intellectual property rights.

Patent and Patent Applications

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

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

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 March 31, 2005, we have entered into five license and development agreements and one joint venture with established agricultural biotechnology companies. 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 greenhouse trials, the plants are then transferred to the field. 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. The timeline below highlights the stage of development we are in for each of our respective licenses and joint venture:

| Project | 1-2 Years | 1-2 Years | 2-5+ Years | |
|----------------|---------------------|--------------|---------------|---------------------|
| | Seed Transformation | / Greenhouse | /Field Trials | / Commercialization |
| Banana | | | | |
| • Shelf Life | | | / | |
| • Disease | | | / | |
| Lettuce | | | | |
| • Browning | | | / | |
| • Disease | | | / | |
| Trees | | | | |
| • Growth | | | / | |
| Alfalfa | | / | | |
| Turfgrass | / | | | |
| Bedding Plants | | / | | |

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

In November 2002, we executed a non-binding letter of intent with the Tianjin Academy of Agricultural Sciences for the exclusive use of our technology in a large variety of fruit and vegetable crops in China. Discussions were held with representatives of the Academy as well as government representatives from the city of Tianjin and from the central government of China. We also initiated discussions with several Asian biotechnology companies to secure the financing for the proposed agreement with the Academy and to commercialize the seeds developed with our technology under the proposed license. Because of the number of crops the Academy has expressed interest in, the letter of intent called for significant licensing and milestone fees to be paid to us by a commercial partner if the project was successful. The size of the proposed financial terms in the letter of intent has made attracting such a commercial

partner difficult. As such, we have asked the Academy to reduce the number of crops selected so that the financial terms may correspondingly be reduced. Because of the long effort to assist the Academy in finding an appropriate commercial partner, we have shifted our focus to Asian companies that could directly commercialize our technology without government or research academy involvement. Such discussions with Asian companies are currently in process; however, we cannot assure you that any final agreements may be consummated.

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 commercializable 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 \$14,292,237 at March 31, 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 over the next two to three 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, 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 March 31, 2005, we had cash and highly-liquid investments valued at \$2,286,473 and working capital of \$2,007,393. In May 2005, we received aggregate net proceeds of approximately \$2,966,000 from a private placement of our equity securities. Using our available reserves as of March 31, 2005 and the net proceeds from the private equity financing, 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 March 31, 2005, we had 9,078,052 shares of common stock authorized but unissued, which may be issued from time to time by our board of directors without stockholder approval. In connection with our private placement of equity securities, in

May 2005, we issued an aggregate of an additional 1,595,651 shares of common stock and warrants to purchase 965,380 shares of common stock. Therefore, assuming the exercise of all options and warrants granted as of May 9, 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.

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 six patents by the U.S. Patent and Trademark Office, or PTO. We have also filed 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
- 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); Mendel Biotechnology; Renessen LLC; Exelixis, Inc.; 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
- 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.

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 no or short notice. We do not maintain key person life insurance on any member of management. The failure to attract and retain key personnel could limit our growth and hinder our research and development efforts.

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

Certain provisions of our certificate of incorporation and by-laws could make it more difficult for a third party to acquire control of us, even if the change in control would be beneficial to stockholders. Our certificate of incorporation authorizes our board of directors to issue, without stockholder approval, except as may be required by the rules of the American Stock Exchange, 5,000,000 shares of preferred stock with voting, conversion and other rights and preferences that could adversely affect the voting power or other rights of the holders of our

common stock. Similarly, our by-laws do not restrict our board of directors from issuing preferred stock without stockholder approval.

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

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

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

Recent political and social turmoil, 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 March 31, 2005, our executive officers, directors and affiliated entities together beneficially own approximately 45.9% of the outstanding shares of our common stock, assuming the exercise of options and warrants which are currently exercisable or will become exercisable within 60 days of March 31, 2005, held by these stockholders. As of May 9, 2005, upon the closing of our private placement of equity securities, our executive officers, directors and affiliated entities together beneficially own approximately 41.9% of the outstanding shares of our common stock, assuming the exercise of options and warrants which are currently exercisable, 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 March 31, 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 4,928,711 shares of our common stock. In addition, as of March 31, 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. As of May 9, 2005, upon the closing of our private placement of equity securities, we have outstanding warrants to purchase 5,894,091 shares of our common stock. 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 March 31, 2005, we had 13,871,737 shares of our common stock issued and outstanding, of which approximately 1,536,922 shares are registered pursuant to a registration statement on Form S-3, which was declared effective on 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 1,114,741 shares of our Common Stock underlying warrants previously issued on the Form S-3 registration statement that was declared effective on 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. As of May 9, 2005, upon the closing of our private placement of equity securities,

we had 15,467,388 shares of our common stock issued and outstanding. Pursuant to the terms of such equity offering, we are obligated to file a registration statement on Form S-3 within 30 days of the closing date to register such shares of common stock. Consequently, sales of substantial amounts of our common stock in the public market, or the perception that such sales could occur, may have a material adverse effect on our stock price.

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

Our common stock is quoted on the 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.

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

Liquidity and Capital Resources

Overview

As of March 31, 2005, our cash balance and investments totaled \$2,286,473, and we had net working capital of \$2,007,393. In addition, upon the closing of our private equity financing on May 9, 2005, we received aggregate net proceeds of approximately \$2,966,829. As of March 31, 2005, we had a federal tax loss carry-forward of approximately \$11,100,000 and a state tax loss carry-forward of approximately \$3,600,000 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 March 31, 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) | \$ 892,797 | \$ 637,892 | \$ 254,905 | \$ — | \$ — |
| Facility, Rent and Operating Leases (2) | \$ 36,894 | \$ 34,056 | \$ 2,838 | \$ — | \$ — |
| Employment, Consulting and Scientific Advisory | \$ 875,688 | \$ 600,983 | \$ 274,705 | \$ — | \$ — |

| | | | | | |
|------------------------------------|--------------|--------------|------------|------|------|
| Board Agreements (3) | | | | | |
| Total Contractual Cash Obligations | \$ 1,805,379 | \$ 1,272,931 | \$ 532,448 | \$ — | \$ — |

- (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 \$339,167 in connection with the initial fees 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 in 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.

On May 9, 2005, we completed a private placement to certain institutional and accredited investors for an aggregate amount of 1,595,651 shares of common stock and warrants to purchase 797,836 shares of common stock for the aggregate net cash consideration of approximately \$2,966,829. The private placement offered units of one share of common stock and a five-year warrant to purchase 0.50 shares of common stock at a price equal to \$2.11 per unit. The warrant was offered with an exercise price equal to \$3.38 per share, with such warrant vesting on the date of grant. The estimated costs associated with the private placement totaled approximately \$400,000.

We anticipate that, based upon our current cash and investments, we will be able to fund 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, 2004. There have been no changes to such critical accounting policies and estimates.

Results of Operations

Three Months Ended March 31, 2005 and Three Months Ended March 31, 2004

The net loss for the three-month periods ended March 31, 2005 and March 31, 2004 was \$679,403 and \$417,011, respectively, an increase of \$262,392, or 62.9%. This increase was primarily the result of a decrease in other noncash income and an increase in general and administrative expenses and research and development expenses. Other noncash income recorded during the three-month period ended March 31, 2004 reflected the decrease between February 15, 2004 and March 17, 2004 in the Black-Scholes value of warrants issued in connection with a private placement. In accordance with EITF 00-19, "Accounting for Derivative Financial Instruments Indexed To, and Potentially Settled In a Company's Own Common Stock", the value of the warrants were recorded as a liability until a registration statement was filed. The decrease in market value of the Common Stock from the closing of its financing to March 17, 2004, the date of filing the registration statement, resulted in non-cash other income to reflect the decrease in Black-Scholes value of the warrants between those two dates.

We had revenue of \$12,500 and \$4,167 during the three-month periods ended March 31, 2005 and 2004, respectively, which consisted of the amortized portion of the initial fee on a development and license agreement.

Operating expenses consist of general and administrative expenses, research and development expenses and stock-based compensation. Operating expenses for the three-month periods ended March 31, 2005 and March 31, 2004 were \$705,030 and \$614,684, respectively, an increase of \$90,346, or 14.7%. This increase in operating expenses was primarily the result of an increase in general and administrative expenses and research and development expenses which was partially offset by a decrease in stock-based compensation. We expect operating expenses to increase over the next twelve months as we continue to expand our research and development activities.

General and administrative expenses consist primarily of stock-based compensation and other general and administrative costs, which include payroll and benefits, professional services, investor relations, office rent and corporate insurance. General and administrative expenses for the three-month periods ended March 31, 2005 and March 31, 2004 were \$340,950 and \$294,125, respectively, an increase of \$46,825, or 15.9%.

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

| | Three months ended March 31, | |
|---|-------------------------------------|-------------------|
| | 2005 | 2004 |
| Stock-based compensation | \$ 15,850 | \$ 50,700 |
| Other general and administrative expenses | 325,100 | 243,425 |
| Total general and administrative expenses | <u>\$ 340,950</u> | <u>\$ 294,125</u> |

The decrease in stock-based compensation was primarily the result of fewer options and warrants, which were granted to various consultants, vesting during the three-month period ended March 31, 2005. The increase in other general and administrative expenses was primarily the result of an increase in payroll and benefits, investor relations, legal and accounting expenses. Payroll and benefits increased primarily as a result of salary increases. Investor relations increased primarily as a result of fees incurred in connection with a financial advisory agreement entered into in January 2005. Legal fees were lower during the three months ended March 31, 2004 primarily as a result of estimated legal fees recorded in December 2003 which were not incurred and were reversed during the quarter ended March 31, 2004. Accounting 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 increase over the next twelve months as several of the above mentioned costs will probably increase primarily due to inflation and greater regulatory requirements.

Research and development expenses are incurred in connection with our agricultural and human health research programs and consist primarily of fees associated with a research and development agreement with the University of Waterloo, costs associated with the research being performed at the University of Colorado, University of Virginia, Mayo Clinic and other

institutions, consulting fees to the Scientific Advisory Board and other consultants, payroll and benefits, and stock-based compensation. Research and development expenses for the three-month periods ended March 31, 2005 and March 31, 2004 were \$364,080 and \$320,559, respectively, an increase of \$43,521, or 13.6%. This increase was primarily the result of an increase in payroll and benefits related to the addition of a Vice President – Research in July, 2004, and an increase in the number of research projects related to human health. These increases were partially offset by a decrease in the amortization of an initial fee we paid in connection with an agricultural research project. The initial fee was fully amortized in March, 2004.

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

| | Three months ended March 31, | |
|---|-------------------------------------|-------------------|
| | 2005 | 2004 |
| Stock-based compensation | \$ 39,625 | \$ 42,257 |
| Other research and development expenses | 324,455 | 278,302 |
| Total research and development expenses | <u>\$ 364,080</u> | <u>\$ 320,559</u> |

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

| | Three months ended March 31, | |
|---|-------------------------------------|-------------------|
| | 2005 | 2004 |
| Agricultural research programs | \$ 168,411 | \$ 199,354 |
| Human health research programs | 195,669 | 121,205 |
| Total research and development expenses | <u>\$ 364,080</u> | <u>\$ 320,559</u> |

The human health research programs as a percentage of the total research and development increased from 37.8% to 53.7% primarily due to an increase in the number of human health research projects, the addition of a Vice President – Research, and a decrease in the amortization of an initial fee we paid in connection with an agricultural research project. 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.

Nine Months Ended March 31, 2005 and Nine Months Ended March 31, 2004

The net loss for the nine-month periods ended March 31, 2005 and March 31, 2004 was \$1,717,296 and \$2,615,679, respectively, a decrease of \$898,383, or 34.3%. This decrease was primarily the result of a decrease in general and administrative expenses and an increase in revenue, which was partially offset by an increase in research and development expenses.

We had revenue of \$112,500 during the nine-month period ended March 31, 2005, which consisted of the amortized portion of the initial fee and milestone payment on a development and license agreement and a milestone payment on another development agreement. We had revenue of \$4,167 during the nine-month period ended March 31, 2004, which consisted of the amortized portion of the initial fee on a development and license agreement.

Operating expenses consist of general and administrative expenses, research and development expenses and stock-based compensation. Operating expenses for the nine-month periods ended March 31, 2005 and March 31, 2004 were \$2,013,802 and \$2,924,748, respectively, a decrease of \$910,946, or 31.1%. This decrease in operating expenses was primarily the result of a decrease in stock-based compensation, which was partially offset by an increase in other general and administrative expenses and research and development expenses. We expect operating expenses to increase over the next twelve months as we continue to expand our research and development activities.

General and administrative expenses consist primarily of stock-based compensation and other general and administrative costs, which include payroll and benefits, professional services, investor relations, office rent and corporate insurance. General and administrative expenses for the nine-month periods ended March 31, 2005 and March 31, 2004 were \$1,065,808 and \$2,031,044, respectively, a decrease of \$965,236, or 47.5%.

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

| | Nine months ended March 31, | |
|--|------------------------------------|---------------------|
| | 2005 | 2004 |
| Stock-based compensation | \$ 53,268 | \$ 1,083,920 |
| Other general and administrative expenses | 1,012,540 | 947,124 |
| Total general and administrative expenses | \$ 1,065,808 | \$ 2,031,044 |

The decrease in stock-based compensation was primarily the result of a warrant being granted to a financial advisor during the nine-month period ended March 31, 2004 and fewer options and warrants, which were granted to various consultants, vesting during the nine-month period ended March 31, 2005. The increase in other general and administrative expenses was primarily the result of an increase in payroll and benefits, investor relations, legal and accounting expenses, which was partially offset by a decrease in insurance. Payroll increased primarily due to salary increases. Investor relations increased primarily as a result of fees being incurred in connection with a financial advisory agreement that began in January 2005. Legal fees increased primarily as a result of fees incurred in connection with the termination of certain research agreements. Accounting increased primarily as a result of the initial costs of compliance incurred in connection with Section 404 of Sarbanes-Oxley. Insurance decreased primarily due

to a softening in the officers and directors liability insurance marketplace. We expect general and administrative expenses to increase over the next twelve months as several of the above mentioned costs will probably increase primarily due to inflation and greater regulatory requirements.

Research and development expenses are incurred in connection with our agricultural and human health research programs and consist primarily of fees associated with a research and development agreement with the University of Waterloo, costs associated with the research being performed at the University of Colorado, University of Virginia, Mayo Clinic and other institutions, consulting fees to the Scientific Advisory Board and other consultants, payroll and benefits, and stock-based compensation. Research and development expenses for the nine-month periods ended March 31, 2005 and March 31, 2004 were \$947,994 and \$893,704 respectively, an increase of \$54,290, or 6.1%. This increase was primarily the result of an increase in stock based compensation due to a greater amount of options, which were issued to various consultants, vesting during the period, payroll and benefits related to the addition of a Vice President – Research in July, 2004, expanded research undertaken by the University of Waterloo and other institutions, and an unfavorable exchange rate variance between the US dollar and Canadian dollar. These increases were partially offset by a decrease in the amortization of an initial fee we paid in connection with an agricultural research project. The initial fee was fully amortized in March, 2004.

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

| | Nine months ended March 31, | |
|--|------------------------------------|-------------------|
| | 2005 | 2004 |
| Stock-based compensation | \$ 131,015 | \$ 93,925 |
| Other research and development expenses | 816,979 | 799,779 |
| Total research and development expenses | \$ 947,994 | \$ 893,704 |

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

| | Nine months ended March 31, | |
|--|------------------------------------|-------------------|
| | 2005 | 2004 |
| Agricultural research programs | \$ 473,501 | \$ 471,358 |
| Human health research programs | 474,493 | 422,346 |
| Total research and development expenses | \$ 947,994 | \$ 893,704 |

The human health research programs as a percentage of the total research and development increased from 47.3% to 50.1% primarily due to the addition of a Vice President – Research and a decrease in the amortization of an initial fee we paid in connection with an agricultural research project. 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.

From inception of operations on July 1, 1998 through March 31, 2005, we had revenues of \$339,167, which consisted of the initial license fees and milestone payments in connection with our various development and license agreements.

We have incurred losses each year since inception and have an accumulated deficit of \$14,292,237 at March 31, 2005. We expect to continue to incur losses as a result of expenditures on research, product development and administrative activities.

Item 3. 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 March 31, 2005. Based on this evaluation, our chief executive officer and chief financial officer concluded that as of March 31, 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.

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 March 31, 2005 that has materially affected, or is reasonably likely to materially affect, our internal controls over financial reporting.

PART II. OTHER INFORMATION.

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

Effective January 2005, we entered into a one year financial advisory agreement. In connection with that agreement, we issued a warrant to the financial advisor to purchase 10,000 shares of common stock at an exercise price of \$7.00 vesting on July 3, 2005.

On May 9, 2005, we completed a private placement to certain institutional and accredited investors for an aggregate amount of 1,595,651 shares of common stock and warrants to purchase 797,836 shares of common stock for the aggregate cash consideration of \$3,366,829. The private placement offered units of one share of common stock and a five-year warrant to purchase 0.50 shares of common stock at a price equal to \$2.11 per unit. The warrants were issued at an exercise price equal to \$3.38 per share, with such warrants vesting on the date of grant. The estimated costs associated with the private placement, inclusive of placement agent commissions of \$235,678, are estimated to be approximately \$400,000. In addition, we entered into a registration rights agreement with these purchasers. The registration rights agreement requires us to file a registration statement on Form S-3 within 30 days of the closing date, and to have such registration statement declared effective within 90 days of the closing date, to register the securities acquired by the purchasers in the private placement. If we fail to file a registration statement or have such registration statement declared effective by those dates, we are required to pay to each purchaser 1.5% of the aggregate purchase price paid by such purchaser. We intend to use the proceeds from this private placement to fund our research and development efforts as well as for general working capital.

Oppenheimer & Co. Inc. acted as the placement agent for such private placement. As consideration for their services, we issued a warrant to such agent to purchase 167,544 shares of our common stock, on the same terms and conditions as the warrants issued to the purchasers in the private placement.

The Company did not employ an underwriter in connection with the issuance of the securities described above. We believe that the issuance of the foregoing securities was exempt from registration under Section 4(2) of the Securities Act of 1933, as amended, as transactions not involving a public offering. Each of the recipients was an accredited investor, acquired the securities for investment purposes only and not with a view to distribution and had adequate information about the Company.

Item 5. Other Information.

Effective January 2005, we entered into a one year financial advisory agreement. In connection with that agreement, we issued a warrant to the financial advisor to purchase 10,000 shares of common stock at an exercise price of \$7.00 vesting on July 3, 2005.

As previously disclosed, on May 9, 2005, we completed a private placement to certain institutional and accredited investors for an aggregate amount of 1,595,651 shares of common stock and warrants to purchase 797,836 shares of common stock for the aggregate cash consideration of \$3,366,829.

Item 6. Exhibits.

Exhibits.

- | | |
|------|---|
| 4.1 | Form of Warrant issued to certain accredited investors (incorporated by reference to Exhibit 4.1 of the Form 8-K filed on May 5, 2005). |
| 4.2* | Form of Warrant issued to Oppenheimer & Co. Inc. or its designees, dated as of May 9, 2005. |
| 10.1 | Form of Securities Purchase Agreement by and between the Company and certain accredited investors (incorporated by reference to Exhibit 10.1 of the Form 8-K filed on May 5, 2005). |
| 10.2 | Placement Agent Agreement by and between the Company and Oppenheimer & Co. Inc. dated as of February 15, 2005 |

(incorporated by reference to Exhibit 10.2 of the Form 8-K filed on May 5, 2005).

- 10.3* Consulting Agreement by and between the Company and Michael Berry, Ph.D. dated as of January 3, 2005 and Warrant issued to Michael Berry, Ph.D. dated as of January 3, 2005.
- 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.

* Filed herewith.

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: May 16, 2005

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

DATE: May 16, 2005

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

**THIS WARRANT AND THE SHARES OF COMMON STOCK ISSUED UPON ITS
EXERCISE ARE SUBJECT TO THE RESTRICTIONS ON
TRANSFER SET FORTH IN SECTION 5 OF THIS WARRANT**

Warrant No. []

Number of Shares: []
(subject to adjustment)

Date of Issuance: [], 2005

Original Issue Date (as defined in subsection 2(a)): [], 2005

Senesco Technologies, Inc.Common Stock Purchase Warrant

(Void after [], 2010)

Senesco Technologies, Inc., a Delaware corporation (the "Company"), for value received, hereby certifies that Oppenheimer & Co. Inc., or its registered assigns (the "Registered Holder"), is entitled, subject to the terms and conditions set forth below, to purchase from the Company, at any time or from time to time on or after the date of issuance and on or before 5:00 p.m. (New York time) on [], 2010, [] shares of Common Stock, \$0.01 par value per share, of the Company ("Common Stock"), at a purchase price of \$[] per share. The shares purchasable upon exercise of this Warrant, and the purchase price per share, each as adjusted from time to time pursuant to the provisions of this Warrant, are hereinafter referred to as the "Warrant Shares" and the "Purchase Price," respectively. This Warrant is issued pursuant to services rendered in connection with a private placement consisting of Common Stock and a series of Warrants issued by the Company and of like tenor, except as to the number of shares of Common Stock subject thereto (collectively, the "Company Warrants").

1. Exercise.

(a) Exercise for Cash. The Registered Holder may, at its option, elect to exercise this Warrant, in whole or in part and at any time or from time to time, by surrendering this Warrant, with the purchase form appended hereto as Exhibit I duly executed by or on behalf of the Registered Holder, at the principal office of the Company, or at such other office or agency as the Company may designate, accompanied by payment in full, in lawful money of the United States, of the Purchase Price payable in respect of the number of Warrant Shares purchased upon such exercise. A facsimile signature of the Registered Holder on the purchase form shall be sufficient for purposes of exercising this Warrant, provided that the Company receives the Registered Holder's original signature with three (3) business days thereafter.

(b) Cashless Exercise.

(i) The Registered Holder may, at its option, elect to exercise this Warrant, in whole or in part and at any time or from time to time, on a cashless basis, by

surrendering this Warrant, with the purchase form appended hereto as Exhibit I duly executed by or on behalf of the Registered Holder, at the principal office of the Company, or at such other office or agency as the Company may designate, by canceling a portion of this Warrant in payment of the Purchase Price payable in respect of the number of Warrant Shares purchased upon such exercise. In the event of an exercise pursuant to this subsection 1(b), the number of Warrant Shares issued to the Registered Holder shall be determined according to the following formula:

$$X = \frac{Y(A-B)}{A}$$

Where: X = the number of Warrant Shares that shall be issued to the Registered Holder;

Y = the number of Warrant Shares for which this Warrant is being exercised (which shall include both the number of Warrant Shares issued to the Registered Holder and the number of Warrant Shares subject to the portion of the Warrant being cancelled in payment of the Purchase Price);

A = the Fair Market Value (as defined below) of one share of Common Stock; and

B = the Purchase Price then in effect.

(ii) The Fair Market Value per share of Common Stock shall be determined as follows:

(1) If the Common Stock is listed on a national securities exchange, The NASDAQ Stock Market, Inc. ("Nasdaq") or another nationally recognized trading system as of the Exercise Date, the Fair Market Value per share of Common Stock shall be deemed to be the reported closing price per share of Common Stock thereon on the trading day immediately preceding the Exercise Date (provided that if no such price is reported on such day, the Fair Market Value per share of Common Stock shall be determined pursuant to clause (2)).

(2) If the Common Stock is not listed on a national securities exchange, Nasdaq or another nationally recognized trading system as of the Exercise Date, the Fair Market Value per share of Common Stock shall be deemed to be the amount most recently determined by the Board of Directors of the Company (the "Board") to represent the fair market value per share of the Common Stock (including without limitation a determination for purposes of granting Common Stock options or issuing Common Stock under any plan, agreement or arrangement with employees of the Company); and, upon request of the Registered Holder, the Board (or a representative thereof) shall, as promptly as reasonably practicable but in any event not later than 10 days after such request, notify the Registered Holder of the Fair Market Value per share of Common Stock and furnish the Registered Holder

with reasonable documentation of the Board's determination of such Fair Market Value. Notwithstanding the foregoing, if the Board has not made such a determination within the three-month period prior to the Exercise

Date, then (A) the Board shall make, and shall provide or cause to be provided to the Registered Holder notice of, a determination of the Fair Market Value per share of the Common Stock within 15 days of a request by the Registered Holder that it do so, and (B) the exercise of this Warrant pursuant to this subsection 1(b) shall be delayed until such determination is made and notice thereof is provided to the Registered Holder.

(c) Exercise Date. Each exercise of this Warrant shall be deemed to have been effected immediately prior to the close of business on the day on which this Warrant shall have been surrendered to the Company as provided in subsection 1(a) or 1(b) above (the "Exercise Date"). At such time, the person or persons in whose name or names any certificates for Warrant Shares shall be issuable upon such exercise as provided in subsection 1(d) below shall be deemed to have become the holder or holders of record of the Warrant Shares represented by such certificates.

(d) Issuance of Certificates. As soon as practicable after the exercise of this Warrant in whole or in part, and in any event within 10 days thereafter, the Company, at its expense, will cause to be issued in the name of, and delivered to, the Registered Holder, or as the Registered Holder (upon payment by the Registered Holder of any applicable transfer taxes) may direct:

(i) a certificate or certificates for the number of full Warrant Shares to which the Registered Holder shall be entitled upon such exercise plus, in lieu of any fractional share to which the Registered Holder would otherwise be entitled, cash in an amount determined pursuant to Section 3 hereof; and

(ii) in case such exercise is in part only, a new warrant or warrants (dated the date hereof) of like tenor, calling in the aggregate on the face or faces thereof for the number of Warrant Shares equal (without giving effect to any adjustment therein) to the number of such shares called for on the face of this Warrant minus the number of Warrant Shares for which this Warrant was so exercised (which, in the case of an exercise pursuant to subsection 1(b), shall include both the number of Warrant Shares issued to the Registered Holder pursuant to such partial exercise and the number of Warrant Shares subject to the portion of the Warrant being cancelled in payment of the Purchase Price).

2. Adjustments.

(a) Adjustment for Stock Splits and Combinations. If the Company shall at any time or from time to time after the date on which this Warrant was first issued (or, if this Warrant was issued upon partial exercise of, or in replacement of, another warrant of like tenor, then the date on which such original warrant was first issued) (either such date being referred to as the "Original Issue Date") effect a subdivision of the outstanding Common Stock, the Purchase Price then in effect immediately before that subdivision shall be proportionately decreased. If the Company shall at any time or from time to time after the Original Issue Date combine the outstanding shares of Common Stock, the Purchase Price then in effect immediately before the combination shall be proportionately increased. Any adjustment under this paragraph shall become effective at the close of business on the date the subdivision or combination becomes effective.

(b) Adjustment for Certain Dividends and Distributions. In the event the Company at any time, or from time to time after the Original Issue Date shall make or issue, or fix a record date for the determination of holders of Common Stock entitled to receive, a dividend or other distribution payable in additional shares of Common Stock, then and in each such event the Purchase Price then in effect immediately before such event shall be decreased as of the time of such issuance or, in the event such a record date shall have been fixed, as of the close of business on such record date, by multiplying the Purchase Price then in effect by a fraction:

(1) the numerator of which shall be the total number of shares of Common Stock issued and outstanding immediately prior to the time of such issuance or the close of business on such record date, and

(2) the denominator of which shall be the total number of shares of Common Stock issued and outstanding immediately prior to the time of such issuance or the close of business on such record date plus the number of shares of Common Stock issuable in payment of such dividend or distribution;

provided, however, that if such record date shall have been fixed and such dividend is not fully paid or if such distribution is not fully made on the date fixed therefor, the Purchase Price shall be recomputed accordingly as of the close of business on such record date and thereafter the Purchase Price shall be adjusted pursuant to this paragraph as of the time of actual payment of such dividends or distributions.

(c) Adjustment in Number of Warrant Shares. When any adjustment is required to be made in the Purchase Price pursuant to subsections 2(a) or 2(b), the number of Warrant Shares purchasable upon the exercise of this Warrant shall be changed to the number determined by dividing (i) an amount equal to the number of shares issuable upon the exercise of this Warrant immediately prior to such adjustment, multiplied by the Purchase Price in effect immediately prior to such adjustment, by (ii) the Purchase Price in effect immediately after such adjustment.

(d) Adjustments for Other Dividends and Distributions. In the event the Company at any time or from time to time after the Original Issue Date shall make or issue, or fix a record date for the determination of holders of Common Stock entitled to receive, a dividend or other distribution payable in securities of the Company (other than shares of Common Stock) or in cash or other property (other than regular cash dividends paid out of earnings or earned surplus, determined in accordance with generally accepted accounting principles), then and in each such event provision shall be made so that the Registered Holder shall receive upon exercise hereof, in addition to the number of shares of Common Stock issuable hereunder, the kind and amount of securities of the Company, cash or other property which the Registered Holder would have been entitled to receive had this Warrant been exercised on the date of such event and had the Registered Holder thereafter, during the period from the date of such event to and including the Exercise Date, retained any such securities receivable during such period, giving application to all adjustments called for during such period under this Section 2 with respect to the rights of the Registered Holder.

(e) Adjustment for Reorganization. If there shall occur any reorganization, recapitalization, reclassification, consolidation or merger involving the Company in which the Common Stock is converted into or exchanged for securities, cash or other property (other than a transaction covered by subsections 2(a), 2(b) or 2(d)) (collectively, a “Reorganization”), then, following such Reorganization, the Registered Holder shall receive upon exercise hereof the kind and amount of securities, cash or other property which the Registered Holder would have been entitled to receive pursuant to such Reorganization if such exercise had taken place immediately prior to such Reorganization. Notwithstanding the foregoing sentence, if (x) there shall occur any Reorganization in which the Common Stock is converted into or exchanged for anything other than solely equity securities, and (y) the common stock of the acquiring or surviving company is publicly traded, then, as part of such Reorganization, (i) the Registered Holder shall have the right thereafter to receive upon the exercise hereof such number of shares of common stock of the acquiring or surviving company as is determined by multiplying (A) the number of shares of Common Stock subject to this Warrant immediately prior to such Reorganization by (B) a fraction, the numerator of which is the Fair Market Value per share of Common Stock as of the effective date of such Reorganization, as determined pursuant to subsection 1(b)(ii), and the denominator of which is the fair market value per share of common stock of the acquiring or surviving company as of the effective date of such transaction, as determined in good faith by the Board (using the principles set forth in subsection 1(b)(ii) to the extent applicable), and (ii) the exercise price per share of common stock of the acquiring or surviving company shall be the Purchase Price divided by the fraction referred to in clause (B) above. In any such case, appropriate adjustment (as determined in good faith by the Board) shall be made in the application of the provisions set forth herein with respect to the rights and interests thereafter of the Registered Holder, to the end that the provisions set forth in this Section 2 (including provisions with respect to changes in and other adjustments of the Purchase Price) shall thereafter be applicable, as nearly as reasonably may be, in relation to any securities, cash or other property thereafter deliverable upon the exercise of this Warrant.

(f) Certificate as to Adjustments. Upon the occurrence of each adjustment or readjustment of the Purchase Price pursuant to this Section 2, the Company at its expense shall, as promptly as reasonably practicable but in any event not later than 10 days thereafter, compute such adjustment or readjustment in accordance with the terms hereof and furnish to the Registered Holder a certificate setting forth such adjustment or readjustment (including the kind and amount of securities, cash or other property for which this Warrant shall be exercisable and the Purchase Price) and showing in detail the facts upon which such adjustment or readjustment is based. The Company shall, as promptly as reasonably practicable after the written request at any time of the Registered Holder (but in any event not later than 10 days thereafter), furnish or cause to be furnished to the Registered Holder a certificate setting forth (i) the Purchase Price then in effect and (ii) the number of shares of Common Stock and the amount, if any, of other securities, cash or property which then would be received upon the exercise of this Warrant.

3. Fractional Shares. The Company shall not be required upon the exercise of this Warrant to issue any fractional shares, but shall pay the value thereof to the Registered Holder in cash on the basis of the Fair Market Value per share of Common Stock, as determined pursuant to subsection 1(b)(ii) above.

4. Piggyback Registration Rights. If at any time the Company determines to register under the Securities Act of 1933, as amended (including pursuant to a demand of any security holder of the Company exercising registration rights), any of its Common Stock (except securities to be issued solely in connection with any acquisition of any entity or business, shares issuable solely upon exercise of stock options, shares issuable solely pursuant to employee benefit plans or stock purchase plans, or shares to be registered on any registration form that does not permit secondary sales), it shall give to the Registered Holder written notice of such determination at least fifteen (15) days prior to each such filing. If, within five (5) days after receipt of such notice, the Registered Holder so requests in writing, the Company will use its best efforts to include the Registered Holder’s Warrant Shares in such registration statement (to the extent permitted by applicable regulation) that the Registered Holder requests to be registered (the “Registrable Securities”); provided, however, in the event any registration pursuant to this Section 4 shall be, in whole or in part, an underwritten public offering of Common Stock, the number of shares of Registrable Securities to be included in such an underwriting may be reduced if and to the extent that the managing underwriter is of the opinion that such inclusion would materially and adversely affect the marketing of the securities to be sold therein. Any Registrable Securities which are included in any underwritten public offering under this Section 4 will be sold upon such terms as the managing underwriters reasonably request. If the Registered Holder disapproves of the terms of such underwriting, the Registered Holder may elect to withdraw therefrom by written notice to the Company and the underwriter.

5. Transfers, etc.

(a) This Warrant and the Warrant Shares shall not be sold or transferred unless either (i) they first shall have been registered under the Act, or (ii) the Company first shall have been furnished with an opinion of legal counsel, reasonably satisfactory to the Company, to the effect that such sale or transfer is exempt from the registration requirements of the Act. Notwithstanding the foregoing, no registration or opinion of counsel shall be required for (i) a transfer by a Registered Holder which is an entity to a wholly owned subsidiary of such entity, a transfer by a Registered Holder which is a partnership to a partner of such partnership or a retired partner of such partnership or to the estate of any such partner or retired partner, or a transfer by a Registered Holder which is a limited liability company to a member of such limited liability company or a retired member or to the estate of any such member or retired member, provided that the transferee in each case agrees in writing to be subject to the terms of this Section 5, or (ii) a transfer made in accordance with Rule 144 under the Act.

(b) Each certificate representing Warrant Shares shall bear a legend substantially in the following form:

“The securities represented hereby have not been registered under the Securities Act of 1933, as amended, or any state securities laws and neither the securities nor any interest therein may not be offered, sold, transferred, pledged or otherwise disposed of except pursuant to an effective registration under such act or an exemption from registration, which, in the opinion of counsel reasonably satisfactory to counsel for this corporation, is available.”

The foregoing legend shall be removed from the certificates representing any Warrant Shares, at the request of the holder thereof, at such time as they become eligible for resale pursuant to Rule 144(k) under the Act or at such time as the Warrant Shares are sold or transferred in accordance with the

requirements of a registration statement of the Company on Form S-3, or such other form as may then be in effect.

(c) The Company will maintain a register containing the name and address of the Registered Holder of this Warrant. The Registered Holder may change its address as shown on the warrant register by written notice to the Company requesting such change.

(d) Subject to the provisions of Section 5 hereof, this Warrant and all rights hereunder are transferable, in whole or in part, upon surrender of this Warrant with a properly executed assignment (in the form of Exhibit II hereto) at the principal office of the Company (or, if another office or agency has been designated by the Company for such purpose, then at such other office or agency).

6. No Impairment. The Company will not, by amendment of its charter or through any reorganization, transfer of assets, consolidation, merger, dissolution, issue or sale of securities or any other voluntary action, avoid or seek to avoid the observance or performance of any of the terms of this Warrant, but will at all times in good faith assist in the carrying out of all such terms and in the taking of all such action as may be necessary or appropriate in order to protect the rights of the Registered Holder against impairment.

7. Notices of Record Date, etc. In the event:

(a) the Company shall take a record of the holders of its Common Stock (or other stock or securities at the time deliverable upon the exercise of this Warrant) for the purpose of entitling or enabling them to receive any dividend or other distribution, or to receive any right to subscribe for or purchase any shares of stock of any class or any other securities, or to receive any other right; or

(b) of any capital reorganization of the Company, any reclassification of the Common Stock of the Company, any consolidation or merger of the Company with or into another corporation, or any transfer of all or substantially all of the assets of the Company; or

(c) of the voluntary or involuntary dissolution, liquidation or winding-up of the Company, then, and in each such case, the Company will send or cause to be sent to the Registered Holder a notice specifying, as the case may be, (i) the record date for such dividend, distribution or right, and the amount and character of such dividend, distribution or right, or (ii) the effective date on which such reorganization, reclassification, consolidation, merger, transfer, dissolution, liquidation or winding-up is to take place, and the time, if any is to be fixed, as of which the holders of record of Common Stock (or such other stock or securities at the time deliverable upon the exercise of this Warrant) shall be entitled to exchange their shares of Common Stock (or such other stock or securities) for securities or other property deliverable upon such reorganization, reclassification, consolidation, merger, transfer, dissolution, liquidation or winding-up. Such notice shall be sent at least 10 days prior to the record date or effective date for the event specified in such notice.

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8. Reservation of Stock. The Company will at all times reserve and keep available, solely for issuance and delivery upon the exercise of this Warrant, such number of Warrant Shares and other securities, cash and/or property, as from time to time shall be issuable upon the exercise of this Warrant.

9. Exchange or Replacement of Warrants.

(a) Upon the surrender by the Registered Holder, properly endorsed, to the Company at the principal office of the Company, the Company will, subject to the provisions of Section 5 hereof, issue and deliver to or upon the order of the Registered Holder, at the Company's expense, a new Warrant or Warrants of like tenor, in the name of the Registered Holder or as the Registered Holder (upon payment by the Registered Holder of any applicable transfer taxes) may direct, calling in the aggregate on the face or faces thereof for the number of shares of Common Stock (or other securities, cash and/or property) then issuable upon exercise of this Warrant.

(b) Upon receipt of evidence reasonably satisfactory to the Company of the loss, theft, destruction or mutilation of this Warrant and (in the case of loss, theft or destruction) upon delivery of an indemnity agreement (with surety if reasonably required) in an amount reasonably satisfactory to the Company, or (in the case of mutilation) upon surrender and cancellation of this Warrant, the Company will issue, in lieu thereof, a new Warrant of like tenor.

10. Notices. All notices and other communications from the Company to the Registered Holder in connection herewith shall be mailed by certified or registered mail, postage prepaid, or sent via a reputable nationwide overnight courier service guaranteeing next business day delivery, to the address last furnished to the Company in writing by the Registered Holder. All notices and other communications from the Registered Holder to the Company in connection herewith shall be mailed by certified or registered mail, postage prepaid, or sent via a reputable nationwide overnight courier service guaranteeing next business day delivery, to the Company at its principal office set forth below. If the Company should at any time change the location of its principal office to a place other than as set forth below, it shall give prompt written notice to the Registered Holder and thereafter all references in this Warrant to the location of its principal office at the particular time shall be as so specified in such notice. All such notices and communications shall be deemed delivered one business day after being sent via a reputable international overnight courier service guaranteeing next business day delivery.

11. No Rights as Stockholder. Until the exercise of this Warrant, the Registered Holder shall not have or exercise any rights by virtue hereof as a stockholder of the Company. Notwithstanding the foregoing, in the event (i) the Company effects a split of the Common Stock by means of a stock dividend and the Purchase Price of and the number of Warrant Shares are adjusted as of the date of the distribution of the dividend (rather than as of the record date for such dividend), and (ii) the Registered Holder exercises this Warrant between the record date and the distribution date for such stock dividend, the Registered Holder shall be entitled to receive, on the distribution date, the stock dividend with respect to the shares of Common Stock acquired upon such exercise, notwithstanding the fact that such shares were not outstanding as of the close of business on the record date for such stock dividend.

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12. Amendment or Waiver. Any term of this Warrant may be amended or waived (either generally or in a particular instance and either retroactively or prospectively) with the written consent of the Company and the holders of Company Warrants representing at least two-thirds of the number of shares of Common Stock then subject to outstanding Company Warrants. Notwithstanding the foregoing, (a) this Warrant may be amended and the observance of any term hereunder may be waived without the written consent of the Registered Holder only in a manner which applies to all Company Warrants in the same fashion and (b) the number of Warrant Shares subject to this Warrant and the Purchase Price of this Warrant may not be amended, and the right to exercise this Warrant may not be waived, without the written consent of the Registered Holder (it being agreed that an amendment to or waiver

under any of the provisions of Section 2 of this Warrant shall not be considered an amendment of the number of Warrant Shares or the Purchase Price). The Company shall give prompt written notice to the Registered Holder of any amendment hereof or waiver hereunder that was effected without the Registered Holder’s written consent. No waivers of any term, condition or provision of this Warrant, in any one or more instances, shall be deemed to be, or construed as, a further or continuing waiver of any such term, condition or provision.

13. Section Headings. The section headings in this Warrant are for the convenience of the parties and in no way alter, modify, amend, limit or restrict the contractual obligations of the parties.
14. Governing Law. This Warrant will be governed by and construed in accordance with the internal laws of the State of New York (without reference to the conflicts of law provisions thereof).
15. Facsimile Signatures. This Warrant may be executed by facsimile signature.

* * * * *

EXECUTED as of the Date of Issuance indicated above.

SENESCO TECHNOLOGIES, INC.

By: _____
Name:
Title:

ATTEST:

EXHIBIT I

PURCHASE FORM

To: Senesco Technologies, Inc. Dated:

The undersigned, pursuant to the provisions set forth in the attached Warrant (No.), hereby elects to purchase (*check applicable box*):

- shares of the Common Stock of Senesco Technologies, Inc. covered by such Warrant; or
- the maximum number of shares of Common Stock covered by such Warrant pursuant to the cashless exercise procedure set forth in subsection 1(b).

The undersigned herewith makes payment of the full purchase price for such shares at the price per share provided for in such Warrant. Such payment takes the form of (*check applicable box or boxes*):

- \$ in lawful money of the United States; and/or
- the cancellation of such portion of the attached Warrant as is exercisable for a total of Warrant Shares (using a Fair Market Value of \$ per share for purposes of this calculation) ; and/or
- the cancellation of such number of Warrant Shares as is necessary, in accordance with the formula set forth in subsection 1(b), to exercise this Warrant with respect to the maximum number of Warrant Shares purchasable pursuant to the cashless exercise procedure set forth in subsection 1(b).

Signature: _____
Address: _____

EXHIBIT II

ASSIGNMENT FORM

FOR VALUE RECEIVED, _____ hereby sells, assigns and transfers all of the rights of the undersigned under the attached Warrant (No. _____) with respect to the number of shares of Common Stock of Senesco Technologies, Inc. covered thereby set forth below, unto:

| Name of Assignee | Address | No. of Shares |
|------------------|---------|---------------|
|------------------|---------|---------------|

| | | |
|--------|-------|------------------|
| Dated: | _____ | Signature: _____ |
|--------|-------|------------------|

Signature Guaranteed:

By: _____

The signature should be guaranteed by an eligible guarantor institution (banks, stockbrokers, savings and loan associations and credit unions with membership in an approved signature guarantee medallion program) pursuant to Rule 17Ad-15 under the Securities Exchange Act of 1934.

CONSULTING AGREEMENT

This Consulting Agreement (this "Agreement"), made as of January 3, 2005 (the "Effective Date"), by and between Senesco Technologies, Inc., a Delaware corporation (the "Company"), and Michael Berry, Ph.D. (the "Consultant").

WITNESSETH:

WHEREAS, the Company and the Consultant desire to enter into this Agreement in order to set forth the terms and conditions under which the Consultant will perform certain consulting services as set forth below.

NOW, THEREFORE, in consideration of the mutual promises and covenants contained herein and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the parties hereto hereby agree as follows:

1. Consulting Services. The Company hereby retains the Consultant to perform, and the Consultant agrees to render to the Company on the terms set forth herein, such services as are identified on Schedule A attached hereto, and certain other related services as may reasonably be requested from time to time by the Board of Directors (the "Board") or officers of the Company (the "Consulting Services").
2. Consulting Compensation. In consideration of the performance of the Consulting Services by the Consultant, (i) the Company shall pay the Consultant \$8,000 per month, payable on or prior to the fifteenth day of each month for Consulting Services performed in the prior month, and (ii) the Company hereby grants to the Consultant options (the "Options") to purchase 10,000 shares of Common Stock of the Company, par value \$0.01 per share (the "Common Stock") at an exercise price equal to \$7.50 per share. Ownership of the Options shall vest upon the six (6) month anniversary of the Effective Date; provided, however, that in the event that Consultant breaches Section 5 of this Agreement, all of Consultant's interest in the unexercised Options shall immediately terminate.
3. Option Agreement. Consultant's rights and obligations with respect to the Options shall be governed by the Company's stock option plan then in effect and the Option Agreement attached hereto as Exhibit B.
4. Relationship of Parties. It is specifically agreed and understood by the parties that the relationship of the Consultant to the Company hereunder is that of an independent contractor and this Agreement and the services to be rendered by the Consultant to the Company shall not for any purpose whatsoever or in any way or manner create any employer-employee relationship between the Company and the Consultant. Without limiting the generality of the foregoing, the Company shall not be required to provide health insurance or any other benefits to the Consultant or pay any taxes with respect to the Consultant's remuneration hereunder. Consultant further agrees to indemnify, hold harmless and defend the Company against any and all claims or liabilities that may be asserted by any governmental taxing authority, including payment of

attorney's fees, charges, assessments, interest, penalties or liabilities arising out of or with respect to tax liabilities relating to payment of compensation hereunder.

5. Confidentiality; Non-Solicitation; Non-Competition; Invention Assignment.

The Consultant acknowledges that he has had and will have access to and participate in the development of or be acquainted with confidential or proprietary information and trade secrets related to the business of any of the Company, including but not limited to (A) technical information, trade secrets, data, product information, business plans, operating plans, marketing plans, financial reports, operating data, budgets, pricing strategies and information, terms of agreements with customers, reports, correspondence, tapes, discs, tangible property and specifications owned by or used in the business of the Company, and (B) other tangible and intangible property, which is used in the business and operations of the Company but not made publicly available (collectively, the "Confidential Information").

(a) The Consultant shall not, directly or indirectly, disclose or use any Confidential Information in any way (including, but not limited to, in connection with trades in the securities of the Company) except in the best interests of the Company or in the performance of the Consultant's duties under this Agreement. The Consultant may disclose such information when required by applicable law or judicial process, but only after notice to the President or the Board of the Consultant's intention to do so and opportunity to the Company to challenge or limit the scope of the disclosure.

(b) The Consultant agrees that he shall not, during the term of this Agreement and for a period of twenty-four (24) months immediately following the expiration or termination hereof, either directly or indirectly, on his own behalf or in the service or on behalf of others, solicit, contact or persuade any customer of the Company or prospective customer of the Company, to alter such customer's or prospective customer's relationship with the Company or to engage any company competitive with the Company to perform services which can be performed by the Company in the ordinary course of its business.

(c) The Consultant agrees that he shall not, during the term of this Agreement and for a period of twenty-four (24) months immediately following the expiration or termination hereof, either directly or indirectly, on his own behalf or in the service or on behalf of others, solicit, recruit or attempt to persuade any person to terminate such person's employment with the Company, whether or not such person is a full-time employee or whether or not such employment is pursuant to a written agreement or is at-will.

(d) The Consultant agrees that he shall not, during the term of this Agreement and for a period of twenty-four (24) months immediately following the expiration or termination hereof, unless acting pursuant hereto or with the prior written consent of the Board, directly or indirectly, own, manage, operate, join, control, finance or participate in the ownership, management, operation, control or financing of, or be connected as an officer, director, employee, partner, principal, agent, representative,

consultant or otherwise, or use or expressly permit his name to be used, in connection with any business or enterprise engaged in any business directly competitive with the business in which the Company was actively engaged at the date of the expiration or termination of this Agreement.

(e) The Consultant will promptly make full written disclosure to the Company, will hold in trust for the sole right and benefit of the Company, and hereby assigns to the Company, or its designee, all right, title, and interest in and to any and all inventions, original works of authorship, developments, concepts, improvements or trade secrets, whether or not patentable or registrable under copyright or similar laws, which Consultant may solely or jointly conceive or develop or reduce to practice, or cause to be conceived or developed or reduced to practice and which relate to the Company or its business, during the term of this Agreement, including the copyright thereon. The Consultant further acknowledge that all original works of authorship which are made by Consultant (solely or jointly with others) within the scope of Consultant's services to the Company and which are protectable by copyright are "works made for hire," as that term is defined in the United States Copyright Act.

6. Compliance with Law. Consultant acknowledges that shares of the Company's common stock are publicly traded securities and agrees that he will comply with all applicable laws, including federal securities laws, or applicable state securities or "blue sky" laws, or the applicable laws of the foreign countries, relating to the Company or its securities, to the satisfaction of Company's counsel.

7. Term and Termination. The term of this Agreement shall commence on the Effective Date and continue until the earlier of (i) the first anniversary of the Effective Date, or (ii) the termination of this Agreement by a party hereto which termination shall occur upon thirty (30) days prior written notice.

8. Notices. Any notice, demand, request or other communication which is required, called for or contemplated to be given or made hereunder to or upon any party hereto shall be deemed to have been duly given or made for all purposes if (a) in writing and sent by (i) messenger or a recognized national overnight courier service for next day delivery with receipt therefor, or (ii) certified or registered mail, postage paid, return receipt requested, or (b) sent by facsimile transmission with a written copy thereof sent on the same day by postage paid first-class mail or (c) by personal delivery to such party at the following address:

If to the Company:

Senesco Technologies, Inc.
303 George Street
Suite 420
New Brunswick, NJ 08901
Telecopier No:

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with a copy to:

Morgan, Lewis & Bockius LLP
502 Carnegie Center
Princeton, NJ 08540
Attention: David Sorin, Esq.
Telecopier No.: (609) 919-6701

If to the Consultant:

Mr. Michael Berry, Ph.D.
[Address]
Telecopier No.:

or to such other address as a party shall have designated by notice in writing to the other party given in the manner provided by this Section.

9. Amendment. Except as otherwise provided herein, no amendment of this Agreement shall be valid or effective unless in writing and signed by or on behalf of the party against whom the same is sought to be enforced.

10. Waiver. No course of dealing of any party hereto, no omission, failure or delay on the part of any party hereto in asserting or exercising any right hereunder, and no partial or single exercise of any right hereunder by any party hereto shall constitute or operate as a waiver of any such right or any other right hereunder. No waiver of any provision hereof shall be effective unless in writing and signed by or on behalf of the party to be charged therewith. No waiver of any provision hereof shall be deemed or construed as a continuing waiver, as a waiver in respect of any other or subsequent breach or default of such provision, or as a waiver of any other provision hereof unless expressly so stated in writing and signed by or on behalf of the party to be charged therewith.

11. Governing Law. This Agreement shall be governed by, and interpreted and enforced in accordance with, the laws of the State of New Jersey without regard to conflict or choice of law provisions that would defer to the substantive laws of another jurisdiction.

12. Severability. The provisions hereof are severable and if any provision of this Agreement shall be determined to be legally invalid, inoperative or unenforceable in any respect by a court of competent jurisdiction, then the remaining provisions hereof shall not be affected, but shall, subject to the discretion of such court, remain in full force and effect, and any such invalid, inoperative or unenforceable provision shall be deemed, without any further action on the part of the parties hereto, amended and limited to the extent necessary to render such provision valid, operative and enforceable.

13. Assignment; Binding Effect. This Agreement and all of the provisions hereof shall be binding upon and inure to the benefit of the parties hereto, their heirs and their respective successors and permitted assignees; provided, however, that nothing in this Agreement, express or implied, shall confer on the Consultant the right to assign any of his

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rights or delegate any of his obligations hereunder at any time, whether prior to or after the date hereof.

12. No Third Party Beneficiaries. Nothing contained in this Agreement, whether express or implied, is intended, or shall be deemed, to create or confer any right, interest or remedy for the benefit of any Person other than as otherwise provided in this Agreement.

13. Entire Agreement. This Agreement contains the terms of the entire agreement among the parties with respect to the subject matter hereof and supersedes any and all prior agreements, commitments, understandings, discussions, negotiations or arrangements of any nature relating thereto.

14. Headings. The headings contained in this Agreement are included for convenience and reference purposes only and shall be given no effect in the construction or interpretation of this Agreement.

15. Counterparts. This Agreement may be executed in any number of counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument.

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IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be duly executed as of the date first above written.

SENESCO TECHNOLOGIES, INC.

By: /s/ Bruce Galton

Name:

Title:

/s/ Michael Berry

MICHAEL BERRY, PH.D.

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EXHIBIT A
CONSULTING SERVICES

Consultant shall write a series of approximately six papers for the Company in the next year. Each document would research and explain the value-creation potential of one highly focused area of the Company. In addition to explaining the science, the papers will develop the business setting for the Company's product. For example, Consultant proposes to write a paper on cancer technology. Consultant will examine the market and then analyze how the Company's technology fits into that general mosaic. Another paper would detail the market for arthritis treatments and the economic rationale for the Company's approach. The list will be further refined in conjunction with the Company's management.

Consultant would write at least one case study along the lines of THE THIRD WAY. This would allow Consultant to present the Company's story in a more independent framework with a significant case question to be answered.

Finally, each paper and/or case study must be approved by the Company.

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EXHIBIT B
OPTION AGREEMENT

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**THIS WARRANT AND THE SHARES OF COMMON STOCK ISSUED UPON ITS
EXERCISE ARE SUBJECT TO THE RESTRICTIONS ON
TRANSFER SET FORTH IN SECTION 5 OF THIS WARRANT**

Warrant No. 144

Date of Issuance: January 3, 2005

Original Issue Date (as defined in subsection 2(a)): January 3, 2005

Number of Shares: 10,000
(subject to adjustment)

SENESCO TECHNOLOGIES, INC.

Common Stock Purchase Warrant

(Void after January 2, 2010)

SENESCO TECHNOLOGIES, INC., a Delaware corporation (the "Company"), for value received, hereby certifies that Michael Berry Ph.D. (the "Registered Holder"), is entitled, subject to the terms and conditions set forth below, to purchase from the Company, subject to the vesting schedule in subsection 1(a) hereof, at any time or from time to time on or after the date of issuance and on or before 5:00 p.m. (Eastern time) on January 2, 2010, ten thousand (10,000) shares of Common Stock, \$.01 par value per share, of the Company ("Common Stock"), at a purchase price of \$7.50 per share. The shares purchasable upon exercise of this Warrant, and the purchase price per share, each as adjusted from time to time pursuant to the provisions of this Warrant, are hereinafter referred to as the "Warrant Shares" and the "Purchase Price," respectively.

1. Exercise.

Vesting. The Warrant Shares shall become exercisable on July 3, 2005

(a) Method of Exercise. The Registered Holder may, at its option, elect to exercise this Warrant, subject to the Vesting Schedule, in whole or in part and at any time or from time to time, by surrendering this Warrant, with the purchase form appended hereto as Exhibit I duly executed by or on behalf of the Registered Holder, at the principal office of the Company, or at such other office or agency as the Company may designate, accompanied by payment in full, in lawful money of the United States, of the Purchase Price payable in respect of the number of Warrant Shares purchased upon such exercise.

(b) Exercise Date. Each exercise of this Warrant shall be deemed to have been effected immediately prior to the close of business on the day on which this Warrant shall have been surrendered to the Company as provided in subsection 1(b) above (the "Exercise Date"). At such time, the person or persons in whose name or names any certificates for Warrant Shares shall be issuable upon such exercise as provided in subsection 1(d) below shall be deemed to have become the holder or holders of record of the Warrant Shares represented by such certificates.

(c) Issuance of Certificates. As soon as practicable after the exercise of this Warrant in whole or in part, and in any event within 10 days thereafter, the Company, at its expense, will cause to be issued in the name of, and delivered to, the Registered Holder, or as the Registered Holder (upon payment by the Registered Holder of any applicable transfer taxes) may direct:

(i) a certificate or certificates for the number of full Warrant Shares to which the Registered Holder shall be entitled upon such exercise, which shall include, if applicable, the rounding of any fraction up to the nearest whole number of shares of Common Stock pursuant to Section 3 hereof; and

(ii) in case such exercise is in part only, a new warrant or warrants (dated the date hereof) of like tenor, calling in the aggregate on the face or faces thereof for the number of Warrant Shares equal (without giving effect to any adjustment therein) to the number of such shares called for on the face of this Warrant minus the number of Warrant Shares for which this Warrant was so exercised.

2. Adjustments.

(a) Adjustment for Stock Splits and Combinations. If the Company shall at any time or from time to time after the date on which this Warrant was first issued (or, if this Warrant was issued upon partial exercise of, or in replacement of, another warrant of like tenor, then the date on which such original warrant was first issued) (either such date being referred to as the "Original Issue Date") effect a subdivision of the outstanding Common Stock, the Purchase Price then in effect immediately before that subdivision shall be proportionately decreased. If the Company shall at any time or from time to time after the Original Issue Date combine the outstanding shares of Common Stock, the Purchase Price then in effect immediately before the combination shall be proportionately increased. Any adjustment under this paragraph shall become effective at the close of business on the date the subdivision or combination becomes effective.

(b) Adjustment for Certain Dividends and Distributions. In the event the Company at any time, or from time to time after the Original Issue Date shall make or issue, or fix a record date for the determination of holders of Common Stock entitled to receive, a dividend or other distribution payable in additional shares of Common Stock, then and in each such event the Purchase Price then in effect immediately before such event shall be decreased as of the time of such issuance or, in the event such a record date shall have been fixed, as of the close of business on such record date, by multiplying the Purchase Price then in effect by a fraction:

(1) the numerator of which shall be the total number of shares of Common Stock issued and outstanding immediately prior to the time of such issuance or the close of business on such record date, and

(2) the denominator of which shall be the total number of shares of Common Stock issued and outstanding immediately prior to the time of such issuance or the close of business on such record date plus the number of shares of Common Stock issuable in payment of such dividend or distribution;

provided, however, that if such record date shall have been fixed and such dividend is not fully paid or if such distribution is not fully made on the date fixed therefor, the Purchase Price shall be recomputed accordingly as of the close of business on such record date and thereafter the Purchase Price shall be adjusted pursuant to this paragraph as of the time of actual payment of such dividends or distributions.

(c) Adjustment in Number of Warrant Shares. When any adjustment is required to be made in the Purchase Price pursuant to subsections 2(a) or 2(b), the number of Warrant Shares purchasable upon the exercise of this Warrant shall be changed to the number determined by dividing

(i) an amount equal to the number of shares issuable upon the exercise of this Warrant immediately prior to such adjustment, multiplied by the Purchase Price in effect immediately prior to such adjustment, by (ii) the Purchase Price in effect immediately after such adjustment.

(d) Adjustments for Other Dividends and Distributions. In the event the Company at any time or from time to time after the Original Issue Date shall make or issue, or fix a record date for the determination of holders of Common Stock entitled to receive, a dividend or other distribution payable in securities of the Company (other than shares of Common Stock) or in cash or other property (other than regular cash dividends paid out of earnings or earned surplus, determined in accordance with generally accepted accounting principles), then and in each such event provision shall be made so that the Registered Holder shall receive upon exercise hereof, in addition to the number of shares of Common Stock issuable hereunder, the kind and amount of securities of the Company, cash or other property which the Registered Holder would have been entitled to receive had this Warrant been exercised on the date of such event and had the Registered Holder thereafter, during the period from the date of such event to and including the Exercise Date, retained any such securities receivable during such period, giving application to all adjustments called for during such period under this Section 2 with respect to the rights of the Registered Holder.

(e) Adjustment for Reorganization. If there shall occur any reorganization, recapitalization, reclassification, consolidation or merger involving the Company in which the Common Stock is converted into or exchanged for securities, cash or other property (other than a transaction covered by subsections 2(a), 2(b) or 2(d)) (collectively, a “Reorganization”), then, following such Reorganization, the Registered Holder shall receive upon exercise hereof the kind and amount of securities, cash or other property which the Registered Holder would have been entitled to receive pursuant to such Reorganization if such exercise had taken place immediately prior to such Reorganization. In any such case, appropriate adjustment (as determined in good faith by the Board) shall be made in the application of the provisions set forth herein with respect to the rights and interests thereafter of the Registered Holder, to the end that the provisions set forth in this Section 2 (including provisions with respect to changes in and other adjustments of the Purchase Price) shall thereafter be applicable, as nearly as reasonably may be, in relation to any securities, cash or other property thereafter deliverable upon the exercise of this Warrant.

(f) Certificate as to Adjustments. Upon the occurrence of each adjustment or readjustment of the Purchase Price pursuant to this Section 2, the Company at its expense shall, as promptly as reasonably practicable but in any event not later than 10 days thereafter, compute such adjustment or readjustment in accordance with the terms hereof and furnish to the Registered Holder a certificate setting forth such adjustment or readjustment (including the kind and amount of securities, cash or other property for which this Warrant shall be exercisable and

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the Purchase Price) and showing in detail the facts upon which such adjustment or readjustment is based. The Company shall, as promptly as reasonably practicable after the written request at any time of the Registered Holder (but in any event not later than 10 days thereafter), furnish or cause to be furnished to the Registered Holder a certificate setting forth (i) the Purchase Price then in effect and (ii) the number of shares of Common Stock and the amount, if any, of other securities, cash or property which then would be received upon the exercise of this Warrant.

3. Fractional Shares. The Company shall not be required upon the exercise of this Warrant to issue any fractions of shares of Common Stock or fractional Warrants; provided, however, that if the Registered Holder exercises this Warrant, any fractional shares of Common Stock shall be eliminated by rounding any fraction up to the nearest whole number of shares of Common Stock. The Registered Holder of this Warrant, by acceptance hereof, expressly waives his right to receive any fractional share of Common Stock or fractional Warrant upon exercise of this Warrant.

4. Investment Representations. The initial Registered Holder represents and warrants to the Company as follows:

(a) Investment. It is acquiring the Warrant, and (if and when it exercises this Warrant) it will acquire the Warrant Shares, for its own account for investment and not with a view to, or for sale in connection with, any distribution thereof, nor with any present intention of distributing or selling the same; and the Registered Holder has no present or contemplated agreement, undertaking, arrangement, obligation, indebtedness or commitment providing for the disposition thereof;

(b) Federal and State Compliance. The Registered Holder understands that this Warrant and any Warrant Shares purchased upon its exercise are securities, the issuance of which requires compliance with federal and state securities law, including the Securities Act of 1933, as amended (the “Act”);

(c) Accredited Investor. The Registered Holder is an “accredited investor” as defined in Rule 501(a) under the Securities Act of 1933, as amended (the “Act”);

(d) Experience. The Registered Holder has made such inquiry concerning the Company and its business and personnel as it has deemed appropriate; and the Registered Holder has sufficient knowledge and experience in finance and business that it is capable of evaluating the risks and merits of its investment in the Company; and

(e) Restricted Securities. The Registered Holder acknowledges and understands that the Warrant and Warrant Shares constitute restricted securities under the Act and must be held indefinitely unless subsequently registered under the Act or an exemption from such registration is available.

5. Transfers, etc.

(a) This Warrant may not be transferred in any manner other than by will or by the laws of descent or distribution and may be exercised during the lifetime of the Registered Holder only by the Registered Holder. The terms of this Warrant shall be binding upon the executors, administrators, heirs, successor and assigns of the Registered Holder.

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(b) The Warrant Shares shall not be sold or transferred unless either (i) they first shall have been registered under the Act, or (ii) the Company first shall have been furnished with an opinion of legal counsel, reasonably satisfactory to the Company, to the effect that such sale or transfer is

exempt from the registration requirements of the Act. Notwithstanding the foregoing, no registration or opinion of counsel shall be required for (i) a transfer by a Registered Holder which is an entity to a wholly owned subsidiary of such entity, a transfer by a Registered Holder which is a partnership to a partner of such partnership or a retired partner of such partnership or to the estate of any such partner or retired partner, or a transfer by a Registered Holder which is a limited liability company to a member of such limited liability company or a retired member or to the estate of any such member or retired member, provided that the transferee in each case agrees in writing to be subject to the terms of this Section 5, or (ii) a transfer made in accordance with Rule 144 under the Act.

- (c) Each certificate representing Warrant Shares shall bear a legend substantially in the following form:

“The securities represented by this certificate have not been registered under the Securities Act of 1933, as amended (the “Act”), and may not be offered, sold or otherwise transferred, pledged or hypothecated unless and until such securities are registered under such Act or an opinion of counsel satisfactory to the Company is obtained to the effect that such registration is not required.”

The foregoing legend shall be removed from the certificates representing any Warrant Shares, at the request of the holder thereof, at such time as they become eligible for resale pursuant to Rule 144(k) under the Act.

- (d) The Company will maintain a register containing the name and address of the Registered Holder of this Warrant. The Registered Holder may change its address as shown on the warrant register by written notice to the Company requesting such change.

6. Notices of Record Date, etc. In the event:

(a) the Company shall take a record of the holders of its Common Stock (or other stock or securities at the time deliverable upon the exercise of this Warrant) for the purpose of entitling or enabling them to receive any dividend or other distribution, or to receive any right to subscribe for or purchase any shares of stock of any class or any other securities, or to receive any other right; or

(b) of any capital reorganization of the Company, any reclassification of the Common Stock of the Company, any consolidation or merger of the Company with or into another corporation (other than a consolidation or merger in which the Company is the surviving entity and its Common Stock is not converted into or exchanged for any other securities or property), or any transfer of all or substantially all of the assets of the Company; or

(c) of the voluntary or involuntary dissolution, liquidation or winding-up of the Company, then, and in each such case, the Company will send or cause to be sent to the

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Registered Holder a notice specifying, as the case may be, (i) the record date for such dividend, distribution or right, and the amount and character of such dividend, distribution or right, or (ii) the effective date on which such reorganization, reclassification, consolidation, merger, transfer, dissolution, liquidation or winding-up is to take place, and the time, if any is to be fixed, as of which the holders of record of Common Stock (or such other stock or securities at the time deliverable upon the exercise of this Warrant) shall be entitled to exchange their shares of Common Stock (or such other stock or securities) for securities or other property deliverable upon such reorganization, reclassification, consolidation, merger, transfer, dissolution, liquidation or winding-up. Such notice shall be sent at least 10 days prior to the record date or effective date for the event specified in such notice.

7. Reservation of Stock. The Company will at all times reserve and keep available, solely for issuance and delivery upon the exercise of this Warrant, such number of Warrant Shares and other securities, cash and/or property, as from time to time shall be issuable upon the exercise of this Warrant.

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8. Replacement Warrant.

(a) Upon receipt of evidence reasonably satisfactory to the Company of the loss, theft, destruction or mutilation of this Warrant and (in the case of loss, theft or destruction) upon delivery of an indemnity agreement (with surety if reasonably required) in an amount reasonably satisfactory to the Company, or (in the case of mutilation) upon surrender and cancellation of this Warrant, the Company will issue, in lieu thereof, a new Warrant of like tenor.

9. Agreement in Connection with Public Offering. The Registered Holder agrees, in connection with an underwritten public offering of the Company's securities pursuant to a registration statement under the Act, (i) not to sell, make short sale of, loan, grant any options for the purchase of, or otherwise dispose of any shares of Common Stock held by the Registered Holder (other than any shares included in the offering) without the prior written consent of the Company or the underwriters managing such underwritten public offering of the Company's securities for a period of 180 days from the effective date of such registration statement, and (ii) to execute any agreement reflecting clause (i) above as may be requested by the Company or the managing underwriters at the time of such offering.

10. Notices. All notices and other communications from the Company to the Registered Holder in connection herewith shall be mailed by certified or registered mail, postage prepaid, or sent via a reputable nationwide overnight courier service guaranteeing next business day delivery, to the address last furnished to the Company in writing by the Registered Holder. All notices and other communications from the Registered Holder to the Company in connection herewith shall be mailed by certified or registered mail, postage prepaid, or sent via a reputable nationwide overnight courier service guaranteeing next business day delivery, to the Company at its principal office set forth below. If the Company should at any time change the location of its principal office to a place other than as set forth below, it shall give prompt written notice to the Registered Holder and thereafter all references in this Warrant to the location of its principal office at the particular time shall be as so specified in such notice. All such notices and communications shall be deemed delivered (i) two business days after being sent by certified or registered mail, return receipt requested, postage prepaid, or (ii) one business day after being sent via a reputable nationwide overnight courier service guaranteeing next business day delivery.

11. No Rights as Stockholder. Until the exercise of this Warrant, the Registered Holder shall not have or exercise any rights by virtue hereof as a stockholder of the Company.

12. Amendment or Waiver. Any term of this Warrant may be amended or waived only by an instrument in writing signed by the party against which enforcement of the change or waiver is sought. No waivers of any term, condition or provision of this Warrant, in any one or more instances, shall be deemed to be, or construed as, a further or continuing waiver of any such term, condition or provision.

13. Section Headings. The section headings in this Warrant are for the convenience of the parties and in no way alter, modify, amend, limit or restrict the contractual obligations of the parties.

14. Governing Law. This Warrant will be governed by and construed in accordance with the internal laws of the State of New Jersey (without reference to the conflicts of law provisions thereof).

15. Facsimile Signatures. This Warrant may be executed by facsimile signature.

EXECUTED as of the Date of Issuance indicated above.

SENESCO TECHNOLOGIES, INC.

By: _____

Title: _____ President and Chief
Executive Officer

ATTEST:

EXHIBIT I

PURCHASE FORM

To: _____

Dated: _____

The undersigned, pursuant to the provisions set forth in the attached Warrant (No. _____), hereby elects to purchase _____ shares of the Common Stock of SENESCO TECHNOLOGIES, INC. covered by such Warrant.

The undersigned herewith makes payment of the full purchase price for such shares at the price per share provided for in such Warrant in lawful money of the United States in the amount of \$ _____.

Signature: _____

Address: _____

**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-QSB 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: May 16, 2005

/s/ Bruce C. Galton

Bruce C. Galton

President and Chief Executive Officer
(principal executive officer)

**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-QSB 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: May 16, 2005

/s/ Joel Brooks

Joel Brooks

Chief Financial Officer and Treasurer

(principal financial and accounting officer)

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-QSB of Senesco Technologies, Inc. for the period ended March 31, 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: May 16, 2005

/s/ Bruce C. Galton *

Bruce C. Galton

President and Chief Executive Officer

(principal executive officer)

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

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-QSB of Senesco Technologies, Inc. for the period ended March 31, 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: May 16, 2005

/s/ Joel Brooks *

Joel Brooks

Chief Financial Officer and Treasurer

(principal financial and accounting officer)

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