

**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION**

Washington, D.C. 20549

FORM 10-K

(Mark One)

ANNUAL REPORT UNDER SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934.

For the fiscal year ended June 30, 2006

OR

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

For the transition period from _____ to _____

Commission file number: 001-31326

SENESCO TECHNOLOGIES, INC.

(Exact name of registrant as specified in its charter)

Delaware
(State or other jurisdiction of
incorporation or organization)

84-1368850
(I.R.S. Employer Identification No.)

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

08901
(Zip Code)

(732) 296-8400

(Registrant's telephone number,
including area code)

None

(Former name, former address and
former fiscal year, if changed since
last report)

Securities registered under Section 12(b) of the Act:

Title of each class	Name of each exchange on which registered
Common Stock, \$0.01 par value per share.	American Stock Exchange

Securities registered under Section 12(g) of the Act:

None.

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes No

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or 15(d) of the Exchange Act. Yes No

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

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K is not contained herein, and will not be contained, to the best of registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K.

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

Large accelerated filer Accelerated filer Non-accelerated filer

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

As of September 30, the aggregate market value of the registrant's common stock held by non-affiliates of the registrant was \$16,181,318, based on the closing sales price as reported on the American Stock Exchange on that date.

Indicate the number of shares outstanding of each of the registrant's classes of common stock, as of September 30, 2006:

Class	Number of Shares
Common Stock, \$0.01 par value	15,487,388

The following documents are incorporated by reference into the Annual Report on Form 10-K: Portions of the registrant's definitive Proxy Statement for its 2006 Annual Meeting of Stockholders are incorporated by reference into Part III of this Report.

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PART I

Item 1. Business.

Our Business

The primary business of Senesco Technologies, Inc., a Delaware corporation incorporated in 1999, and its wholly-owned subsidiary, Senesco, Inc., a New Jersey corporation incorporated in 1998, collectively referred to as “Senesco,” “we,” “us” or “our,” is to utilize our patented and patent-pending genes, primarily eucaryotic translation initiation Factor 5A, or Factor 5A, and deoxyhypusine synthase, or DHS, in human health applications to:

- Develop novel approaches to treat inflammatory and / or apoptotic, related diseases in humans;
- Develop novel approaches to treat cancer, a group of diseases in which apoptosis does not occur normally; and

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

Human Health Applications

We believe that our gene technology could have broad applicability in the human health field, by either inhibiting or accelerating apoptosis. Inhibiting apoptosis may be useful in preventing or treating a wide range of inflammatory and ischemic diseases attributed to premature apoptosis. Accelerating apoptosis may be useful in treating certain forms of cancer.

Certain human health results to date include:

- Increasing median survival by approximately 250% in an in-vivo model of mice injected with melanoma cancer cells;
- Inducing apoptosis in both human cancer cell lines derived from tumors and in lung tumors in mice;
- Reducing the amounts of p24 and IL-8 by approximately 50 percent in an HIV-1 infected human cell line;
- Increasing the survival of mouse pancreatic islet cells isolated for transplantation;
- Inducing apoptosis of cancer cells in a human multiple myeloma cell line;
- Demonstrating that the efficacy of our technology is comparable to that of existing approved anti-inflammatory prescription drugs in reducing certain inflammatory cytokines in mice;
- Measuring VEGF reduction in mouse lung tumors as a result of treatment with our genes;
- Increasing the survival rate in a mouse sepsis model. Additionally, a broad spectrum of pro-inflammatory cytokines were down-regulated;

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- Determining the expression of our genes in both ischemic and non-ischemic human heart tissue, and correlating this expression to certain cytokines known to be involved in apoptosis; and
 - Reducing cytokine induced apoptosis in human optic nerve cell lines and in human epithelial cell lines of the intestine.

Inhibiting Apoptosis

Our research to date reveals that the DHS and Factor 5A genes may regulate apoptosis in human cells. 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 are engaged in preclinical *in-vivo* and *in-vitro* research to determine the ability of Factor 5A to regulate key execution genes, inflammatory cytokines, receptors, and transcription factors, which are implicated in numerous apoptotic diseases.

We believe that down-regulation of our proprietary Factor 5A gene may have potential application as a means for controlling a broad range of diseases that are attributable to premature apoptosis, ischemia, or inflammation. Apoptotic diseases include glaucoma, heart disease, and certain inflammatory diseases such as Crohn's disease, sepsis and rheumatoid arthritis, among others. We are engaged in preclinical research on a variety of these diseases. Using small inhibitory RNAs, or siRNAs, against the apoptosis isoform of Factor 5A to inhibit its expression, we have reduced pro-inflammatory cytokine formation and formation of receptors for lipopolysaccharide, or 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 cells from TNF alpha induced apoptosis. We have also determined that inhibiting the apoptosis isoform of Factor 5A down-regulates the transcription factors NFkB and JAK1 and decreases the inflammatory cytokines formed through the NFkB and JAK/STAT pathways. Additionally, we have shown in a mouse study that our siRNA is comparable to a steroid and to a prescription anti-TNF drug in its ability to reduce cytokine response to LPS. *In-vivo* mouse studies have shown that the siRNA against Factor 5A (i) protects thymocyte cells from apoptosis and decreases formation of myeloperoxidase, or MPO, TNF, MIP-1alpha, and IL-1 in the lungs of mice challenged with LPS; and (ii) increases the survival rate of mice in which sepsis was induced by a lethal injection of LPS. The siRNA's against Factor 5A are currently being tested in several preclinical *in-vivo* inflammatory disease models. Other experiments utilizing siRNA to Factor 5A include inhibition of cell death, or apoptosis, during the processing of mouse pancreatic beta islet cells for transplantation, and the inhibition of viral replication in a human cell line infected with HIV-1.

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

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Accelerating Apoptosis

In preclinical studies, we have also established that up-regulation of Factor 5A isoform induces death in cancer cells through both the p53 (intrinsic) and cell death receptor (extrinsic) apoptotic pathways. Tumors arise when cells that have been targeted by the immune system to undergo apoptosis are unable to do so because of an inability to activate the apoptotic pathways. Just as the senescence Factor 5A gene appears to facilitate expression of the entire suite of genes required for programmed cell death in plants, the apoptosis Factor 5A gene appears to regulate expression of a suite of genes required for programmed cell death in human cells. Because the Factor 5A gene appears to function at the initiation point of the apoptotic pathways, both intrinsic and extrinsic, we believe that our gene technology has potential application as a means of combating a broad range of cancers. We have found, in in-vitro studies, that up-regulating the apoptosis isoform of Factor 5A results in: the up-regulation of p53, an important tumor suppressor gene that promotes apoptosis in cells with damaged DNA; inflammatory cytokine production; increased cell death receptor formation; and caspase activity. These features, coupled with a simultaneous down-regulation Bcl-2, a suppressor of apoptosis, and telomerase, result in apoptosis of cancer cells. In addition, in-vitro studies have shown that up-regulation of Factor 5A also down-regulates VEGF, a growth factor which allows tumors to develop additional vascularization needed for growth beyond a small mass of cells.

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

Agricultural Applications

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

Certain agricultural results to date include:

- Longer shelf life of perishable produce;
- Increased biomass and seed yield;
- Greater tolerance to environmental stresses, such as drought and soil salinity;
- Greater tolerance to certain fungal and bacterial pathogens;

- More efficient use of fertilizer; and
- Advancement of field trials in banana, lettuce, trees, and bedding plants.

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

We have licensed this technology to various strategic partners and have entered into a joint venture, and we intend to continue to license this technology to additional strategic partners and/or enter into additional joint ventures. Together with our commercial partners, 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 enhanced shelf life, seed yield, biomass, and resistance to disease in several of these plants. We have ongoing field trials of certain trees, lettuce and bananas with our respective partners. The first round of lettuce field trials showed that our technology reduced browning of 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 winter of 2004-2005 generated encouraging disease tolerance data specific to Black Sigatoka (Black Leaf Streak Disease), for banana plants. Additional field trials for banana plants are planned for Black Sigatoka. Commercialization by our partners may require a combination of traits in a crop, such as both shelf life and disease resistance, or other traits. Our near-term research and development initiatives include modulating the expression of DHS and Factor 5A genes in these plants and then propagation and phenotype testing of such plants.

Our ongoing research and development initiatives for agriculture include:

- Further developing and implementing the DHS and Factor 5A gene technology in lettuce, banana, oil seed crops, turfgrass, bedding plants, tomato, alfalfa, corn, soybean and trees; and
- Testing the resultant crops for new beneficial traits such as increased yield, increased tolerance to environmental stress, disease resistance and more efficient use of fertilizer.

Agricultural Target Markets

In order to address the complexities associated with marketing and distribution in the worldwide market, we have adopted a multi-faceted commercialization strategy, in which we plan to enter into licensing agreements or other strategic relationships with a variety of companies or other entities on a crop-by-crop basis.

Because the agricultural market is dominated by privately held companies or subsidiaries of foreign owned companies, market size and market share data for the crops under our license

and development agreements is not readily available. Additionally, because we have entered into confidentiality agreements with our license and development partners, we are unable to report the specific financial terms of the agreements as well as any market size and market share data that our partners may have disclosed to us regarding their companies.

In November 2001, we entered into a worldwide exclusive development and license agreement with the Harris Moran Seed Company, referred to herein as the Harris Moran License, to commercialize our technology in lettuce and certain melons for an indefinite term, unless terminated by either party pursuant to the terms of the agreement. To date, the development steps performed by Harris Moran and us have all been completed in accordance with the protocol set forth in the Harris Moran License. There has been extensive characterization of our genes in lettuce in a laboratory setting. The initial lab work has produced genetically modified seed under greenhouse containment, which has been followed by substantial field trials for evaluation. These field trials represent a vital step in the process necessary to develop a commercial product. Additional laboratory and field experiments and development are necessary for development of cut, bagged lettuce. Harris Moran is in the process of performing additional field trials of our technology. Ongoing field trial results will determine if non-genetically modified seed will produce sufficiently reduced browning traits to attract potential marketing partners. Additional field work in lettuce is targeting traits other than browning, such as disease resistance and yield. Under the Harris Moran License, we have received an upfront payment and we may receive benchmark payments upon achievement of certain research and marketing milestones.

In June 2002, we entered into a three-year worldwide exclusive development and option agreement with ArborGen, LLC, referred to herein as the ArborGen Agreement, to develop our technology in certain species of trees. The ArborGen Agreement also granted ArborGen an option to acquire an exclusive worldwide license to commercialize our technology in various other forestry products. In June 2006, ArborGen exercised their option to license our technology. To date, the research being conducted by ArborGen has proceeded according to schedule. ArborGen has seen promising positive growth responses in greenhouse-grown seedlings. These initial greenhouse data led to the initiation of field trials by ArborGen in the second half of calendar 2004. At the end of the 2005 growing season, certain trees which were enhanced by our technology had approximately double the increase in volume relative to control trees. Under the ArborGen Agreement, we have received an upfront payment and benchmark payments, and upon finalization of a license agreement, we may receive additional benchmark payments upon achievement of certain development milestones and royalties upon commercialization.

In September 2002, we entered into an exclusive development and license agreement with Cal/West Seeds, referred to herein as the Cal/West License, to commercialize our technology in certain varieties of alfalfa. The Cal/West License will continue until the expiration of the patents set forth in the agreement, unless terminated earlier by either party pursuant to the terms of the agreement. The Cal/West License also grants Cal/West an exclusive option to develop our technology in various other forage crops. The Cal/West development effort successfully incorporated our technology into their alfalfa seed as of July 2004.

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

In March 2004, we entered into an exclusive development and license agreement with The Scotts Company, referred to herein as the Scotts Agreement, to commercialize our technology in turfgrass and certain species of bedding plants. Scotts is working on incorporating our technology to enhance a variety of traits in these plants, including environmental stress resistance, disease resistance and enhanced bloom properties. We are collaborating with Scotts in the areas of ornamental bedding plants and turfgrass. A large-scale greenhouse evaluation of bedding plants is being conducted. Preliminary results have given insight into how to proceed with additional development. Transformation and initial tissue culture screening of events have been undertaken in turfgrass. In tissue culture, turfgrass containing our technology has grown more successfully than control turfgrass without our technology. Greenhouse testing of the grass containing our technology is the next planned development step. Under the Scotts Agreement, we have received an upfront payment and benchmark payments. In January 2006, the development and license agreement with The Scotts Company was amended. Due to a change in the corporate financial policy at Scotts, Scotts requested to defer certain milestone payments, which were to be made on a calendar basis. We agreed and these payments have now been deferred and incorporated in the amount to be paid to us upon commercialization. Additionally, the commercialization fee has been increased. All other aspects of the agreement remain unchanged, and the project continues to move forward without interruption. We may also receive royalties upon commercialization from the net sales of turfgrass seed and bedding plants containing our technology .

In October 2005, we entered into a license agreement with the Broin Companies to license our proprietary gene technology to Broin to improve aspects of Broin's ethanol production capabilities. We are currently working on incorporating our technology into those aspects of Broin's ethanol production. We will receive an annual payment for each Broin facility that incorporates our technology. If Broin incorporates our technology into each of its facilities, we would receive an annual payment in excess of \$1,000,000.

Joint Venture

On May 14, 1999, we entered into a joint venture agreement with Rahan Meristem Ltd., or Rahan Meristem, an Israeli company engaged in the worldwide export marketing of banana germplasm, referred to herein as the Rahan Joint Venture. In general, bananas are grown either for local domestic consumption or grown for export. According to the Food and Agriculture Organization of the United Nations, there were 12 million metric tons of bananas exported in 2002. The level of production equates to the fruit of approximately 480 million banana plants. A percentage of these plants are replaced each year with new banana seedlings. Rahan Meristem accounts for approximately 10% of the worldwide export of enhanced banana seedlings.

We have contributed, by way of a limited, exclusive, worldwide license to the Rahan Joint Venture, access to our technology, discoveries, inventions and know-how, whether patentable or otherwise, pertaining to plant genes and their cognate expressed proteins that are

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induced during senescence for the purpose of developing, on a joint basis, genetically enhanced banana plants which will result in a banana that has a longer shelf life. Rahan Meristem has contributed its technology, inventions and know-how with respect to banana plants. Rahan Meristem and Senesco equally own the Rahan Joint Venture and have equally shared the expense of field trials.

The Rahan Joint Venture applied for and received a conditional grant that totals approximately \$340,000, which constituted 50% of the Rahan Joint Venture's research and development budget over the five-year period, ending on May 31, 2005, from the Israel - U.S. Binational Research and Development Foundation, or BIRD Foundation, referred to herein as the BIRD Grant. Such grant, along with certain royalty payments, shall only be repaid to the BIRD Foundation upon the commercial success of the Rahan Joint Venture's technology. The commercial success is measured based upon certain benchmarks and/or milestones achieved by the Rahan Joint Venture. The Rahan Joint Venture reports these benchmarks periodically to the BIRD Foundation.

All aspects of the Rahan Joint Venture's research and development initiative are proceeding on time, or are ahead of the original schedule laid out at the inception of the Rahan Joint Venture. Both the DHS and lipase genes have been identified and isolated in banana, and the Rahan Joint Venture is currently in the process of silencing these genes. Two Israeli field trials indicated that Senesco's proprietary technology extends the shelf life of the banana fruit up to 100%, while allowing the banana fruit to ripen normally. Later field trials have shown promising disease tolerance results and we are currently performing additional field trials to further assess disease tolerance. We believe that these field trials have yielded data sufficient to initiate contact with potential marketing partners. However, as the banana modified with our technology may be considered a GMO, shelf life extension may have to be combined with disease tolerance to gain acceptance by the growers.

Competition

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

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

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

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

There are many large and development stage companies working in the field of apoptosis

research including: Amgen; Centocor; Genzyme; OSI Pharmaceuticals, Inc.; Idun Pharmaceuticals; Novartis; Introgen Therapeutics, Inc.; Genta, Inc.; and Vertex Pharmaceuticals, Inc., among others.

Marketing Program

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 revenues 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 June 30, 2006, 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 our partners' greenhouse. After successful greenhouse trials, our partners will transfer the plants to the field for field trials. After completion of successful field trials, our partners may have to apply for and receive regulatory approval prior to initiation of any commercialization activities.

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

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

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

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

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

Project	Partner	Status
Banana	Rahan Meristem	
-Shelf Life		Field Trials
-Disease Resistance		Field Trials
Lettuce	Harris Moran	
-Browning		Field Trials
-Disease Resistance		Field Trials
Trees	Arborgen	
-Growth		Field Trials
Alfalfa	Cal/West	Greenhouse
Turfgrass	The Scotts Company	Seed Transformation
Bedding Plants	The Scotts Company	Greenhouse
Ethanol	The Broin Company	Modify Inputs

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

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

Consistent with our commercialization strategy, we intend to attract other companies interested in strategic partnerships, joint ventures or licensing our technology. The Harris Moran License, the ArborGen Agreement, the Cal/West License, the Broin Agreement and the Rahan Joint Venture are the first successes toward the execution of our strategy.

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. Additionally, we may select some human health indications to bring into clinical trials on our own. Successful future operations will depend on our ability to transform our research and development activities into a commercially feasible technology.

Research Program

Our research and development is performed by third party researchers at our direction, pursuant to various research and license agreements. The primary research and development effort, which is performed by approximately 22 researchers that are funded in whole or in part by us, takes place at the University of Waterloo in Ontario, Canada, where the technology was discovered, Mayo Clinic, the University of Virginia, and the University of Colorado. Additional research and development is performed by our partners in connection with the Harris Moran License, the Scotts Agreement, the ArborGen Agreement, the Cal/West License, the Broin License, and through the Rahan Joint Venture.

The inventor of our technology, John E. Thompson, Ph.D., is the Associate Vice

President, Research and former Dean of Science at the University of Waterloo in Ontario, Canada, and is our Executive Vice President and Chief Scientific Officer. Dr. Thompson is also one of our directors and owns 3.7% of the outstanding shares of our common stock, \$0.01 par value, as of June 30, 2006. On September 1, 1998, we entered into, and subsequently have extended through August 31, 2007, a research and development agreement with the University of Waterloo and Dr. Thompson as the principal inventor. The Research and Development Agreement provides that the University of Waterloo will perform research and development under our direction, and we will pay for the cost of this work and make certain payments to the University of Waterloo. In return for payments made under the Research and Development Agreements, we have all rights to the intellectual property derived from the research.

Our research and development expenses incurred on human health applications were approximately 48% for the fiscal year ended June 30, 2006 and approximately 50% for the fiscal year ended June 30, 2005. Since our inception the proportion of research and development expenses on human health applications has increased, as compared to plant applications. This change is primarily due to the fact that our research focus on human health has increased and some of our research costs for plant applications have shifted to our research partners.

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

- Pre-clinical in-vivo cancer studies. These studies may focus on optimizing delivery of Factor 5A to tumors to determine if there would be an enhancement of treatment.
- Pancreatic Islets isolated for transplantation. Future studies will be focused on methods of improving the transfection efficiency on pancreatic islet cells treated with the siRNA to Factor 5A prior to harvesting for processing. Improving transfection efficiency may further increase the number of islet cells surviving the processing procedure which may allow for a greater yield of islet cells per donor.
- HIV- 1. We will continue in-vitro studies utilizing different siRNA delivery systems in order to increase the transfection efficiency of the siRNA to Factor 5A to determine further decreases in HIV replication and may seek animal models to test.
- Lung Cancer. Lung cancer experiments will continue to focus on the reduction of tumor load and longevity of the treated mice. Delivery systems that might target the tumor cell and deliver Factor 5A directly to the cancer cells may be explored. Other lung cancers may also be explored to determine Factor 5A's efficacy in different forms of lung cancer.

- **Multiple Myeloma.** The next set of multiple myeloma experiments will involve a mouse model system and may include optimizing the delivery of Factor 5A.
- **Sepsis.** Following encouraging initial results, work will continue on measuring pro-inflammatory cytokines during the progression of the disease.
- **Inflammatory Bowel Disease.** Routes of administration of the siRNA to Factor 5A will be explored to optimize cell protection against pro-inflammatory cytokines.
- **Lung Inflammation.** Optimization of the delivery and dose of the siRNA to Factor 5A to the lungs is the direction of our planned future experiments. Mouse model systems may be used to illustrate the siRNA to Factor 5A's ability to reduce morbidity and mortality in lung inflammation, caused by the up-regulation of pro-inflammatory cytokines induced by pathogens and other stresses to the lungs.

- **Other.** We will continue to look at other disease states in order to determine the role of Factor 5A.

In order to pursue the above research initiatives, as well as other research initiatives that may arise, including toxicity studies and clinical trials, it will be necessary for us to raise a significant amount of working capital. If we are unable to raise the necessary funds, we may be required to significantly curtail the above research initiative and we will be unable to pursue other possible research initiatives.

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

Our subsequent research and development initiatives for agriculture include:

- further developing and implementing the DHS and Factor 5A gene technology in lettuce, banana, and a variety of other commercially important crops such as oil seed crops, turfgrass, bedding plants, tomato, alfalfa and trees; and
- testing the resultant crops for new beneficial traits such as increased yield, increased tolerance to environmental stress, disease resistance and more efficient use of fertilizer.

Intellectual Property

We have ten issued patents from the United States Patent and Trademark Office, or PTO, and eight issued patents from foreign countries as follows:

<u>Patent #</u>		<u>Date Issued</u>	<u>Expiration Date</u>
<u>Agricultural</u>			
<i>United States</i>			
6,538,182	DNA Encoding a Plant Deoxyhypusine Synthase, A Plant Eukaryotic Initiation Factor 5A, Transgenic Plants and A Method For Controlling Senescence and Programmed Cell Death in Plants	3/23/2004	7/06/2019
6,774,284	DNA Encoding A Plant Lipase, Transgenic Plants and A Method For Controlling Senescence In Plants	8/10/2004	7/22/2018
6,849,782	Arabidopsis Antisense Deoxyhypusine Synthase Molecule and Method of Inhibiting Deoxyhypusine Expression in Plants	2/01/2005	7/06/2019
6,855,529	DNA Encoding a Plant Deoxyhypusine Synthase, a Plant Eukaryotic Initiation Factor 5A, Transgenic Plants and a Method for Controlling Senescence	2/15/2005	8/05/2019

	Programmed and Cell Death in Plants		
6,878,860	DNA Encoding a Plant Deoxyhypusine Synthase, a Plant Eukaryotic Initiation Factor 5A, Transgenic Plants and a Method For Controlling Senescence Programmed and Cell Death in Plants	4/12/2005	7/06/2019
6,897,359	Carnation Antisense Deoxyhypusine Synthase Molecule and Method of Inhibiting Deoxyhypusine Synthase Expression in Plants	5/24/2005	11/11/2019
6,900,368	Tomato Antisense Deoxyhypusine Synthase Molecule and Method of Inhibiting Deoxyhypusine Synthase Expression in Plants	5/31/2005	7/06/2019
6,989,258	DNA Encoding a Plant Deoxyhypusine Synthase, a Plant Eukaryotic Initiation Factor 5A, Transgenic Plants and a Method	1/24/2006	7/14/2020

7,070,997	Isolated Nucleotides Encoding Tomato Senescence-Induced EIF-5A	7/04/2006	11/05/2020
<i>Commonwealth of Australia</i>			
778437	DNA encoding a plant lipase, transgenic plants and a method for controlling senescence in plants	3/24/2005	2/14/2020
782886	DNA encoding a plant deoxyhypusine synthase, a plant eukaryotic initiation factor 5A, transgenic plants and a method for controlling senescence and programmed cell death in plants	1/19/2006	7/6/2020
<i>Mexico</i>			
232047	Acido Desoxirribonucleico que codifica lipase de plantas, plantas transgenicas y metodo para controlar el envejecimiento en las plantas	11/10/2005	06/19/2001
<i>New Zealand</i>			
517055	DNA encoding a plant deoxyhypusine synthase, transgenic plants and a method for controlling senescence and programmed cell death in plants	10/06/2005	7/06/2020
523280	DNA encoding a plant lipase, transgenic plants and a method for controlling senescence in plants	6/09/2005	6/19/2021

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526539	DNA encoding a plant deoxyhypusine synthase, a plant eukaryotic initiation factor 5A, transgenic plants and a method for controlling senescence and cell death in plants	10/06/2005	11/29/2021
535009	DNA encoding a plant eukaryotic initiation factor 5A, transgenic plants and a method for controlling senescence and programmed cell death in plants	7/13/2006	7/06/2020
<u>Human Health</u>			
<i>United States</i>			
6,867,237	DNA Encoding Apoptosis-Induced Eukaryotic Initiation Factor-5A and Deoxyhypusine Synthase and a Method for Controlling Apoptosis in Animals and Humans	3/15/2005	7/23/2021
<i>New Zealand</i>			
536958	Nucleic acids, polypeptides, and methods for modulating apoptosis	09/04/2006	05/07/2023

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

Government Regulation

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

In addition, our ongoing preclinical research with cell lines and lab animal models of

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human disease is not currently subject to the FDA requirements that govern clinical trials. However, use of our technology, if developed for human health applications, will also be subject to FDA regulation. Generally, the FDA must approve any drug or biologic product before it can be marketed in the United States. In addition, prior to being sold outside of the U.S., any products resulting from the application of our human health technology must be approved by the regulatory agencies of foreign governments. Prior to filing a new drug application or biologics license application with the FDA, we would have to

perform extensive clinical trials, and prior to beginning any clinical trial, we need to perform extensive preclinical testing which could take several years and may require substantial expenditures.

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

Employees

In addition to the 20 scientists performing funded research for us at the University of Waterloo, Mayo Clinic, the University of Virginia and the University of Colorado, we have five employees and one consultant, four of whom are executive officers and are involved in our management. We do not anticipate hiring any additional employees over the next twelve months.

The officers are assisted by a Scientific Advisory Board that consists of prominent experts in the fields of plant and human cell biology. Alan Bennett, Ph.D., who serves as the Chairman of the Scientific Advisory Board, is the Associate Vice Chancellor of the Office of Technology Transfer at the University of California. His research interests include the molecular biology of tomato fruit development and ripening, the molecular basis of membrane transport, and cell wall disassembly. Charles A. Dinarello, M.D., who serves as a member of the Scientific Advisory Board, is a Professor of Medicine at the University of Colorado School of Medicine, a member of the U.S. National Academy of Sciences and the author of over 500 published research articles. In addition to his active academic research career, Dr. Dinarello has held advisory positions with two branches of the National Institutes of Health and positions on the Board of Governors of both the Weizmann Institute and Ben Gurion University. Russell L. Jones, Ph.D., who serves as a member of the Scientific Advisory Board, is a professor at the University of California, Berkeley and an expert in plant cell biology and cell death. Dr. Jones is also an editor of *Planta*, *Annual Review of Plant Physiology and Plant Molecular Biology*, as well as *Research Notes in Plant Science*. Additionally, he has held positions on the editorial boards of *Plant Physiology* and *Trends in Plant Science*.

Furthermore, pursuant to the Research and Development Agreements, a substantial amount of our research and development activities are conducted at the University of Waterloo under the supervision of Dr. Thompson, our Executive Vice President and Chief Scientific Officer. We utilize the University's research staff including graduate and post-graduate researchers.

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We have also undertaken preclinical apoptosis research at the University of Colorado under the supervision of Dr. Dinarello. In addition to the research being conducted at the University of Colorado, we have also undertaken preclinical apoptosis research at the Mayo Clinic, the University of Pittsburgh and the University of Virginia. This research is performed pursuant to specific project proposals that have agreed-upon research outlines, timelines and budgets. We may also contract research to additional university laboratories or to other companies in order to advance the development of our technology.

Safe Harbor Statement

The statements contained in this Annual Report on Form 10-K that are not historical facts are forward-looking statements within the meaning of Section 21E of the Securities Exchange Act of 1934, as amended, and the Private Securities Litigation Reform Act of 1995. Such forward-looking statements may be identified by, among other things, the use of forward-looking terminology such as "believes," "expects," "may," "will," "should," or "anticipates" or the negative thereof or other variations thereon or comparable terminology, or by discussions of strategy that involve risks and uncertainties. In particular, our statements regarding the anticipated growth in the markets for our technologies, the continued advancement of our research, the approval of our patent applications, the possibility of governmental approval in order to sell or offer for sale to the general public a genetically engineered plant or plant product, the successful implementation of our commercialization strategy, including the success of the Harris Moran License, the ArborGen Agreement, the Cal/West License, The Scotts License, the Broin License, and the Research and Development Agreements, the successful implementation of the Rahan Joint Venture, statements relating to our patent applications, the anticipated longer term growth of our business, the results of our preclinical studies and the timing of the projects and trends in future operating performance are examples of such forward-looking statements. The forward-looking statements include risks and uncertainties, including, but not limited to, the timing of revenues due to the variability in size, scope and duration of research projects, regulatory delays, research study results which lead to cancellations of research projects, and other factors, including general economic conditions and regulatory developments, not within our control. The factors discussed herein and expressed from time to time in our filings with the Securities and Exchange Commission could cause actual results and developments to be materially different from those expressed in or implied by such statements. The forward-looking statements are made only as of the date of this filing, and we undertake no obligation to publicly update such forward-looking statements to reflect subsequent events or circumstances.

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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.

Item 1A. Risk Factors.

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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 \$22,369,843 at June 30, 2006. We have generated minimal revenues by licensing our technology for certain crops to companies willing to share in our development costs. However, our technology may not be ready for widespread commercialization for several years. We expect to continue to incur losses for the next several years because we anticipate that our expenditures on research and development, commercialization and administrative activities will significantly exceed our revenues during that period. In addition, we cannot assure you that we will be able to sell our New Jersey state net operating losses for any specific fiscal year. 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 humans and plants. Our future revenue and profitability critically depend upon our ability to successfully develop apoptosis and senescence gene technology and later license or market such technology. We have conducted experiments on certain crops with favorable results and have conducted certain preliminary cell-line and animal experiments, which have provided us with data upon which we have designed additional research programs. However, we cannot give any assurance that our technology will be commercially successful or economically viable for any crops or human health applications.

In addition, no assurance can be given that adverse consequences might not result from the use of our technology such as the development of negative effects on humans or plants or reduced benefits in terms of crop yield or protection. Our failure to obtain market acceptance of our technology or 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, Mayo Clinic, the University of Virginia, the University of Pittsburgh, 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.

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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 June 30, 2006, we had cash and highly-liquid investments valued at \$1,168,473 and working capital of \$858,811. In October 2006, we received aggregate net proceeds of \$2,050,000 from a private placement of our equity securities. Using our available reserves as of June 30, 2006, and the net proceeds from the private equity financing, we believe that we can operate according to our current business plan at least through June 30, 2007. To date, we have generated minimal revenues and anticipate that our operating costs will exceed any revenues generated over the next several years. Therefore, we will be required to raise additional capital in the future in order to operate according to our current business plan, and this funding may not be available on favorable terms, if at all. If we are unable to raise additional funds, we will need to do one or more of the following:

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

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 June 30, 2006, we had 6,226,021 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 October 2006, we issued an aggregate of an additional 1,986,306 shares of common stock and warrants to purchase 1,132,194 shares of common stock. Therefore assuming the exercise of all options and warrants granted as of October 11, 2006, we had 3,107,521 shares of common stock authorized but unissued, which may be issued from time to time by our board of directors without stockholder approval. Furthermore, we may need to issue securities that have rights, preferences and privileges senior to our common stock. Failure to obtain financing on acceptable terms would have a material adverse effect on our liquidity.

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

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

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

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

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

We have been issued ten patents by the U.S. Patent and Trademark Office, or PTO, and eight patents from foreign countries. We have also filed numerous patent applications for our technology in the United States and in several foreign countries, which technology is vital to our primary business, as well as several Continuations in Part on these patent applications. Our success depends in part upon the grant of patents from our pending patent applications.

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

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

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

- our patent applications will result in the issuance of patents;
- any patents issued or licensed to us will be free from challenge and that if challenged, would be held to be valid;
- any patents issued or licensed to us will provide commercially significant protection for our technology, products and processes;
- other companies will not independently develop substantially equivalent proprietary information which is not covered by our patent rights;
- other companies will not obtain access to our know-how;
- other companies will not be granted patents that may prevent the commercialization of our technology; or
- 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 conduct research and development activities in-house, we may undertake those activities in the future. Expanding our business will place a significant burden on our management and operations. We may not be able to implement improvements to our management information and control systems in an efficient and timely manner and we may discover deficiencies in our existing systems and controls. Our failure to effectively respond to changes may make it difficult for us to manage our growth and expand our operations.

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

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

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

In its current state of development, our technology is not ready to be marketed to consumers. We intend to follow a multi-faceted commercialization strategy that involves the licensing of our technology to business partners for the purpose of further technological development, marketing and distribution. We are seeking business partners who will share the burden of our development costs while our technology is still being developed, and who will pay us royalties when they market and distribute products incorporating our technology upon

commercialization. The establishment of joint ventures and strategic alliances may create future competitors, especially in certain regions abroad where we do not pursue patent protection. If we fail to establish beneficial business partners and strategic alliances, our growth will suffer and the continued development of our technology may be harmed.

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

Many agricultural and human health biotechnology companies are engaged in research and development activities relating to senescence and apoptosis. The market for plant protection and yield enhancement products is intensely competitive, rapidly changing and undergoing consolidation. We may be unable to compete successfully against our current and future competitors, which may result in price reductions, reduced margins and the inability to achieve market acceptance for products containing our technology. Our competitors in the field of plant senescence gene technology are companies that develop and produce transgenic plants and include major international agricultural companies, specialized biotechnology companies, research and academic institutions and, potentially, our joint venture and strategic alliance partners. These companies include: Icoria (formerly Paradigm Genetics); Bayer Crop Science; Mendel Biotechnology; Renessen LLC; Exelixis Plant Sciences, Inc.; Syngenta International AG; and Eden Bioscience, among others. Some of our competitors that are involved in apoptosis research include: Amgen; Centocor; Genzyme; OSI Pharmaceuticals, Inc.; Iduin 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.

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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 products containing our technology, which will prevent us from being profitable since we have no other source of revenue.

We cannot guarantee that consumers will accept products containing our technology. Recently, there has been consumer concern and consumer advocate activism with respect to genetically engineered 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.

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

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

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

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

In addition, we are subject to the Business Combination Act of the Delaware General Corporation Law which, subject to certain exceptions, restricts certain transactions and business combinations between a corporation and a stockholder owning 15% or more of the corporation's outstanding voting stock

for a period of three years from the date such stockholder becomes a 15% owner. These provisions may have the effect of delaying or preventing a change of control of us without action by our stockholders and, therefore, could adversely affect the value of our common stock.

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

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

Recent political and social turmoil, 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 situation 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 June 30, 2006, our executive officers, directors and affiliated entities together beneficially own approximately 41.4% 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 June 30, 2006, held by these stockholders. As of October 11, 2006, upon the closing of our private placement of equity securities, our executive officers, directors, and affiliated entities together beneficially own approximately 37.2% 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 October 11, 2006, 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 June 30, 2006, we have granted options outside of our stock option plan to purchase 10,000 shares of our common stock and outstanding warrants to purchase 5,860,091 shares of our common stock. In addition, as of June 30, 2006, 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, 2,516,500 of which have been granted, 90,000 of which have been exercised, 2,426,500 of which are outstanding, and 483,500 of which may be granted in the future. As of October 11, 2006, upon the closing of our private placement of equity securities, we have outstanding warrants to purchase 6,982,285 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 June 30, 2006, we had 15,477,388 shares of our common stock issued and outstanding, of which approximately 1,595,651 shares are registered pursuant to a registration statement on Form S-3, which was declared effective on June 17, 2005, and the remainder of which are either eligible to be sold under SEC Rule 144 or are in the public float. In addition, we have registered 965,380 shares of our Common Stock underlying warrants previously issued on the Form S-3 registration statement that was declared effective on June 17, 2005, 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 October 11, 2006, upon the closing of our private placement of equity securities, we had 17,473,694 shares of our common stock issued and outstanding. 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. The American Stock Exchange requires us to meet minimum financial requirements in order to maintain our listing. Currently, we believe that we meet the continued listing requirements of the American Stock Exchange. We cannot assure you that an active trading market will develop or, if developed, will

be maintained. As a result, our stockholders may find it difficult to dispose of shares of our common stock and, as a result, may suffer a loss of all or a substantial portion of their investment.

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

The American Stock Exchange requires us to meet minimum financial requirements in order to maintain our listing. Currently, we believe that we meet the continued listing requirements of the American Stock Exchange. If we do not continue to meet the continued listing requirements, we could be delisted. If we are delisted from the American Stock Exchange, our common stock likely will become a "penny stock." In general, regulations of the SEC define a "penny stock" to be an equity security that is not listed on a national securities exchange or the NASDAQ Stock Market and that has a market price

of less than \$5.00 per share or with an exercise price of less than \$5.00 per share, subject to certain exceptions. If our common stock becomes a penny stock, additional sales practice requirements would be imposed on broker-dealers that sell such securities to persons other than certain qualified investors. For transactions involving a penny stock, unless exempt, a broker-dealer must make a special suitability determination for the purchaser and receive the purchaser's written consent to the transaction prior to the sale. In addition, the rules on penny stocks require delivery, prior to and after any penny stock transaction, of disclosures required by the SEC.

If our 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.

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.

Item 1B. Unresolved Staff Comments.

None.

Item 2. Properties.

We lease office space in New Brunswick, New Jersey for a current monthly rental fee of \$6,384, subject to certain escalations for our proportionate share of increases, over the base year of 2001, in the building's operating costs. The monthly rental fee will continue to increase by one percent each year through the expiration date of the lease. The lease expires in May 2011. The space is in good condition, and we believe it will adequately serve as our headquarters over the term of the lease. We also believe that this office space is adequately insured by the lessor.

Item 3. Legal Proceedings.

We are not currently a party to any legal proceedings; however, we may become involved in various claims and legal actions arising in the ordinary course of business.

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

None.

PART II

Item 5. Market for Registrant's Common Equity and Related Stockholder Matters and Issuer Purchases of Equity Securities.

Our common stock trades on the American Stock Exchange under the symbol SNT.

The following table sets forth the range of the high and low sales price for our common stock for each of the quarters since the quarter ended September 30, 2004, as reported on the American Stock Exchange.

Quarter Ended	Common Stock	
	High	Low
September 30, 2004	\$ 3.15	\$ 2.30
December 31, 2004	\$ 3.75	\$ 2.40
March 31, 2005	\$ 3.95	\$ 2.75
June 30, 2005	\$ 3.45	\$ 1.60
September 30, 2005	\$ 2.17	\$ 1.30
December 31, 2005	\$ 2.00	\$ 1.16
March 31, 2006	\$ 2.25	\$ 1.20
June 30, 2006	\$ 2.24	\$ 1.40

As of September 20, 2006, the approximate number of holders of record of our common stock was 297. This number does not include “street name” or beneficial holders, whose shares are held of record by banks, brokers and other financial institutions.

We have neither paid nor declared dividends on our common stock since our inception and we do not plan to pay dividends on our common stock in the foreseeable future. We expect that any earnings, which we may realize, will be retained to finance the growth of our company.

Item 6. Selected Financial Data.

The following Selected Financial Data should be read in conjunction with “Item 7. Management’s Discussion and Analysis of Financial Condition and Results of Operations” and “Item 8. Financial Statements and Supplementary Data” included elsewhere in this Annual Report on Form 10-K.

SELECTED FINANCIAL DATA

	Year Ended June 30,				
	2006	2005	2004	2003	2002
(In thousands, except per share data)					
Statement of Operations Data:					
Revenue	\$ 67	\$ 125	\$ 17	\$ 10	\$ 200
Operating expenses:					
General and administrative	1,920	2,030	2,907	2,093	2,860
Research and development	1,566	1,417	1,147	897	537
Total operating expenses	3,486	3,447	4,054	2,990	3,397
Loss from operations	(3,419)	(3,322)	(4,037)	(2,980)	(3,197)
Noncash income	—	136	186	—	—
Sale of state income tax loss - net	—	153	91	131	151
Interest income, net	104	54	33	71	24
Net loss	\$ (3,315)	\$ (2,979)	\$ (3,727)	\$ (2,778)	\$ (3,022)
Basic and diluted net loss per common share	\$ (.21)	\$ (.21)	\$ (.29)	\$ (.23)	\$ (.31)
Basic and diluted weighted average number of common shares outstanding	15,469	14,054	12,668	11,880	9,625
Balance Sheet Data:					
Cash, cash equivalents and investments	\$ 1,168	\$ 4,481	\$ 4,136	\$ 2,419	\$ 4,665
Working capital	859	3,959	3,840	2,285	3,425
Total assets	3,535	6,113	5,211	3,266	5,230
Accumulated deficit	(22,370)	(19,055)	(16,076)	(12,349)	(9,571)
Total stockholders’ equity	2,952	5,590	4,731	2,857	4,786

Item 7. Management’s Discussion and Analysis of Financial Condition and Results of Operations.

The discussion in “Management’s Discussion and Analysis of Financial Condition and Results of Operations” contains trend analysis, estimates and other forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended. These forward-looking statements include, without limitation, statements containing the words “believes,” “anticipates,” “expects,” “continue,” and other words of similar import or the negative of those terms or expressions. Such forward-looking statements are subject to known and unknown risks, uncertainties, estimates and other factors that may cause our actual results, performance or achievements, or industry results, to be materially different from any future results, performance or achievements expressed or implied by such forward-looking statements. Actual results could differ materially from those set forth in such forward-looking statements as a result of, but not limited to, the “Risk Factors” described in Part I, Item 1A. You should read the following discussion and analysis along with the “Selected Financial Data” and the financial statements and notes attached to those statements included elsewhere in this report.

Overview

We are a development stage company. 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. However, we have entered into the Harris Moran License, the ArborGen Agreement, the Cal/West License, the Scotts License, and the Broin Agreement to develop and commercialize our technology in certain varieties of lettuce, melons, trees, alfalfa, bedding plants, turf grass, and ethanol. The Harris Moran License, the Cal/West License, and the Scotts License also provide for royalty payments to us upon commercial introduction. The ArborGen Agreement contains an option for ArborGen to execute a license to commercialize developed products, which ArborGen has notified us of their intention to execute, and upon the execution of a license agreement, we will receive a license fee and royalties from ArborGen. The Cal/West License contains an option for Cal/West to develop our technology in various other forage crops. The Broin License provides for annual payments for each of Broin's ethanol production facilities that incorporates our technology. We also have entered into the Rahan Joint Venture to develop and commercialize our technology in banana plants. In connection with the Rahan Joint Venture, we will receive 50% of the profits from the sale of enhanced banana plants.

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

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.

Critical Accounting Policies and Estimates

Revenue Recognition

We record revenue under technology license and development agreements related to the following. Actual fees received may vary from the recorded estimated revenues.

- Nonrefundable upfront license fees that are received in exchange for the transfer of our technology to licensees, for which no further obligations to the licensee exist with respect to the basic technology transferred, are recognized as revenue on the earlier of when payments are received or collections are assured.
- Nonrefundable upfront license fees that are received in connection with agreements that include time-based payments are, together with the time-based payments, deferred and amortized ratably over the estimated research period of the license.
- Milestone payments, which are contingent upon the achievement of certain research goals, are recognized as revenue when the milestones, as defined in the particular agreement, are achieved.

The effect of any change in revenues from technology license and development agreements would be reflected in revenues in the period such determination was made. Historically, no such adjustments have been made.

Estimates of Expenses

Our research and development agreements with third parties provide for an estimate of our expenses and costs, which are variable and are based on the actual services performed by the third party. We estimate the aggregate amount of the expenses based upon the projected amounts that are set forth in the agreements, and we accrue the expenses for which we have not yet been invoiced. In estimating the expenses, we consider, among other things, the following factors:

- the existence of any prior relationship between us and the third party provider;
- the past results of prior research and development services performed by the third party provider; and
- the scope and timing of the research and development services set forth in the agreement with the third party provider.

After the research services are performed and we are invoiced, we make any adjustments that are necessary to accurately report research and development expense for the period.

Valuation Allowances and Carrying Values

We have recorded valuation allowances against our entire deferred tax assets of \$5,489,000 at June 30, 2006. The valuation allowances relate primarily to the net operating loss carryforward deferred tax asset where the tax benefit of such asset is not assured.

As of June 30, 2006, we have determined that the estimated future discounted cash flows related to our patent applications will be sufficient to recover their carrying value.

We do not have any off-balance sheet arrangements.

Stock-Based Compensation

We adopted FAS No. 123R, "Share-Based Payments", effective July 1, 2005, using the modified-retrospective method. The adoption of this standard requires the recognition of stock-based compensation expense in the consolidated financial statements. Prior to July 1, 2005, we followed Accounting Principles Board Opinion 25, "Accounting for Stock Issued to Employees", and related interpretations. In accordance with Accounting Principles

Board Opinion 25, no stock-based compensation expense had been recognized related to the Company's stock options granted to employees and directors, as all options had an exercise price equal to the market value of the underlying common stock on the date of grant. In accordance with the modified-retrospective method, we have adjusted previously reported results to reflect the effect of expensing those stock options. The cumulative adjustment associated with the adoption of the modified-retrospective method increased capital in excess of par and deficit accumulated during the development stage by \$4,291,051 as of June 30, 2005.

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.

Liquidity and Capital Resources

Overview

As of June 30, 2006, our cash balance and investments totaled \$1,168,473, and we had working capital of \$858,811. In addition, upon the closing of our private equity financing on October 11, 2006, we received aggregate net proceeds of approximately \$2,050,000. As of June 30, 2006, we had a federal tax loss carryforward of approximately \$14,329,000 and a state tax loss carry-forward of approximately \$6,859,000 to offset future taxable income. We cannot assure you that we will be able to take advantage of any or all of such tax loss carryforwards, if at all, in future fiscal years.

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Contractual Obligations

The following table lists our cash contractual obligations as of June 30, 2006:

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) (4)	\$ 680,857	\$ 586,524	\$ 94,333	\$ —	\$ —
Facility, Rent and Operating Leases (2)	\$ 385,776	\$ 76,684	\$ 156,104	\$ 152,988	\$ —
Employment, Consulting and Scientific Advisory Board Agreements (3)	\$ 712,884	\$ 646,638	\$ 66,246	\$ —	\$ —
Total Contractual Cash Obligations	<u>\$ 1,779,517</u>	<u>\$ 1,309,846</u>	<u>\$ 316,683</u>	<u>\$ 152,988</u>	<u>\$ —</u>

- (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.
- (4) Includes \$566,000 for a research agreement extension that was not effective until September 1, 2006.

We expect our capital requirements to increase significantly 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.

Effective September 1, 2006, we extended our research and development agreement with

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the University of Waterloo for an additional one-year period through August 31, 2007, in the amount of Can \$631,050 or approximately U.S. \$566,000. Research and development expenses under this agreement for the years ended June 30, 2006 and 2005 aggregated U.S. \$692,982 and U.S. \$628,341 respectively, and U.S. \$3,327,835 for the cumulative period through June 30, 2006.

Capital Resources

Since inception, we have generated revenues of \$418,333 in connection with the initial fees and milestone payments received under our license and development agreements. We have not been profitable since inception, we will continue to incur additional operating losses in the future, and we will require additional financing to continue the development and subsequent commercialization of our technology. While we do not expect to generate significant revenues from the licensing of our technology for the next one to three years, we may enter into additional licensing or other agreements with marketing and distribution partners that may result in additional license fees, receive revenues from contract research, or other related revenue.

On October 11, 2006, we completed a private placement to certain members of our board of directors, institutional and accredited investors for an aggregate amount of 1,986,306 shares of common stock and warrants to purchase 993,153 shares of common stock for the aggregate net cash consideration of approximately \$2,050,000. 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 \$1.1325 per unit. The warrant was offered with an exercise price equal to \$1.18 per share, with such warrant becoming exercisable six months from the date of closing. The estimated costs associated with the private placement totaled approximately \$200,000.

We anticipate that, based upon our current cash and investments, we will be able to fund our operations at least through June 30, 2007. 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.

Results of Operations

Fiscal Years ended June 30, 2006, 2005 and 2004

Revenue

Total revenues consisted of initial fees and milestone payments on our agricultural development and license agreements. During the years ended June 30, 2006 and 2005, revenue of \$66,667 and \$125,000 consisted of the amortized portion of the initial fee and milestone payments in connection with the Scotts Development and License Agreement and a milestone payment in connection with the Arborgen Agreement. During the year ended June 30, 2004, revenue of \$16,667 consisted of the amortized portion of the initial fee in connection with the Scotts Development and License Agreement.

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

Operating expenses

	Year Ended June 30,							
	2006	2005	Change	%	2005	2004	Change	%
(In thousands, except % values)								
General and administrative	\$ 1,920	\$ 2,029	\$ (109)	(5)%	\$ 2,029	\$ 2,907	\$ (878)	(30)%
Research and development	1,566	1,417	149	10%	1,417	1,147	270	24%
Total operating expenses	\$ 3,486	\$ 3,446	\$ 40	1%	\$ 3,446	\$ 4,054	\$ (608)	(15)%

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

General and administrative expenses

General and administrative expenses consist of the following:

	Year ended June 30,		
	2006	2005	2004
(In thousands)			
Stock-based compensation	\$ 488	\$ 691	\$ 1,657
Payroll and benefits	607	564	528
Investor relations	341	328	305
Professional fees	211	197	196
Other general and administrative expenses	273	249	221

Total general and administrative expenses \$ 1,920 \$ 2,029 \$ 2,907

- Stock-based compensation consists primarily of the amortized portion of the Black-Scholes value of options and warrants previously granted to consultants, directors and employees as well as those granted during each of Fiscal 2006, 2005 and 2004. During Fiscal 2006 and 2005, 323,000 and 310,500 options and warrants granted, the Black-Scholes value for 240,000 and 210,000 of such options and warrants, respectively, were allocated to general and administrative expenses. The balance of the options were allocated to research and development expenses.

The Black-Scholes value of the options and warrants granted during Fiscal 2006 were lower than Fiscal 2005 because the market price of the common stock on the date of grant in Fiscal 2006 was lower than the market price of the common stock on the date of grant in Fiscal 2005.

Stock-based compensation was lower in Fiscal 2005 compared to Fiscal 2004 primarily due to a warrant that was granted in connection with a financial advisory agreement in Fiscal 2004 that had a Black-Scholes value of approximately \$850.

- Payroll and benefits increased primarily as a result of salary and health insurance rate increases.
- Investor relations expense increased primarily as a result of an increase in the amount of investor relations consulting fees.

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- Professional fees increased during Fiscal 2006 compared to Fiscal 2005 primarily as a result of an increase in legal fees due to the increased regulatory environment, which was partially offset by a decrease in accounting and consulting fees as a result of the postponement by the SEC of the auditing requirements in connection with Section 404 of the Sarbanes-Oxley Act.

Professional fees increased during Fiscal 2005 compared to Fiscal 2004 primarily as a result of an increase in consulting fees incurred in connection with the implementation of Section 404 of the Sarbanes-Oxley Act, which was offset by a decrease in legal fees primarily as a result of greater efficiencies in the preparation and review of our forms and filings with the Securities and Exchange Commission.

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

Research and development expenses

				Year Ended June 30,				
	2006	2005	Change	%	2005	2004	Change	%
(In thousands, except % values)								
Stock-based compensation	\$ 189	\$ 283	\$ (94)	(3)%	\$ 283	\$ 170	\$ 113	67%
Other research and development	1,377	1,134	243	21%	1,134	977	157	16%
Total research and development	\$ 1,566	\$ 1,417	\$ 149	11%	\$ 1,417	\$ 1,147	\$ 270	24%

- Stock-based compensation decreased during Fiscal 2006 compared to Fiscal 2005 primarily because the Black-Scholes value of the options and warrants granted during Fiscal 2006 were lower than Fiscal 2005 because the market price of the common stock on the date of grant in Fiscal 2006 was lower than the market price of the common stock on the date of grant in Fiscal 2005.

Stock-based compensation increased during Fiscal 2005 compared to Fiscal 2004 due to previously issued options becoming exercisable and new options being issued during Fiscal 2005.

- Other research and development costs increased during Fiscal 2006 compared to Fiscal 2005 and during Fiscal 2005 compared to Fiscal 2004 primarily as a result of the expanded research programs in both the agricultural and human health applications of our technology and the weakness of the U.S. currency against the Canadian currency.

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

			Year ended June 30,			
	2006	%	2005	%	2004	%
(In thousands, except % values)						
Agricultural research programs	\$ 813	52%	\$ 711	50%	\$ 652	57%
Human health research programs	753	48%	706	50%	495	43%
Total research and development expenses	\$ 1,566	100%	\$ 1,417	100%	\$ 1,147	100%

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

Noncash income

In February 2004 and in May 2005, we completed separate private placements of common stock and warrants. In each of the private placements, we were obligated to file a registration statement to register all of the shares and the shares underlying the warrants. Due to our obligation to file a registration to register for resale the shares underlying the warrants, 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 in each private placement was recorded as a liability until each filing was made. The decrease in market value of the Common Stock from the closing of each of the financings until the date of the filing or effectiveness of the registration statements resulted in noncash income of \$185,627 in Fiscal 2004 and \$135,632 in Fiscal 2005.

Sale of state income tax loss

During each of fiscal 2005 and fiscal 2004, we received net proceeds of \$153,160 and \$91,448 from the sale of our New Jersey state tax loss for fiscal 2003 and fiscal 2002, respectively. Because the criteria required for approval changed, we were not approved to sell our New Jersey state tax loss for fiscal 2004 and therefore, we did not receive any proceeds during fiscal 2006. During fiscal 2006, the criteria required for approval changed again. Therefore, in June 2006, we again applied to sell our New Jersey state tax loss for fiscal 2004, as well as our New Jersey state tax loss for fiscal 2005. However, there can be no assurance that we will be approved to sell our New Jersey state tax losses for fiscal 2004 and fiscal 2005.

Interest income

	Year Ended June 30,							
	2006	2005	Change	%	2005	2004	Change	%
Interest income	\$ 105	\$ 54	\$ 51	94%	\$ 54	\$ 33	\$ 21	64%

The increase in interest income for fiscal 2006 compared to fiscal 2005 and for fiscal 2005 compared to fiscal 2004 is related to a higher rate of interest earned on our investments.

From Inception on July 1, 1998 through June 30, 2006

From inception of operations on July 1, 1998 through June 30, 2006, we had revenues of \$418,333, which consisted of the initial license fees and milestone payments in connection with our various development and license agreements. We do not expect to generate significant revenues for approximately the next one to three years, during which time we will engage in significant research and development efforts.

We have incurred losses each year since inception and have an accumulated deficit of \$22,369,843 at June 30, 2006. We expect to continue to incur losses as a result of expenditures on research, product development and administrative activities.

Item 7A. Quantitative and Qualitative Disclosures About Market Risk.

Foreign Currency Risk

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

Interest Rate Risk

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

Item 8. Financial Statements and Supplementary Data.

The financial statements required to be filed pursuant to this Item 8 are included in this Annual Report on Form 10-K. A list of the financial statements filed herewith is found at "Item 15. Exhibits, Financial Statement Schedules."

Item 9. Changes in and Disagreements with Accountants on Accounting and Financial Disclosure.

None.

Item 9A. 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 June 30, 2006. Based on this evaluation, our chief executive officer and chief financial officer concluded that as of June 30, 2006, 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 fiscal year ended June 30, 2006 that has materially affected, or is reasonably likely to materially affect, our internal controls over financial reporting.

Item 9B. Other Information.

In October 11, 2006, we entered into a three-year non-exclusive financial advisory agreement with Stanford Group Company ("Stanford"). As compensation under the agreement, previously issued warrants that were purchased by Stanford and its affiliates in a private placement were amended. The original exercise prices on 1,500,000 warrants, 750,000 of which had an exercise price of \$3.25 and 750,000 of which had an exercise price of \$2.00 were reduced to \$2.00 and \$1.50, respectively. Additionally, the original expiration dates of December 2006 and January 2007 were each extended for a three-year period through December 2009 and January 2010. Stock-based compensation in the amount of approximately \$1,100,000 related to the amendment of such warrants will be recorded during the three month period ended December 31, 2006. The agreement may be terminated by either party upon sixty days written notice. Stanford was also granted piggyback registration rights in connection with the shares underlying the warrants.

Effective July 1, 2006, a financial consulting agreement with Michael Berry, Ph.D. was extended for a six-month period through December 31, 2006 and amended to reduce the monthly fee to \$1,000.

PART III

Item 10. Directors and Executive Officers of the Registrant.

The information relating to our directors, nominees for election as directors and executive officers under the headings "Election of Directors" and "Executive Officers" in our definitive proxy statement for the 2006 Annual Meeting of Stockholders is incorporated herein by reference to such proxy statement.

Item 11. Executive Compensation.

The discussion under the heading "Executive Compensation" in our definitive proxy statement for the 2006 Annual Meeting of Stockholders is incorporated herein by reference to such proxy statement.

Item 12. Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters.

The discussion under the heading "Security Ownership of Certain Beneficial Owners and Management" in our definitive proxy statement for the 2006 Annual Meeting of Stockholders is incorporated herein by reference to such proxy statement.

Item 13. Certain Relationships and Related Transactions.

The discussion under the heading "Certain Relationships and Related Transactions" in our definitive proxy statement for the 2006 Annual Meeting of Stockholders is incorporated herein by reference to such proxy statement.

Item 14. Principal Accounting Fees and Services.

The discussion under the heading "Principal Accountant Fees and Services" in our definitive proxy statement for the 2006 Annual Meeting of Stockholders is incorporated herein by reference to such proxy statement.

Item 15. Exhibits, Financial Statement Schedules.

- (a) (1) Financial Statements.

Reference is made to the Index to Financial Statements on Page F-1.

- (a) (2) Financial Statement Schedules.

None.

- (a) (3) Exhibits.

Reference is made to the Exhibit Index on Page 35.

- (b) Reports on Form 8-K.

None.

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the Registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized this 13th day of October 2006.

SENESCO TECHNOLOGIES, INC.

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

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Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the Registrant and in the capacities and on the dates indicated.

<u>Signature</u>	<u>Title</u>	<u>Date</u>
<u>/s/ Ruedi Stalder</u> Ruedi Stalder	Chairman and Director	October 13, 2006
<u>/s/ Bruce C. Galton</u> Bruce C. Galton	President and Chief Executive Officer (principal executive officer) and Director	October 13, 2006
<u>/s/ Joel Brooks</u> Joel Brooks	Chief Financial Officer and Treasurer (principal financial and accounting officer)	October 13, 2006
<u>/s/ John E. Thompson</u> John E. Thompson	Executive Vice President, Chief Scientific Officer and Director	October 13, 2006
<u>/s/ Christopher Forbes</u> Christopher Forbes	Director	October 13, 2006
<u>/s/ Thomas C. Quick</u> Thomas C. Quick	Director	October 13, 2006
<u>/s/ David Rector</u> David Rector	Director	October 13, 2006
<u>/s/ John Braca</u> John Braca	Director	October 13, 2006

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EXHIBIT INDEX

<u>Exhibit No.</u>	<u>Description of Exhibit</u>
2.1	Merger Agreement and Plan of Merger by and among Nava Leisure USA, Inc., an Idaho corporation, the Principal Stockholders (as defined therein), Nava Leisure Acquisition Corp., and Senesco, Inc., dated October 9, 1998. (Incorporated by reference to Senesco Technologies, Inc. definitive proxy statement on Schedule 14A dated January 11, 1999.)
2.2	Merger Agreement and Plan of Merger by and between Senesco Technologies, Inc., an Idaho corporation, and Senesco Technologies, Inc., a Delaware corporation, dated September 30, 1999. (Incorporated by reference to Senesco Technologies, Inc. quarterly report on Form 10-QSB for the period ended September 30, 1999.)
3.1	Amended and Restated Certificate of Incorporation of Senesco Technologies, Inc. filed with the State of Delaware on December 26, 2002. (Incorporated by reference to Senesco Technologies, Inc. quarterly report on Form 10-QSB for the period ended December 31, 2002.)

- 3.2 Amended and Restated By-laws of Senesco Technologies, Inc. as adopted on October 2, 2000. (Incorporated by reference to Senesco Technologies, Inc. quarterly report on Form 10-QSB for the period ended December 31, 2000.)
- 4.1 Form of Warrant with Forbes, Inc. (Incorporated by reference to Senesco Technologies, Inc. quarterly report on Form 10-QSB for the period ended September 30, 1999.)
- 4.2 Form of Option Agreement with Kenyon & Kenyon. (Incorporated by reference to Senesco Technologies, Inc. quarterly report on Form 10-QSB for the period ended September 30, 1999.)
- 4.3 Form of Warrant with Parenteau Corporation. (Incorporated by reference to Senesco Technologies, Inc. quarterly report on Form 10-QSB for the period ended December 31, 1999.)
- 4.4 Form of Warrant with Strategic Growth International, Inc. (Incorporated by reference to Senesco Technologies, Inc. quarterly report on Form 10-QSB for the period ended December 31, 1999.)
- 4.5 Warrant Agreement by and between Senesco Technologies, Inc. and Christenson, Hutchinson, McDowell, LLC. (Incorporated by reference to Senesco Technologies, Inc. quarterly report on Form 10-QSB for the period ended September 30, 2001.)

Exhibit No.	Description of Exhibit
4.6	Form of Warrant issued to Stanford Venture Capital Holdings, Inc. and certain officers of Stanford Venture Capital Holdings, Inc. (with attached schedule of parties and terms thereto). (Incorporated by reference to Exhibit 4.1 of Senesco Technologies, Inc. quarterly report on Form 10-QSB for the period ended December 31, 2001.)
4.7	Form of Warrant issued to certain accredited investors (with attached schedule of parties and terms thereto). (Incorporated by reference to Exhibit 4.2 of Senesco Technologies, Inc. quarterly report on Form 10-QSB for the period ended March 31, 2002.)
4.8	Form of Warrant issued to Pond Equities, Inc. (with attached schedule of terms thereto). (Incorporated by reference to Exhibit 4.3 of Senesco Technologies, Inc. quarterly report on Form 10-QSB for the period ended March 31, 2002.)
4.9	Form of Warrant issued to Perrin, Holden & Davenport Capital Corp. and certain principals thereof (with attached schedule of parties and terms thereto). (Incorporated by reference to Exhibit 4.4 of Senesco Technologies, Inc. quarterly report on Form 10-QSB for the period ended March 31, 2002.)
4.10	Form of Warrant issued to certain accredited investors (with attached schedule of parties and terms thereto). (Incorporated by reference to Exhibit 4.2 of Senesco Technologies, Inc. quarterly report on Form 10-QSB for the period ended December 31, 2002.)
4.11	Form of Warrant issued to certain third parties for services rendered (with attached schedule of parties and terms thereto). (Incorporated by reference to Exhibit 4.3 of Senesco Technologies, Inc. quarterly report on Form 10-QSB for the period ended December 31, 2002.)
4.12	Warrant issued to Sands Brothers International Ltd. dated September 25, 2003. (Incorporated by reference to Exhibit 4.1 of Senesco Technologies, Inc. quarterly report on Form 10-QSB for the period ended September 30, 2003.)
4.13	Warrant issued to Sands Brothers International Ltd. Dated September 25, 2003. (Incorporated by reference to Exhibit 4.1 of Senesco Technologies, Inc. quarterly report on Form 10-QSB for the period ended September 30, 2003.)
4.14	Form of Warrant issued to certain accredited investors (with attached schedule of parties and terms thereto). (Incorporated by reference to Exhibit 4.1 of Senesco Technologies, Inc. Current Report on Form 8-K, filed on February 3, 2004.)
4.15	Form of Warrant issued to certain accredited investors (with attached schedule of parties and terms thereto). (Incorporated by reference to Exhibit 4.1 of Senesco Technologies, Inc. Current Report on Form 8-K, filed on May 4, 2005.)
4.16	Form of Warrant issued to Oppenheimer & Co. Inc. or its designees, dated as of May 9, 2005. (Incorporated by reference to Exhibit 4.2 of Senesco Technologies, Inc. quarterly report on Form 10-QSB for the period ended March 31, 2005.)

Exhibit No.	Description of Exhibit
10.1	Indemnification Agreement by and between Senesco Technologies, Inc. and Christopher Forbes, dated January 21, 1999. (Incorporated by reference to Senesco Technologies, Inc. quarterly report on Form 10-QSB for the period ended December 31, 1998.) (Incorporated by reference to Exhibit 4.1 of Senesco Technologies, Inc. Current Report on Form 8-K, filed on February 3, 2004.)
10.2	Indemnification Agreement by and between Senesco Technologies, Inc. and Thomas C. Quick, dated February 23, 1999. (Incorporated by reference to Senesco Technologies, Inc. quarterly report on Form 10-QSB for the period ended March 31, 1999.)
10.3	Indemnification Agreement by and between Senesco Technologies, Inc. and Ruedi Stalder, dated March 1, 1999. (Incorporated by reference to Senesco Technologies, Inc. quarterly report on Form 10-QSB for the period ended March 31, 1999.)
10.4 *	Employment Agreement by and between Senesco, Inc. and Sascha P. Fedyszyn, dated January 21, 1999. (Incorporated by reference to Senesco Technologies, Inc. quarterly report on Form 10-QSB for the period ended December 31, 1998.)
10.5	Research Agreement by and among Senesco Technologies, Inc., Dr. John E. Thompson and the University of Waterloo, dated September 1, 1998, as amended. (Incorporated by reference to Senesco Technologies, Inc. quarterly report on Form 10-QSB for the period ended December 31, 1998.)
10.6 *	Consulting Agreement by and between Senesco Technologies, Inc. and John E. Thompson, Ph.D., dated July 12, 1999. (Incorporated by reference to Senesco Technologies, Inc. annual report on Form 10-KSB for the period ended June 30, 2000.)
10.7	Office lease by and between Senesco Technologies, Inc. and Matrix/AEW NB, LLC, dated March 16, 2001. (Incorporated by reference to Senesco Technologies, Inc. quarterly report on Form 10-QSB for the period ended March 31, 2001.)
10.8	First amendment of office lease by and between Senesco Technologies, Inc. and Matrix/AEW NB, LLC, dated May 13, 2005 (Incorporated by reference to Exhibit 10.8 of Senesco Technologies, Inc annual report on Form 10-KSB for the period ended June 30, 2005.)
10.9 *	1998 Stock Incentive Plan, as amended on December 13, 2002. (Incorporated by reference to Exhibit 10.7 of Senesco Technologies, Inc. quarterly report on Form 10-QSB for the period ended December 31, 2002.)
10.10 +	License Agreement by and between Senesco Technologies, Inc. and Harris Moran Seed Company, dated November 19, 2001. (Incorporated by reference to Exhibit 10.8 of Senesco Technologies, Inc. quarterly report on Form 10-QSB for the period ended December 31, 2001.)
10.11 *	Employment Agreement by and between Senesco Technologies, Inc. and Bruce C. Galton, dated October 4, 2001. (Incorporated by reference to Exhibit 10.9 of Senesco Technologies, Inc. quarterly report on Form 10-QSB for the period ended December 31, 2001.)

Exhibit No.	Description of Exhibit
10.12	Indemnification Agreement by and between Senesco Technologies, Inc. and Bruce C. Galton, dated October 4, 2001. (Incorporated by reference to Exhibit 10.10 of Senesco Technologies, Inc. quarterly report on Form 10-QSB for the period ended December 31, 2001.)
10.13	Agreement for Service on Senesco Technologies, Inc. Scientific Advisory Board by and between Senesco Technologies, Inc. and Dr. Russell A. Jones, dated February 12, 2002. (Incorporated by reference to Exhibit 10.5 of Senesco Technologies, Inc. quarterly report on Form 10-QSB for the period ended March 31, 2002.)
10.14	Agreement for Service on Senesco Technologies, Inc. Scientific Advisory Board by and between Senesco Technologies, Inc. and Dr. Charles A. Dinarello, dated February 12, 2002. (Incorporated by reference to Exhibit 10.6 of Senesco Technologies, Inc. quarterly report on Form 10-QSB for the period ended March 31, 2002.)
10.15	Research Agreement by and among Senesco Technologies, Inc., Dr. John E. Thompson and the University of Waterloo, dated May 1, 2002. (Incorporated by reference to Exhibit 10.29 of Senesco Technologies, Inc. annual report on Form 10-KSB for the year ended June 30, 2002.)
10.16 +	Development Agreement by and between Senesco Technologies, Inc. and ArborGen, LLC, dated June 28, 2002. (Incorporated by reference to Exhibit 10.31 of Senesco Technologies, Inc. annual report on Form 10-KSB for the year ended June 30, 2002.)

- 10.17 + Development and License Agreement by and between Senesco Technologies, Inc. and Calwest Seeds, dated September 14, 2002. (Incorporated by reference to Exhibit 10.1 of Senesco Technologies, Inc. quarterly report on Form 10-QSB for the period ended September 30, 2002.)
- 10.18 Collaboration Agreement by and between Senesco Technologies, Inc. and Tilligen, Inc. (currently known as Anawah, Inc.), dated September 20, 2002. (Incorporated by reference to Exhibit 10.1 of Senesco Technologies, Inc. quarterly report on Form 10-QSB for the period ended September 30, 2002.)
- 10.19 * Amendment to Consulting Agreement of July 12, 1999, as modified on February 8, 2001, by and between Senesco Technologies, Inc. and John E. Thompson, Ph.D., dated December 13, 2002. (Incorporated by reference to Exhibit 10.1 of Senesco Technologies, Inc. quarterly report on Form 10-QSB for the period ended December 31, 2002.)
- 10.20 * Employment Agreement by and between Senesco Technologies, Inc. and Joel Brooks, dated July 1, 2003. (Incorporated by reference to Exhibit 10.29 of Senesco Technologies, Inc. annual report on Form 10-KSB for the period ended June 30, 2003.)

Exhibit No.	Description of Exhibit
10.21	Form of Securities Purchase Agreement by and between Senesco Technologies, Inc. and certain accredited investors (with attached schedule of parties and terms thereto). (Incorporated by reference to Exhibit 10.1 of Senesco Technologies, Inc. Current Report on Form 8-K, filed on February 3, 2004.)
10.22	Form of Registration Rights Agreement by and between Senesco Technologies, Inc. and certain accredited investors (with attached schedule of parties and terms thereto). (Incorporated by reference to Exhibit 10.2 of Senesco Technologies, Inc. Current Report on Form 8-K, filed on February 3, 2004.)
10.23	Amendment No. 1 to the Securities Purchase Agreement by and between Senesco Technologies, Inc. and Crestview Capital Master, L.L.C. (Incorporated by reference to Exhibit 10.1 of Senesco Technologies, Inc. Current Report on Form 8-K, filed on February 13, 2004.)
10.24	Amendment No. 1 to the Registration Rights Agreement by and between Senesco Technologies, Inc. and Crestview Capital Master, L.L.C. (Incorporated by reference to Exhibit 10.2 of Senesco Technologies, Inc. Current Report on Form 8-K, filed on February 13, 2004.)
10.25 +	Development and License Agreement by and between Senesco Technologies, Inc. and The Scotts Company, dated March 8, 2004. (Incorporated by reference to Exhibit 10.1 of Senesco Technologies, Inc. quarterly report on Form 10-QSB for the period ended March 31, 2004.)
10.26	Amendment to Research Agreement by and among the University of Waterloo, Senesco Technologies, Inc. and Dr. John E. Thompson, dated March 11, 2004. (Incorporated by reference to Exhibit 10.2 of Senesco Technologies, Inc. quarterly report on Form 10-QSB for the period ended March 31, 2004.)
10.27	Extension to Research Agreement by and among the University of Waterloo, Senesco Technologies, Inc. and Dr. John E. Thompson, dated August 1, 2004. (Incorporated by reference to Exhibit 10.37 of Senesco Technologies, Inc. annual report on Form 10-KSB for the period ended June 30, 2004.)
10.28	Indemnification Agreement by and between Senesco Technologies, Inc. and John Braca, dated October 8, 2003. (Incorporated by reference to Exhibit 10.38 of Senesco Technologies, Inc. annual report on Form 10-KSB for the period ended June 30, 2004.)
10.29 *	Employment Agreement by and between Senesco Technologies, Inc. and Richard Dondero, dated July 19, 2004. (Incorporated by reference to Exhibit 10.39 of Senesco Technologies, Inc. annual report on Form 10-KSB for the period ended June 30, 2004.)
10.30	Indemnification Agreement with David Rector dated as of April, 2002. (Incorporated by reference to Exhibit 10.1 of Senesco Technologies, Inc. quarterly report on Form 10-QSB for the period ended September 30, 2004.)
10.31 +	Development and License Agreement with Broin and Associates, Inc. dated as of October 14, 2004. (Incorporated by reference to Exhibit 10.2 of Senesco

- 10.32 Form of Securities Purchase Agreement by and between the Company and certain accredited investors (with schedule of parties and terms thereto). (Incorporated by reference to Exhibit 10.1 of Senesco Technologies, Inc. Current Report on Form 8-K filed on May 4, 2005.)
- 10.33 Placement Agent Agreement by and between the Company and Oppenheimer & Co. Inc. dated as of February 15, 2005 (with attachments thereto). (Incorporated by reference on Exhibit 10.2 of Senesco Technologies, Inc. Current Report on Form 8-K, filed on May 4, 2005.)
- 10.34 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. (Incorporated by reference to Exhibit 10.3 of Senesco Technologies, Inc. quarterly report on Form 10-QSB for the period ended March 31, 2005.)
- 10.35 † Financial Advisory Agreement by and among Senesco Technologies, Inc., Stanford Group Company, Stanford Venture Capital Holdings, Inc., Stanford International Bank, Ltd., Ronald Stein, Daniel Bogar, Osvaldo Pi and William Fusselmann dated October 11, 2006.
- 10.36 † Registration Rights Agreement by and among Senesco Technologies, Inc., Stanford Group Company, Stanford Venture Capital Holdings, Inc., Stanford International Bank, Ltd, Ronald Stein, Daniel Bogar, Osvaldo Pi and William Fusselmann dated October 11, 2006.
- 10.37 † Extension to Research Agreement by and among the University of Waterloo, Senesco, Inc. and Dr. John E. Thompson, Ph.D., dated August 1, 2006.
- 10.38 † Form of Securities Purchase Agreement by and between Senesco Technologies, Inc., and certain accredited investors dated October 10, 2006 (with attached schedule of parties and terms thereto).
- 10.39 † Form of Registration Rights Agreement by and between Senesco Technologies, Inc., and certain accredited investors dated October 10, 2006 (with attached schedule of parties and terms thereto).
- 10.40 † Form of Warrant issued to certain accredited investors dated October 10, 2006 (with attached schedule of parties and terms thereto).
- 10.41 † Placement Agent Agreement by and between Senesco Technologies, Inc. and H.C. Wainwright & Co., Inc. dated May 1, 2006.
- 10.42 † Form of Warrant issued to H.C. Wainwright & Co., Inc., or its designees dated as of October 10, 2006.
- 21 Subsidiaries of the Registrant. (Incorporated by reference to Senesco Technologies, Inc. annual report on Form 10-KSB for the period ended June 30, 1999.)
- 23.1 † Consent of Goldstein Golub Kessler LLP.
- 31.1 † Certification of the principal executive officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
- 31.2 † Certification of the principal financial and accounting officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
- 32.1 † Certification of the principal executive officer pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
- 32.2 † Certification of the principal financial and accounting officer pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.

* A management contract or compensatory plan or arrangement required to be filed as an exhibit pursuant to Item 13(a) of Form 10-K.

† Filed herewith.

+ The SEC granted Confidential Treatment for portions of this Exhibit.

SENESCO TECHNOLOGIES, INC. AND SUBSIDIARY
(a development stage company)

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REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Board of Directors of

Senesco Technologies, Inc.

We have audited the accompanying consolidated balance sheets of Senesco Technologies, Inc. and Subsidiary (a development stage company) as of June 30, 2006 and 2005, and the related consolidated statements of operations, stockholders' equity, and cash flows for each of the three years in the period ended June 30, 2006 and cumulative amounts from inception to June 30, 2006. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with the Standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of Senesco Technologies, Inc. and Subsidiary as of June 30, 2006 and 2005, and the results of their operations and their cash flows for each of the three years in the period ended June 30, 2006 and cumulative amounts from inception to June 30, 2006 in conformity with United States generally accepted accounting principles.

As discussed in notes 1 and 7 to the consolidated financial statements, the Company adopted Statement of Financial Accounting Standards No. 123 (revised 2004), *Share-Based Payment*, to account for stock options and other share-based transactions, effective July 1, 2005, utilizing the modified-retrospective method, and accordingly all statements have been restated where appropriate.

GOLDSTEIN GOLUB KESSLER LLP

New York, New York

August 10, 2006, except for Note 14 as to which the date is October 11, 2006.

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SENESCO TECHNOLOGIES, INC. AND SUBSIDIARY
(a development stage company)

CONSOLIDATED BALANCE SHEET

	June 30,	
	2006	2005
ASSETS		
Current Assets:		
Cash and cash equivalents	\$ 318,473	\$ 291,858
Short-term investments	850,000	3,941,627
Prepaid expenses and other current assets	139,584	156,544
Total current assets	1,308,057	4,390,029
Long-term Investments	—	247,768
Property and Equipment, net	10,318	30,038

Intangibles, net	2,209,796	1,438,119
Deferred Income Tax Asset, net of valuation allowance of \$5,489,000 and \$4,355,000, respectively	—	—
Security Deposit	7,187	7,187
Total Assets	\$ 3,535,358	\$ 6,113,141

LIABILITIES AND STOCKHOLDERS' EQUITY

Current Liabilities:		
Accounts payable	\$ 77,695	\$ 217,569
Accrued expenses	329,884	180,002
Deferred revenue	41,667	33,333
Total current liabilities	449,246	430,904
Grant Payable	99,728	90,150
Other Liability	34,418	2,336
Total liabilities	583,392	523,390
Commitments		
Stockholders' Equity:		
Preferred stock - \$0.01 par value; authorized 5,000,000 shares, no shares issued	—	—
Common stock - \$0.01 par value; authorized 30,000,000 shares, issued and outstanding 15,477,388 and 15,467,388, respectively	154,774	154,674
Capital in excess of par	25,167,035	24,490,035
Deficit accumulated during the development stage	(22,369,843)	(19,054,958)
Stockholders' equity	2,951,966	5,589,751
Total Liabilities and Stockholders' Equity	\$ 3,535,358	\$ 6,113,141

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

See Notes to Consolidated Financial Statements

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SENESCO TECHNOLOGIES, INC. AND SUBSIDIARY (a development stage company)

CONSOLIDATED STATEMENT OF OPERATIONS

	Year ended June 30,			Cumulative Amounts from Inception
	2006	2005	2004	
Revenue	\$ 66,666	\$ 125,000	\$ 16,667	\$ 418,333
Operating expenses:				
General and administrative	1,919,740	2,029,400	2,907,205	17,021,514
Research and development	1,566,267	1,417,337	1,146,766	6,984,848
Total operating expenses	3,486,007	3,446,737	4,053,971	24,006,362
Loss from operations	(3,419,341)	(3,321,737)	(4,037,304)	(23,588,029)
Noncash income	—	135,632	185,627	321,259
Sale of state income tax loss - net	—	153,160	91,448	586,442
Interest income - net	104,456	54,027	33,278	310,485
Net loss	\$ (3,314,885)	\$ (2,978,918)	\$ (3,726,951)	\$ (22,369,843)
Basic and diluted net loss per common share	\$ (.21)	\$ (.21)	\$ (.29)	—
Basic and diluted weighted-average number of common shares outstanding	15,469,881	14,053,808	12,668,396	—

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

See Notes to Consolidated Financial Statements

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SENESCO TECHNOLOGIES, INC. AND SUBSIDIARY (a development stage company)

CONSOLIDATED STATEMENT OF STOCKHOLDERS' EQUITY

Period from July 1, 1998 (date of inception) to June 30, 2006

Common Stock	Capital	Deficit Accumulated During the	Deferred Compensation Related to Issuance of	Total Stockholders'
--------------	---------	--------------------------------	--	---------------------

	Number of Shares	Amount	in Excess of Par	Development Stage	Options and Warrants	Equity (Deficiency)
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 for \$2.63437 per share	759,194	7,592	1,988,390	—	—	1,995,982
Issuance of common stock for placement fees on May 21, 1999 at \$0.01 per share	53,144	531	(531)	—	—	—
Net loss	—	—	—	\$ (1,168,995)	—	(1,168,995)
Balance at June 30, 1999	6,212,800	62,128	2,019,033	(1,168,995)	—	912,166
Issuance of common stock for cash on January 26, 2000 for \$2.867647 per share	17,436	174	49,826	—	—	50,000
Issuance of common stock for cash on January 31, 2000 for \$2.87875 per share	34,737	347	99,653	—	—	100,000
Issuance of common stock for cash on February 4, 2000 for \$2.924582 per share	85,191	852	249,148	—	—	250,000
Issuance of common stock for cash on March 15, 2000 for \$2.527875 per share	51,428	514	129,486	—	—	130,000
Issuance of common stock for cash on June 22, 2000 for \$1.50 per share	1,471,700	14,718	2,192,833	—	—	2,207,551
Commissions, legal and bank fees associated with issuances for the year ended June 30, 2000	—	—	(260,595)	—	—	(260,595)
Fair market value of options and warrants granted and vested during the year ended June 30, 2000	—	—	1,656,659	—	\$ (180,732)	1,475,927
Net loss	—	—	—	(3,346,491)	—	(3,346,491)
Balance at June 30, 2000	7,873,292	78,733	6,136,043	(4,515,486)	(180,732)	1,518,558

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

(continued)

See Notes to Consolidated Financial Statements

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	Common Stock		Capital in Excess of Par	Deficit Accumulated During the Development Stage	Deferred Compensation Related to Issuance of Options and Warrants	Total Stockholders' Equity (Deficiency)
	Number of Shares	Amount				
Fair market value of options and warrants granted and vested during the year ended June 30, 2001	—	—	\$ 392,182	—	\$ (83,563)	\$ 308,619
Net loss	—	—	—	(2,033,890)	—	(2,033,890)
Balance at June 30, 2001	7,873,292	\$ 78,733	6,528,225	(6,549,376)	(264,295)	(206,713)
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 granted and vested during the year ended June 30, 2002	—	—	1,644,913	—	203,813	1,848,726
Net loss	—	—	—	(3,021,709)	—	(3,021,709)
Balance at June 30, 2002	11,880,045	118,800	14,298,443	(9,571,085)	(60,482)	4,785,676
Fair market value of options and warrants granted and vested during the year ended June 30, 2003	—	—	788,360	—	60,482	848,842
Net loss	—	—	—	(2,778,004)	—	(2,778,004)
Balance at June 30, 2003	11,880,045	118,800	15,086,803	(12,349,089)	—	2,856,514
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 from January 15, 2004 through February 12, 2004	—	—	(378,624)	—	—	(378,624)

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

(continued)

See Notes to Consolidated Financial Statements

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	Common Stock		Capital in Excess of Par	Deficit Accumulated During the Development Stage	Deferred Compensation Related to Issuance of Options and Warrants	Total Stockholders' Equity (Deficiency)
	Number of Shares	Amount				
Fair market value of options and warrants vested during the year ended June 30, 2004	—	—	\$ 1,826,514	—	—	\$ 1,826,514

Options and warrants exercised during the year ended June 30, 2004 at exercise prices ranging from \$1.00 - \$3.25	370,283	\$ 3,704	692,945	—	—	696,649
Net loss	—	—	—	\$ (3,726,951)	—	(3,726,951)
Balance at June 30, 2004	13,787,250	137,873	20,669,142	(16,076,040)	—	4,730,975
Issuance of common stock and warrants for cash on May 9, 2005 at \$2.11 per unit	1,595,651	15,957	3,350,872	—	—	3,366,829
Allocation of proceeds to warrants	—	—	(1,715,347)	—	—	(1,715,347)
Reclassification of warrants	—	—	1,579,715	—	—	1,579,715
Commissions, legal and bank fees associated with issuance on May 9, 2005	—	—	(428,863)	—	—	(428,863)
Fair market value of options and warrants vested during the year ended June 30, 2005	—	—	974,235	—	—	974,235
Options and warrants exercised during the year ended June 30, 2005 at exercise prices ranging from \$1.50 - \$3.25	84,487	844	60,281	—	—	61,125
Net loss	—	—	—	(2,978,918)	—	(2,978,918)
Balance at June 30, 2005	15,467,388	154,674	24,490,035	(19,054,958)	—	5,589,751
Fair market value of options and warrants vested during the year ended June 30, 2006 -	—	—	677,000	—	—	677,000
Warrants exercised during the year ended June 30, 2006 at an exercise price of \$0.01	10,000	100	—	—	—	100
Net loss	—	—	—	(3,314,885)	—	(3,314,885)
Balance at June 30, 2006	15,477,388	\$ 154,774	\$ 25,167,035	\$ (22,369,843)	—	\$ 2,951,966

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

See Notes to Consolidated Financial Statements

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SENESCO TECHNOLOGIES, INC. AND SUBSIDIARY
(a development stage company)

CONSOLIDATED STATEMENT OF CASH FLOWS

	Year ended June 30,			Cumulative Amounts from Inception
	2006	2005	2004	
Cash flows from operating activities:				
Net loss	\$ (3,314,885)	\$ (2,978,918)	\$ (3,726,951)	\$ (22,369,843)
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	—	(135,632)	(185,627)	(321,259)
Issuance of common stock and warrants for interest	—	—	—	9,316
Issuance of stock options and warrants for services	677,000	974,235	1,826,514	7,828,613
Depreciation and amortization	40,112	43,719	30,424	197,669
(Increase) decrease in operating assets:				
Prepaid expenses and other current assets	16,960	(62,577)	91,568	(139,584)
Security deposit	—	—	—	(7,187)
Increase (decrease) in operating liabilities:				
Accounts payable	(139,874)	148,561	12,872	77,695
Accrued expenses	149,882	(107,624)	24,466	329,884
Deferred revenue	8,334	—	33,333	41,667
Other liability	32,082	2,336	—	34,418
Net cash used in operating activities	<u>(2,530,389)</u>	<u>(2,115,900)</u>	<u>(1,893,401)</u>	<u>(14,102,182)</u>
Cash flows from investing activities:				
Patent costs	(792,069)	(531,988)	(346,092)	(2,249,855)
Redemption (purchase) of investments, net	3,339,395	(239,621)	(1,850,479)	(850,000)
Purchase of property and equipment	—	(5,972)	(4,235)	(167,928)
Net cash used in investing activities	<u>2,547,326</u>	<u>(777,581)</u>	<u>(2,200,806)</u>	<u>(3,267,783)</u>
Cash flows from financing activities:				
Proceeds from grant	9,578	—	—	99,728
Proceeds from issuance of bridge notes	—	—	—	525,000
Proceeds from issuance of common stock and warrants, net and exercise of warrants and options	100	2,999,091	3,960,525	17,063,710
Cash provided by financing activities	<u>9,678</u>	<u>2,999,091</u>	<u>3,960,525</u>	<u>17,688,438</u>
Net increase (decrease) in cash and cash equivalents	26,615	105,610	(133,682)	318,473
Cash and cash equivalents at beginning of period	291,858	186,248	319,930	—
Cash and cash equivalents at end of period	<u>\$ 318,473</u>	<u>\$ 291,858</u>	<u>\$ 186,248</u>	<u>\$ 318,473</u>
Supplemental disclosure of cash flow information:				
Cash paid during the period for interest	\$ —	\$ —	\$ —	\$ 22,317
Supplemental schedule of noncash financing activity:				
Conversion of bridge notes into stock	\$ —	\$ —	\$ —	\$ 534,316

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

See Notes to Consolidated Financial Statements

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1 PRINCIPAL BUSINESS ACTIVITY AND SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES:

The accompanying consolidated financial statements include the accounts of Senesco Technologies, Inc. (“ST”) and its wholly owned subsidiary, Senesco, Inc. (“SI”) (collectively, the “Company”). All significant intercompany accounts and transactions have been eliminated in consolidation.

The Company is a development stage biotechnology company whose mission is to develop novel approaches to treat programmed cell death diseases in humans (apoptosis) and cancer, and to enhance the quality and productivity of fruits, flowers, vegetables and agronomic crops through the control of cell death in plants (senescence).

SI, a New Jersey corporation, was incorporated on November 24, 1998 and is the successor entity to Senesco, L.L.C., a New Jersey limited liability company that was formed on June 25, 1998 but commenced operations on July 1, 1998. This transfer was accounted for at historical cost in a manner similar to a pooling of interests with the recording of net assets acquired at their historical book value.

On January 21, 1999, Nava Leisure USA, Inc. (“Nava”), an Idaho corporation and the predecessor registrant to the Company, effected a one-for-three reverse stock split, restating the number of shares of common stock outstanding from 3,000,025 to 1,000,231. In addition, the number of authorized common stock was decreased from 50,000,000 shares, \$.0005 par value, to 16,666,667 shares, \$.0015 par value (the “Common Stock”).

On January 22, 1999, Nava consummated a merger (the “Merger”) with SI. Nava issued 1,700,000 shares of Common Stock, on a post-split basis, for all of the outstanding capital stock of SI. Pursuant to the Merger, the stockholders of SI acquired majority control of Nava, and the name of Nava was changed to Senesco Technologies, Inc., and SI remained a wholly owned subsidiary of ST. For accounting purposes, the Merger has been treated as a recapitalization of the Company with SI as the acquirer (a reverse acquisition).

On September 30, 1999, the board of directors of the Company approved the reincorporation of the Company solely for the purpose of changing its state of incorporation from Idaho to Delaware. In order to facilitate such reincorporation, on September 30, 1999, the Company, an Idaho corporation, merged with and into the newly formed Senesco Technologies, Inc., a Delaware corporation.

On December 12, 2002, the stockholders approved a proposal to increase the authorized Common Stock of the Company from 20,000,000 shares to 30,000,000 shares.

Cash equivalents consist of investments which are readily convertible into cash with original maturities of three months or less. The Company maintains its cash in money market and bank deposit accounts which, at times, may exceed federally insured limits. The Company believes that there is no significant credit risk with respect to these accounts.

The Company’s investments consist of United States treasury notes and high-grade corporate and federal governmental agency debt instruments. Based on the Company’s intentions regarding these instruments, the Company has classified all marketable debt securities as held-to-maturity and has accounted for these investments at amortized cost. Marketable securities maturing in one year or less are classified as current assets.

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Property and equipment are stated at cost, less accumulated depreciation and amortization. Depreciation of property and equipment is provided for by the straight-line method over the estimated useful lives of the assets. Leasehold improvements are amortized over the lesser of the assets’ useful lives or the remaining term of the lease.

Intangible assets consist of costs related to acquiring patents. Issued patents are being amortized over a period of 17 years, the life of the patent. Pending patent applications will be amortized when the patents are issued.

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

- significant negative industry trends
- significant underutilization of the assets
- significant changes in how the Company uses the assets or its plans for their use.

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

Deferred income tax assets and liabilities are recognized for the future tax consequences attributable to differences between financial statement carrying amounts of existing assets and liabilities and their respective tax bases. Deferred tax assets and liabilities are measured using enacted rates expected to apply when the differences are expected to be realized.

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.

Research and development expenses are charged to operations when incurred.

As further discussed in Note 6, the Company adopted FAS No. 123R, “Share-Based Payment” (“FAS No. 123R”) effective July 1, 2005 using the modified-retrospective method. The adoption of this standard requires the recognition of stock-based compensation expense in the consolidated financial statements. Prior to July 1, 2005, the Company followed Accounting Principles Board Opinion 25, “Accounting for Stock Issued to Employees” (“APB No. 25”), and

related interpretations. In accordance with APB No. 25, no stock-based compensation expense had been recognized related to the Company's stock options granted to employees and directors, as all options had an exercise price equal to the market value of the underlying common stock on the date of grant. In accordance with the modified-retrospective method, the Company adjusted previously reported results to reflect the effect of expensing those stock options. The cumulative adjustment associated with the adoption of the modified-retrospective method increased capital in excess of par and deficit accumulated during the development stage by \$4,291,051 as of June 30, 2005.

Loss per common share is computed by dividing the loss by the weighted-average number of common shares outstanding during the period. Shares to be issued upon the exercise of the outstanding options and warrants aggregating 8,296,591 and 8,015,591 as of June 30, 2006 and 2005, respectively, are not included in the computation of loss per share as their effect is anti-dilutive.

The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and judgments that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenue and expenses during the reporting period. The critical accounting policies that require management's most significant estimate and judgment are the assessment of the recoverability of intangible assets, and the valuation allowance on deferred tax assets. Actual results experienced by the Company may differ from management's estimates.

In June 2006, the Financial Accounting Standards Board ("FASB") issued FASB Interpretation No. 48, "Accounting for Uncertainty in Income Taxes — an interpretation of FASB Statement No. 109" (FIN48"). FIN 48 clarifies the accounting for uncertainty in income taxes recognized in a company's financial statements in accordance with SFAS No. 109, "Accounting for Income Taxes". FIN 48 prescribes a recognition threshold and measurement attribute for the financial statement recognition and measurement of a tax position taken or expected to be taken in a tax return. FIN 48 is effective for fiscal years beginning after December 15, 2006. The Company is currently evaluating the effects, if any, that FIN 48 will have on its consolidated financial position or results of operations.

Management does not believe that any other recently issued, but not yet effective, accounting standards if currently adopted would have a material effect on the accompanying financial statements.

As shown in the accompanying financial statements, the Company has a history of losses with a deficit accumulated during the development stage from inception through June 30, 2006 of \$22,369,843. This condition could require the Company to obtain additional capital in order to maintain its operations. As discussed in Note 14, the Company has obtained additional financing, which management believes will enable the Company to maintain its operations.

2. INVESTMENTS:

At June 30, 2006 and 2005, the amortized cost basis, aggregate fair value, gross unrealized gains and maturity by majority security type were as follows:

	Gross Unrealized Gain / (Loss)	Aggregate Fair Value	Amortized Cost Basis
June 30, 2006			
Held-to-maturity securities:			
Corporate debt securities (maturing within one year)	\$ -0-	\$ 850,000	\$ 850,000
June 30, 2005			
Held-to-maturity securities:			
Debt securities issued by United States (maturing within two years)	\$ (6,353)	\$ 2,052,659	\$ 2,059,012
Corporate debt securities (maturing within one year)	(6,373)	2,124,010	2,130,383
	<u>\$ (12,726)</u>	<u>\$ 4,176,669</u>	<u>\$ 4,189,395</u>

Realized gains and losses are determined based on the specific-identification method.

3 PREPAID EXPENSES AND OTHER CURRENT ASSETS:

The following are included in prepaid expenses and other current assets at:

	June 30,	
	2006	2005
Prepaid license fee	\$ 45,833	\$ 45,833
Prepaid insurance	34,800	50,143
Prepaid research	19,635	25,283
Accrued legal	13,391	—
Prepaid other	25,925	35,285
	<u>\$ 139,584</u>	<u>\$ 156,544</u>

4. PROPERTY AND EQUIPMENT:

Property and equipment, at cost, consists of the following at:

	June 30,		Estimated Useful Life
	2006	2005	
Company Web site	\$ 26,500	\$ 26,500	3 years
Equipment	38,872	47,366	4 years
Furniture and fixtures	67,674	67,674	7 years
Leasehold improvements	—	7,233	5 years
	<u>133,046</u>	<u>148,773</u>	
Accumulated depreciation and amortization	(122,728)	(118,735)	
	<u>\$ 10,318</u>	<u>\$ 30,038</u>	

Depreciation and amortization expense aggregated \$19,720, \$27,636, \$27,736 and \$157,610 for the years ended June 30, 2006, 2005, 2004, and cumulatively from inception through June 30, 2006, respectively.

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5. INTANGIBLE ASSETS:

Intangible assets, at cost, consists of the following at:

	June 30,	
	2006	2005
Patents approved	\$ 379,371	\$ 327,547
Patents pending	1,870,484	1,130,239
	<u>\$ 2,249,855</u>	<u>1,457,786</u>
Accumulated amortization	(40,059)	(19,667)
	<u>\$2,209,796</u>	<u>\$ 1,438,119</u>

Amortization expense amounted to \$20,392, \$16,083, \$2,688 and \$40,059 for the years ended June 30, 2006, 2005, 2004, and cumulatively from inception through June 30, 2006, respectively.

Estimated amortization expense for the next five years is as follows:

Year ending June 30,	
2007	\$ 23,000
2008	23,000
2009	23,000
2010	23,000
2011	23,000

6. ACCRUED EXPENSES:

The following are included in accrued expenses at:

	June 30,	
	2006	2005
Accrued research	\$ 228,265	\$ 55,000
Accrued accounting	40,000	53,836
Accrued patent costs	28,202	46,541
Accrued legal	33,417	19,827
Accrued other	—	4,798
	<u>\$ 329,884</u>	<u>\$ 180,002</u>

7. STOCKHOLDERS' EQUITY:

In February 2004, the Company completed a private placement to certain accredited investors (the "2004 Accredited Investor Private Placement") for an aggregate amount of 1,536,922 shares of Common Stock and warrants to purchase 768,459 shares of Common Stock for the aggregate cash consideration of \$3,642,500. The 2004 Accredited Investor 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 \$2.37 per unit. The warrants were issued at an exercise price equal to \$3.79 per share, with such warrants vesting on the date of grant. The costs associated with the 2004 Accredited Investor Private Placement totaled \$378,624. The Company did not engage a placement agent for the sale of such securities.

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Two directors of the Company participated in the 2004 Accredited Investor Private Placement. Specifically, such directors of the Company purchased, in the aggregate, 63,292 shares of Restricted Common Stock on the same terms and conditions as all purchasers hereunder.

On March 17, 2004, the Company filed a registration statement with the SEC on Form S-3 to register all of the shares and the shares underlying the warrants acquired by the purchasers and finders (see below) in the 2004 Accredited Investor Private Placement. The registration statement was declared effective by

the SEC on May 14, 2004, and remained in effect until February 2, 2006.

Due to the Company's obligation to file a registration statement to register for resale the shares underlying the warrants under the Securities Act of 1933, as amended, 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 amounting to \$2,099,090 was recorded as a liability until the filing was made. 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 noncash other income to reflect the decrease in Black-Scholes value of the warrants between those two dates. As a result, the Company incurred a decrease in liability and other noncash income of \$185,627 as of March 17, 2004. Upon the Company meeting its obligation to file a registration statement, the fair value of the warrants amounting to \$1,913,463, was reclassified to equity.

Sands Brothers and Stanford Group Company acted as co-managing finders of the 2004 Accredited Investor Private Placement, and certain consultants to the Company provided financial advisory services in connection with the 2004 Accredited Investor Private Placement. As consideration for their services to the Company, such finders were issued warrants to purchase an aggregate of 73,682 shares of Common Stock, on the same terms and conditions as the warrants issued to the purchasers in the 2004 Accredited Investor Private Placement.

In May 2005, the Company completed another private placement to certain accredited investors (the "2005 Accredited Investor 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 2005 Accredited Investor 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 costs associated with the 2005 Accredited Investor Private Placement totaled \$428,863. In addition, the Company has caused its directors and officers to enter into Lock-up Agreements for a period of six months from the Closing Date with the Placement Agent for the benefit of the Purchasers.

On May 27, 2005, the Company filed a registration statement with the SEC on Form S-3 to register all of the shares and the shares underlying the warrants acquired by the purchasers and placement agent (see below) in the 2005 Accredited Investor Private Placement. The registration statement was declared effective by the SEC on June 17, 2005, and will remain in effect, subject to the Company being in compliance with all the applicable rules and regulations, until

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May 9, 2007.

Due to the Company's obligation to file a registration statement to register for resale the shares underlying the warrants under the Securities Act of 1933, as amended, 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 amounting to \$1,715,347 was recorded as a liability until the filing was declared effective. The decrease in market value of the Common Stock from the closing of its financing to June 17, 2005, the effective date of the registration statement, resulted in noncash other income to reflect the decrease in Black-Scholes value of the warrants between those two dates. As a result, the Company incurred a decrease in liability and other noncash income of \$135,632 as of June 17, 2005. Upon the Company meeting its obligation to file a registration statement, the fair value of the warrants amounting to \$1,579,715, was reclassified to equity.

Oppenheimer and Co. Inc. ("Oppenheimer") acted as the placement agent for the 2005 Accredited Investor Private Placement, As consideration for their services to the Company, Oppenheimer was issued warrants to purchase an aggregate of 167,544 shares of Common Stock, on the same terms and conditions as the warrants issued to the purchasers in the 2005 Accredited Investor Private Placement.

In 1999, the Company adopted the 1998 Stock Incentive Plan, as amended (the "Plan"), which provides for the grant of stock options and stock purchase rights to certain designated employees and certain other persons performing services for the Company, as designated by the board of directors. Pursuant to the Plan, an aggregate of 3,000,000 shares of common stock have been reserved for issuance. On March 28, 2003, the Company filed a registration statement with the SEC to register all of the 3,000,000 shares of Common Stock underlying the Plan. The registration statement was deemed effective upon filing.

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

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

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

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

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

	Year Ended June 30,		
	2006	2005	2004
Estimated life in years	6-10	10	10
Risk-free interest rate (1)	42%-4.5%	4.2%	3.3%-4.3%
Volatility	70%-148%	111%-148%	148%
Dividend paid	None	None	None

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

The ultimate values of the options will depend on the future price of the Company's Common Stock, which cannot be forecast with reasonable accuracy.

Stock option activity under the Plan is summarized as follows:

	Shares	Weighted-average Exercise Price
Options outstanding at July 1, 2003	1,781,000	\$ 2.56
Granted	215,000	\$ 3.15
Exercised	(67,500)	\$ 1.85
Expired	(50,000)	\$ 2.80
Options outstanding at June 30, 2004	1,878,500	\$ 2.64
Granted	295,500	\$ 3.45
Exercised	(22,500)	\$ 2.05
Expired	(40,000)	\$ 3.85
Options outstanding at June 30, 2005	2,111,500	\$ 2.74
Granted	318,000	\$ 1.40
Exercised	—	—
Expired	(3,000)	\$ 3.48
Options outstanding at June 30, 2006	2,426,500	\$ 2.56
Options exercisable at June 30, 2004	1,536,000	\$ 2.67
Options exercisable at June 30, 2005	1,834,508	\$ 2.68
Options exercisable at June 30, 2006	2,181,337	\$ 2.64
Weighted-average fair value of options granted during the year ended June 30, 2004		\$ 3.10
Weighted-average fair value of options granted during the year ended June 30, 2005		\$ 3.23
Weighted-average fair value of options granted during the year ended June 30, 2006		\$ 0.92

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Non-vested stock option activity under the Plan is summarized as follows:

	Number of Options	Weighted-average Grant-Date Fair Value
Non-vested stock options at July 1, 2003	442,500	\$ 1.90
Granted	215,000	\$ 3.10
Vested	(315,000)	\$ 2.37
Forfeited	—	—
Non-vested stock options at June 30, 2004	342,500	\$ 2.46
Granted	295,500	\$ 3.23
Vested	(361,008)	\$ 2.69
Forfeited	—	—
Non-vested stock options at June 30, 2005	276,992	\$ 2.98
Granted	318,000	\$ 0.92
Vested	(349,162)	\$ 2.05
Forfeited	(667)	\$ 3.23
Non-vested stock options at June 30, 2006	245,163	\$ 1.47

The following table summarizes information about stock options outstanding at June 30, 2006:

Ranges of Exercise Prices	Number Outstanding at June 30, 2006	Options Outstanding		Options Exercisable	
		Weighted-average Remaining Contractual Life (Years)	Weighted-average Exercise Price	Number Exercisable at June 30, 2006	Weighted-average Exercise Price
\$1.40 - \$1.65	415,500	8.50	\$ 1.43	228,500	\$ 1.46
\$2.05 - \$2.35	1,032,500	5.70	\$ 2.12	1,032,500	\$ 2.12
\$3.15 - \$4.00	978,500	6.20	\$ 3.51	920,337	\$ 3.51
\$1.40 - \$4.00	2,426,500	6.40	\$ 2.56	2,181,337	\$ 2.64

As of June 30, 2006, the aggregate intrinsic value of stock options outstanding was \$165,540, with a weighted-average remaining term of 6.3 years. The aggregate intrinsic value of stock options exercisable at that same date was \$85,130, with a weighted-average remaining term of 6.0 years. As of June 30,

2006, the Company has 483,500 shares available for future stock option grants.

As of June 30, 2006, total compensation expense not yet recognized related to stock option grants amounted to \$213,372, which will be recognized over the next 18 months.

On September 7, 1999, the Company granted to its patent counsel, as partial consideration for services rendered, options to purchase 10,000 shares of the Company's Common Stock at an exercise price equal to \$3.50 per share, with 3,332 options vesting on the date of grant, 3,334 options vesting on the first anniversary of the date of grant, and 3,334 options vesting on the second anniversary of the date of grant. Such options were granted outside of the Company's Plan.

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The following table represents warrants outstanding as of:

Exercise Price	June 30,	
	2006	2005
\$7.00	10,000	10,000
3.79	842,141	842,141
3.59	237,600	237,600
3.50	280,000	280,000
3.45	15,000	15,000
3.38	965,380	965,380
3.25	1,779,203	1,779,203
3.19	—	29,000
3.15	20,000	20,000
2.35	15,000	15,000
2.15	110,000	110,000
2.00	1,570,767	1,570,767
1.40	5,000	—
0.01	10,000	20,000
	<u>5,860,091</u>	<u>5,894,091</u>

As of June 30, 2006, 5,851,758 of the above warrants are exercisable expiring at various dates through 2015. At June 30, 2006, the weighted-average exercise price on the above warrants was \$3.02.

The following stock-based compensation expense of \$677,000, \$974,235, \$1,826,514 and \$7,828,613 was recognized for the years ended June 30, 2006, 2005, 2004 and cumulatively from inception through June 30, 2006, respectively:

	Year Ended June 30,			Cumulative From Inception
	2006	2005	2004	
General and administrative expenses	\$ 488,000	\$ 691,843	\$ 1,657,695	\$ 6,627,093
Research and development expenses	189,000	282,392	168,819	1,201,520
Total stock-based compensation expense	\$ 677,000	\$ 974,235	\$ 1,826,514	\$ 7,828,613
Basic and diluted loss per common share	\$.04	\$.07	\$.14	

8. INCOME TAXES:

The Company files a consolidated federal income tax return. The subsidiary files separate state and local income tax returns.

The reconciliation of the effective income tax rate to the federal statutory rate is as follows:

Year ended June 30,	2006	2005	2004
Federal statutory rate	(34)%	(34)%	(34)%
Increase in valuation allowance	34	34	34
	<u>-0-%</u>	<u>-0-%</u>	<u>-0-%</u>

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The deferred income tax asset consists of the following at:

	June 30,	
	2006	2005
Deferred tax asset:		
Net operating loss carryforward	\$ 5,489,000	\$ 4,355,000
Valuation allowance	(5,489,000)	(4,355,000)
	<u>\$ -0-</u>	<u>\$ -0-</u>

In December 2004 and 2003, the Company sold its entire state net operating losses for the years ended June 30, 2003 and 2002, and received net proceeds of \$153,160 and \$91,448, respectively.

At June 30, 2006, the Company has federal and state net operating loss carryforwards of approximately \$14,329,000 and \$6,859,000, respectively, available to offset future taxable income expiring on various dates through 2026.

9. COMMITMENTS:

Effective September 1, 1998, the Company entered into a three-year research and development agreement, which has subsequently been renewed, with a university that a researcher, who is an officer, director and stockholder of the Company, is affiliated with. Pursuant to the agreement, the university provides research and development under the direction of the researcher and the Company. The agreement is renewable annually by the Company which has the right of termination upon 30 days' advance written notice. Effective September 1, 2004, the Company extended the research and development agreement for an additional two-year period through August 31, 2006, in the amount of Can \$1,529,430 or approximately U.S. \$1,337,000. Effective September 1, 2006, the Company extended the research and development agreement for an additional one-year period through August 31, 2007, in the amount of Can \$631,050, or approximately U.S. \$566,000. Research and development expenses under this agreement for the years ended June 30, 2006, 2005 and 2004 aggregated U.S. \$692,982, U.S. \$628,341 and U.S. \$560,308, respectively, and U.S. \$3,327,835 for the cumulative period through June 30, 2006. Future obligations to be paid under the agreement through August 31, 2007 equal approximately \$681,000.

Effective May 1, 1999, the Company entered into a consulting agreement for research and development with such researcher. Effective January 1, 2003 and 2005, the agreement was amended to provide for an increase in the monthly payments from \$3,000 to \$5,000, and \$5,000 to \$5,200, respectively. The agreement was automatically renewed for an additional three-year term through June 30, 2007. Future obligations to be paid under the agreement equal \$62,400. The Company has employment agreements with certain employees, all of whom are also stockholders of the Company. These agreements provide for a base compensation and additional amounts, as defined. The agreements expire between January 2006 and October 2007. Future base compensation to be paid through October 2007 under the agreements as of June 30, 2006 is \$624,150.

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The Company is obligated under a noncancelable operating lease of office space expiring on May 31, 2011. The aggregate minimum future payments, subject to certain escalations, is payable as follows:

Year ending June 30,	
2007	\$ 76,684
2008	77,596
2009	78,508
2010	79,420
2011	73,568
	<u>\$ 385,776</u>

Rent expense charged to operations aggregated \$86,849, \$47,759, 39,608 and \$417,335 for the years ended June 30, 2006, 2005, 2004, and from inception through June 30, 2006, respectively.

The lease provides for scheduled increases in base rent. Rent expense is charged to operations ratably over the term of the lease, which results in deferred rent payable and represents the cumulative rent expense charged to operations from inception of the lease in excess of the required lease payments.

10. JOINT VENTURE:

On May 14, 1999, the Company entered into a joint venture agreement ("Joint Venture") with an Israeli partnership that is engaged in the worldwide marketing of tissue culture plants. The purpose of the Joint Venture is to develop enhanced banana plants which will result in banana fruit with improved consumer- and grower-driven traits. The Joint Venture is owned 50% by the Company and 50% by the Israeli partnership. For the period from inception on May 14, 1999 to June 30, 2005, the Joint Venture has had no revenue, expenses, assets or liabilities. The Company's portion of the Joint Venture's expenses approximated \$121,832 and \$67,700 for the years ended June 30, 2006 and 2005, respectively, and is included in research and development expenses.

In July 1999, the Joint Venture applied for and received a conditional grant from the Israel - United States Binational Research and Development Foundation (the "BIRD Foundation"). This agreement, as amended, allowed the Joint Venture to receive \$340,000 over a five-year period ending May 31, 2004. Grants received from the BIRD Foundation will be paid back only upon the commercial success of the Joint Venture's technology, as defined. The Company has received a total of \$99,728, of which \$9,578 was received during the year ended June 30, 2006 and none was received during the year ended June 30, 2005.

11. LICENSE AND DEVELOPMENT AGREEMENTS:

In June 2002, the Company entered into a three-year exclusive worldwide development and option agreement with ArborGen, ("ArborGen") (the "Agreement") to develop the Company's technology in certain species of trees. In July 2002, the Company received an initial fee. In November 2004 and January 2006, the Company received milestone payments. The Agreement also granted ArborGen an option to acquire an exclusive worldwide license to commercialize the Company's technology in various forestry products, which ArborGen exercised in June 2006.

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In September 2002, the Company entered into an exclusive worldwide collaboration agreement with Anawah, Inc. (“Anawah”) (the “Anawah Agreement”) to establish a research alliance to develop and commercialize certain genetically enhanced species of produce. Under the Anawah Agreement, Anawah will license its proprietary technology to the Company and will also perform certain transformation functions in order to develop seeds in certain species of produce that have been enhanced with the Company’s technology. If Anawah’s technology is used in the commercialization of the enhanced produce, the Company will make certain royalty payments to Anawah. In January 2005, the Company terminated the Anawah Agreement. Under the terms of the Agreement, the Company will retain its exclusive license to Anawah’s DHS Gene Mutation technology for the selected gene target in the specific field of use at an annual fee of \$50,000.

On March 8, 2004, the Company entered into a Development and License Agreement with The Scotts Company (the “Scotts Agreement”), which will enable the two companies to incorporate the Company’s proprietary Factor 5A and DHS technology into a variety of garden plants, bedding plants and turfgrasses. The Scotts Agreement provides for an upfront payment upon execution of the Scotts Agreement, milestone payments and a one-time fee, as well as royalty payments, upon commercial introduction. Pursuant to the terms of the Scotts Agreement and in conjunction with SAB No. 104, the Company is amortizing the upfront and milestone payments over the term of the estimated development period of the Agreement. As of June 30, 2006, the amount of deferred revenue is \$41,667.

On October 18, 2004, the Company entered into a license agreement with the Broin Companies (“Broin”) to license the Company’s proprietary gene technology to Broin to improve aspects of Broin’s ethanol production capabilities. The Company will receive an annual payment for each Broin facility that incorporates the Company’s technology.

12. VALUATION AND QUALIFYING ACCOUNTS:

	Years Ended June 30, 2006, 2005, and 2004			
	Balance at Beginning of Year	Additions Charged to Expense(*)	Balance at Deductions	End of Year
Year ended June 30, 2006:				
Valuation allowance – deferred tax asset	\$ 4,355,000	\$ 1,134,000	\$ 0	\$ 5,489,000
Year ended June 30, 2005:				
Valuation allowance – deferred tax asset	\$ 3,630,000	\$ 725,000	\$ 0	\$ 4,355,000
Year ended June 30, 2004:				
Valuation allowance – deferred tax asset	\$ 2,856,000	\$ 774,000	\$ 0	\$ 3,630,000

(*) Offset to tax benefit of net operation losses.

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13. QUARTERLY FINANCIAL DATA (UNAUDITED) :

Quarter Ended	Year Ended June 30, 2006			
	September 30	December 31	March 31	June 30
Revenue	\$ 12,500	\$ 12,500	\$ 35,416	\$ 6,250
Total operating expenses	941,990	954,181	777,447	812,389
Loss from operations	(929,490)	(941,681)	(742,031)	(806,139)
Other income, net	32,368	27,672	24,610	19,806
Net loss	\$ (897,122)	\$ (914,009)	\$ (717,421)	\$ (786,333)
Basic and diluted net loss per common share	\$ (0.06)	\$ (0.06)	\$ (0.04)	\$ (0.05)
Basic and diluted weighted-average number of common shares outstanding	15,467,388	15,467,388	15,467,388	15,477,388
Quarter Ended	Year Ended June 30, 2005			
	September 30	December 31	March 31	June 30
Revenue	\$ 12,498	\$ 87,502	\$ 12,500	\$ 12,500
Total operating expenses	743,987	895,743	934,527	872,480
Loss from operations	(731,489)	(808,241)	(922,027)	(859,980)
Other income, net	7,868	163,011	13,127	158,813
Net loss	\$ (723,621)	\$ (645,230)	\$ (908,900)	\$ (701,167)
Basic and diluted net loss per common share	\$ (0.05)	\$ (0.05)	\$ (0.06)	\$ (0.05)
Basic and diluted weighted-average number of common shares outstanding	13,787,848	13,802,357	13,827,151	14,801,072

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14. SUBSEQUENT EVENTS:

On October 11, 2006, the Company completed a private placement to certain members of the Company’s board of directors institutional and accredited investors (the “Private Placement”) for an aggregate amount of 1,986,306 shares of Common Stock and warrants to purchase 993,153 shares of Common

Stock for the aggregate cash consideration of \$2,249,491. 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 \$1.1325 per unit. The warrants were issued at an exercise price equal to \$1.18 per share, with such warrants vesting on the date of grant but not exercisable for a six-month period from the date of closing. The estimated costs associated with the Private Placement totaled approximately \$200,000. 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 for the shares within 30 days of the closing date (the "Filing Date") and to have such registration statement declared effective within 120 days of the closing date (the "Effective Date"). If the Company fails to file a registration statement on or before the Filing Date, it is required to pay to each purchaser in the Private Placement 1.0% of the aggregate purchase price for each 30 day period that such registration statement has not been filed. If the registration statement is not declared effective on or before the Effective Date, the Company is required to pay to each Purchaser in the Private Placement 2.0% of the aggregate purchase price paid by such purchaser for the first thirty day period following the Effective Date and 1.0% for each thirty day period thereafter, with all payments subject to a maximum of 10.0% of the purchase price.

H.C. Wainwright and Co., Inc., ("Wainwright"), acted as the placement agent for the Private Placement. As consideration for their services to the Company, Wainwright was issued a five-year warrant to purchase 139,041 shares of Common Stock, at a strike price equal to \$1.07. Such warrant is immediately exercisable.

On October 11, 2006, the Company entered into a three-year non-exclusive financial advisory agreement with Stanford Group Company ("Stanford"). As compensation under the agreement, previously issued warrants that were purchased by Stanford and as affiliates on a private placement were amended. The original exercise prices on 1,500,000 warrants, 750,000 of which had an exercise price of \$3.25 and 750,000 of which had an exercise price of \$2.00, were reduced to \$2.00 and \$1.50, respectively. Additionally, the original expiration dates of December 2006 and January 2007 were each extended for a three-year period through December 2009 and January 2010, respectively. Stock-based compensation on the amount of approximately \$1,100,000 related to the amendment of such warrants will be recorded during the three-month period ended December 31, 2006. The agreement may be terminated by either party upon sixty days written notice. Stanford was also granted piggyback registration rights in connection with the shares underlying the warrants.

STANFORD GROUP COMPANY

October 11, 2006

Senesco Technologies, Inc.
303 George Street, Suite 420
New Brunswick, NJ 08901

Attention: Bruce C. Galton, President & CEO

Financial Advisory Agreement

Dear Mr. Galton:

This letter agreement (the "Agreement") is to confirm our understanding that Stanford Group Company ("Stanford Group") is engaged by Senesco Technologies, Inc., its successors, subsidiaries and affiliates (collectively, the "Company") on a non-exclusive basis with respect to financial advisory, corporate finance, strategic financing and strategic alliance matters for the thirty-six (36) month period commencing the date hereof. This Agreement may be terminated (i) by either party, without cause, upon sixty (60) days' written notice of termination to the other party; or (ii) by either party, if the other party breaches any of its obligations under this Agreement and fails to remedy such breach within ten (10) days after written notice of such breach is provided to the other party. Upon the execution of this letter by the Company, Stanford Group shall devote a commercially reasonable amount of business, time and attention to matters on which the Company shall request its services.

A. Financial Advisory Services

During the term of this agreement, Stanford Group shall provide the Company with such regular and customary financial advisory services as are reasonably requested by the Company, provided that Stanford Group shall not be required to undertake duties not reasonably within the scope of the financial advisory services in which it is generally engaged. In performance of its duties, Stanford Group shall provide the Company with the benefit of its judgment. It is understood and acknowledged by the parties that the value of Stanford Group's advice is not measurable in a quantitative manner and Stanford Group shall be obligated to render advice, upon the request of the Company, in good faith, as shall be determined by Stanford Group, Stanford Group shall:

- (a) assist the Company in identifying its financing needs; help formulate a financing structure with respect to what is usual and standard practice in financings for organizations in similar circumstances;
- (b) introduce the Company to appropriate institutional and/or retail investors for presentations; and

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- (c) introduce the Company to such other corporations or individuals that may be beneficial in advancing the Company's research or business goals.

The Company acknowledges that Stanford Group and its affiliates are in the business of providing financial advisory services (of all types contemplated by this agreement) to others. Nothing herein contained shall be construed to limit or restrict Stanford Group or its affiliates in conducting such business with respect to others or in rendering such advice to others.

The Company recognizes and confirms that Stanford Group, in acting pursuant to this engagement will be using information in reports and other information provided by others, including, without limitation, information provided by, or on behalf of the Company, and that Stanford Group does not assume responsibility for, and may rely on, without independent verification of, the accuracy and completeness of any such reports and information. The Company hereby warrants that any information relating to the Company that is furnished to Stanford Group by the Company will be fair, accurate and complete and will not contain any material omissions or misstatements of fact. The Company agrees that any information or advice rendered by Stanford Group or its representatives in connection with this engagement is for the confidential use of the Company's Board of Directors only in its evaluation of the matters for which Stanford Group has been engaged and, except as otherwise required by law, the Company will not, and will not permit any third party, to disclose or otherwise refer to such advice or information in any manner without the prior written consent of Stanford Group.

B. Presenting the Company

In addition to financial advisory services, the Company has asked Stanford Group to assist the Company in making presentations to institutional investors. In order to do so, Stanford Group shall help the Company develop a schedule of meetings with mutually agreed upon institutional investors. The Company agrees to bear all reasonable costs related to preparing for, traveling to, and presenting the Company.

C. Compensation

1. Financial Advisory Services

In consideration of the above described financial advisory services, the Company agrees to amend the warrants (the "Warrants") that it has issued to Stanford Group, Stanford Venture Capital Holdings, Inc. ("Stanford Venture"), and/or Stanford International Bank, Ltd. ("Stanford International", and together with Stanford Group, Stanford Venture and any affiliates of Stanford International, Stanford Group and Stanford Venture, "Stanford") and the following Stanford employees, Ronald Stein, Daniel Bogar, Osvaldo Pi, and William Fusselmann (the "Stanford Employees") (it should be noted that Stanford transferred some of its warrants to the Stanford Employees), as follows:

- (a) warrants issued by the Company to Stanford and the Stanford Employees at an exercise price of \$3.25 shall be amended to an exercise price of \$2.00;
- (b) warrants issued by the Company to Stanford and the Stanford Employees at an exercise price of \$2.00 shall be amended to an exercise price of \$1.50; and
- (c) the term of all warrants issued by the Company to Stanford and the Stanford Employees shall be extended by three (3) years from the current expiration date of such warrants.

Stanford Group shall be reimbursed for mutually agreed to reasonable expenses incurred on behalf of the Company. The Company shall bear all of its expenses in connection with execution of the advisory services.

D. No Conflict

Neither the execution and delivery of this letter by the Company nor the consummation of the transactions contemplated hereby will, directly or indirectly, with or without the giving of notice or lapse of time, or both: (i) violate any provisions of the Certificate of Incorporation or By-Laws of the Company; or (ii) violate, or be in conflict with, or constitute a default under, any agreement, lease, mortgage, debt or obligation of the Company or require the payment, any pre-payment or other penalty with respect thereto.

E. Confidentiality

Whereas it is desirable and necessary to exchange documents and information with respect to the business and research, plans, etc. of the Company and the business of Stanford Group, the parties hereby shall and do subscribe to the terms of confidentiality set forth in Schedule A attached hereto.

F. Restrictive Covenants

- (a) Stanford Group shall conduct its business under its own name. Stanford Group shall not use any trademarks or tradenames of the Company in any manner, except as authorized in writing by the Company or in connection with the use of literature supplied by the Company. Stanford Group shall discontinue such usage upon the termination of this Agreement.
- (b) All originals and photocopies or any other forms of records, computer records and printouts, and any other material and/or equipment furnished to and/or maintained by Stanford Group in connection with the performance of services under this Agreement shall remain the property of the Company and shall be returned to the Company upon demand or immediately upon termination of this Agreement.
- (c) Stanford Group represents and warrants that its performance of all the terms of this Agreement and its duties as an independent contractor will not breach any invention assignment agreement, confidential information agreement, non-competition agreement or other agreement or other obligation with any present or former client or other party. Stanford Group further represents and warrants that it has not and will not bring to the Company or use in the performance of its duties for the Company any documents or materials of a present or former client or other party that are not generally available to the public.

G. Compliance with Law

Each of the Company and Stanford Group has not taken, and will not take, any action, directly or indirectly, in connection with this Agreement, that is contrary to the U.S. federal securities laws, or applicable state securities or "blue sky" laws, or the applicable laws of foreign countries. Stanford Group further represents that, pursuant to Section 15 of the Securities and Exchange Act of 1934, as amended (the "1934 Act"), it is a registered broker or dealer as those terms are defined under Section 3(a) of the 1934 Act.

H. Prohibition on Use of "Inside Information"

Stanford Group and the Stanford Employees shall not trade in, pass information along to others, or make recommendations concerning the Company's securities about which it possess any material, non-public information.

I. Lock-Up

During the term of this Agreement, and with respect to the common stock (the "Common Stock") of the Company, Stanford will not sell, contract to sell, pledge, make any short sale or make any other disposition of, or grant any purchase option for the sale of, any shares of Common Stock owned directly by the undersigned or with respect to which the undersigned has

beneficial ownership within the rules and regulations of the Securities and Exchange Commission, without first obtaining the written consent of the Company, except for (a) the transfer of shares of Common Stock or other securities of the Company by the undersigned as a bona fide gift or gifts; and (b) the transfer of shares of Common Stock or other securities of the Company by the undersigned to its affiliates, as such term is defined under the Securities Act of 1933, as amended (the "Securities Act"). This Section I shall survive for twenty four (24) months from the date of this Agreement, regardless of whether this Agreement is terminated for any reason prior to such time; provided, however, that the provisions of this Section I shall automatically be suspended for the period of time when both of the following conditions are met: (i) the shares of the Common Stock trade at or above \$5 per share, based upon the closing price, for a consecutive thirty (30) day period, and (ii) the average trading volume of such shares is at least 300,000 shares for a consecutive thirty (30) day period; and, provided, further, that this Section I shall again apply when the foregoing conditions are no longer met.

J. Registration Rights Agreement

Upon execution of this Agreement, the parties hereto shall execute a Registration Rights Agreement, in a form to be mutually agreed upon by both parties.

K. General

This letter, including the Schedules attached hereto, constitutes the entire understanding of the parties with respect to the subject matter hereof and may not be altered or amended except in a writing signed by both parties. This Agreement shall be governed as to validity, interpretation, construction, effect and in all other respects by the internal laws of the State of New Jersey. THE PARTIES HERETO AGREE TO WAIVE THEIR RESPECTIVE RIGHTS TO A JURY TRIAL OF ANY CLAIM OR CAUSE OF ACTION BASED UPON OR ARISING OUT OF THIS AGREEMENT OR ANY DOCUMENT OR AGREEMENT CONTEMPLATED HEREBY.

If the foregoing correctly sets forth the terms of our agreement, kindly so indicate by signing and returning two copies of this letter. Upon delivery of your executed copies, this letter shall constitute a binding agreement as of the date first above written.

COMPANY:

SENESCO TECHNOLOGIES, INC.

By: /s/ Bruce C. Galton
Name: Bruce C. Galton
Title: President and Chief Executive Officer

STANFORD GROUP:

STANFORD GROUP COMPANY

By: _____
Name: _____
Title: _____

STANFORD VENTURE:

STANFORD VENTURE CAPITAL HOLDINGS, INC.
(as to Sections I and J only)

By: _____
Name: _____
Title: _____

STANFORD INTERNATIONAL:

STANFORD INTERNATIONAL BANK, LTD.
(as to Sections I and J only)

By: _____
Name: _____
Title: _____

STANFORD EMPLOYEES

/s/ Ronald Stein
RONALD STEIN (as to Section J only)

/s/ Daniel Bogar
DANIEL BOGAR (as to Section J only)

/s/ Osvaldo Pi
OSVALDO PI (as to Section J only)

/s/ William Fusselmann
WILLIAM FUSSELMANN (as to Section J only)

SCHEDULE A

INFORMATION TO BE SUPPLIED; CONFIDENTIALITY

In connection with Stanford Group's activities on behalf of the Company, the Company will furnish Stanford Group with all financial and other information regarding the Company that Stanford Group reasonably believes appropriate to its assignment (all such information so furnished by the Company, whether furnished before or after the date of this Agreement, being referred to herein as the "Information"). The Company will provide Stanford Group with access to the officers, directors, employees, independent accountants, legal counsel and other advisors and consultants of the Company. The Company recognizes and agrees that Stanford Group (i) will use and rely primarily on the Information and information available from generally recognized public sources in performing the services contemplated by this Agreement without independently verifying the Information or such other information, (ii) does not assume responsibility for the accuracy of the Information or such information, and (iii) will not make an appraisal of any assets or liabilities owned or controlled by the Company or its market competitors.

For the purpose of, the Agreement, "Information" shall mean and include all contracts and agreements and the terms thereof, to which the Company may be a party; all internal non-public business and financial information, analyses, forecasts and projections of the business of the Company and any direct or indirect operating subsidiary, all business plans of the Company and its subsidiaries; all pending or proposed proposals for new or renewed contracts, including responses by the Company to RFPs; the names, business and financial arrangements with all indirectly relates to profitability of any contract to which the Company is a party; the names and terms of employment relationships between the Company and any of its operating subsidiaries with any employees; all detail and back up information relating to actual, pro forma or forecasted operations; and all data or information prepared by the Company at the request.

Stanford Group will maintain the confidentiality of the Information and, unless and until such information shall have been made publicly available by the Company or by others without breach of a confidentiality agreement, shall disclose the information only as authorized by the Company or as required by law or by order of a governmental authority or court of competent jurisdiction. In the event that Stanford Group is legally required to make disclosure of any of the Information, Stanford Group will give notice to the Company prior to such disclosure, to the extent that Stanford Group can practically do so.

The foregoing paragraph shall not apply to information that:

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- (i) at the time of disclosure by the Company is, or thereafter becomes, generally available to the public or within the industries in which the Company or Stanford Group or its affiliates conduct business, other than as a direct result of a breach by Stanford Group of its obligations under this Agreement;
 - (ii) prior to or at the time of disclosure by the Company, was already in the possession of, or, conceived by, Stanford Group or any of its affiliates, or could have been developed by them from information then in their possession, by the application of other information or techniques in their possession, generally available to the public, or available to Stanford Group or its affiliates other than from the Company;
 - (iii) at the time of disclosure by the Company or thereafter, is obtained by Stanford Group or any of its affiliates from a third party who Stanford Group reasonably believes to be in possession of the information not in violation of any contractual, legal or fiduciary obligation to the Company with respect to that information; or
 - (iv) is independently developed by Stanford Group or its affiliates.

Nothing in this Agreement shall be construed to limit the ability of Stanford Group or its affiliates to pursue, investigate, analyze, invest in, or engage in investment banking, financial advisory or any other business relationship with entities other than the Company, notwithstanding that such entities may be engaged in a business which is similar to or competitive with the business of the Company, and notwithstanding that such entities may have actual or potential operations, products, services, plans, ideas, customers or supplies similar or identical to the Company's, or may have been identified by the Company as potential merger or acquisition targets or potential candidates for some other business combination, cooperation or relationship. The Company expressly acknowledges and agrees that it does not claim any proprietary interest in the identity of any other entity in its industry or otherwise, and that the identity of any such entity is not confidential information.

REGISTRATION RIGHTS AGREEMENT

This **REGISTRATION RIGHTS AGREEMENT** (the "Agreement") is dated as of October 11, 2006 by and between Senesco Technologies, Inc., a Delaware corporation (the "Company"), Stanford Group Company ("Stanford Group"), Stanford Venture Capital Holdings, Inc. ("Stanford Venture"), Stanford International Bank, Ltd. ("Stanford International", and together with Stanford Group, Stanford Venture and any affiliates of Stanford International, Stanford Group and Stanford Venture, "Stanford") and Ronald Stein, Daniel Bogar, Osvaldo Pi, and William Fusselmann (collectively, the "Stanford Employees").

RECITALS

WHEREAS, it is a condition precedent to the execution of that certain Financial Advisory Agreement made by and among the Company, Stanford and the Stanford Employees (for certain sections), dated as of the date hereof (the "Financial Advisory Agreement"), that the Company grant registration rights for the Warrant Shares (as defined below), in connection with resales by Stanford and the Stanford Employees of the Warrant Shares; and

WHEREAS, the Company, Stanford and the Stanford Employees now desire to enter into this Agreement in order to facilitate such resales.

AGREEMENT

The parties hereto agree as follows:

ARTICLE 1

DEFINITIONS

1.1 Definitions. The following terms, as used herein, have the following meanings.

“Board” means the Board of Directors of the Company.

“Business Day” means any day except a Saturday, Sunday or other day on which banks in New Jersey are authorized by law to close.

“Common Stock” shall mean the shares of common stock of the Company, \$0.01 par value per share.

“Commission” means the Securities and Exchange Commission.

“Company” means Senesco Technologies, Inc., a Delaware corporation.

“Effective Time” means the date of effectiveness of any Registration Statement.

“Exchange Act” means the Securities Exchange Act of 1934, as amended.

“Holder” has the meaning given to it in Section 2.1(b) hereof.

“NASD” means the National Association of Securities Dealers, Inc.

“Person” means an individual, corporation, partnership, association, trust or other entity or organization, including a government or political subdivision or an agency or instrumentality thereof.

“Prospectus” means the prospectus included in any Registration Statement, as amended or supplemented by any prospectus supplement and by all other amendments thereto, including post-effective amendments, and all material incorporated by reference into such Prospectus.

“Registration Statement” means a Registration Statement of the Company relating to the registration for sale of Common Stock, including the Prospectus included therein, all amendments and supplements thereto (including post-effective amendments) and all exhibits and material incorporated by reference therein.

“Restricted Securities” means any Securities until (i) a Registration Statement covering such Securities has been declared effective by the Commission and such Securities have been disposed of pursuant to such effective Registration Statement, (ii) such Securities qualify to be sold under circumstances in Rule 144(k) (or any similar provisions then in force), (iii) such Securities are otherwise transferred, the Company has delivered a new certificate or other evidence of ownership for such Securities not bearing a legend restricting further transfer and such Securities may be resold without registration under the Securities Act, or (iv) such Securities shall have ceased to be outstanding.

“Securities” means the shares of Common Stock issued upon the proper exercise of the Warrants issued to Stanford and the Stanford Employees on the date hereof, and any securities issued in respect of such Warrant Shares upon any stock split, stock dividend, recapitalization, merger, consolidation, reorganization or similar event.

“Securities Act” means the Securities Act of 1933, as amended.

“Financial Advisory Agreement” has the meaning given to it in the recitals to this Agreement.

“Warrants” shall have the meaning set forth in the Financial Advisory Agreement.

“Warrant Shares” means the shares of Common Stock issued upon the proper exercise of the Warrants issued to Stanford and the Stanford Employees on the date hereof, and any securities issued in respect of such shares upon any stock split, stock dividend, recapitalization, merger, consolidation, reorganization or similar event.

As used in this Agreement, words in the singular include the plural, and in the plural include the singular.

ARTICLE 2

REGISTRATION RIGHTS

2.1 Securities Subject to this Agreement.

(a) The Securities entitled to the benefits of this Agreement are the Restricted Securities, but only for so long as they remain Restricted Securities.

(b) A Person is deemed to be a holder of Restricted Securities (each, a “Holder”) whenever such Person is the registered holder of such Restricted Securities on the Company’s books and records.

2.2 Piggyback Registration.

(a) At any time that the Company proposes to file a Registration Statement within five (5) years from the date hereof, the Company shall give the Holders written notice of its intention to do so and of the intended method of sale, including the total number of shares proposed to be the subject of such registration (the “Registration Notice”) within a reasonable time prior to the anticipated filing date of the Registration Statement effecting such registration but in any event at least thirty (30) days prior to the filing of such Registration Statement. Each Holder may request inclusion of any Restricted Securities in such Registration Statement by delivering to the Company, within ten (10) Business Days after receipt of the Registration Notice, a written notice (the “Piggyback Notice”) stating the number of Restricted Securities proposed to be included and that such shares are to be included in any underwriting only on the same terms and conditions as the shares of Common Stock otherwise being sold through underwriters under such Registration Statement. The Company shall use its best efforts to cause all Restricted Securities specified in the Piggyback Notice to be included in the Registration Statement and any related offering, all to the extent requisite to permit the sale by the Holders of such Restricted Securities in accordance with the method of sale applicable to the other shares of Common Stock included in such Registration Statement; provided, however, that if, at any time after giving written notice of its intention to register any securities and prior to the effective date of the Registration Statement filed in connection with such registration, the Company shall determine for any reason not to register or to delay registration of such securities, the Company may, at its election, give written notice of such determination to each Holder of Restricted Securities and, thereupon:

(i) in the case of a determination not to register, shall be relieved of its obligation to register any Restricted Securities in connection with such cancelled registration (but not from its obligation to pay the Registration Expenses, as defined in Section 2.6, in connection therewith), and

(ii) in the case of a delay in registering, shall be permitted to delay registering any Restricted Securities for the same period as the delay in registering such other securities.

(b) The Company’s obligation to include Restricted Securities in a Registration Statement pursuant to Section 2.2(a) shall be subject to the following limitations:

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(i) The Company shall not be obligated to include any Restricted Securities in a Registration Statement filed on Form S-4, Form S-8 or such other similar successor forms then in effect under the Securities Act.

(ii) If a Registration Statement involves an underwritten offering and the managing underwriter advises the Company in writing that, in its opinion, the number of the Restricted Securities requested to be included in such Registration Statement exceeds the number which can be sold in such offering without adversely affecting the offering, the Company will not include any Restricted Securities in such Registration Statement, or if some of the requested Restricted Securities can be included in such Registration Statement, the Company will only include such number of Restricted Securities which the Company is so advised can be sold in such offering without adversely affecting the offering, determined as follows:

(A) first, all securities proposed by the Company to be sold for its own account shall be included in the Registration Statement; and

(B) third, any Restricted Securities requested to be included in such registration on a pari passu basis with any other securities of the Company which have been afforded registration rights by the Company prior to, or as of the date hereof.

(c) No Holder of Restricted Securities may include any of its Restricted Securities in the Registration Statement pursuant to this Agreement unless and until such Holder furnishes to the Company in writing, within ten (10) Business Days after receipt of a written request therefor, such information specified in Item 507 of Regulation S-K under the Securities Act or such other information as the Company may reasonably request for use in connection with the Registration Statement or Prospectus or preliminary Prospectus included therein and in any application to the NASD. Each Holder as to which the Registration Statement is being effected agrees to furnish promptly to the Company all information required to be disclosed in order to make all information previously furnished to the Company by such Holder not materially misleading.

2.3 Registration Procedures. In connection with any Registration Statement and any Prospectus required by this Agreement to permit the sale or resale of Restricted Securities, the Company shall:

(a) prepare and file with the Commission such amendments and post-effective amendments to such Registration Statement as may be necessary to keep such Registration Statement effective until the earlier of: (i) such time as all of such securities have been disposed of in accordance with the intended methods of disposition by the seller or sellers thereof set forth in such Registration Statement, or (ii) the expiration of such Registration Statement; cause the Prospectus to be supplemented by any required Prospectus supplement, and as so supplemented to be filed pursuant to Rule 424 under the Securities Act, and to comply fully with the applicable provisions of Rules 424 and 430A, as applicable, under the Securities Act in a timely manner; and comply with the provisions of the Securities Act with respect to the disposition of all securities covered by such Registration Statement during the applicable period in accordance

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with the intended method or methods of distribution by the sellers thereof set forth in such Registration Statement or supplement or the Prospectus;

(b) promptly (and in respect of events covered by clause (i) hereof, on the same day as the Company shall receive notice of effectiveness) advise the Holders covered by such Registration Statement and, if requested by such Persons, confirm such advice in writing, (i) when the Prospectus or any Prospectus supplement or post-effective amendment has been filed, and when the same has become effective, (ii) of any request by the Commission for post-effective amendments to such Registration Statement or post-effective amendments to such Registration Statement or post-effective amendments or supplements to the Prospectus or for additional information relating thereto, (iii) of the issuance by the Commission of any stop order suspending the effectiveness of any such Registration Statement under the Securities Act or of the suspension by any state securities commission of the qualification of the Restricted Securities for offering or sale in any jurisdiction, or the initiation of any proceeding for any of the preceding purposes, and (iv) of the existence of any fact or the happening of any event that makes any statement of a material fact made in any such Registration Statement, the related Prospectus, any amendment or supplement thereto, or any document incorporated by reference therein untrue, or that requires the making of any additions to or changes in any such Registration Statement or the related Prospectus in order to make the statements therein not misleading. If at any time the Commission shall issue any stop order suspending the effectiveness of such Registration Statement, or any state securities commission or other regulatory authority shall issue an order suspending the qualification or exemption from qualification of the Restricted Securities under state securities or Blue Sky laws, the Company shall use its reasonable efforts to obtain the withdrawal or lifting of such order at the earliest possible time;

(c) promptly furnish to each Holder of Restricted Securities covered by any Registration Statement, and each underwriter, if any, without charge, at least one conformed copy of any Registration Statement, as first filed with the Commission, and of each amendment thereto, including all documents incorporated by reference therein and all exhibits (including exhibits incorporated therein by reference) and any related correspondence between the Company and its counsel or accountants and the Commission or staff of the Commission and such other documents as such Holder may reasonably request;

(d) deliver to each Holder covered by any Registration Statement, and each underwriter, if any, without charge, as many copies of the Prospectus (including each preliminary prospectus) and any amendment or supplement thereto as such Person reasonably may request;

(e) enter into such customary agreements and take all such other reasonable action in connection therewith (including those reasonably requested by the selling Holders or the underwriter(s), if any) required in order to expedite or facilitate the disposition of such Restricted Securities pursuant to such Registration Statement, including, but not limited to, dispositions pursuant to an underwritten registration, and in such connection:

(i) make such representations and warranties to the selling Holders and underwriter(s), if any, in form, substance and scope as are customarily made by issuers to

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underwriters in underwritten offerings (whether or not sales of securities pursuant to such Registration Statement are to be made to an underwriter(s)) and confirm the same if and when requested;

(ii) obtain opinions of counsel to the Company (which counsel and opinions, in form and substance, shall be reasonably satisfactory to the selling Holders and the underwriter(s), if any, and their respective counsel) addressed to each selling Holder and underwriter, if any, covering the matters customarily covered in opinions requested in underwritten offerings (whether or not sales of securities pursuant to such Registration Statement are to be made to an underwriter(s)) and dated the date of effectiveness of any Registration Statement (and, in the case of any underwritten sale of securities pursuant to such Registration Statement, each closing date of sales to the underwriter(s) pursuant thereto);

(iii) use reasonable efforts to obtain comfort letters dated the date of effectiveness of any Registration Statement (and, in the case of any underwritten sale of securities pursuant to such Registration Statement, each closing date of sales to the underwriter(s), if any, pursuant thereto) from the independent certified public accountants of the Company addressed to each selling Holder and underwriter, if any, such letters to be in customary form and covering matters of the type customarily covered in comfort letters in connection with underwritten offerings (whether or not sales of securities pursuant to such Registration Statement are to be made to an underwriter(s));

(iv) provide for the indemnification provisions and procedures of Section 2.7 hereof with respect to selling Holders and the underwriter(s), if any, and;

(v) deliver such documents and certificates as may be reasonably requested by the selling Holders or the underwriter(s), if any, and which are customarily delivered in underwritten offerings (whether of not sales of securities pursuant to such Registration Statement are to be made to an underwriter(s), with such documents and certificates to be dated the date of effectiveness of any Registration Statement.

The actions required by clauses (i) through (v) above shall be done at each closing under such underwriting or similar agreement, as and to the extent required thereunder, and if at any time the representations and warranties of the Company contemplated in clause (i) above cease to be true and correct, the Company shall so advise the underwriter(s), if any, and each selling Holder promptly, and, if requested by such Person, shall confirm such advice in writing;

(f) prior to any public offering of Restricted Securities, cooperate with the selling Holders, the underwriter(s), if any, and their respective counsel in connection with the registration and qualification of the Restricted Securities under the securities or Blue Sky laws of such U.S. jurisdictions as the selling Holders or underwriter(s), if any, may reasonably request in writing by the time any Registration Statement is declared effective by the Commission, and do any and all other acts or filings necessary or advisable to enable disposition in such U.S. jurisdictions of the Restricted Securities covered by any Registration Statement and to file such consents to service of process or other documents as may be necessary in order to effect such registration or qualification; provided, however, that the Company shall not be required to register or qualify as a foreign corporation in any jurisdiction where it is not then so qualified or

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as a dealer in securities in any jurisdiction where it would not otherwise be required to register or qualify but for this Section 2.3, or to take any action that would subject it to the general service of process in suits or to general taxation, in any jurisdiction where it is not then so subject;

(g) in connection with any sale of Restricted Securities that will result in such securities no longer being Restricted Securities, cooperate with the selling Holders and the underwriter(s), if any, to facilitate the timely preparation and delivery of certificates representing Restricted Securities to be sold and not bearing any restrictive legends; and enable such Restricted Securities to be in such denominations and registered in such names as the Holders or the underwriter(s), if any, may request at least two (2) Business Days prior to any sale of Restricted Securities made by such underwriters;

(h) use its reasonable efforts to cause the disposition of the Restricted Securities covered by any Registration Statement to be registered with or approved by such other U.S. governmental agencies or authorities as may be necessary to enable the seller or sellers thereof or the underwriter(s), if any, to consummate the disposition of such Restricted Securities, subject to the proviso contained in Section 2.3(f);

(i) if any fact or event contemplated by Section 2.3(b) shall exist or have occurred, prepare a supplement or post-effective amendment to any Registration Statement or related Prospectus or any document incorporated therein by reference or file any other required document so that, as thereafter delivered to the purchaser of Restricted Securities, the Prospectus will not contain an untrue statement of a material fact or omit to state any material fact necessary to make the statement therein not misleading;

(j) cooperate and assist in the performance of any due diligence investigation by any underwriter (including any “qualified independent underwriter”) that is required to be retained in accordance with the rules and regulations of the NASD, and use its reasonable efforts to cause any Registration Statement to become effective and approved by such U.S. governmental agencies or authorities as may be necessary to enable the Holders selling Restricted Securities to consummate the disposition of such Restricted Securities;

(k) otherwise use its reasonable efforts to comply with all applicable rules and regulations of the Commission, and make generally available to its security holders with regard to such Registration Statement, as soon as practicable, a consolidated earnings statement meeting the requirements of Rule 158 (which need not be audited) for the twelve (12)- month period (i) commencing at the end of any fiscal quarter in which Restricted Securities are sold to the underwriter in a firm or best efforts underwritten offering or (ii) if not sold to an underwriter in such an offering, beginning with the first month of the Company’s first fiscal quarter commencing after the effective date of any Registration Statement;

(l) provide a CUSIP number for all Restricted Securities not later than the effective date of any Registration Statement;

(m) use its best efforts to list, not later than the effective date of such Registration Statement, all Restricted Securities covered by such Registration Statement on the American

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Stock Exchange or any other trading market on which any Common Stock of the Company are then admitted for trading; and

(n) provide promptly to each Holder covered by any Registration Statement upon request each document filed with the Commission pursuant to the requirements of Section 12 and Section 14 of the Exchange Act.

Each Holder agrees by acquisition of a Restricted Security that, upon receipt of any notice from the Company of the existence of any fact of the kind described in Section 2.3(b)(iv), such Holder will forthwith discontinue disposition of Restricted Securities pursuant to any Registration Statement until such Holder’s receipt of the copies of the supplemented or amended Prospectus contemplated by Section 2.3(i), or until it is advised in writing, in accordance with the notice provisions of Section 3.3 herein (the “Advice”), by the Company that the use of the Prospectus may be resumed, and has received copies of any additional or supplemental filings that are incorporated by reference in the Prospectus. If so directed by the Company, each Holder will deliver to the Company all copies, other than permanent file copies, then in such Holder’s possession, of the Prospectus covering such Restricted Securities that was current at the time of receipt of such notice.

2.4 Preparation; Reasonable Investigation. In connection with the preparation and filing of each Registration Statement under the Securities Act, the Company will give the Holders of Restricted Securities registered under such Registration Statement, their underwriter, if any, and their respective counsel and accountants, the opportunity to participate in the preparation of such Registration Statement, each prospectus included therein or filed with the Commission, and each amendment thereof or supplement thereto, and will give each of them access to its books and records and such opportunities to discuss the business, finances and accounts of the Company and its subsidiaries with its officers, directors and the independent public accountants who have certified its financial statements as shall be necessary, in the opinion of such Holders and such underwriters’ respective counsel, to conduct a reasonable investigation within the meaning of the Securities Act.

2.5 Certain Rights of Holders. The Company will not file any Registration Statement under the Securities Act which refers to any Holder of Restricted Securities by name or otherwise without the prior approval of such Holder, which consent shall not be unreasonably withheld or delayed.

2.6 Registration Expenses.

(a) All expenses incident to the Company’s performance of or compliance with this Agreement will be borne by the Company, regardless of whether a Registration Statement becomes effective, including without limitation: (i) all registration and filing fees and expenses (including filings made with the NASD and reasonable counsel fees in connection therewith); (ii) all reasonable fees and expenses of one counsel to the underwriter(s) in any underwriting) in connection with compliance with state Blue Sky or securities laws (including all reasonable fees and expenses of one counsel to the underwriter(s) in any underwriting) in connection with compliance with state Blue Sky or securities laws for all states in the United States; (iii) all expenses of printing, messenger and delivery services and telephone calls; (iv) all fees and disbursements of counsel for the Company; and (v) all fees and

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disbursements of independent certified public accountants of the Company (including the expenses of any special audit and comfort letters required by or incident to such performance), but excluding from this paragraph, fees and expenses of counsel to the underwriter(s), if any, unless otherwise set forth herein.

(b) The Company will not be responsible for any underwriting discounts, commissions or fees attributable to the sale of Restricted Securities or any legal fees or disbursements (other than any such fees or disbursements relating to Blue Sky compliance or otherwise as set forth under Section 2.6(a)) incurred by any underwriters in any underwritten offering if the underwriter participates in such underwritten offering at the request of the Holders of Restricted Securities, or any transfer taxes that may be imposed in connection with a sale or transfer of Restricted Securities.

(c) The Company shall, in any event, bear its internal expenses (including, without limitation, all salaries and expenses of its officers and employees performing legal or accounting duties), the expenses of any annual audit and the fees and expenses of any Person, including special experts, retained by the Company.

2.7 Indemnification; Contribution.

(a) The Company agrees to indemnify and hold harmless (i) each Holder covered by any Registration Statement, (ii) each other Person who participates as an underwriter in the offering or sale of such securities, (iii) each Person, if any, who controls (within the meaning of Section 15 of the Securities Act or Section 20 of the Exchange Act) any such Holder or underwriter (any of the Persons referred to in this clause (iii) being hereinafter referred to as a "controlling Person"), and (iv) the respective officers, directors, partners, employees, representatives and agents of any such Holder or underwriter or any controlling Person (any Person referred to in clause (i), (ii), (iii) or (iv) may hereinafter be referred to as an "indemnified Person"), to the fullest extent lawful, from and against any and all losses, claims, damages, liabilities, judgments or expenses, joint or several (or actions or proceedings, whether commenced or threatened, in respect thereof) (collectively, "Claims"), to which such indemnified Person may become subject under either Section 15 of the Securities Act or Section 20 of the Exchange Act or otherwise, insofar as such Claims arise out of or are based upon, or are caused by any untrue statement or alleged untrue statement of a material fact contained in any Registration Statement or Prospectus (or any amendment or supplement thereto), or any omission or alleged omission to state therein a material fact required to be stated therein or necessary to make the statements therein not misleading, or a violation by the Company of the Securities Act or any state securities law, or any rule or regulation promulgated under the Securities Act or any state securities law, or any other law applicable to the Company relating to any such registration or qualification, except insofar as such losses, claims, damages, liabilities, judgments or expenses of any such indemnified Person; (x) are caused by any such untrue statement or omission or alleged untrue statement or omission that is based upon information relating to such indemnified Person furnished in writing to the Company by or on behalf of any of such indemnified Person expressly for use therein; (y) with respect to the preliminary Prospectus, result from the fact that such Holder sold Securities to a Person to whom there was not sent or given, at or prior to the written confirmation of such sale, a copy of the Prospectus, as amended or supplemented, if the Company shall have previously furnished copies thereof to such

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Holder in accordance with this Agreement and said Prospectus, as amended or supplemented, would have corrected such untrue statement or omission; or (z) as a result of the use by an indemnified Person of any Prospectus when, upon receipt of a notice from the Company of the existence of any fact of the kind described in Section 2.3(b)(iv), the indemnified Person or the related Holder was not permitted to do so. Such indemnity shall remain in full force and effect regardless of any investigation made by or on behalf of any indemnified Person and shall survive the transfer of such securities by such Holder.

In case any action shall be brought or asserted against any of the indemnified Persons with respect to which indemnity may be sought against the Company, such indemnified Person shall promptly notify the Company and the Company shall assume the defense thereof. Such indemnified Person shall have the right to employ separate counsel in any such action and to participate in the defense thereof, but the fees and expenses of such counsel shall be at the expense of the indemnified Person unless (i) the employment of such counsel shall have been specifically authorized in writing by the Company, (ii) the Company shall have failed to assume the defense and employ counsel, or (iii) the named parties to any such action (including any implied parties) include both the indemnified Person and the Company and the indemnified Person shall have been advised in writing by its counsel that there may be one or more legal defenses available to it which are different from or additional to those available to the Company (in which case the Company shall not have the right to assume the defense of such action on behalf of the indemnified Person), it being understood, however, that the Company shall not, in connection with such action or similar or related actions or proceedings arising out of the same general allegations or circumstances, be liable for the reasonable fees and expenses of more than one separate firm of attorneys (in addition to any local counsel) at any time for all the indemnified Persons, which firm shall be (x) designated by such indemnified Persons; and (y) reasonably satisfactory to the Company. The Company shall not be liable for any settlement of any such action or proceeding effected without the Company's prior written consent, which consent shall not be withheld unreasonably, and the Company agrees to indemnify and hold harmless any indemnified Person from and against any loss, claim, damage, liability, judgment or expense by reason of any settlement of any action effected with the written consent of the Company. The Company shall not, without the prior written consent of each indemnified Person, settle or compromise or consent to the entry of judgment on or otherwise seek to terminate any pending or threatened action, claim, litigation or proceeding in respect of which indemnification or contribution may be sought hereunder (whether or not any indemnified Person is a party thereto), unless such settlement, compromise, consent or termination includes an unconditional release of each indemnified Person from all liability arising out of such action, claim litigation or proceeding.

(b) Each Holder of Restricted Securities covered by any Registration Statement agrees, severally and not jointly, to indemnify and hold harmless the Company and its directors, officers and any Person controlling (within the meaning of Section 15 of the Securities Act or Section 20 of the Exchange Act) the Company, and the respective officers, directors, partners, employees, representatives and agents of each such Person, to the same extent as the foregoing indemnity from the Company to each of the indemnified Persons, but only (i) with respect to actions based on information relating to such Holder furnished in writing by or on behalf of such Holder expressly for use in any Registration Statement or Prospectus, and (ii) to the extent of the gross proceeds, if any, received by such Holder from the sale or other disposition of his or its

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Restricted Securities covered by such Registration Statement. In case any action or proceeding shall be brought against the Company or its directors or officers or any such controlling Person in respect of which indemnity may be sought against a Holder of Restricted Securities covered by any Registration Statement, such Holder shall have the rights and duties given the Company in Section 2.7(a) (except that the Holder may but shall not be required to assume the defense thereof), and the Company or its directors or officers or such controlling Person shall have the rights and duties given to each Holder by Section 2.7(a).

(c) If the indemnification provided for in this Section 2.7 is unavailable to an indemnified party under Section 2.7(a) or (b) (other than by reason of exceptions provided in those Sections) in respect of any losses, claims, damages, liabilities, judgments or expenses referred to therein, then each applicable indemnifying party (in the case of the Holders severally and not jointly), in lieu of indemnifying such indemnified party, shall contribute to the amount paid or payable by such indemnified party as a result of such losses, claims, damages, liabilities, judgments or expenses (i) in such proportion as is appropriate to reflect the relative benefits received by the Company on the one hand and the Holder on the other hand from sale of Restricted Securities, or (ii) if such allocation provided by clause (i) above is not permitted by applicable law, in such proportion as is appropriate to reflect not only the relative benefits referred to in clause (i) above but also the relative fault of the Company and such Holder in connection with the statements or omissions which resulted in such losses, claims, damages, liabilities, judgments or expenses, as well as any other relevant equitable considerations. The relative fault of the Company on the one hand and of such Holder on the other shall be determined by reference to, among other things, whether the untrue or alleged untrue statement of a material fact or the omission or alleged omission to state a material fact relates to information supplied by the Company or by such Holder and the parties relative intent, knowledge, access to information and opportunity to correct or prevent such statement or omission. The amount paid to a party as a result of the losses, claims, damages, liabilities judgments and expenses referred to above shall be deemed to include, subject to the limitations set forth in the second paragraph of Section 2.7(a), any legal or other fees or expenses reasonably incurred by such party in connection with investigating or defending any action or claim.

The Company and each Holder of Restricted Securities covered by any Registration Statement agree that it would not be just and equitable if contribution pursuant to this Section 2.7(c) were determined by pro rata allocation (even if the Holders were treated as one entity for such purpose) or by any other method of allocation which does not take into account the equitable considerations referred to in the immediately preceding paragraph. Notwithstanding the provisions of this Section 2.7(c), no Holder (and none of its related indemnified Persons) shall be required to contribute, in the aggregate, any amount in excess of the amount by which the dollar amount of proceeds received by such Holder upon the sale of the Restricted Securities exceeds the amount of any damages which such Holder has otherwise been required to pay by reason of such untrue statement or omission or alleged omission. No Person guilty of fraudulent misrepresentations (within the meaning of Section 11(f) of the Securities Act) shall be entitled to contribution from any Person who was not guilty of such fraudulent misrepresentation.

The indemnity and contribution provisions contained in this Section 2.7 are in addition to any liability which the indemnifying Person may otherwise have to the indemnified Persons referred to above.

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2.8 Participation in Underwritten Registrations. No Holder may participate in any underwritten registration hereunder unless such Holder (a) agrees to sell such Holder's Restricted Securities on the basis provided in any underwriting arrangements approved by the Persons entitled hereunder to approve such arrangements and (b) completes and executes all reasonable questionnaires, powers of attorney, indemnities, underwriting agreements, lock-up letters and other documents required under the terms of such underwriting arrangements.

2.9 Selection of Underwriters. The Holders of Restricted Securities covered by any Registration Statement who desire to do so may sell such Restricted Securities in an underwritten offering. In any such underwritten offering, the investment banker or investment bankers and manager or managers that will administer the offering will be selected by the Company. Such investment bankers and managers are referred to herein as the "underwriters."

ARTICLE 3

MISCELLANEOUS

3.1 Entire Agreement; Term. This Agreement, together with the Financial Advisory Agreement, constitutes the entire agreement between the parties with respect to the subject matter hereof and supersedes all prior agreement and understandings, both oral and written, between the parties with respect to the subject matter hereof. This Agreement, and all rights and obligations hereunder, will terminate upon the earlier of (i) five (5) years from the date hereof; or (ii) when the Securities are no longer deemed to be Restricted Securities.

3.2 Successors and Assigns and Heirs. This Agreement shall inure to the benefit of and be binding upon the successors and assigns and heirs of each of the parties, including, without limitation and without the need for an express assignment, subsequent Holders of Restricted Securities; provided, however, that this Agreement shall not inure to the benefit of or be binding upon a successor or assign of a Holder unless and to the extent such successor or assign or heirs acquired Restricted Securities from such Holder at a time when such Holder could not transfer such Restricted Securities pursuant to any Registration Statement or pursuant to Rule 144(k) under the Securities Act as contemplated by clause (ii) of the definition of Restricted Securities.

3.3. Notices. All notices and other communications given or made pursuant hereto or pursuant to any other agreement between the parties, unless otherwise specified, shall be in writing and shall be deemed to have been duly given or made if sent by telecopy (with confirmation in writing), delivered personally or by overnight courier or sent by registered or certified mail (postage prepaid, return receipt requested) to the parties at the telecopy number, if any, or address set forth below or at such other addresses as shall be furnished by the parties by like notice. Notices sent by telecopier shall be effective when receipt is acknowledged, notices delivered personally or by overnight courier shall be effective upon receipt and notices sent by registered or certified mail shall be effective three (3) days after mailing:

if to a Holder: to such Holder at the address set forth on the records of the Company as the record owners of the Common Stock

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if to the Company: Senesco Technologies, Inc.
303 George Street, Suite 420
New Brunswick, New Jersey 08901
Telephone: (732) 296-8400
Telecopy: (732) 296-9292

Attention: Bruce C. Galton
President and Chief Executive Officer

with copies to: Morgan, Lewis & Bockius
502 Carnegie Center
Princeton, New Jersey 08540
Telephone: (609) 919-6600
Telecopy: (609) 919-6701
Attention: Emilio Ragosa, Esq.

3.4 Headings. The headings contained in this Agreement are for convenience only and shall not affect the meaning or interpretation of this Agreement.

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

3.6 Applicable Law. This Agreement shall be governed by and construed in accordance with the laws of the State of Delaware applicable in the case of agreements made and to be performed entirely within such State, without regard to principles of conflicts of law.

3.7 Specific Enforcement. Each party hereto acknowledges that the remedies at law of the other parties for a breach or threatened breach of this Agreement would be inadequate, and, in recognition of this fact, any party to this Agreement, without posting any bond, and in addition to all other remedies which may be available, shall be entitled to obtain equitable relief in the form of specific performance, a temporary restraining order, a temporary to permanent injunction or any other equitable remedy which may then be available.

3.8 Amendment and Waivers; Subordination. The provisions of this Agreement may not be amended, modified or supplemented, and waivers or consents to or departures from the provisions hereof may not be given unless the Company has obtained the written consent of the Holders of a majority of the Restricted Securities affected thereby.

3.9 Eligibility under Rule 144. With a view to making available to Stanford and the Stanford Employees the benefits of Rule 144 promulgated under the Securities Act or any other similar rule or regulation of the Commission that may at any time permit Stanford and the Stanford Employees to sell securities of the Company to the public without registration, the Company agrees to:

(a) make and keep public information available, as those terms are understood and defined in Rule 144;

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(b) file with the Commission in a timely manner all reports and other documents required of the Company under the Exchange Act so long as the Company remains subject to such requirements and the filing of such reports and other documents is required for the applicable provisions of Rule 144; and

(c) furnish to Stanford and each Stanford Employee so long as Stanford or each Stanford Employee owns Restricted Securities, promptly upon request (i) a written statement by the Company that it has complied with the reporting requirements of the Exchange Act, (ii) a copy of the most recent annual or quarterly report of the Company and such other reports and documents so filed by the Company, and (iii) such other information as may be reasonably requested to permit the investors to sell such securities pursuant to Rule 144 without registration.

* * * * *

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

COMPANY:

SENESCO TECHNOLOGIES, INC.

By: /s/ Bruce C. Galton
Name: Bruce C. Galton
Title: President and Chief Executive Officer

STANFORD GROUP:

STANFORD GROUP COMPANY

By: _____
Name: _____
Title: _____

STANFORD VENTURE:

STANFORD VENTURE CAPITAL HOLDINGS, INC.

By: _____
Name: _____
Title: _____

STANFORD INTERNATIONAL:

STANFORD INTERNATIONAL BANK, LTD.

By: _____
Name: _____
Title: _____

STANFORD EMPLOYEES

/s/ Ronald Stein
RONALD STEIN

/s/ Daniel Bogar
DANIEL BOGAR

/s/ Osvaldo Pi
OSVALDO PI

/s/ William Fusselmann
WILLIAM FUSSELMANN

August 1, 2006

Ms. Judy Brown, Contracts Manager
Office of Research
University of Waterloo
200 University Avenue West
Waterloo, Ontario, Canada N2L 3G1

Re: Extension and Amendment to Budget and Research Agreement between Waterloo, Thompson, and Senesco for a One Year Period From September 1, 2006 Through August 31, 2007

Dear Ms. Brown:

Pursuant to the Research Agreement effective September 1, 1998 (the "Agreement"), copy attached, between the University of Waterloo ("Waterloo"), Dr. John E. Thompson ("Thompson"), and Senesco, Inc. ("Senesco"), Waterloo, Thompson and Senesco hereby agree to extend the Agreement for an additional one year term, effective September 1, 2006 through August 31, 2007, under the same terms and conditions provided in the Agreement, except that the parties hereby amend the Budget set forth in the Revised Budget for Years 7 and 8, effective September 1, 2004 to the Revised Annual Budget for Year 9, attached hereto, effective September 1, 2006 through August 31, 2007. The Revised Annual Budget for Year 9 supercedes and replaces the Revised Budget for Years 7 and 8 of the Agreement for all work commencing on or after September 1, 2006.

Very truly yours,

/s/ Bruce C. Galton
Bruce C. Galton
President
Senesco, Inc.

Agreed and Accepted:

University of Waterloo

Dr. John Thompson, Ph.D.

REVISED ANNUAL BUDGET

YEAR 9

PERIOD: September 1, 2006 – August 31, 2007

Salaries	Cdn \$/Month	Cdn \$/12 Months
Senior Research Associate (\$73,500/year + 15% benefits)	\$ 7,043.75	\$ 84,525.00
Senior Research Associate (\$68,250/year + 15% benefits)	6,540.63	78,487.50
Research Associate (\$42,000/year + 15% benefits)	4,025.00	48,300.00
Research Associate (\$42,000/year + 15% benefits)	4,025.00	48,300.00
Research Associate (\$42,000/year + 15% benefits)	4,025.00	48,300.00
Research Associate (\$36,750/year + 15% benefits)	3,521.87	42,262.50
Part-Time Research Associate	2,100.00	25,200.00
Graduate Student	875.00	10,500.00
Graduate Student	875.00	10,500.00
Graduate Student	875.00	10,500.00
Supplies		
Operating Expenses	3,937.50	47,250.00
Overhead		
40% on total direct costs	14,087.50	169,050.00

25% on graduate student

656.25

7,875.00

TOTAL ANNUAL BUDGET

\$ 52,587.50

\$ 631,050.00

SECURITIES PURCHASE AGREEMENT

SECURITIES PURCHASE AGREEMENT (this "Agreement"), dated as of October 10, 2006, by and among Senesco Technologies, Inc., a Delaware corporation (the "Company"), and those persons listed on the signature pages attached hereto (individually, a "Purchaser" and collectively, the "Purchasers").

W I T N E S S E T H :

WHEREAS, the Company desires to sell, transfer and assign to the Purchasers, and the Purchasers desire to purchase from the Company up to 1,986,306 shares (the "Shares") of the Company's restricted common stock, \$0.01 par value per share (the "Common Stock"), and warrants to purchase up to 993,153 shares of Common Stock (the "Warrants") for an aggregate purchase price of up to \$2,249,491 (the Warrants, together with the Shares, shall be referred to herein as the "Securities");

NOW, THEREFORE, in consideration of the promises and the mutual covenants contained herein, the parties hereto, intending to be legally bound, hereby agree as follows:

SECTION I

PURCHASE AND SALE OF THE SECURITIES

A. **Purchase and Sale.** Subject to the terms and conditions of this Agreement and on the basis of the representations, warranties, covenants and agreements herein contained, the Company hereby agrees to sell, transfer, assign and convey the respective number of Securities to each Purchaser as set forth on the signature pages attached hereto, and each Purchaser agrees to purchase, acquire and accept their respective number of Securities from the Company as set forth on the signature pages attached hereto.

B. **Purchase Price.** The Securities are hereby offered at a price of \$1.07 per unit, equal to one share of Common Stock and a Warrant to purchase 0.5 shares of Common Stock. The aggregate purchase price for the Securities to be paid by the Purchasers to the Company is \$2,249,491 (the "Aggregate Purchase Price"). The Aggregate Purchase Price shall be paid by the Purchasers to the Company on the Closing Date either via certified bank check or irrevocable wire transfer and shall be paid by the Purchasers in the amounts set forth on the signature pages attached hereto. The parties to this Agreement agree that, as soon as reasonably practicable after the date hereof, they shall allocate, in good faith, the purchase price between the Shares and Warrants so purchased.

C. **Warrants.** The Warrants in the form of Exhibit A attached hereto shall have a five-year term, with a six month lock-up from the date of issuance and an exercise price of \$1.18 per share.

SECTION II

**REPRESENTATIONS, WARRANTIES, COVENANTS
AND AGREEMENTS OF THE COMPANY**

The Company represents and warrants to, and covenants and agrees with, the Purchasers, as of the date hereof, that:

A. **Organization; Good Standing.** The Company is a corporation duly organized, validly existing and in good standing under the laws of the State of Delaware and has full corporate power and authority to own its properties and to conduct the business in which it is now engaged.

B. **Authority.** The Company has the full corporate power, authority and legal right to execute and deliver this Agreement and to perform all of its obligations and covenants hereunder, and no consent or approval of any other person or governmental authority is required therefore. The execution and delivery of this Agreement by the Company, the performance by the Company of its obligations and covenants hereunder and the consummation by the Company of the transactions contemplated hereby have been duly authorized by all necessary corporate action. This Agreement constitutes a valid and legally binding obligation of the Company, enforceable against the Company in accordance with its terms, except as the enforceability thereof may be limited by bankruptcy, insolvency or other similar laws affecting the enforceability of creditors' rights in general or by general principles of equity.

C. **No Legal Bar; Conflicts.** Neither the execution and delivery of this Agreement, nor the consummation of the transactions contemplated hereby, violates any provision of the Certificate of Incorporation, as amended, or By-Laws of the Company or any law, statute, ordinance, regulation, order, judgment or decree of any court or governmental agency, or conflicts with or results in any breach of any of the terms of or constitutes a default under or results in the termination of or the creation of any lien pursuant to the terms of any contract or agreement to which the Company is a party or by which the Company or any of its assets is bound.

D. **Non-Assessable Shares.** The Securities being issued hereunder have been duly authorized and, the Shares, when issued to the Purchasers for the consideration herein provided, and the shares of Common Stock issued upon the proper exercise of the Warrants, will be validly issued, fully paid and non-assessable.

E. **SEC Documents; Financial Statements.** During the two years prior to the date hereof, the Company has timely filed all reports, schedules, forms, statements and other documents required to be filed by it with the Securities and Exchange Commission (the "SEC") pursuant to the reporting requirements of the Securities Exchange Act of 1934 (the "1934 Act") (all of the foregoing filed prior to the date hereof or prior to the Closing Date, and all exhibits included therein and financial statements and schedules thereto and documents incorporated by reference therein being hereinafter referred to as the "SEC Documents"). The Company has made available to the Purchasers or their respective representatives true, correct and complete copies of the SEC Documents not available on the EDGAR system. As of their respective dates, the SEC Documents complied in all material respects with the requirements of the 1934 Act and the rules and regulations of the SEC promulgated thereunder applicable to the SEC Documents, and none

of the SEC Documents, at the time they were filed with the SEC, contained any untrue statement of a material fact or omitted to state a material fact required to be stated therein or necessary in order to make the statements therein, in the light of the circumstances under which they were made, not misleading. As of their respective dates, the financial statements of the Company included in the SEC Documents complied as to form in all material respects with applicable accounting requirements and the published rules and regulations of the SEC with respect thereto. Such financial statements have been prepared in accordance with generally accepted accounting principles, consistently applied, during the periods involved (except (i) as may be otherwise indicated in such financial statements or the notes thereto, or (ii) in the case of unaudited interim statements, to the extent they may exclude footnotes or may be condensed or summary statements) and fairly present in all material respects the financial position of the Company as of the dates thereof and the results of its operations and cash flows for the periods then ended (subject, in the case of unaudited statements, to normal year-end audit adjustments). Upon consummation of the transactions contemplated by this Agreement, the Company's independent registered public accounting firm will not express substantial doubt about the Company's ability to continue as a going concern. No other information provided by or on behalf of the Company to the Purchasers which is not included in the SEC Documents, including, without limitation, information provided to any Purchaser by the Company in anticipation of this transaction, contains any untrue statement of a material fact or omits to state any material fact necessary in order to make the statements therein, in the light of the circumstance under which they are or were made, not misleading.

F. Absence of Certain Changes. Except in the ordinary course of business, since May 15, 2006, there has been no material adverse change and no material adverse development in the business, properties, operations, condition (financial or otherwise), results of operations or prospects of the Company or its subsidiaries. Since May 15, 2006, the Company has not (i) declared or paid any dividends, (ii) sold any assets, individually or in the aggregate, in excess of \$500,000 outside of the ordinary course of business or (iii) had capital expenditures, individually or in the aggregate, in excess of \$500,000. The Company has not taken any steps to seek protection pursuant to any bankruptcy law nor does the Company have any knowledge or reason to believe that its creditors intend to initiate involuntary bankruptcy proceedings or any actual knowledge of any fact which would reasonably lead a creditor to do so. The Company is not as of the date hereof, and after giving effect to the transactions contemplated hereby to occur at the Closing, will not be Insolvent (as defined below). For purposes of this Section, "Insolvent" means (i) the present fair saleable value of the Company's assets is less than the amount required to pay the Company's total indebtedness, (ii) the Company is unable to pay its debts and liabilities, subordinated, contingent or otherwise, as such debts and liabilities become absolute and matured, (iii) the Company intends to incur or believes that it will incur debts that would be beyond its ability to pay as such debts mature or (iv) the Company has unreasonably small capital with which to conduct the business in which it is engaged as such business is now conducted or is about to be conducted.

G. No Undisclosed Events, Liabilities, Developments or Circumstances. No event, liability, development or circumstance has occurred or exists, or is contemplated to occur, with respect to the Company or its subsidiaries or their respective business, properties, prospects, operations or financial condition, that would be required to be disclosed by the Company under applicable securities laws on a registration statement on Form S-1 filed with the SEC relating to

an issuance and sale by the Company of its Common Stock and which has not been publicly announced.

H. Foreign Corrupt Practices. Neither the Company, nor any of its subsidiaries, nor any director, officer, agent, employee or other person acting on behalf of the Company or any of its subsidiaries has, in the course of its actions for, or on behalf of, the Company (i) used any corporate funds for any unlawful contribution, gift, entertainment or other unlawful expenses relating to political activity; (ii) made any direct or indirect unlawful payment to any foreign or domestic government official or employee from corporate funds; (iii) violated or is in violation of any provision of the U.S. Foreign Corrupt Practices Act of 1977, as amended; or (iv) made any unlawful bribe, rebate, payoff, influence payment, kickback or other unlawful payment to any foreign or domestic government official or employee.

I. Sarbanes-Oxley Act. The Company is in compliance with any and all applicable requirements of the Sarbanes-Oxley Act of 2002 that are effective as of the date hereof, and any and all applicable rules and regulations promulgated by the SEC thereunder that are effective as of the date hereof, except where such noncompliance would not have, individually or in the aggregate, a material adverse effect.

J. Intellectual Property Rights. The Company and its subsidiaries own or possess adequate rights or licenses to use all trademarks, trade names, service marks, service mark registrations, service names, patents, patent rights, copyrights, inventions, licenses, approvals, governmental authorizations, trade secrets and other intellectual property rights ("Intellectual Property Rights") necessary to conduct their respective businesses as now conducted. None of the Company's Intellectual Property Rights have expired or terminated, or are expected to expire or terminate within three years from the date of this Agreement, except for rights which are not necessary to conduct its business as now conducted. The Company does not have any knowledge of any infringement by the Company or its subsidiaries of Intellectual Property Rights of others. There is no claim, action or proceeding being made or brought, or to the knowledge of the Company, being threatened, against the Company or any of its subsidiaries regarding its Intellectual Property Rights. The Company is unaware of any facts or circumstances which might give rise to any of the foregoing infringements or claims, actions or proceedings. The Company and its subsidiaries have taken reasonable security measures to protect the secrecy, confidentiality and value of all of their Intellectual Property Rights.

K. Right of First Refusal on Future Financings. From the Closing Date until the one year anniversary of the Closing Date, upon any private issuance by the Company of its Common Stock or Common Stock Equivalents (as defined below) (a "Subsequent Financing"), each Purchaser shall have the right to participate in such Subsequent Financing as provided herein. At least 15 Business Days (as defined below) prior to the closing of the Subsequent Financing, the Company shall deliver to each Purchaser a written notice of its intention to effect a Subsequent Financing ("Pre-Notice"), which Pre-Notice shall ask such Purchaser if it wants to review the details of such financing (such additional notice, a "Subsequent Financing Notice"). Upon the request of a Purchaser, and only upon a request by such Purchaser, for a Subsequent Financing Notice, the Company shall promptly, but no later than one Business Day after such request, deliver a Subsequent Financing Notice to such Purchaser. The Subsequent Financing Notice shall describe in reasonable detail the proposed terms of such Subsequent Financing, the amount of

proceeds intended to be raised thereunder, the Person with whom such Subsequent Financing is proposed to be effected, and attached to which shall be a term sheet or similar document relating thereto. Each Purchaser shall notify the Company by 6:30 p.m. (New York City time) on the tenth (10th) Business Day after their receipt of the Subsequent Financing Notice of its willingness to provide the Subsequent Financing on the terms described in the Subsequent Financing Notice, subject to completion of mutually acceptable documentation. If one or more Purchasers shall fail to so notify the Company of their willingness to participate in the Subsequent Financing, the Purchasers agreeing to participate in the Subsequent Financing (the "Participating Purchasers") shall have the right to provide all of the Subsequent Financing. If one or more Purchasers fail to notify the Company of their willingness to provide all of the Subsequent Financing and the Participating Purchasers do not agree to provide all of the Subsequent Financing, the Company may effect the remaining portion of such Subsequent Financing on the terms and to the Persons set forth in the Subsequent Financing Notice; provided that the Company must provide the Purchasers with a second Subsequent Financing Notice, and the Purchasers will again have the right of first refusal set forth above in this section, if the Subsequent Financing subject to the initial Subsequent Financing Notice is not consummated for any reason on the terms set forth in such Subsequent Financing Notice within 60 Business Days after the date of the initial Subsequent Financing Notice with the Person identified in the Subsequent Financing Notice. In the event the Company receives responses to Subsequent Financing Notices from Purchasers seeking to purchase more than the financing sought by the Company in the Subsequent Financing such Purchasers shall have the right to purchase their Pro Rata Portion (as defined below) of the Common Stock or Common Stock Equivalents to be issued in such Subsequent Financing. "Pro Rata Portion" is the ratio of (x) the amount invested by such Purchaser pursuant to this Agreement (the "Subscription Amount") and (y) the aggregate sum of all of the Subscription Amounts. Notwithstanding the foregoing, this section shall not apply in respect of the issuance of (a) shares of Common Stock or Common Stock Equivalents to employees, consultants, officers or directors of the Company pursuant to any plan duly adopted by a majority of the non-employee members of the Board of Directors of the Company or a majority of the members of a committee of non-employee directors established for such purpose, (b) shares of Common Stock or Common Stock Equivalents upon the exercise of or conversion of any convertible securities, options or warrants issued and outstanding on the date of this Agreement, provided that such securities have not been amended since the date of this Agreement to increase the number of shares of Common Stock issuable thereunder or to lower the exercise or conversion price thereof, (c) shares of Common Stock or Common Stock Equivalents issued as consideration in a merger, consolidation, share exchange, asset or stock acquisition or other similar business combination transaction, and (d) shares of Common Stock or Common Stock Equivalents issued under the terms of any strategic alliance approved by a majority of the non-employee members of the Board of Directors of the Company, the primary purpose of which is not the raising of capital. "Business Day" means a day, other than a Saturday or Sunday, on which banks in New York City are open for the general transaction of business. "Common Stock Equivalents" means any securities of the Company or its subsidiaries which would entitle the holder thereof to acquire at any time Common Stock, including without limitation, any debt, preferred stock, rights, options, warrants or other instrument that is at any time convertible into or exchangeable for, or otherwise entitles the holder thereof to receive, Common Stock.

SECTION III

REPRESENTATIONS, WARRANTIES, COVENANTS AND AGREEMENTS OF THE PURCHASERS

Each Purchaser, severally, and not jointly, represents and warrants to, and covenants and agrees with, the Company, as of the date hereof, that:

A. Organization (if applicable). The Purchaser is, and as of the Closing will be, duly organized, validly existing and in good standing under the laws of its jurisdiction of organization.

B. Authorization. The Purchaser has, and as of the Closing will have, all requisite power and authority to execute, deliver and perform this Agreement and to consummate the transactions contemplated hereby. The execution, delivery and performance of this Agreement, and the consummation of the transactions contemplated hereby, have been duly and validly authorized by all necessary action on the part of the Purchaser. This Agreement has been duly executed and delivered by the Purchaser and constitutes its legal, valid and binding obligation, enforceable against the Purchaser in accordance with its terms, except as the enforceability thereof may be limited by bankruptcy, insolvency or other similar laws affecting the enforceability of creditors' rights in general or by general principles of equity.

C. No Legal Bar; Conflicts. Neither the execution and delivery of this Agreement, nor the consummation by the Purchaser of the transactions contemplated hereby, violates any law, statute, ordinance, regulation, order, judgment or decree of any court or governmental agency applicable to the Purchaser, or violates, or conflicts with, any contract, commitment, agreement, understanding or arrangement of any kind to which the Purchaser is a party or by which the Purchaser is bound.

D. No Litigation. No action, suit or proceeding against the Purchaser relating to the consummation of any of the transactions contemplated by this Agreement nor any governmental action against the Purchaser seeking to delay or enjoin any such transactions is pending or, to the Purchaser's knowledge, threatened.

E. Investment Intent. The Purchaser: (i) is an accredited investor within the meaning of Rule 501(a) under the Securities Act of 1933, as amended (the "Act"); (ii) is aware of the limits on resale imposed by virtue of the nature of the transactions contemplated by this Agreement, specifically the restrictions imposed by Rule 144 of the Act, and is aware that the certificates representing the Purchaser's respective ownership of the Securities will bear related restrictive legends; and (iii) except as otherwise set forth herein, is acquiring the shares of the Company hereunder without registration under the Act in reliance on the exemption from registration contained in Section 4(2) of the Act and/or Rule 506 promulgated pursuant to Regulation D of the Act, for investment for its own account, and not with a view toward, or for sale in connection with, any distribution thereof, nor with any present intention of distributing or selling such shares. The information contained in the Accredited Investor Questionnaire in the form of Exhibit B attached hereto and delivered by the Purchaser in connection with this Agreement is true and complete in all respects. The Purchaser has been given the opportunity to ask questions of, and receive answers from, the officers of the Company regarding the Company, its current and proposed business operations and the Securities, and the officers of the Company have made

available to the Purchaser all documents and information that the Purchaser has requested relating to an investment in the Company. The Purchaser has been given the opportunity to retain competent legal counsel in connection with the purchase of the Securities and acknowledges that the Company has relied upon the Purchaser's representations in this Section 3 in offering and selling the Securities to the Purchaser.

F. The information contained in the selling stockholder questionnaire in the form of Exhibit C attached hereto and delivered by the Purchaser in connection with this Agreement is true and complete in all respects.

G. Economic Risk; Restricted Securities. The Purchaser recognizes that the investment in the Securities involves a number of significant risks. The foregoing, however, does not limit or modify the representations, warranties and agreements of the Company in Section 2 of this Agreement or the right of the Purchaser to rely thereon. The Purchaser is able to bear the economic risks of an investment in the Securities for an indefinite period of time, has no need for liquidity in such investment and, at the present time, can afford a complete loss of such investment.

H. Access to Information.

(i) The Purchaser has had access to all reports required to be filed by the Company (the "SEC Reports") under the Securities Exchange Act of 1934, as amended.

(ii) The Purchaser represents that it has not received any information about the Company other than what has been disclosed in the documents set forth above, and has had the opportunity to ask questions of, and receive answers from, the Company regarding the foregoing documents.

(iii) H.C. Wainwright is the placement agent and will receive (i) a fee of three percent (3%) for this transaction and (ii) warrants to purchase such number of shares of Common Stock equal to seven percent (7%) of the aggregate number of shares of Common Stock sold in this transaction.

I. Suitability. The Purchaser has carefully considered, and has, to the extent the Purchaser deems it necessary, discussed with the Purchaser's own professional legal, tax and financial advisers the suitability of an investment in the Securities for the Purchaser's particular tax and financial situation, and the Purchaser has determined that the Securities is a suitable investment.

J. Legend. The Purchaser acknowledges that the certificates evidencing the Securities will bear the following legend:

THE SHARES REPRESENTED BY THIS CERTIFICATE HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED (THE "ACT"). THE SHARES HAVE BEEN ACQUIRED FOR INVESTMENT AND MAY NOT BE PLEDGED, HYPOTHECATED, SOLD OR TRANSFERRED IN THE ABSENCE OF AN EFFECTIVE REGISTRATION STATEMENT FOR THE SHARES UNDER SUCH ACT OR AN

OPINION OF COUNSEL TO THE ISSUER THAT REGISTRATION IS NOT REQUIRED UNDER THE ACT.

The Company acknowledges and agrees that a Purchaser may from time to time pledge pursuant to a bona fide margin agreement with a registered broker-dealer or grant a security interest in some or all of the Securities to a financial institution that is an "accredited investor" as defined in Rule 501(a) under the Act and who agrees in writing to be bound by the provisions of this Agreement and the Registration Rights Agreement and, if required under the terms of such arrangement, such Purchaser may transfer pledged or secured Securities to the pledgees or secured parties. Such a pledge or transfer would not be subject to approval of the Company and no legal opinion of legal counsel of the pledgee, secured party or pledgor shall be required in connection therewith, provided that any such transfer would comply with federal and state securities laws. Further, no notice shall be required of such pledge. At the appropriate Purchaser's expense, the Company will execute and deliver such reasonable documentation as a pledgee or secured party of Securities may reasonably request in connection with a pledge or transfer of the Securities, including, if the Securities are subject to registration pursuant to the Registration Rights Agreement, the preparation and filing of any required prospectus supplement under Rule 424(b)(3) under the Act or other applicable provision of the Act to appropriately amend the list of selling stockholders thereunder.

Certificates evidencing the Securities shall not be required to contain such legend or any other legend (i) following any sale of such Securities pursuant to Rule 144, (ii) if such Securities are eligible for sale under Rule 144(k), (iii) have been sold pursuant to the Registration Statement and in compliance with the obligations set forth herein, or (iv) such legend is not required under applicable requirements of the Act (including judicial interpretations and pronouncements issued by the staff of the SEC), in each such case (i) through (iv) to the extent reasonably determined by the Company's legal counsel. At such time and to the extent a legend is no longer required for the Securities, the Company will use its best efforts to no later than three (3) trading days following the delivery by a Purchaser to the Company or the Company's transfer agent of a legended certificate representing such Securities (together with such accompanying documentation or representations as reasonably required by counsel to the Company) (such third trading day, the "Legend Removal Date"), deliver or cause to be delivered a certificate representing such Securities that is free from the foregoing legend.

In addition to a Purchaser's other available remedies, the Company shall pay to a Purchaser, in cash, as partial liquidated damages and not as a penalty, for each \$1,000 of Securities (based on the VWAP of the Common Stock on the date such Securities are submitted to the Company's transfer agent) delivered for removal of the restrictive legend and subject to this section, \$10 per trading day (increasing to \$20 per trading day five (5) trading days after such damages have begun to accrue) for each trading day after the second trading day following the Legend Removal Date until such certificate is delivered without a legend. Nothing herein shall limit such Purchaser's right to pursue actual damages for the Company's failure to deliver certificates representing any Securities as required, and such Purchaser shall have the right to pursue all remedies available to it at law or in equity including, without limitation, a decree of specific performance and/or

injunctive relief. Notwithstanding anything herein to the contrary, in no event will the Company be obligated to make payments to any Purchaser under this section in excess of 5% of the aggregate amount invested by such Purchaser.

Each Purchaser, severally and not jointly with the other Purchasers, agrees that the removal of the restrictive legend from certificates representing Securities as set forth in this Section is predicated upon the Company's reliance that the Purchaser will sell any Securities pursuant to either the registration requirements or the Act, including any applicable prospectus delivery requirements, or an exemption therefrom, and that if Securities are sold pursuant to a Registration Statement, they will be sold in compliance with the plan of distribution set forth therein.

SECTION IV

THE CLOSING AND CONDITIONS TO CLOSING

A. Time and Place of the Closing. The closing shall be held at the offices of Morgan, Lewis & Bockius, 502 Carnegie Center, Princeton, New Jersey 08540, on October 10, 2006 (the "Closing Date"), or such other time and place as the Company and the Purchasers may mutually agree.

B. Delivery by the Company. Delivery of the Securities shall be made by the Company, or by its transfer agent, as applicable, to the Purchasers as soon as reasonably practicable after the Closing Date by delivering certificates representing their respective portion of Securities as set forth on the signature pages attached hereto, each such certificate to be accompanied by any requisite documentary or transfer tax stamps.

C. Delivery by the Purchasers. On or before the Closing Date, each Purchaser shall deliver to the Company its respective portion of the Aggregate Purchase Price, based on the number of Securities purchased by such Purchaser as set forth on the signature pages attached hereto, by certified bank check or by irrevocable wire transfer to the Company.

D. Registration Rights Agreement. The Company shall deliver to each Purchaser, and each Purchaser shall deliver to the Company, an executed copy of that certain Registration Rights Agreement made by and among the Company and the Purchasers of even date herewith.

E. Other Conditions to Closing. As of the Closing Date, all requisite action by the Company's Board of Directors shall have been taken pursuant to the By-Laws of the Company.

F. Opinion. The Company shall have its counsel render a legal opinion in customary form as of the Closing Date or as soon as reasonably possible after the Closing Date.

SECTION V

MISCELLANEOUS

A. Entire Agreement. This Agreement contains the entire agreement between the parties hereto with respect to the transactions contemplated hereby, and no modification hereof

shall be effective unless in writing and signed by the party against which it is sought to be enforced.

B. Invalidity, Etc. If any provision of this Agreement, or the application of any such provision to any person or circumstance, shall be held invalid by a court of competent jurisdiction, the remainder of this Agreement, or the application of such provision to persons or circumstances other than those as to which it is held invalid, shall not be affected thereby.

C. Headings. The headings of this Agreement are for convenience of reference only and are not part of the substance of this Agreement.

D. Binding Effect. This Agreement shall be binding upon and inure to the benefit of the parties hereto and their respective successors and assigns.

E. Governing Law. This Agreement shall be governed by and construed in accordance with the laws of the State of Delaware applicable in the case of agreements made and to be performed entirely within such State, without regard to principles of conflicts of law, and the parties hereto hereby submit to the exclusive jurisdiction of the state and federal courts located in the State of New Jersey.

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

* * * * *

COMPANY:

SENESCO TECHNOLOGIES, INC.

By: _____
Name: Bruce C. Galton
Title: President and Chief Executive Officer

PURCHASERS:

[If an entity]

Entity Name: _____

By: _____
Name: _____
Title: _____
Address: _____
Telecopy: _____

[If an individual]

Name: _____
Address: _____

Telecopy: _____

- (a) Investment Amount: \$
- (b) Number of shares of Common Stock
(line (a) divided by \$[]): shares
- (c) Warrants to purchase shares of Common Stock (line (b)
multiplied by 0.5): warrant shares

Exhibit B
Form of Warrant

Exhibit B
Senesco Technologies, Inc.
Confidential Purchaser Questionnaire

Before any sale of securities in the above-captioned Company can be made to you, this Questionnaire must be completed and returned to [].

The purpose of this Questionnaire is to substantiate that you meet the standards imposed by Section 4(2) of the Securities Act of 1933, as amended (the "Securities Act").

(1) Name:

(2) Principal Business Address:

Telephone: ()

(3) Home Address (for individual investors):

Telephone: ()

(4) Social Security Number or Tax ID Number:

(5) Occupation (for individual investors):

(6) Age (for individual investors):

(7) The following information is required to substantiate that you qualify as an "accredited investor" as defined in Rule 501 of Regulation D under the Securities Act. Please check which of the following you are:

(a) A bank as defined in Section 3(a)(2) of the Securities Act, or any savings and loan association or other institution as defined in Section 3(a)(5)(A) of the Securities Act whether acting in its individual or fiduciary capacity; any broker or dealer registered pursuant to Section 15 of the Securities Exchange Act of 1934, as amended; any insurance company as defined in Section 2(13) of the Securities Act; any investment company registered under the Investment Company Act of 1940 or a business development company as defined in Section 2(a)(48) of that act; any Small Business Investment Company licensed by the U.S. Small Business Administration under Section 301(c) or (d) of the Small Business Investment Act of 1958; any plan established and maintained by a state, its political subdivisions, or any agency or instrumentality of a state or its political subdivisions, for the benefits of its employees if such plan has total assets in excess of \$5,000,000; any employee benefit plan within the meaning of Title I of

the Employee Retirement Income Security Act of 1974 if the investment decision is made by a plan fiduciary, as defined in Section 3(21) of such act, which is either a bank, savings and loan association, insurance company, or registered investment adviser, or if the employee benefit plan has total assets in excess of \$5,000,000, or, if a self-directed plan, with investment decisions made solely by persons that are accredited investors;

Yes No

(b) A private business development company as defined in Section 202(a)(22) of the Investment Advisers Act of 1940;

Yes No

(c) An organization described in Section 501(c)(3) of the Internal Revenue Code, corporation, Massachusetts or similar business trust or partnership, not formed for the specific purpose of acquiring the securities offered, with total assets in excess of \$5,000,000;

Yes No

(d) A director or executive officer of the Company;

Yes No

(e) A natural person whose individual net worth, or joint net worth with your spouse, at the time of your purchase exceeds \$1,000,000;

Yes No

(f) A natural person who had an individual income in excess of \$200,000 in each of the two most recent years or joint income with your spouse in excess of \$300,000 in each of those years and has a reasonable expectation of reaching the same income level in the current year;

Yes No

(g) A trust, with total assets in excess of \$5,000,000 not formed for the specific purpose of acquiring the securities offered, whose purchase is directed by a sophisticated person as described in Rule 506(b)(2)(ii); or

Yes No

(h) Any entity in which all of the equity owners are accredited investors.

Yes No

(8) Investment, business, and educational experience (for individual investors):

(a) Educational background:

(b) Principal employment positions held during last five years:

(c) Frequency of prior investment (check one in each column):

Stocks & Bonds Venture Capital Investments

Frequently

Occasionally

Never

(9) Please list the name and address of your (for individual investors):

(a) Bank

(b) Accountant

I represent that the foregoing information is true and correct.

Dated: , 2006

(Name of Investor - Please Print)

(Signature)

(Print Name)

(Title)

Exhibit C

Selling Stockholder Questionnaire

To: Senesco Technologies, Inc.
c/o Emilio Ragosa, Esq.
Morgan Lewis & Bockius LLP
502 Carnegie Center
Princeton, New Jersey 08540-6241

Reference is made to the Securities Purchase Agreement (the "Agreement"), made between Senesco Technologies, Inc., a Delaware corporation (the "Company"), and the Purchasers noted therein.

Pursuant to Section III.F of the Agreement, the undersigned hereby furnishes to the Company the following information for use by the Company in connection with the preparation of the Registration Statement contemplated by that certain Registration Rights Agreement.

(1) Name and Contact Information:

Full legal name of record holder:

Address of record holder:

Social Security Number or Taxpayer
identification number of record holder:

Identity of beneficial owner (if different
than record holder):

Name of contact person:

Telephone number of contact person:

Fax number of contact person:

E-mail address of contact person:

(2) Beneficial Ownership of Registrable Securities:

(a) Number of Registrable Securities owned by Selling Stockholder:

(b) Number of Registrable Securities requested to be registered:

(3) Beneficial Ownership of Other Securities of the Company Owned by the Selling Stockholder:

Except as set forth below in this Item (3), the undersigned is not the beneficial or registered owner of any securities of the Company other than the Registrable Securities listed above in Item (2)(a).

Type and amount of other securities beneficially owned by the Selling Stockholder:

(4) Relationships with the Company:

Except as set forth below, neither the undersigned nor any of its affiliates, officers, directors or principal equity holders (5% or more) has held any position or office or has had any other material relationship with the Company (or its predecessors or affiliates) during the past three years.

State any exceptions here:

(5) Plan of Distribution:

Except as set forth below, the undersigned intends to distribute pursuant to the Registration Statement the Registrable Securities listed above in Item (2) in accordance with the "Plan of Distribution" section set forth therein:

State any exceptions here:

(6) Selling Stockholder Affiliations:

(a) Is the Selling Stockholder a registered broker-dealer?

(b) Is the Selling Stockholder an affiliate of a registered broker-dealer(s)? (For purposes of this response, an "affiliate" of, or person "affiliated" with, a specified person, is a person that directly, or indirectly through one or more intermediaries, controls or is controlled by, or is under common control with, the person specified.)

(c) If the answer to Item (6)(b) is yes, identify the registered broker-dealer(s) and describe the nature of the affiliation(s):

(d) If the answer to Item (6)(b) is yes, did the Selling Stockholder acquire the Registrable Securities in the ordinary course of business (if not, please explain)?

(e) If the answer to Item (6)(b) is yes, did the Selling Stockholder, at the time of purchase of the Registrable Securities, have any agreements, plans or understandings, directly or indirectly, with any person to distribute the Registrable Securities (if yes, please explain)?

(7) Voting or Investment Control over the Registrable Securities:

If the Selling Stockholder is not a natural person, please identify the natural person or persons who have voting or investment control over the Registrable Securities listed in Item (2) above:

By signing below, the undersigned consents to the disclosure of the information contained herein in its answers to Items (1) through (7) above and the inclusion of such information in a Registration Statement, any amendments thereto and the related prospectus. The undersigned understands that such information will be relied upon by the Company in connection with the preparation or amendment of a Registration Statement and the related prospectus.

The undersigned has reviewed the answers to the above questions and affirms that the same are true, complete and accurate. THE UNDERSIGNED AGREES TO NOTIFY THE COMPANY IMMEDIATELY OF ANY CHANGES IN THE FOREGOING INFORMATION.

Dated: _____, 2006

Signature of Record Holder
(Please sign your name in exactly the same manner as the certificate(s) for the shares being registered)

<u>Purchaser</u>	<u>Amount</u>	<u># of Shares</u>	<u># of Warrants</u>
Christopher Forbes	\$ 1,000,000	883,002	441,501
Thomas C. Quick Charitable Foundation	300,000	264,901	132,450
Ruedi Stalder	105,841	93,458	46,729
Bruce C. Galton	75,000	66,225	33,113

John N. Braca	11,325	10,000	5,000
David Rector	11,325	10,000	5,000
Dhananjaya Dvivedi	250,000	220,751	110,375
Otago Partners, LLC	166,000	146,578	73,289
Iroquois Master Fund Ltd.	150,000	132,450	66,225
Timothy Forbes	100,000	88,300	44,150
Michael Berry	50,000	44,150	22,075
James E. Currie	30,000	26,490	13,245
	<u>\$ 2,249,491</u>	<u>1,986,306</u>	<u>993,153</u>

REGISTRATION RIGHTS AGREEMENT

This Registration Rights Agreement (the “Agreement”) is made and entered into as of this 10th day of October, 2006 by and among Senesco Technologies, Inc., a Delaware corporation (the “Company”), and the “Purchasers” named in that certain Securities Purchase Agreement by and among the Company and the Purchasers, dated as of even date herewith (the “Purchase Agreement”).

The parties hereby agree as follows:

1. **Certain Definitions.**

As used in this Agreement, the following terms shall have the following meanings:

“**Affiliate**” means, with respect to any person, any other person which directly or indirectly controls, is controlled by, or is under common control with, such person.

“**Business Day**” means a day, other than a Saturday or Sunday, on which banks in New York City are open for the general transaction of business.

“**Common Stock**” shall mean the Company’s common stock, par value \$0.01 per share, and any securities into which such shares may hereinafter be reclassified.

“**Prospectus**” shall mean (i) the prospectus included in any Registration Statement, as amended or supplemented by any prospectus supplement, with respect to the terms of the offering of any portion of the Registrable Securities covered by such Registration Statement and by all other amendments and supplements to the prospectus, including post-effective amendments and all material incorporated by reference in such prospectus, and (ii) any “free writing prospectus” as defined in Rule 405 under the 1933 Act.

“**Purchasers**” shall mean the Purchasers identified in the Purchase Agreement and any Affiliate or permitted transferee of any Purchaser who is a subsequent holder of any Warrants or Registrable Securities.

“**Register**,” “**registered**” and “**registration**” refer to a registration made by preparing and filing a Registration Statement or similar document in compliance with the 1933 Act (as defined below), and the declaration or ordering of effectiveness of such Registration Statement or document.

“**Registrable Securities**” shall mean (i) the Shares, (ii) the Warrant Shares and (iii) any other securities issued or issuable with respect to or in exchange for Registrable Securities; provided, that, a security shall cease to be a Registrable Security upon (A) sale pursuant to a Registration Statement or Rule 144 under the 1933 Act, or (B) such security becoming eligible for sale by the Purchasers pursuant to Rule 144.

“**Registration Statement**” shall mean any registration statement of the Company filed under the 1933 Act that covers the resale of any of the Registrable Securities pursuant to the provisions of this Agreement, amendments and supplements to such Registration Statement, including post-effective amendments, all exhibits and all material incorporated by reference in such Registration Statement.

“**Required Purchasers**” means the Purchasers holding a majority of the Registrable Securities.

“**SEC**” means the U.S. Securities and Exchange Commission.

“**Shares**” means the shares of Common Stock issued to the Purchasers pursuant to the Purchase Agreement.

“**1933 Act**” means the Securities Act of 1933, as amended, and the rules and regulations promulgated thereunder.

“**1934 Act**” means the Securities Exchange Act of 1934, as amended, and the rules and regulations promulgated thereunder.

“**Warrants**” means, the warrants to purchase shares of Common Stock issued to the Purchasers pursuant to the Purchase Agreement.

“**Warrant Shares**” means the shares of Common Stock issuable upon the exercise of the Warrants.

2. **Registration.**

(a) **Registration Statements.** (i) Promptly following the Closing Date (as defined in the Purchase Agreement) but no later than thirty (30) days after the Closing Date (the “Filing Deadline”), the Company shall prepare and file with the SEC a Registration Statement on Form S-3 (or, if Form S-3 is not then available to the Company, on such form of registration statement as is then available to effect a registration for resale of the Registrable Securities, subject to the Required Purchasers’ consent), covering the resale of the Registrable Securities. Such Registration Statement shall include the plan of distribution attached hereto as **Exhibit A**, subject to any SEC comments. Such Registration Statement also shall cover, to the extent allowable under the 1933 Act and the rules promulgated thereunder (including Rule 416), such indeterminate number of additional shares of Common Stock resulting from stock splits, stock dividends or similar transactions with respect to the Registrable Securities. Except for certain shares of Common Stock for the Stanford Group Company and its Affiliates, such Registration Statement shall not include any shares of Common Stock or other securities for the account of any other holder without the prior written consent of the Required Purchasers. The Registration Statement (and each amendment or supplement thereto, and each request for acceleration of effectiveness thereof) shall be provided in accordance with Section 3(c) to the Purchasers and their legal counsel prior to its filing or other submission.

(ii) If a Registration Statement covering all of the Registrable Securities is not filed with the SEC within thirty (30) Business Days of the Closing Date, the Company will make pro rata payments to each Purchaser, as liquidated damages and not as a penalty, in an amount equal to 1.0% of the aggregate amount invested by such Purchaser for each 30 day period or pro rata for any portion thereof following the date by which such Registration

Statement should have been filed for which no Registration Statement is filed. Such payments shall constitute the Purchasers' exclusive monetary remedy for such events, but shall not affect the right of the Purchasers to seek injunctive relief. Such payments shall be made to each Purchaser in cash.

(b) Expenses. The Company will pay all expenses associated with registration, including filing and printing fees, the Company's legal counsel and accounting fees

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and expenses, costs associated with clearing the Registrable Securities for sale under applicable state securities laws and listing fees.

(c) Effectiveness.

(i) The Company shall use commercially reasonable efforts to have the Registration Statement declared effective as soon as practicable. The Company shall notify the Purchasers by facsimile or electronic mail as promptly as practicable, and in any event, within twenty-four (24) hours, after any Registration Statement is declared effective and shall promptly thereafter provide the Purchasers with copies of any related Prospectus to be used in connection with the sale or other disposition of the securities covered thereby. If (A)(x) a Registration Statement covering the Registrable Securities is not declared effective by the SEC prior to the earlier of (i) five (5) Business Days after the SEC shall have informed the Company that no review of the Registration Statement will be made or that the SEC has no further comments on the Registration Statement or (ii) the 120th day after the Closing Date, or (y) a Registration Statement covering the Registrable Securities is not declared effective by the SEC within one hundred twenty (120) days following the time such Registration Statement was required to be filed pursuant to Section 2(a)(iii) or (B) after a Registration Statement has been declared effective by the SEC, sales cannot be made pursuant to such Registration Statement for any reason (including without limitation by reason of a stop order, or the Company's failure to update the Registration Statement), but excluding the inability of any Purchaser to sell the Registrable Securities covered thereby due to market conditions and except as excused pursuant to subparagraph (ii) below, then the Company will make pro rata payments to each Purchaser, as liquidated damages and not as a penalty, in an amount equal to 2.0% of the aggregate amount invested by such Investor for the first thirty (30) day period, and an amount equal to 1.0% of the aggregate amount invested by such Investor for each subsequent thirty (30) day period or pro rata for any portion thereof following the date by which such Registration Statement should have been effective (the "Blackout Period"). Such payments shall constitute the Purchasers' exclusive monetary remedy for such events, but shall not affect the right of the Purchasers to seek injunctive relief. The amounts payable as liquidated damages pursuant to this paragraph shall be paid monthly within three (3) Business Days of the last day of each month following the commencement of the Blackout Period until the termination of the Blackout Period. Such payments shall be made to each Purchaser in cash.

(ii) For not more than twenty (20) consecutive days or for a total of not more than forty-five (45) days in any twelve (12) month period, the Company may delay the disclosure of material non-public information concerning the Company, by suspending the use of any Prospectus included in any registration contemplated by this Section containing such information, the disclosure of which at the time is not, in the good faith opinion of the Company, in the best interests of the Company (an "Allowed Delay"); provided, that the Company shall promptly (a) notify the Purchasers in writing of the existence of (but in no event, without the prior written consent of an Purchaser, shall the Company disclose to such Purchaser any of the facts or circumstances regarding) material non-public information giving rise to an Allowed Delay, (b) advise the Purchasers in writing to cease all sales under the Registration Statement until the end of the Allowed Delay and (c) use commercially reasonable efforts to terminate an Allowed Delay as promptly as practicable.

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(iii) Notwithstanding anything herein to the contrary, in no event will the Company be obligated to make payments to any Purchaser under Section 2(a)(ii) or Section 2(c)(i) in excess of 10% of the aggregate amount invested by such Purchaser.

(b) Ineligibility for Form S-3. In the event that Form S-3 is not available for the registration of the resale of Registrable Securities hereunder, the Company shall (i) register the resale of the Registrable Securities on another appropriate form reasonably acceptable to the holders of at least a majority of the Registrable Securities and (ii) undertake to register the Registrable Securities on Form S-3 as soon as such form is available, provided that the Company shall maintain the effectiveness of the Registration Statement then in effect until such time as a Registration Statement on Form S-3 covering the Registrable Securities has been declared effective by the SEC.

3. Company Obligations. The Company will use commercially reasonable efforts to effect the registration of the Registrable Securities in accordance with the terms hereof, and pursuant thereto the Company will, as expeditiously as possible:

(a) use commercially reasonable efforts to cause such Registration Statement to become effective and to remain continuously effective for a period that will terminate upon the earlier of (i) the date on which all Registrable Securities covered by such Registration Statement as amended from time to time, have been sold, (ii) the date on which all Registrable Securities covered by such Registration Statement may be sold pursuant to Rule 144(k), or (iii) five years from the date hereof (the "Effectiveness Period") and advise the Purchasers in writing when the Effectiveness Period has expired;

(b) prepare and file with the SEC such amendments and post-effective amendments to the Registration Statement and the Prospectus as may be necessary to keep the Registration Statement effective for the Effectiveness Period and to comply with the provisions of the 1933 Act and the 1934 Act with respect to the distribution of all of the Registrable Securities covered thereby;

(c) provide copies to and permit counsel designated by the Purchasers to review the Registration Statement and all amendments and supplements thereto no fewer than seven (7) days prior to their filing with the SEC and not file any document to which such counsel reasonably objects;

(d) furnish to the Purchasers and their legal counsel (i) promptly after the same is prepared and publicly distributed, filed with the SEC, or received by the Company (but not later than two (2) Business Days after the filing date, receipt date or sending date, as the case may be) one

(1) copy of any Registration Statement and any amendment thereto, each preliminary prospectus and Prospectus and each amendment or supplement thereto, and each letter written by or on behalf of the Company to the SEC or the staff of the SEC, and each item of correspondence from the SEC or the staff of the SEC, in each case relating to such Registration Statement (other than any portion of any thereof which contains information for which the Company has sought confidential treatment), and (ii) such number of copies of a Prospectus, including a preliminary prospectus, and all amendments and supplements thereto and such other documents as each Purchaser may reasonably request in order to facilitate the

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disposition of the Registrable Securities owned by such Purchaser that are covered by the related Registration Statement;

(e) use commercially reasonable efforts to (i) prevent the issuance of any stop order or other suspension of effectiveness and, (ii) if such order is issued, obtain the withdrawal of any such order at the earliest possible moment;

(f) prior to any public offering of Registrable Securities, use commercially reasonable efforts to register or qualify or cooperate with the Purchasers and their counsel in connection with the registration or qualification of such Registrable Securities for offer and sale under the securities or blue sky laws of such jurisdictions requested by the Purchasers and do any and all other commercially reasonable acts or things necessary or advisable to enable the distribution in such jurisdictions of the Registrable Securities covered by the Registration Statement; provided, however, that the Company shall not be required in connection therewith or as a condition thereto to (i) qualify to do business in any jurisdiction where it would not otherwise be required to qualify but for this Section 3(f), (ii) subject itself to general taxation in any jurisdiction where it would not otherwise be so subject but for this Section 3(f), or (iii) file a general consent to service of process in any such jurisdiction;

(g) use commercially reasonable efforts to cause all Registrable Securities covered by a Registration Statement to be listed on each securities exchange, interdealer quotation system or other market on which similar securities issued by the Company are then listed;

(h) immediately notify the Purchasers, at any time prior to the end of the Effectiveness Period, upon discovery that, or upon the happening of any event as a result of which, the Prospectus includes an untrue statement of a material fact or omits to state any material fact required to be stated therein or necessary to make the statements therein not misleading in light of the circumstances then existing, and promptly prepare, file with the SEC and furnish to such holder a supplement to or an amendment of such Prospectus as may be necessary so that such Prospectus shall not include an untrue statement of a material fact or omit to state a material fact required to be stated therein or necessary to make the statements therein not misleading in light of the circumstances then existing; and

(i) otherwise use commercially reasonable efforts to comply with all applicable rules and regulations of the SEC under the 1933 Act and the 1934 Act, including, without limitation, Rule 172 under the 1933 Act, file any final Prospectus, including any supplement or amendment thereof, with the SEC pursuant to Rule 424 under the 1933 Act, promptly inform the Purchasers in writing if, at any time during the Effectiveness Period, the Company does not satisfy the conditions specified in Rule 172 and, as a result thereof, the Purchasers are required to deliver a Prospectus in connection with any disposition of Registrable Securities and take such other actions as may be reasonably necessary to facilitate the registration of the Registrable Securities hereunder; and make available to its security holders, as soon as reasonably practicable, but not later than the Availability Date (as defined below), an earnings statement covering a period of at least twelve (12) months, beginning after the effective date of the Registration Statement, which earnings statement shall satisfy the provisions of Section 11(a) of the 1933 Act, including Rule 158 promulgated thereunder (for the purpose of

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this subsection 3(i), "Availability Date" means the 45th day following the end of the fourth fiscal quarter that includes the effective date of such Registration Statement, except that, if such fourth fiscal quarter is the last quarter of the Company's fiscal year, "Availability Date" means the 90th day after the end of such fourth fiscal quarter).

(j) With a view to making available to the Purchasers the benefits of Rule 144 (or its successor rule) and any other rule or regulation of the SEC that may at any time permit the Purchasers to sell shares of Common Stock to the public without registration, the Company covenants and agrees to: (i) make and keep public information available, as those terms are understood and defined in Rule 144, until the earlier of (A) six months after such date as all of the Registrable Securities may be resold pursuant to Rule 144(k) or any other rule of similar effect or (B) such date as all of the Registrable Securities shall have been resold; (ii) file with the SEC in a timely manner all reports and other documents required of the Company under the 1934 Act; and (iii) furnish to each Purchaser upon request, as long as such Purchaser owns any Registrable Securities, (A) a written statement by the Company that it has complied with the reporting requirements of the 1934 Act, (B) a copy of the Company's most recent Annual Report on Form 10-K or Quarterly Report on Form 10-Q, and (C) such other information as may be reasonably requested in order to avail such Purchaser of any rule or regulation of the SEC that permits the selling of any such Registrable Securities without registration.

4. **Due Diligence Review; Information.** The Company shall make available, during normal business hours, for inspection and review by the Purchasers, advisors to and representatives of the Purchasers (who may or may not be affiliated with the Purchasers and who are reasonably acceptable to the Company), all financial and other records, all reports filed by the Company pursuant to the 1934 Act and other filings with the SEC, and all other corporate documents and properties of the Company as may be reasonably necessary for the purpose of such review, and cause the Company's officers, directors and employees, within a reasonable time period, to supply all such information reasonably requested by the Purchasers or any such representative, advisor or underwriter in connection with such Registration Statement (including, without limitation, in response to all questions and other inquiries reasonably made or submitted by any of them), prior to and from time to time after the filing and effectiveness of the Registration Statement for the sole purpose of enabling the Purchasers and such representatives, advisors and underwriters and their respective accountants and attorneys to conduct initial and ongoing due diligence with respect to the Company and the accuracy of such Registration Statement.

The Company shall not disclose material nonpublic information to the Purchasers, or to advisors to or representatives of the Purchasers, unless prior to disclosure of such information the Company identifies such information as being material nonpublic information and provides the Purchasers,

5. Obligations of the Purchasers.

(a) Each Purchaser shall furnish in writing to the Company such information regarding itself, the Registrable Securities held by it and the intended method of disposition of the Registrable Securities held by it, as shall be reasonably required to effect the registration of such Registrable Securities and shall execute such documents in connection with such registration as the Company may reasonably request. At least five (5) Business Days prior to the first anticipated filing date of any Registration Statement, the Company shall notify each Purchaser of the information the Company requires from such Purchaser if such Purchaser elects to have any of the Registrable Securities included in the Registration Statement. An Purchaser shall provide such information to the Company at least two (2) Business Days prior to the first anticipated filing date of such Registration Statement if such Purchaser elects to have any of the Registrable Securities included in the Registration Statement.

(b) Each Purchaser, by its acceptance of the Registrable Securities agrees to cooperate with the Company as reasonably requested by the Company in connection with the preparation and filing of a Registration Statement hereunder, unless such Purchaser has notified the Company in writing of its election to exclude all of its Registrable Securities from such Registration Statement.

(c) Each Purchaser agrees that, upon receipt of any notice from the Company of either (i) the commencement of an Allowed Delay pursuant to Section 2(c)(ii) or (ii) the happening of an event pursuant to Section 3(h) hereof, such Purchaser will immediately discontinue disposition of Registrable Securities pursuant to the Registration Statement covering such Registrable Securities, until the Purchaser receipt of the supplemented or amended prospectus filed with the SEC and until and related post-effective amendment is declared effective by the SEC.

6. Indemnification.

(a) Indemnification by the Company. The Company will indemnify and hold harmless each Purchaser and its officers, directors, members, employees and agents, successors and assigns, and each other person, if any, who controls such Purchaser within the meaning of the 1933 Act, against any losses, claims, damages or liabilities, joint or several, to which they may become subject under the 1933 Act or otherwise, insofar as such losses, claims, damages or liabilities (or actions in respect thereof) arise out of or are based upon: (i) any untrue statement or alleged untrue statement of any material fact contained in any Registration Statement, any preliminary Prospectus or final Prospectus, or any amendment or supplement thereof; (ii) any blue sky application or other document executed by the Company specifically for that purpose or based upon written information furnished by the Company filed in any state or other jurisdiction in order to qualify any or all of the Registrable Securities under the securities laws thereof (any such application, document or information herein called a "Blue Sky Application"); (iii) the omission or alleged omission to state therein a material fact required to be stated therein or necessary to make the statements therein not misleading; (iv) any violation by the Company or its agents of any rule or regulation promulgated under the 1933 Act and the 1934 Act applicable to the Company or its agents and relating to action or inaction required of the Company in connection with such registration; (v) any material violation of this Agreement; or (vi) any failure to register or qualify the Registrable Securities included in any such Registration in any state where the Company or its agents has affirmatively undertaken or agreed

in writing that the Company will undertake such registration or qualification on a Purchaser's behalf and will reimburse such Purchaser, and each such officer, director or member and each such controlling person for any legal or other expenses, including reasonable attorneys' fees, reasonably incurred by them in connection with investigating or defending any such loss, claim, damage, liability or action; provided, however, that the Company will not be liable in any such case if and to the extent that any such loss, claim, damage or liability arises out of or is based upon an untrue statement or alleged untrue statement or omission or alleged omission so made in conformity with information furnished by such Purchaser or any such controlling person in writing specifically for use in such Registration Statement or Prospectus.

(b) Indemnification by the Purchasers. Each Purchaser agrees, severally but not jointly, to indemnify and hold harmless, to the fullest extent permitted by law, the Company, its directors, officers, employees, stockholders and each person who controls the Company (within the meaning of the 1933 Act) against any losses, claims, damages, liabilities and expense (including reasonable attorney fees) resulting from any untrue statement of a material fact or any omission of a material fact required to be stated in the Registration Statement or Prospectus or preliminary Prospectus or amendment or supplement thereto or necessary to make the statements therein not misleading, to the extent, but only to the extent that such untrue statement or omission is contained in any information furnished in writing by such Purchaser to the Company specifically for inclusion in such Registration Statement or Prospectus or amendment or supplement thereto. In no event shall the liability of an Purchaser be greater in amount than the dollar amount of the proceeds (net of all expense paid by such Purchaser in connection with any claim relating to this Section 6 and the amount of any damages such Purchaser has otherwise been required to pay by reason of such untrue statement or omission) received by such Purchaser upon the sale of the Registrable Securities included in the Registration Statement giving rise to such indemnification obligation.

(c) Conduct of Indemnification Proceedings. Any person entitled to indemnification hereunder shall (i) give prompt notice to the indemnifying party of any claim with respect to which it seeks indemnification and (ii) permit such indemnifying party to assume the defense of such claim with counsel reasonably satisfactory to the indemnified party; provided that any person entitled to indemnification hereunder shall have the right to employ separate legal counsel and to participate in the defense of such claim, but the fees and expenses of such legal counsel shall be at the expense of such person unless (a) the indemnifying party has agreed to pay such fees or expenses, or (b) the indemnifying party shall have failed to assume the defense of such claim and employ counsel reasonably satisfactory to such person or (c) in the reasonable judgment of any such person, based upon written advice of its legal counsel, a conflict of interest exists between such person and the indemnifying party with respect to such claims (in which case, if the person notifies the indemnifying party in writing that such person elects to employ separate counsel at the expense of the indemnifying party, the indemnifying party shall not have the right to assume the defense of such claim on behalf of such person); and provided, further, that the failure of any indemnified party to give notice as provided herein shall not relieve the indemnifying party of its obligations hereunder, except to the extent that such failure to give notice shall materially

adversely affect the indemnifying party in the defense of any such claim or litigation. It is understood that the indemnifying party shall not, in connection with any proceeding in the same jurisdiction, be liable for fees or expenses of more than one separate firm of attorneys at any time for all such indemnified parties. No indemnifying party

will, except with the consent of the indemnified party, consent to entry of any judgment or enter into any settlement that does not include as an unconditional term thereof the giving by the claimant or plaintiff to such indemnified party of a release from all liability in respect of such claim or litigation.

(d) Contribution. If for any reason the indemnification provided for in the preceding paragraphs (a) and (b) is unavailable to an indemnified party or insufficient to hold it harmless, other than as expressly specified therein, then the indemnifying party shall contribute to the amount paid or payable by the indemnified party as a result of such loss, claim, damage or liability in such proportion as is appropriate to reflect the relative fault of the indemnified party and the indemnifying party, as well as any other relevant equitable considerations. No person guilty of fraudulent misrepresentation within the meaning of Section 11(f) of the 1933 Act shall be entitled to contribution from any person not guilty of such fraudulent misrepresentation. In no event shall the contribution obligation of a holder of Registrable Securities be greater in amount than the dollar amount of the proceeds (net of all expenses paid by such holder in connection with any claim relating to this Section 6 and the amount of any damages such holder has otherwise been required to pay by reason of such untrue or alleged untrue statement or omission or alleged omission) received by it upon the sale of the Registrable Securities giving rise to such contribution obligation.

7. Miscellaneous.

(a) Amendments and Waivers. This Agreement may be amended only by a writing signed by the Company and the Required Purchasers. The Company may take any action herein prohibited, or omit to perform any act herein required to be performed by it, only if the Company shall have obtained the written consent to such amendment, action or omission to act, of the Required Purchasers.

(b) Notices. All notices and other communications provided for or permitted hereunder shall be sent (i) to the addresses provided by the Purchasers on the signature page to the Purchase Agreement or (ii) to 303 George Street, Suite 420, New Brunswick, New Jersey 08901, Attention: President for the Company.

(c) Assignments and Transfers by Purchasers. The provisions of this Agreement shall be binding upon and inure to the benefit of the Purchasers and their respective successors and assigns. An Purchaser may transfer or assign, in whole or from time to time in part, to one or more persons its rights hereunder in connection with the transfer of Registrable Securities by such Purchaser to such person, provided that such Purchaser complies with all laws applicable thereto and provides written notice of assignment to the Company promptly after such assignment is effected.

(d) Assignments and Transfers by the Company. This Agreement may not be assigned by the Company (whether by operation of law or otherwise) without the prior written consent of the Required Purchasers, provided, however, that the Company may assign its rights and delegate its duties hereunder to any surviving or successor corporation in connection with a merger or consolidation of the Company with another corporation, or a sale, transfer or other disposition of all or substantially all of the Company's assets to another corporation,

without the prior written consent of the Required Purchasers, after notice duly given by the Company to each Purchaser.

(e) Benefits of the Agreement. The terms and conditions of this Agreement shall inure to the benefit of and be binding upon the respective permitted successors and assigns of the parties. Nothing in this Agreement, express or implied, is intended to confer upon any party other than the parties hereto or their respective successors and assigns any rights, remedies, obligations, or liabilities under or by reason of this Agreement, except as expressly provided in this Agreement.

(f) Counterparts; Faxes. This Agreement may be executed in two or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument. This Agreement may also be executed via facsimile, which shall be deemed an original.

(g) Titles and Subtitles. The titles and subtitles used in this Agreement are used for convenience only and are not to be considered in construing or interpreting this Agreement.

(h) Severability. Any provision of this Agreement that is prohibited or unenforceable in any jurisdiction shall, as to such jurisdiction, be ineffective to the extent of such prohibition or unenforceability without invalidating the remaining provisions hereof but shall be interpreted as if it were written so as to be enforceable to the maximum extent permitted by applicable law, and any such prohibition or unenforceability in any jurisdiction shall not invalidate or render unenforceable such provision in any other jurisdiction. To the extent permitted by applicable law, the parties hereby waive any provision of law which renders any provisions hereof prohibited or unenforceable in any respect.

(i) Further Assurances. The parties shall execute and deliver all such further instruments and documents and take all such other actions as may reasonably be required to carry out the transactions contemplated hereby and to evidence the fulfillment of the agreements herein contained.

(j) Entire Agreement. This Agreement is intended by the parties as a final expression of their agreement and intended to be a complete and exclusive statement of the agreement and understanding of the parties hereto in respect of the subject matter contained herein. This Agreement supersedes all prior agreements and understandings between the parties with respect to such subject matter.

(k) Governing Law. This Agreement shall be governed by and construed in accordance with the laws of the State of Delaware applicable in the case of agreements made and to be performed entirely within such State, without regard to principles of conflicts of law, and the parties hereto hereby submit to the exclusive jurisdiction of the state and federal courts located in the State of New Jersey.

[Signature page follows]

IN WITNESS WHEREOF, the parties have executed this Agreement or caused their duly authorized officers to execute this Agreement as of the date first above written.

The Company:

SENESCO TECHNOLOGIES, INC.

By: _____
Name:
Title:

[Signature Page to the Registration Rights Agreement]

The Purchasers:

By: _____
Name:
Title:

By: _____
Name:
Title:

By: _____
Name:
Title:

By: _____
Name:
Title:

By: _____
Name:
Title:

By: _____
Name:
Title:

Plan of Distribution

The selling stockholders, which as used herein includes donees, pledgees, transferees or other successors-in-interest selling shares of common stock or interests in shares of common stock received after the date of this prospectus from a selling stockholder as a gift, pledge, partnership distribution or other transfer, may, from time to time, sell, transfer or otherwise dispose of any or all of their shares of common stock or interests in shares of common stock on any stock exchange, market or trading facility on which the shares are traded or in private transactions. These dispositions may be at fixed prices, at

prevailing market prices at the time of sale, at prices related to the prevailing market price, at varying prices determined at the time of sale, or at negotiated prices.

The selling stockholders may use any one or more of the following methods when disposing of shares or interests therein:

- ordinary brokerage transactions and transactions in which the broker-dealer solicits purchasers;
- block trades in which the broker-dealer will attempt to sell the shares as agent, but may position and resell a portion of the block as principal to facilitate the transaction;
- purchases by a broker-dealer as principal and resale by the broker-dealer for its account;
- an exchange distribution in accordance with the rules of the applicable exchange;
- privately negotiated transactions;
- short sales effected after the date the registration statement of which this Prospectus is a part is declared effective by the SEC;
- through the writing or settlement of options or other hedging transactions, whether through an options exchange or otherwise;
- broker-dealers may agree with the selling stockholders to sell a specified number of such shares at a stipulated price per share; and
- a combination of any such methods of sale.

The selling stockholders may, from time to time, pledge or grant a security interest in some or all of the shares of common stock owned by them and, if they default in the performance of their secured obligations, the pledgees or secured parties may offer and sell the shares of common stock, from time to time, under this prospectus, or under an amendment to this prospectus under Rule 424(b)(3) or other applicable provision of the Securities Act amending the list of selling stockholders to include the pledgee, transferee or other successors in interest as

selling stockholders under this prospectus. The selling stockholders also may transfer the shares of common stock in other circumstances, in which case the transferees, pledgees or other successors in interest will be the selling beneficial owners for purposes of this prospectus.

In connection with the sale of our common stock or interests therein, the selling stockholders may enter into hedging transactions with broker-dealers or other financial institutions, which may in turn engage in short sales of the common stock in the course of hedging the positions they assume. The selling stockholders may also sell shares of our common stock short and deliver these securities to close out their short positions, or loan or pledge the common stock to broker-dealers that in turn may sell these securities. The selling stockholders may also enter into option or other transactions with broker-dealers or other financial institutions or the creation of one or more derivative securities which require the delivery to such broker-dealer or other financial institution of shares offered by this prospectus, which shares such broker-dealer or other financial institution may resell pursuant to this prospectus (as supplemented or amended to reflect such transaction).

The aggregate proceeds to the selling stockholders from the sale of the common stock offered by them will be the purchase price of the common stock less discounts or commissions, if any. Each of the selling stockholders reserves the right to accept and, together with their agents from time to time, to reject, in whole or in part, any proposed purchase of common stock to be made directly or through agents. We will not receive any of the proceeds from this offering. Upon any exercise of the warrants by payment of cash, however, we will receive the exercise price of the warrants.

The selling stockholders also may resell all or a portion of the shares in open market transactions in reliance upon Rule 144 under the Securities Act of 1933, provided that they meet the criteria and conform to the requirements of that rule.

The selling stockholders and any underwriters, broker-dealers or agents that participate in the sale of the common stock or interests therein may be “underwriters” within the meaning of Section 2(11) of the Securities Act. Specifically, the selling stockholders who are registered broker-dealers are deemed to be “underwriters” within the meaning of the Securities Act. In addition, selling stockholders who are affiliates of registered broker-dealers may be deemed to be “underwriters” within the meaning of the Securities Act if such selling stockholder (i) did not acquire the shares of common stock in the ordinary course of business or (ii) had any agreement or understanding, directly or indirectly, with any person to distribute the shares of common stock. In such event, any commissions received by such broker-dealers or agents and any profit on the resale of the shares purchased by them may be deemed to be underwriting commissions or discounts under the Securities Act, and such selling stockholders may be subject to certain additional regulations and statutory liabilities under the Securities Act and Exchange Act. To our knowledge and based upon information we received from the selling stockholders, (i) each selling stockholder that is a registered broker-dealer or affiliated with a registered broker-dealer acquired the shares of common stock in the ordinary course of business, (ii) such selling stockholder did not have any agreement or understanding, directly or indirectly, with any person to distribute the shares of common stock, and (iii) no such selling stockholder received any securities as underwriting compensation, except for H.C. Wainwright & Co., Inc. as

compensation for acting as the placement agent in connection with the issuance of our common stock. We are also not aware of any underwriting plan or agreement, underwriters’ or dealers’ compensation, or passive market making or stabilizing transactions involving the purchase or distribution of these securities.

Any discounts, commissions, concessions or profit they earn on any resale of the shares may be underwriting discounts and commissions under the Securities Act. Selling stockholders who are “underwriters” within the meaning of Section 2(11) of the Securities Act will be subject to the prospectus delivery requirements of the Securities Act.

To the extent required, the shares of our common stock to be sold, the names of the selling stockholders, the respective purchase prices and public offering prices, the names of any agents, dealer or underwriter, any applicable commissions or discounts with respect to a particular offer will be set forth in an accompanying prospectus supplement or, a post-effective amendment to the registration statement that includes this prospectus, or, if appropriate, a filing pursuant to the Securities Exchange Act of 1934, as amended.

In order to comply with the securities laws of some states, if applicable, the common stock may be sold in these jurisdictions only through registered or licensed brokers or dealers. In addition, in some states the common stock may not be sold unless it has been registered or qualified for sale or an exemption from registration or qualification requirements is available and is complied with.

We have advised the selling stockholders that the anti-manipulation rules of Regulation M under the Exchange Act may apply to sales of shares in the market and to the activities of the selling stockholders and their affiliates. In addition, to the extent applicable we will make copies of this prospectus (as it may be supplemented or amended from time to time) available to the selling stockholders for the purpose of satisfying the prospectus delivery requirements of the Securities Act. The selling stockholders may indemnify any broker-dealer that participates in transactions involving the sale of the shares against certain liabilities, including liabilities arising under the Securities Act.

We have agreed to indemnify the selling stockholders against liabilities, including liabilities under the Securities Act and state securities laws, relating to the registration of the shares offered by this prospectus.

We have agreed with the selling stockholders to keep the registration statement of which this prospectus constitutes a part effective until the earlier of (1) such time as all of the shares covered by this prospectus have been disposed of pursuant to and in accordance with the registration statement, (2) the date on which the shares may be sold pursuant to Rule 144(k) of the Securities Act, or (3) October 10, 2011.

<u>Purchaser</u>	<u>Amount</u>	<u># of Shares</u>	<u># of Warrants</u>
Christopher Forbes	\$ 1,000,000	883,002	441,501
Thomas C. Quick Charitable Foundation	300,000	264,901	132,450
Ruedi Stalder	105,841	93,458	46,729
Bruce C. Galton	75,000	66,225	33,113
John N. Braca	11,325	10,000	5,000
David Rector	11,325	10,000	5,000
Dhananjaya Dvivedi	250,000	220,751	110,375
Otago Partners, LLC	166,000	146,578	73,289
Iroquois Master Fund Ltd.	150,000	132,450	66,225
Timothy Forbes	100,000	88,300	44,150
Michael Berry	50,000	44,150	22,075
James E. Currie	30,000	26,490	13,245
	<u>\$ 2,249,491</u>	<u>1,986,306</u>	<u>993,153</u>

**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: [], 2006

Original Issue Date (as defined in subsection 2(a)): [], 2006

Senesco Technologies, Inc.

Common Stock Purchase Warrant

(Void after [], 2011(1))

Senesco Technologies, Inc., a Delaware corporation (the "Company"), for value received, hereby certifies that [], 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 [](2) and on or before 5:00 p.m. (New York time) on [], 2011, [](3) shares of Common Stock, \$0.01 par value per share, of the Company ("Common Stock"), at a purchase price of \$1.18 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 one of a series of Warrants issued by the Company in connection with a private placement of Common Stock 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 within three (3) business days thereafter.

(1) Fifth anniversary of closing date.

(2) Six months and 1 day after Closing date.

(3) 50% of the common stock purchased by such Purchaser pursuant to the Securities Purchase Agreement.

(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(a) 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 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.

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 below, 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 below 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.

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) below).

(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 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.

(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 2(e) above.

4. 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 Securities Act of 1933, as amended (the "Act"), or (ii) such sale or transfer shall be exempt from the registration requirements of the Act and the Company 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 4, 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 4 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).

5. 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.

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, 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.

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.

8. 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 4 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.

9. 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.

10. 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.

11. 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.

12. 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.

13. 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).

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

* * * * *

EXECUTED as of the Date of Issuance indicated above.

SENESCO TECHNOLOGIES, INC.

By: _____

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.

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.

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, as amended.

Purchaser	Amount	# of Shares	# of Warrants
Christopher Forbes	\$ 1,000,000	883,002	441,501
Thomas C. Quick Charitable Foundation	300,000	264,901	132,450
Ruedi Stalder	105,841	93,458	46,729
Bruce C. Galton	75,000	66,225	33,113
John N. Braca	11,325	10,000	5,000
David Rector	11,325	10,000	5,000
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Timothy Forbes	100,000	88,300	44,150
Michael Berry	50,000	44,150	22,075
James E. Currie	30,000	26,490	13,245
	<u>\$ 2,249,491</u>	<u>1,986,306</u>	<u>993,153</u>

H. C. WAINWRIGHT & CO., INC.

Investments Since 1868

52 Vanderbilt Avenue, 12th Floor
New York, NY 10017

Phone: (212) 856-5700
Fax: (212) 856-5753

**Engagement Letter and Proposal-Subject to Commitment Committee Approval
Private and Confidential**

April 28, 2006

Senesco Technologies, Inc.
303 George Street
Suite 420
New Brunswick, NJ 08901
Attention: Mr. Bruce C. Galton
President and Chief Executive Officer

Dear Mr. Galton:

We are pleased that Senesco Technologies, Inc., a company incorporated under the laws of the State of Delaware (the “**Company**”), has decided to retain H.C. Wainwright & Co., Inc. (“**H.C. Wainwright**”) on an exclusive basis to act as placement agent in connection with the proposed offering of equity and/or equity linked securities, including convertible securities, of the Company in an amount up to \$10.0 million (the “**Financing**”). The sale of the securities may be completed under an effective shelf registration statement, if applicable, or may occur through a series of one or more private placements pursuant to one or more exemptions from registration under the Securities Act of 1933, as amended (the “**Securities Act**”), and in compliance with applicable securities laws of states and other jurisdictions (“**Blue Sky Laws**”). This letter agreement (“**Agreement**”) will confirm H.C. Wainwright’s acceptance of such retention and set forth the terms of our engagement. For purposes of this Agreement, the term “**Company**” shall include all of Senesco Technologies, Inc.’s subsidiaries, affiliates, entities, successors and assigns.

1. **Retention.** Subject to the terms and conditions of this Agreement, the Company hereby retains H.C. Wainwright as its exclusive placement agent to arrange for the sale of securities on terms and conditions satisfactory to the Company and H.C. Wainwright and H.C. Wainwright accepts such retention on a “best efforts” basis and on the other terms and conditions set forth in this Agreement.

During the term of this Agreement as set forth in Section 9, the Company shall not, and shall not permit its affiliates or their representatives to, directly or indirectly, (i) offer any securities for sale to, or otherwise contact, discuss or negotiate with respect to any offer or sale of any securities with, any person, (ii) authorize anyone other than H.C. Wainwright to act on behalf of the Company to place any securities or (iii) have any discussions or negotiations with any person other than H.C. Wainwright with respect to engaging such person as a finder, broker, dealer, agent or financial advisor in connection with any sale of securities. The Company shall, and shall cause its affiliates and its and their officers, directors, employees and representatives to, promptly refer to H.C. Wainwright all offers, inquiries and proposals relating to any securities received at any time during the term of this Agreement.

2. **Information.** In connection with H.C. Wainwright’s activities hereunder, the Company will furnish H.C. Wainwright with all material and information regarding the business and financial

condition of the Company (the “**Information**”), and with a private placement memorandum with respect to the Company and the Placement, if required (such memorandum in the form authorized by the Company, including any exhibits or supplements thereto, being the “**Private Placement Materials**”). In addition, the Company shall provide H.C. Wainwright with reasonable access upon prior notice to the Company’s officers, directors, employees and advisors during normal business hours. The Company represents and warrants to H.C. Wainwright that all Information and Private Placement Materials made available to H.C. Wainwright hereunder will be complete and correct in all material respects and will not contain any untrue statement of a material fact or omit to state a material fact necessary in order to make the statements therein not misleading in light of the circumstances under which such statements are or will be made. The Company further represents and warrants that any projections and other forward-looking information provided by it to H.C. Wainwright will have been prepared in good faith and will be based upon assumptions which, in light of the circumstances under which they are made, are reasonable. The Company recognizes and confirms that H.C. Wainwright: (i) will use and rely primarily on the Information and the Private Placement Materials and on information available from generally recognized public sources in performing the services contemplated by this Agreement without having independently verified the same; (ii) does not assume responsibility for the accuracy or completeness of the Information and Offering Materials and such other information; (iii) will not make an appraisal of any assets of the Company; and (iv) retains the right to continue to perform due diligence during the course of the engagement. In addition, H.C. Wainwright is authorized as the Company’s exclusive placement agent in connection with capital raising efforts to transmit to any prospective investor a copy or copies of the Private Placement Materials, forms of purchase agreements and any other legal documentation supplied to H.C. Wainwright for transmission to any prospective investor by or on behalf of the Company or by any of the Company’s officers, representatives or agents, in connection with the performance of H.C. Wainwright’s services hereunder or any transaction contemplated hereby. Any advice rendered by H.C. Wainwright pursuant to this Agreement may not be disclosed publicly without H.C. Wainwright’s prior written consent. H.C. Wainwright hereby acknowledges that certain of the Information received by H.C. Wainwright may be confidential and/or proprietary, including Information with respect to the Company’s technologies, products, business plans, marketing, and other Information which must be maintained by H.C. Wainwright as confidential unless; (i) disclosure is required by law or requested by any government, regulatory or self-regulatory agency or body; (ii) any Information is or becomes generally available to the public not as a result of a breach of any confidentiality agreement with the Company; or (iii) any Information was or becomes available to H.C. Wainwright on a non-confidential basis from a source other than the Company or any of its representatives not as a result of a breach of any confidentiality agreement with the Company. H.C. Wainwright agrees that it will not disclose such confidential and/or proprietary Information to any other companies in the industry in which the Company is involved or use such confidential and/or proprietary Information to the detriment of the Company.

3. Compensation. As consideration for H.C. Wainwright's services pursuant to this Agreement, H.C. Wainwright shall be entitled to receive, and the Company agrees to pay H.C. Wainwright, the following compensation:

- (a) At each closing of the Financing, the Company shall pay H.C. Wainwright a cash fee of seven percent (7%) of the aggregate amount of capital actually invested in the Company from investors, other than those investors in the Financing introduced by the Company as set forth in subsection (b) below. The fees shall be earned by and paid to H.C. Wainwright by the Company, via wire transfer on the day of each closing, in connection with each Financing undertaken by the Company.

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- (b) In the event that the Company introduces investors to the Financing, H.C. Wainwright shall receive a management fee equal to three percent (3%) for any amount of investment such investors shall make in the Company.
- (c) In the event that the Company retains a solicitation agent with respect to its warrants, H.C. Wainwright shall act as solicitation agent on behalf of the Company in connection with the exercise of investor warrants issued in connection with the Financings and shall pay H.C. Wainwright a cash fee of seven percent (7%) of the aggregate consideration received by the Company in connection with the exercise of such warrants as a result of H.C. Wainwright's efforts.
- (d) On each closing date of a Financing, the Company shall issue to H.C. Wainwright or its permitted assignees, warrants (the "**Agent Warrants**") to purchase such number of shares of common stock of the Company equal to seven percent (7%) of the aggregate number of shares of common stock sold (or issuable upon exercise of any convertible securities sold) in such Financing at an exercise price equal to 100% of the purchase price or the conversion price of the securities sold in the Financing. The Agent Warrants shall provide for (a) a 5-year term, and (b) cashless exercise provisions, (c) piggyback and demand registration rights and (d) anti dilution against organic changes (i.e. stock splits). The shares of Common Stock of the Company underlying the Agent Warrants, if any, (or the shares of Common Stock underlying the securities issuable upon exercise of the Agent Warrants) shall be registered in the registration statement, if any, filed in connection with the Financing.
- (e) The Company agrees that if within twelve (12) months from the effective date of the termination of this Agreement either the Company or any party to whom the Company was originally introduced by H.C. Wainwright or who was contacted by H.C. Wainwright in connection with its services for the Company hereunder proposes a Financing involving the Company or provides Financing to the Company and H.C. Wainwright is not engaged as the Company's exclusive financial advisor, agent and/or investment banker in connection with such Financing, then, if any such Financing is consummated, the Company shall pay to H.C. Wainwright the fees set forth above, that H.C. Wainwright would have received had H.C. Wainwright been engaged as the Company's exclusive financial advisor in connection with such Financing. As promptly as practicable after the termination of this Agreement, the parties shall agree on the list of investors introduced by H.C. Wainwright to the Company in connection with the Financing for which this subsection (e) shall be applicable. From time to time, H.C. Wainwright will provide this list of such investor to the Company.

4. Certain Placement Procedures. The Company and H.C. Wainwright each represents to the other that it has not taken, and the Company and H.C. Wainwright each agrees with the other that it will not take any action, directly or indirectly, so as to cause the Financing to fail to be entitled to rely upon the exemption from registration afforded by Section 4(2) of the Securities Act. In effecting the Financing, the Company and H.C. Wainwright each agrees to comply in all material respects with applicable provisions of the Securities Act and any regulations thereunder and any applicable state laws and requirements. The Company agrees that any representations and warranties made by it to any investor in the Financing shall be deemed incorporated herein in their entirety and also to be made to H.C. Wainwright for its benefit. The Company agrees that it shall cause an opinion of its counsel to be addressed and delivered to H.C. Wainwright and any investors in the Financing.

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5. Expenses. In addition to payment to H.C. Wainwright of the compensation set forth in Section 3 hereof, the Company shall promptly upon request from time to time reimburse H.C. Wainwright for all reasonable expenses (including, without limitation, fees and disbursements of counsel, all travel expenses, blue sky fees and expenses, filings with the National Association of Securities Dealers, Inc. (the "NASD"), expenses related to background checks and all other out-of-pocket expenses) incurred by H.C. Wainwright in connection with its engagement hereunder. These expenses shall not exceed \$20,000 and H.C. Wainwright will provide the Company an invoice and copies of receipts pursuant to its expenses; provided that the foregoing limitation and consent shall not apply to legal fees or NASD or "blue sky" fees and expenses. In connection with the Financing, the Company shall not incur legal fees related to the drafting and review of legal documents, on behalf of the investors, to exceed \$30,000.

6. Indemnification. The Company agrees to indemnify H.C. Wainwright in accordance with the indemnification and other provisions attached to this Agreement as Exhibit A (the "**Indemnification Provisions**"), which provisions are incorporated herein by reference and shall survive the termination or expiration of this Agreement.

7. Future Rights. As additional consideration for its services hereunder and as an inducement to cause H.C. Wainwright to enter into this Agreement, if at any time during the term of this Agreement or within twelve (12) months from the effective date of the termination of this Agreement, the Company proposes to effect a public offering of its securities, a financing or any other transaction or to engage an investment banking firm to provide such services to the Company (other than during the term of this Agreement the services to be provided by H.C. Wainwright hereunder), the Company shall offer to retain H.C. Wainwright as manager of such offering, or as its exclusive advisor, agent and/or investment banker in connection with such financing or other matter, upon such terms as the parties may mutually agree, such terms to be set forth in a separate engagement letter or other agreement between the parties. The terms of such engagement for a public offering will be delineated in a separate and specific agreement; provided that the fees associated with such engagement would be 7% cash and 7% underwriters' warrants, for any offering up to \$20,000,000 and negotiated above that level, as to conform with the NASD Guideline of Underwriters' compensation. Such offer shall be made in writing in order to be effective. The Company shall not offer to retain any other

investment banking firm in connection with any such offering, financing or other matter on terms more favorable than those discussed with H.C. Wainwright without offering to retain H.C. Wainwright on such more favorable terms. H.C. Wainwright shall notify the Company within 30 days of its receipt of the written offer contemplated above as to whether or not it agrees to accept such retention. If H.C. Wainwright should decline such retention, the Company shall have no further obligations to H.C. Wainwright, except as specifically provided for herein. Notwithstanding the foregoing, if the Company shall terminate this Agreement pursuant to Section 9 below, then H.C. Wainwright shall not be entitled to any rights set forth in this Section 7.

8. Other Activities. The Company acknowledges that H.C. Wainwright has been, and may in the future be, engaged to provide services as an underwriter, placement agent, finder, advisor and investment banker to other companies in the industry in which the Company is involved. Subject to the confidentiality provisions of H.C. Wainwright contained in Section 2 hereof, the Company acknowledges and agrees that nothing contained in this Agreement shall limit or restrict the right of H.C. Wainwright or of any member, manager, officer, employee, agent or representative of H.C. Wainwright, to be a member, manager, partner, officer, director, employee, agent or representative of, investor in, or to engage in, any other business, whether or not of a similar nature to the Company's business, nor to limit or restrict the right of H.C. Wainwright to render services of any kind to any other corporation, firm, individual or association. H.C. Wainwright may, but shall not be required to, present opportunities to the Company.

9. Termination; Survival of Provisions. Either H.C. Wainwright or the Company may terminate this Agreement at any time upon 30 days' prior written notice to the other party after the three

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(3) month anniversary of the completion of the Private Placement Materials. In the event of such termination, the Company shall pay and deliver to H.C. Wainwright: (i) all compensation earned through the date of such termination ("**Termination Date**") pursuant to any provision of Section 3 hereof, and (ii) all compensation which may be earned by H.C. Wainwright after the Termination Date pursuant to Section 3 hereof, and shall reimburse H.C. Wainwright for all expenses incurred by H.C. Wainwright in connection with its services hereunder pursuant to Section 5 hereof. All such fees and reimbursements due to H.C. Wainwright pursuant to the immediately preceding sentence shall be paid to H.C. Wainwright on or before the Termination Date (in the event such fees and reimbursements are earned or owed as of the Termination Date) or upon the closing of a Financing or any applicable portion thereof (in the event such fees are due pursuant to the terms of Section 3 hereof). Notwithstanding anything expressed or implied herein to the contrary: (i) any Agency Agreement entered into between H.C. Wainwright and the Company may only be terminated in accordance with the terms thereof, notwithstanding an actual or purported termination of this Agreement, and (ii) the terms and provisions of Sections 3, 5, 6 (including, but not limited to, the Indemnification Provisions attached to this Agreement and incorporated herein by reference), 7, 8, 9, 10, 11, 13, 14, 15, 18, 19 and 20 shall survive the termination of this Agreement. In the event, all of the individuals referenced on Schedule 1 were to leave the firm, the Company would have the right at such time to terminate this Agreement upon 30 days written notice, after such date.

10. Notices. All notices provided hereunder shall be given in writing and either delivered personally or by overnight courier service or sent by certified mail, return receipt requested, or by facsimile transmission, if to H.C. Wainwright, to H.C. Wainwright & Co, Inc., 52 Vanderbilt Avenue, 12th Floor, New York, NY 10017, Attention: Anthony J. Sarkis, Director of Investment Banking, Fax No. (212) 856-5750, and if to the Company, to the address, set forth on the first page of this Agreement, Attention: Bruce C. Galton, Fax No.: 732-296-9292. Any notice delivered personally or by fax shall be deemed given upon receipt (with confirmation of receipt required in the case of fax transmissions); any notice given by overnight courier shall be deemed given on the next business day after delivery to the overnight courier; and any notice given by certified mail shall be deemed given upon the second business day after certification thereof.

11. Governing Law; Jurisdiction; Waiver of Jury Trial. This Agreement shall be governed by and construed in accordance with the laws of the State of New York applicable to agreements made and to be fully performed therein, without regard to conflicts of law principles. The Company irrevocably submits to the exclusive jurisdiction of any court of the State of New York or the United States District Court for the Southern District of the State of New York for the purpose of any suit, action or other proceeding arising out of this Agreement, or any of the agreements or transactions contemplated hereby, which is brought by or against the Company, and agrees that service of process in connection with any such suit, action or proceeding may be made upon the Company in accordance with Section 10 hereof. The parties hereby expressly waive all rights to trial by jury in any suit, action or proceeding arising under this Agreement.

12. Amendments. This Agreement may not be modified or amended except in a writing duly executed by the parties hereto.

13. Independent Contractor; Nondisclosure of Confidential Information. H.C. Wainwright has been retained under this agreement as an independent contractor with duties owed solely to the Company and nothing in this Agreement or the nature of the H.C. Wainwright's services shall be deemed to create a fiduciary or agency relationship between the Company and H.C. Wainwright. The advice, written or oral, rendered by H.C. Wainwright pursuant to this Agreement is intended solely for the benefit and use of the Company in considering the matters to which this agreement relates, and the Company agrees that such advice may not be relied upon by any other person, used for any other purpose, reproduced, disseminated, or referred to at any time, in any manner or for any purpose, nor shall any

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public references to H.C. Wainwright be made by the Company, without the prior written consent of H.C. Wainwright, which consent shall not be unreasonably withheld. In addition to the foregoing, H.C. Wainwright shall have no authority to bind the Company, and the Company has the right to reject any investor in its sole discretion.

14. Best Efforts Engagement for Capital Raising. It is expressly understood and acknowledged that H.C. Wainwright's engagement for the Financing does not constitute any commitment, express or implied, on the part of H.C. Wainwright or of any of its affiliates to purchase or place the Company's securities or to provide any type of financing and that the Financing will be conducted by H.C. Wainwright on a "best efforts" basis. H.C. Wainwright represents, warrants and covenants that it will comply with all applicable provisions of the Securities Act, the Securities Exchange Act of 1934, as amended, Blue Sky Laws, and all related rules and regulations, in connection with this Financing.

15. Press Announcements. The Company agrees that H.C. Wainwright shall, upon a successful transaction, have the right to place advertisements in financial and other newspapers and journals and websites at its own expense describing its services to the Company hereunder. The foregoing shall also include placement of a tombstone on the H.C. Wainwright corporate website. Conversely, the Company agrees that it shall not use H.C. Wainwright's name, nor the name of any of its employees, representatives or affiliates in any public manner without prior written consent from H.C. Wainwright.

16. Headings. The section headings in this Agreement have been inserted as a matter of reference and are not part of this Agreement.

17. Successors and Assigns. The benefits of this Agreement shall inure to the parties hereto, their respective successors and assigns and to the indemnified parties hereunder and their respective successors and assigns, and the obligations and liabilities assumed in this Agreement shall be binding upon the parties hereto and their respective successors and assigns. Notwithstanding anything contained herein to the contrary, neither H.C. Wainwright nor the Company shall assign any of its obligations hereunder without the prior written consent of the other party.

18. No Third Party Beneficiaries. This Agreement does not create, and shall not be construed as creating, any rights enforceable by any person or entity not a party hereto, except those entitled to the benefits of the Indemnification Provisions. Without limiting the foregoing, the Company acknowledges and agrees that H.C. Wainwright has been retained under this Agreement as an independent contractor and is not being engaged as, and shall not be deemed to be, an agent or fiduciary of the Company's stockholders or creditors or any other person by virtue of this Agreement or the retention of H.C. Wainwright hereunder, all of which are hereby expressly waived.

19. Waiver. Any waiver or any breach of any of the terms or conditions of this Agreement shall not operate as a waiver of any other breach of such terms or conditions or of any other term or condition, nor shall any failure to insist upon strict performance or to enforce any provision hereof on any one occasion operate as a waiver of such provision or of any other provision hereof or a waiver of the right to insist upon strict performance or to enforce such provision or any other provision on any subsequent occasion. Any waiver must be in writing.

20. Counterparts. This Agreement may be executed in any number of counterparts and by facsimile transmission, each of which shall be deemed to be an original instrument, but all of which taken together shall constitute one and the same agreement. Facsimile signatures shall be deemed to be original signatures for all purposes.

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[Signature Page Follows]

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If the foregoing correctly sets forth our agreement, please sign the enclosed copy of this Agreement in the space provided below and return it to us.

Very truly yours,

H.C. WAINWRIGHT & CO., INC.

By: /s/ Anthony J. Sarkis
Anthony J. Sarkis
Head of Investment Banking

By: /s/ John R. Clarke
John R. Clarke
President

Agreed to and accepted this 1st day of May 2006

Senesco Technologies, Inc.

By: /s/ Bruce C. Galton
Bruce C. Galton
President and Chief Executive Officer

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Exhibit A

INDEMNIFICATION PROVISIONS

Capitalized terms used in this Exhibit shall have the meanings ascribed to such terms in the Agreement to which this Exhibit is attached.

The Company agrees to indemnify and hold harmless H.C. Wainwright and each of the other Indemnified Parties (as hereinafter defined) from and against any and all losses, claims, damages, obligations, penalties, judgments, awards, liabilities, costs, expenses and disbursements, and any and all actions, suits, proceedings and investigations in respect thereof and any and all legal and other costs, expenses and disbursements in giving testimony or furnishing documents in response to a subpoena or otherwise (including, without limitation, the costs, expenses and disbursements, as and when incurred, of investigating, preparing, pursuing or defending any such action, suit, proceeding or investigation (whether or not in connection with litigation in which any Indemnified Party is a party)) (collectively, “**Losses**”), directly or indirectly, caused by, relating to, based upon, arising out of, or in connection with, H.C. Wainwright’s acting for the Company, including, without limitation, any act or omission by H.C. Wainwright in connection with its acceptance of or the performance or non-performance of its obligations under the Agreement between the Company and H.C. Wainwright to which these indemnification provisions are attached and form a part (the “**Agreement**”), any breach by the Company of any representation, warranty, covenant or agreement contained in the Agreement (or in any instrument, document or agreement relating thereto, including any Agency Agreement), or the enforcement by H.C. Wainwright of its rights under the Agreement or these indemnification provisions, except to the extent that any such Losses are found in a final judgment by a court of competent jurisdiction (not subject to further appeal) to have resulted primarily and directly from the gross negligence or willful misconduct of the Indemnified Party seeking indemnification hereunder. The Company also agrees that no Indemnified Party shall have any liability (whether direct or indirect, in contract or tort or otherwise) to the Company for or in connection with the engagement of H.C. Wainwright by the Company or for any other reason, except to the extent that any such liability is found in a final judgment by a court of competent jurisdiction (not subject to further appeal) to have resulted primarily and directly from such Indemnified Party’s gross negligence or willful misconduct.

These Indemnification Provisions shall extend to the following persons (collectively, the “**Indemnified Parties**”): H.C. Wainwright, its present affiliated entities, managers, members, directors, officers, stockholders, employees, legal counsel, agents and controlling persons (within the meaning of the federal securities laws), and the officers, directors, partners, stockholders, members, managers, employees, legal counsel, agents and controlling persons of any of them. These indemnification provisions shall be in addition to any liability, which the Company may otherwise have to any Indemnified Party.

If any action, suit, proceeding or investigation is commenced, as to which an Indemnified Party proposes to demand indemnification, it shall notify the Company with reasonable promptness; provided, however, that any failure by an Indemnified Party to notify the Company shall not relieve the Company from its obligations hereunder. An Indemnified Party shall have the right to retain counsel of its own choice to represent it, and the fees, expenses and disbursements of such counsel shall be borne by the Company. Any such counsel shall, to the extent consistent with its professional responsibilities, cooperate with the Company and any counsel designated by the Company. The Company shall be liable for any settlement of any claim against any Indemnified Party made with the Company’s written consent. The Company shall not, without the prior written consent of H.C. Wainwright, settle or compromise any claim, or permit a default or consent to the entry of any judgment in respect thereof, unless such settlement, compromise or consent (i) includes, as an unconditional term thereof, the giving by the

claimant to all of the Indemnified Parties of an unconditional release from all liability in respect of such claim, and (ii) does not contain any factual or legal admission by or with respect to an Indemnified Party or an adverse statement with respect to the character, professionalism, expertise or reputation of any Indemnified Party or any action or inaction of any Indemnified Party.

In order to provide for just and equitable contribution, if a claim for indemnification pursuant to these indemnification provisions is made but it is found in a final judgment by a court of competent jurisdiction (not subject to further appeal) that such indemnification may not be enforced in such case, even though the express provisions hereof provide for indemnification in such case, then the Company shall contribute to the Losses to which any Indemnified Party may be subject (i) in accordance with the relative benefits received by the Company and its stockholders, subsidiaries and affiliates, on the one hand, and the Indemnified Party, on the other hand, and (ii) if (and only if) the allocation provided in clause (i) of this sentence is not permitted by applicable law, in such proportion as to reflect not only the relative benefits, but also the relative fault of the Company, on the one hand, and the Indemnified Party, on the other hand, in connection with the statements, acts or omissions which resulted in such Losses as well as any relevant equitable considerations. No person found liable for a fraudulent misrepresentation shall be entitled to contribution from any person who is not also found liable for fraudulent misrepresentation. The relative benefits received (or anticipated to be received) by the Company and its stockholders, subsidiaries and affiliates shall be deemed to be equal to the aggregate consideration payable or receivable by such parties in connection with the transaction or transactions to which the Agreement relates relative to the amount of fees actually received by H.C. Wainwright in connection with such transaction or transactions. Notwithstanding the foregoing, in no event shall the amount contributed by all Indemnified Parties exceed the amount of fees previously received by H.C. Wainwright pursuant to the Agreement.

Neither termination nor completion of the Agreement shall affect these Indemnification Provisions which shall remain operative and in full force and effect. The Indemnification Provisions shall be binding upon the Company and its successors and assigns and shall inure to the benefit of the Indemnified Parties and their respective successors, assigns, heirs and personal representatives.

Schedule 1

H.C. Wainwright Deal Team

Anthony J. Sarkis – Head of Investment Banking

John R. Clarke – President, Managing Director, Investment Banking

Jason A. Stein – Associate, Investment Banking

Ari J. Fuchs – Sr. Associate, Investment Banking

NEITHER THE ISSUANCE AND SALE OF THE SECURITIES REPRESENTED BY THIS WARRANT NOR THE SECURITIES INTO WHICH THESE SECURITIES ARE EXERCISABLE HAVE BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED, OR APPLICABLE STATE SECURITIES LAWS. THE SECURITIES MAY NOT BE OFFERED FOR SALE, SOLD, TRANSFERRED OR ASSIGNED (I) IN THE ABSENCE OF (A) AN EFFECTIVE REGISTRATION STATEMENT FOR THE SECURITIES UNDER THE SECURITIES ACT OF 1933, AS AMENDED, OR (B) AN OPINION OF COUNSEL, IN A GENERALLY ACCEPTABLE FORM, THAT REGISTRATION IS NOT REQUIRED UNDER SAID ACT OR (II) UNLESS SOLD PURSUANT TO RULE 144 OR RULE 144A UNDER SAID ACT. NOTWITHSTANDING THE FOREGOING, THE SECURITIES MAY BE PLEDGED IN CONNECTION WITH A BONA FIDE MARGIN ACCOUNT OR OTHER LOAN OR FINANCING ARRANGEMENT SECURED BY THE SECURITIES.

SENESCO TECHNOLOGIES, INC.

WARRANT TO PURCHASE COMMON STOCK

Warrant No.: [__]

Date of Issuance: October __, 2006

Senesco Technologies, Inc., a Delaware corporation (the “**Company**”), hereby certifies that, for good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, _____, the registered holder hereof or its permitted assigns (the “**Holder**”), is entitled, subject to the terms set forth below, to purchase from the Company, at any time or from time to time on or after _____, 2006 (the “**Issuance Date**”) and on or before 5:00 p.m. (New York time) on _____ 2011 (the “**Expiration Date**”), _____ (____) shares of Common Stock, \$0.01 par value per share, of the Company (“**Common Stock**”) at the Exercise Price (as defined below) then in effect. Upon surrender of this Warrant to Purchase Common Stock (including any Warrants to Purchase Common Stock issued in exchange, transfer or replacement hereof, the “**Warrant**”), the number of fully paid nonassessable shares of Common Stock (the “**Warrant Shares**”) shall be determined in accordance with Section 1 below. Except as otherwise defined herein, capitalized terms in this Warrant shall have the meanings set forth in Section 13. This Warrant is one of a series of warrants to purchase Common Stock (the “**Warrants**”) issued by the Company in connection with a private placement of Common Stock, by and among the Company and the investors (the “**Buyers**”) referred to therein (the “**Securities Purchase Agreement**”).

1. EXERCISE OF WARRANT.

(a) Mechanics of Exercise. Subject to the terms and conditions hereof (including, without limitation, the limitations set forth in Section 1(e)), this Warrant may be exercised by the Holder on any day on or after the Issuance Date, (the “**Exercise Date**”) in whole

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or in part, by (i) delivery of a written notice, in the form attached hereto as Exhibit A (the “**Exercise Notice**”), of the Holder’s election to exercise this Warrant and (ii) (A) payment to the Company of an amount equal to the applicable Exercise Price multiplied by the number of Warrant Shares as to which this Warrant is being exercised (the “**Aggregate Exercise Price**”) in cash or wire transfer of immediately available funds or (B) by notifying the Company that this Warrant is being exercised in a Cashless Exercise pursuant to and subject to the conditions set forth in Section 1(c). The Holder shall not be required to deliver the original Warrant in order to effect an exercise hereunder. Execution and delivery of the Exercise Notice with respect to less than all of the Warrant Shares shall have the same effect as cancellation of the original Warrant and issuance of a new Warrant evidencing the right to purchase the remaining number of Warrant Shares. On or before the first Business Day following the date on which the Company has received each of the Exercise Notice and the Aggregate Exercise Price (or notice of a Cashless Exercise) (the “**Exercise Delivery Documents**”), the Company shall transmit by facsimile an acknowledgment of confirmation of receipt of the Exercise Delivery Documents to the Holder and the Company’s transfer agent (the “**Transfer Agent**”). On or before the third Business Day following the date on which the Company has received all of the Exercise Delivery Documents (the “**Share Delivery Date**”), the Company shall issue and dispatch by overnight courier to the address as specified in the Exercise Notice, a certificate, registered in the Company’s share register in the name of the Holder or its designee, for the number of shares of Common Stock to which the Holder is entitled pursuant to such exercise. Upon delivery of the Exercise Notice and Aggregate Exercise Price referred to in clause (ii)(A) above or notification to the Company of a Cashless Exercise referred to in Section 1(c), the Holder shall be deemed for all corporate purposes to have become the holder of record of the Warrant Shares with respect to which this Warrant has been exercised, irrespective of the date of delivery of the certificates evidencing such Warrant Shares. If this Warrant is submitted in connection with any exercise pursuant to this Section 1(a) and the number of Warrant Shares represented by this Warrant submitted for exercise is greater than the number of Warrant Shares being acquired upon an exercise, then the Company shall as soon as practicable and in no event later than three Business Days after any exercise and at its own expense, issue a new Warrant (in accordance with Section 6(d)) representing the right to purchase the number of Warrant Shares purchasable immediately prior to such exercise under this Warrant, less the number of Warrant Shares with respect to which this Warrant is exercised. No fractional shares of Common Stock are to be issued upon the exercise of this Warrant, but rather the number of shares of Common Stock to be issued shall be rounded up to the nearest whole number. The Company shall pay any and all taxes which may be payable with respect to the issuance and delivery of Warrant Shares upon exercise of this Warrant.

(b) Exercise Price. For purposes of this Warrant, “**Exercise Price**” means \$_____, subject to adjustment as provided herein.

(c) Cashless Exercise. Notwithstanding anything contained herein to the contrary, the Holder may, in its sole discretion, exercise this Warrant in whole or in part and, in lieu of making the cash payment otherwise contemplated to be made to the Company upon such exercise in payment of the Aggregate Exercise Price, elect instead to receive upon such

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exercise the “Net Number” of shares of Common Stock determined according to the following formula (a “**Cashless Exercise**”):

$$\text{Net Number} = \frac{(A \times B) - (A \times C)}{B}$$

B

For purposes of the foregoing formula:

A= the total number of shares with respect to which this Warrant is then being exercised.

B= the Closing Sale Price of the shares of Common Stock (as reported by Bloomberg) on the date immediately preceding the date of the Exercise Notice.

C= the Exercise Price then in effect for the applicable Warrant Shares at the time of such exercise.

(d) Disputes. In the case of a dispute as to the determination of the Exercise Price or the arithmetic calculation of the Warrant Shares, the Company shall promptly issue to the Holder the number of Warrant Shares that are not disputed and resolve such dispute in accordance with Section 12.

(e) Limitations on Exercises; Beneficial Ownership. The Company shall not effect the exercise of this Warrant, and the Holder shall not have the right to exercise this Warrant, to the extent that after giving effect to such exercise, such Person (together with such Person’s affiliates) would beneficially own in excess of 4.99% (the “**Maximum Percentage**”) of the shares of Common Stock outstanding immediately after giving effect to such exercise. For purposes of the foregoing sentence, the aggregate number of shares of Common Stock beneficially owned by such Person and its affiliates shall include the number of shares of Common Stock issuable upon exercise of this Warrant with respect to which the determination of such sentence is being made, but shall exclude shares of Common Stock which would be issuable upon (i) exercise of the remaining, unexercised portion of this Warrant beneficially owned by such Person and its affiliates and (ii) exercise or conversion of the unexercised or unconverted portion of any other securities of the Company beneficially owned by such Person and its affiliates (including, without limitation, any convertible notes or convertible preferred stock or warrants) subject to a limitation on conversion or exercise analogous to the limitation contained herein. Except as set forth in the preceding sentence, for purposes of this paragraph, beneficial ownership shall be calculated in accordance with Section 13(d) of the Securities Exchange Act of 1934, as amended. For purposes of this Warrant, in determining the number of outstanding shares of Common Stock, the Holder may rely on the number of outstanding shares of Common Stock as reflected in (1) the Company’s most recent Form 10-KSB, Form 10-QSB, Current Report on Form 8-K or other public filing with the Securities and Exchange Commission, as the case may be, (2) a more recent public

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announcement by the Company or (3) any other notice by the Company or the Transfer Agent setting forth the number of shares of Common Stock outstanding. For any reason at any time, upon the written or oral request of the Holder, the Company shall within two Business Days confirm orally and in writing to the Holder the number of shares of Common Stock then outstanding. In any case, the number of outstanding shares of Common Stock shall be determined after giving effect to the conversion or exercise of securities of the Company, including the Securities issued under the Securities Purchase Agreement and the Warrants, by the Holder and its affiliates since the date as of which such number of outstanding shares of Common Stock was reported. By written notice to the Company, the Holder may from time to time increase or decrease the Maximum Percentage to any other percentage not in excess of 9.99% specified in such notice; provided that (i) any such increase will not be effective until the sixty-first (61st) day after such notice is delivered to the Company, and (ii) any such increase or decrease will apply only to the Holder and not to any other holder of Warrants.

(f) Insufficient Authorized Shares. If at any time while any of the Warrants remain outstanding the Company does not have a sufficient number of authorized and unreserved shares of Common Stock to satisfy its obligation to reserve for issuance upon exercise of the Warrants at least a number of shares of Common Stock equal to 110% (the “**Required Reserve Amount**”) of the number of shares of Common Stock as shall from time to time be necessary to effect the exercise of all of the Warrants then outstanding (an “**Authorized Share Failure**”), then the Company shall immediately take all action necessary to increase the Company’s authorized shares of Common Stock to an amount sufficient to allow the Company to reserve the Required Reserve Amount for the Warrants then outstanding. Without limiting the generality of the foregoing sentence, as soon as practicable after the date of the occurrence of an Authorized Share Failure, but in no event later than sixty (60) days after the occurrence of such Authorized Share Failure, the Company shall hold a meeting of its stockholders for the approval of an increase in the number of authorized shares of Common Stock. In connection with such meeting, the Company shall provide each stockholder with a proxy statement and shall use its best efforts to solicit its stockholders’ approval of such increase in authorized shares of Common Stock and to cause its board of directors to recommend to the stockholders that they approve such proposal.

2. ADJUSTMENT OF EXERCISE PRICE AND NUMBER OF WARRANT SHARES. The Exercise Price and the number of Warrant Shares shall be adjusted from time to time as follows:

(a) Adjustment for Stock Splits and Combinations. If the Company shall at any time or from time to time after Issuance Date (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) effect a subdivision of the outstanding Common Stock, the Exercise 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 Issuance Date combine the outstanding shares of Common Stock, the Exercise Price then in effect immediately before the combination shall be proportionately increased. Any adjustment under this paragraph

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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 Issuance 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 Exercise 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 Exercise 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 Exercise Price shall be recomputed accordingly as of the close of business on such record date and thereafter the Exercise 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 Exercise 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 Exercise Price in effect immediately prior to such adjustment, by (ii) the Exercise 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 Issuance 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 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 Holder would have been entitled to receive had this Warrant been exercised on the date of such event and had the Holder thereafter, during the period from the date of such event to and including the Exercise Date, retained any

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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 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 Holder shall receive upon exercise hereof the kind and amount of securities, cash or other property which the 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 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 below, 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 below to the extent applicable), and (ii) the exercise price per share of common stock of the acquiring or surviving company shall be the Exercise 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 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 Exercise 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.

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) below).

(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

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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 Holder, the Board (or a representative thereof)

shall, as promptly as reasonably practicable but in any event not later than ten (10) days after such request, notify the Holder of the Fair Market Value per share of Common Stock and furnish the 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 the Board shall make, and shall provide or cause to be provided to the Holder notice of, a determination of the Fair Market Value per share of the Common Stock within fifteen (15) days of a request by the Holder that it do so.

(f) Certificate as to Adjustments. Upon the occurrence of each adjustment or readjustment of the Exercise 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 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 Exercise 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 Holder (but in any event not later than ten (10) days thereafter), furnish or cause to be furnished to the Holder a certificate setting forth (i) the Exercise 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. NONCIRCUMVENTION. The Company hereby covenants and agrees that the Company will not, by amendment of its Certificate of Incorporation, Bylaws or through any reorganization, transfer of assets, consolidation, merger, scheme of arrangement, 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, and will at all times in good faith carry out all the provisions of this Warrant and take all action as may be required to protect the rights of the Holder. Without limiting the generality of the foregoing, the Company (i) shall not increase the par value of any shares of Common Stock receivable upon the exercise of this Warrant above the Exercise Price then in effect, (ii) shall take all such actions as may be necessary or appropriate in order that the Company may validly and legally issue fully paid and nonassessable shares of Common Stock upon the exercise of this Warrant, and (iii) shall, so long as any of the Warrants are outstanding, take all action necessary to reserve and keep available out of its authorized and unissued shares of Common Stock, solely for the purpose of effecting the exercise of the Warrants, 110% of the number of shares of Common Stock as shall from time to time be necessary to effect the exercise of the Warrants then outstanding (without regard to any limitations on exercise).

4. WARRANT HOLDER NOT DEEMED A STOCKHOLDER. Except as otherwise specifically provided herein, the Holder, solely in such Person's capacity as a holder of

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this Warrant, shall not be entitled to vote or receive dividends or be deemed the holder of share capital of the Company for any purpose, nor shall anything contained in this Warrant be construed to confer upon the Holder, solely in such Person's capacity as the Holder of this Warrant, any of the rights of a stockholder of the Company or any right to vote, give or withhold consent to any corporate action (whether any reorganization, issue of stock, reclassification of stock, consolidation, merger, conveyance or otherwise), receive notice of meetings, receive dividends or subscription rights, or otherwise, prior to the issuance to the Holder of the Warrant Shares which such Person is then entitled to receive upon the due exercise of this Warrant. In addition, nothing contained in this Warrant shall be construed as imposing any liabilities on the Holder to purchase any securities (upon exercise of this Warrant or otherwise) or as a stockholder of the Company, whether such liabilities are asserted by the Company or by creditors of the Company. Notwithstanding this Section 4, the Company shall provide the Holder with copies of the same notices and other information given to the stockholders of the Company generally, contemporaneously with the giving thereof to the stockholders.

5. TRANSFER.

(a) This Warrant and the Warrant Shares shall not be sold or transferred unless either (i) they first shall have been registered under the Securities Act of 1933, as amended (the "**Act**"), or (ii) such sale or transfer shall be exempt from the registration requirements of the Act and the Company 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 Holder which is an entity to a wholly owned subsidiary of such entity, a transfer by a 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 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 4, 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

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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 Holder of this Warrant. The 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 4 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. REISSUANCE OF WARRANTS.

(a) Transfer of Warrant. If this Warrant is to be transferred, the Holder shall surrender this Warrant to the Company, whereupon the Company will forthwith issue and deliver upon the order of the Holder a new Warrant (in accordance with Section 6(d)), registered as the Holder may request, representing the right to purchase the number of Warrant Shares being transferred by the Holder and, if less than the total number of Warrant Shares then underlying this Warrant is being transferred, a new Warrant (in accordance with Section 6(d)) to the Holder representing the right to purchase the number of Warrant Shares not being transferred. Applicable transfer taxes, if any, shall be paid by the Holder.

(b) Lost, Stolen or Mutilated Warrant. Upon receipt by the Company 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, of any indemnification undertaking by the Holder to the Company in customary form and, in the case of mutilation, upon surrender and cancellation of this Warrant, the Company shall execute and deliver to the Holder a new Warrant (in accordance with Section 6(d)) representing the right to purchase the Warrant Shares then underlying this Warrant.

(c) Exchangeable for Multiple Warrants. This Warrant is exchangeable, upon the surrender hereof by the Holder at the principal office of the Company, for a new Warrant or Warrants (in accordance with Section 6(d)) representing in the aggregate the right to purchase the number of Warrant Shares then underlying this Warrant, and each such new Warrant will represent the right to purchase such portion of such Warrant Shares as is designated by the Holder at the time of such surrender; provided, however, that no Warrants for fractional shares of Common Stock shall be given.

(d) Issuance of New Warrants. Whenever the Company is required to issue a new Warrant pursuant to the terms of this Warrant, such new Warrant (i) shall be of like tenor with this Warrant, (ii) shall represent, as indicated on the face of such new Warrant, the

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right to purchase the Warrant Shares then underlying this Warrant (or in the case of a new Warrant being issued pursuant to Section 6(a) or Section 6(c)), the Warrant Shares designated by the Holder which, when added to the number of shares of Common Stock underlying the other new Warrants issued in connection with such issuance, does not exceed the number of Warrant Shares then underlying this Warrant), (iii) shall have an issuance date, as indicated on the face of such new Warrant which is the same as the Issuance Date, and (iv) shall have the same rights and conditions as this Warrant.

7. NOTICES. Whenever notice is required to be given under this Warrant, unless otherwise provided herein, such notice and other communication from the Company to the 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 Holder. The Company shall provide the Holder with prompt written notice of all actions taken pursuant to this Warrant, including in reasonable detail a description of such action and the reason therefore. Without limiting the generality of the foregoing, the Company will give written notice to the Holder (i) immediately upon any adjustment of the Exercise Price, setting forth in reasonable detail, and certifying, the calculation of such adjustment and (ii) at least fifteen days prior to the date on which the Company closes its books or takes a record (A) with respect to any dividend or distribution upon the shares of Common Stock, (B) with respect to any grants, issuances or sales of any Options, Convertible Securities or rights to purchase stock, warrants, securities or other property to holders of shares of Common Stock or (C) for determining rights to vote with respect to any Fundamental Transaction, dissolution or liquidation, provided in each case that such information shall be made known to the public prior to or in conjunction with such notice being provided to the Holder.

8. 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 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

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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 ten (10) days prior to the record date or effective date for the event specified in such notice.

9. AMENDMENT AND 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 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 Exercise 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 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 Exercise Price). The Company shall give prompt written notice to the Holder of any amendment hereof or waiver hereunder that was effected without the 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.

10. GOVERNING LAW. This Agreement shall be governed by, and construed in accordance with, the internal laws of the State of New York without regard to the choice of law principles thereof.

11. CONSTRUCTION; HEADINGS. This Warrant shall be deemed to be jointly drafted by the Company and all the Holders and shall not be construed against any person as the drafter hereof. The headings of this Warrant are for convenience of reference and shall not form part of, or affect the interpretation of, this Warrant.

12. DISPUTE RESOLUTION. In the case of a dispute as to the determination of the Exercise Price or the arithmetic calculation of the Warrant Shares, the Company shall submit the disputed determinations or arithmetic calculations via facsimile within two Business Days of receipt of the Exercise Notice giving rise to such dispute, as the case may be, to the Holder. If the Holder and the Company are unable to agree upon such determination or calculation of the Exercise Price or the Warrant Shares within three Business Days of such disputed determination or arithmetic calculation being submitted to the Holder, then the Company shall, within two Business Days submit via facsimile (a) the disputed determination of the Exercise Price to an independent, reputable investment bank selected by the Company and approved by the Holder or (b) the disputed arithmetic calculation of the Warrant Shares to the Company's independent, outside accountant. The Company shall cause at its expense the

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investment bank or the accountant, as the case may be, to perform the determinations or calculations and notify the Company and the Holder of the results no later than ten (10) Business Days from the time it receives the disputed determinations or calculations. Such investment bank's or accountant's determination or calculation, as the case may be, shall be binding upon all parties absent demonstrable error.

13. REGISTRATION RIGHTS. The Holder of this Warrant is entitled to have the Warrant Shares issuable upon exercise of this Warrant registered for resale under the Act, pursuant to and in accordance with the Registration Rights Agreement entered into among the Company and the investors pursuant to the terms of the Securities Purchase Agreement.

14. CERTAIN DEFINITIONS. For purposes of this Warrant, the following terms shall have the following meanings:

(a) **"Business Day"** means any day other than Saturday, Sunday or other day on which commercial banks in the City of New York are authorized or required by law to remain closed.

(b) **"Closing Bid Price"** and **"Closing Sale Price"** means, for any security as of any date, the last closing bid price and last closing trade price, respectively, for such security on the Principal Market, as reported by Bloomberg, or, if the Principal Market begins to operate on an extended hours basis and does not designate the closing bid price or the closing trade price, as the case may be, then the last bid price or last trade price, respectively, of such security prior to 4:00 p.m., New York Time, as reported by Bloomberg, or, if the Principal Market is not the principal securities exchange or trading market for such security, the last closing bid price or last trade price, respectively, of such security on the principal securities exchange or trading market where such security is listed or traded as reported by Bloomberg, or if the foregoing do not apply, the last closing bid price or last trade price, respectively, of such security in the over-the-counter market on the electronic bulletin board for such security as reported by Bloomberg, or, if no closing bid price or last trade price, respectively, is reported for such security by Bloomberg, the average of the bid prices, or the ask prices, respectively, of any market makers for such security as reported in the "pink sheets" by Pink Sheets LLC (formerly the National Quotation Bureau, Inc.). If the Closing Bid Price or the Closing Sale Price cannot be calculated for a security on a particular date on any of the foregoing bases, the Closing Bid Price or the Closing Sale Price, as the case may be, of such security on such date shall be the fair market value as mutually determined by the Company and the Holder. If the Company and the Holder are unable to agree upon the fair market value of such security, then such dispute shall be resolved pursuant to Section 10. All such determinations to be appropriately adjusted for any stock dividend, stock split, stock combination or other similar transaction during the applicable calculation period.

(c) **"Common Stock"** means (i) the Company's shares of Common Stock, par value \$0.01 per share, and (ii) any share capital into which such Common Stock shall have been changed or any share capital resulting from a reclassification of such Common Stock.

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(d) **"Convertible Securities"** means any stock or securities (other than Options) directly or indirectly convertible into or exercisable or exchangeable for shares of Common Stock.

(e) **"Eligible Market"** means the Principal Market, the American Stock Exchange, The New York Stock Exchange, Inc., the Nasdaq National Market or The Nasdaq SmallCap Market.

(f) **"Expiration Date"** means the date sixty (60) months after the Issuance Date or, if such date falls on a day other than a Business Day or on which trading does not take place on the Principal Market (a **"Holiday"**), the next date that is not a Holiday).

(g) "Person" means an individual, a limited liability company, a partnership, a joint venture, a corporation, a trust, an unincorporated organization, any other entity and a government or any department or agency thereof.

15. COUNTERPARTS; FACSIMILE. This Warrant may be executed in counterparts and by facsimile signature.

[Signature Page Follows]

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IN WITNESS WHEREOF, the Company has caused this Warrant to Purchase Common Stock to be duly executed as of the Issuance Date set out above.

SENESCO TECHNOLOGIES, INC.

By: _____
Name:
Title:

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EXHIBIT A

EXERCISE NOTICE

TO BE EXECUTED BY THE HOLDER TO EXERCISE THIS
WARRANT TO PURCHASE COMMON STOCK
SENESCO TECHNOLOGIES, INC.

The undersigned holder hereby exercises the right to purchase _____ of the shares of Common Stock ("Warrant Shares") of Senesco Technologies, Inc., a Delaware corporation (the "Company"), evidenced by the attached Warrant to Purchase Common Stock (the "Warrant"). Capitalized terms used herein and not otherwise defined shall have the respective meanings set forth in the Warrant.

1. Form of Exercise Price. The Holder intends that payment of the Exercise Price shall be made as:

_____ a "Cash Exercise" with respect to _____ Warrant Shares; and/or

_____ a "Cashless Exercise" with respect to _____ Warrant Shares.

2. Payment of Exercise Price. In the event that the holder has elected a Cash Exercise with respect to some or all of the Warrant Shares to be issued pursuant hereto, the holder shall pay the Aggregate Exercise Price in the sum of \$ _____ to the Company in accordance with the terms of the Warrant.

3. Delivery of Warrant Shares. The Company shall deliver to the holder _____ Warrant Shares in accordance with the terms of the Warrant.

4. Acknowledgement. The undersigned holder hereby represents and warrants that after giving effect to the exercise of the Warrant contemplated by this Exercise Notice, such holder will not be in violation of the beneficial ownership limits specified in Section 1(f) of the Warrant, as increased or decreased pursuant to terms contained therein.

Date: _____ , _____

Name of Holder

By: _____

Name:
Title:

ACKNOWLEDGMENT

The Company hereby acknowledges this Exercise Notice and hereby directs **[Insert Name of Transfer Agent]** to issue the above indicated number of shares of Common Stock in accordance with the Transfer Agent Instructions dated _____ from the Company and acknowledged and agreed to by **[Insert Name of Transfer Agent]**.

SENESCO TECHNOLOGIES, INC.

By: _____
Name:
Title:

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Board of Directors of
Senesco Technologies, Inc.

We hereby consent to the incorporation by reference in the Registration Statement of Senesco Technologies, Inc. on Form S-3 (333-125299) of our report dated August 10, 2006, except for Note 14 as to which the date is October 11, 2006 on the consolidated financial statements of Senesco Technologies, Inc. and Subsidiary as of June 30, 2006 and for each of the three fiscal years for the period then ended, appearing in this Annual Report on Form 10-K for the year ended June 30, 2006.

GOLDSTEIN GOLUB KESSLER LLP

New York, New York

October 13, 2006

**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 Annual Report on Form 10-K 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: October 13, 2006

/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 Annual Report on Form 10-K 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: October 13, 2006

/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 Annual Report on Form 10-K of Senesco Technologies, Inc. for the year ended June 30, 2006 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 Annual 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 Annual Report fairly presents, in all material respects, the financial condition and results of operations of Senesco Technologies, Inc.

Dated: October 13, 2006

/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 Annual Report on Form 10-K of Senesco Technologies, Inc. for the year ended June 30, 2006 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 Annual 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 Annual Report fairly presents, in all material respects, the financial condition and results of operations of Senesco Technologies, Inc.

Dated: October 13, 2006

/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.
