SENESCO TECHNOLOGIES INC
Form 10-K
September 28, 2011

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

FORM 10-K
(Mark One)

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

For the fiscal year ended June 30, 2011

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.)
721 Route 202/206, Suite 130, Bridgewater, New Jersey (Address of principal executive offices)	08807 (Zip Code)

(908) 864-4444
(Registrant's telephone number, including area code)

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.	NYSE Amex

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 x

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 x

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 x No ¨

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files).

Yes ¨ No ¨

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

Large accelerated filer ¨ Accelerated filer ¨

Non-accelerated filer ¨ Smaller reporting company x

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

As of December 31, 2010, the aggregate market value of the registrant’s common stock held by non-affiliates of the registrant was $15,016,520, based on the closing sales price as reported on the NYSE Amex on that date.

The number of shares outstanding of each of the registrant's classes of common stock, as of September 26, 2011:

Class	Number of Shares
Common Stock, $0.01 par value	79,626,675
Preferred Stock, $0.01 par value	4,860

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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 technology related to certain genes, primarily eukaryotic translation initiation Factor 5A, or Factor 5A, and deoxyhypusine synthase, or DHS, and related technologies for human therapeutic applications to develop novel approaches to treat cancer and inflammatory diseases.

For agricultural applications, we have licensed applications of the Factor 5A, DHS and Lipase platforms to enhance the quality, productivity and stress resistance of fruits, flowers, vegetables, agronomic and biofuel feedstock crops through the control of cell death, referred to herein as senescence, and growth in plants.

Human Therapeutic Applications

We believe that our Factor 5A gene regulatory technology could have broad applicability in the human therapeutic field, by either inducing or inhibiting programmed cell death, also known as apoptosis, which is the natural process the human body goes through in order to eliminate redundant or defective cells. Inducing apoptosis is useful in treating cancer where the defective cancer cells have failed to respond to the body's natural apoptotic signals. Conversely, inhibiting apoptosis may be useful in preventing, ameliorating or treating an exaggerated, acute immune response in a wide range of inflammatory and ischemic diseases attributable to or aggravated by premature apoptosis.

SNS01-T for Multiple Myeloma

We have developed a therapeutic candidate, SNS01-T, an improved formulation of SNS01, for the potential treatment of multiple myeloma. SNS01-T utilizes our Factor 5A technology and comprises two active components: a DNA plasmid, or pDNA, expressing human eIF5A containing a lysine to arginine substitution at amino acid position 50, or eIF5AK50R, and a short inhibitory RNA, or siRNA. These two components are combined in a fixed ratio with a polymer, polyethyleneimine, or PEI, which enables self-assembly of the DNA and RNA into nanoparticles with demonstrated enhanced delivery to tissues and protection from degradation in the blood stream. Under the control of a B cell selective promoter, SNS01-T's DNA plasmid up-regulates the apoptotic pathways within cancer cells by preferentially expressing the stable arginine form of the Factor 5A death message in target cells. The siRNA reduces expression of the hypusine form of Factor 5A that supports cell survival and proliferation. The siRNA also down-regulates anti-apoptotic proteins, such as NFkB, ICAM and pro-inflammatory cytokines, which protect malignant cells from apoptosis and promote cell growth in multiple myeloma. The PEI, a cationic polymer, promotes auto-assembly of a nanoparticle with the other two components for intravenous delivery and protects the combination from degradation in the bloodstream until it is taken up by the tumor cell, where the siRNA and DNA plasmid are released.

We have performed efficacy, toxicological and dose-finding studies in vitro in non-human and human cells and in-vivo in mice for SNS01. Our efficacy studies in severe combined immune-deficient, or SCID, mice with subcutaneous human multiple myeloma tumors tested SNS01 dose ranging from 0.15 mg/kg to 1.5 mg/kg. In these studies, mice treated with a dose of either 0.75 mg/kg or 1.5 mg/kg both showed, compared to relevant controls, a 91% reduction in tumor volume and a decrease in tumor weight of 87% and 95%, respectively. For mice that received smaller doses of either 0.38 mg/kg or 0.15 mg/kg, there was also a reduction in tumor volume of 73% and 61%, respectively, and weight of 74% and 36%, respectively. All SNS01-T treated mice survived. This therapeutic dose range study provided the basis for a non-good laboratory practices, or GLP, 8-day maximum tolerated dose study in which normal mice received two intravenous doses of increasing amounts of SNS01 (from 2.2 mg/kg). Body weight, organ weight and serum levels of liver enzymes were used as clinical indices to assess toxicity. A dose between 2.2 mg/kg and 2.9 mg/kg was well tolerated with respect to these clinical indices, and the survival rate at 2.9 mg/kg was 80%. Mice receiving above 2.9 mg/kg of SNS01 showed evidence of morbidity and up to 80% mortality. The 2.9 mg/kg threshold was therefore determined to be the maximum tolerated dose in mice in this study. We have also completed our pivotal GLP toxicology studies in mice and dogs, employing SNS01-T, a slightly modified formulation of SNS01, and have an open investigational new drug application, or IND, with the United States Food and Drug Administration, or FDA. We have also been granted orphan drug status for SNS01-T by the FDA for the potential treatment of multiple myeloma.

We have initiated a Phase 1b/2a clinical study with SNS01-T in multiple myeloma patients. We recently met with our contract research organization, or CRO, Criterium, to finalize the operational plans for the conduct and analysis of this open-label, multiple-dose, dose-escalation study, which will evaluate the safety and tolerability of SNS01-T when administered by intravenous infusion to relapsed or refractory multiple myeloma patients. The study design calls for four cohorts of three to six patients each. Patients in each cohort will receive twice-weekly dosing for six weeks followed by a four-week safety data review period before escalating to a higher dose level in the next cohort. While the primary objective of the initial study is to evaluate safety and tolerability, the effect of SNS01-T on tumor response will also be evaluated using multiple, well-established criteria including measurement of the monoclonal protein, or M-protein. We have selected Mayo Clinic as a clinical site and are considering adding an additional site. The study is open and we are in the process of screening patients.

We may consider other human diseases in order to determine the role of Factor 5A and SNS01-T.

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

Human Therapeutic Target Markets

We believe that our eIF5A platform technology may have broad applicability in the human therapeutic field, by either inducing or inhibiting apoptosis. Inducing 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. Inhibiting apoptosis may be useful in preventing or treating a wide range of inflammatory and ischemic diseases attributed to premature apoptosis, including diabetes, diabetic retinopathy and lung inflammation, among others.

We have advanced our research in multiple myeloma and have initiated a Phase 1b/2a clinical trial during the quarter ended September 30, 2011, and may select additional human therapeutic indications to investigate in clinical trials. We believe that the success of our future operations will likely depend on our ability to transform our research and development activities into commercial applications.

Human Therapeutic Research Program

Our human therapeutic research program, which consists of pre-clinical in-vitro and in-vivo experiments designed to assess the role and mode of action of Factor 5A in human diseases and a clinical trial, is being performed by approximately nine (9) third party researchers, at our direction, at Criterium and the University of Waterloo. Additionally, we outsource certain projects, such as our clinical trial, to other third party research organizations.

Our research and development expenses incurred on human therapeutic applications were approximately $3,253,253, or 87%, of our total research and development expenses for the year ended June 30, 2011.

Our research and development expenses incurred on human therapeutic applications were approximately $2,083,787, or 79%, of our total research and development expenses for the year ended June 30, 2010.

Our research and development expenses incurred on human therapeutic applications were approximately $1,736,179, or 74%, of our total research and development expenses for the year ended June 30, 2009.

Since inception, the proportion of our research and development expenses on human therapeutic applications has increased, as compared to our research and development expenses on agricultural applications. This change is primarily due to the fact that our research focus on human therapeutics has increased and some of our research costs for plant applications have shifted to our license partners.

Our planned future research and development initiatives for human therapeutics include:

- Multiple Myeloma. Continue a Phase 1b/2a clinical trial. In connection with the potential clinical trial, we have engaged Criterium to manage the operational aspects of the Phase 1b/2a clinical study. We have also entered into an agreement with Mayo Clinic to be a clinical site and plan on adding an additional site. The study opened in September 2011 and we are currently screening patients. We estimate that it will take approximately one year to complete this study.
    - Other B cell cancers.
    - Other cancers.
- Other. We may consider other human diseases in which Factor 5A, siRNA against Factor 5A and SNS01-T may have a therapeutic effect.

In order to pursue the above research initiatives, as well as other research initiatives that may arise, we completed private placements of convertible preferred stock and warrants on April 1, 2010 and June 2, 2010. In December 2010, we initiated an at-the-market, or ATM, offering for the issuance of up to $5,500,000 of common stock. However, it will be necessary for us to raise a significant amount of additional working capital in the future. If we are unable to raise the necessary funds, we may be required to significantly curtail the future development of some of our research initiatives and we will be unable to pursue other possible research initiatives.

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

Human Therapeutic Suppliers

The materials for our lead therapeutic candidate, SNS01-T, for multiple myeloma consists of three parts: a pDNA expressing human eIF5AK50R; a siRNA, whose sequence corresponds to an untranslated region of native eIF5A mRNA; and linear PEI which enables self-assembly of the nucleic acids into nanoparticles. We have entered into supply agreements for the components as follows:

On June 27, 2008, the Company entered into a supply agreement with VGXI, Inc., or VGXI, under which VGXI will supply the Company with the plasmid portion of the Company's combination therapy, hereinafter referred to as the VGXI Product. The agreement has an initial term that commences on the date of the agreement and runs for a period of five (5) years. The agreement shall, upon mutual agreement, renew for consecutive one (1) year periods thereafter. The Company's financial obligation under the agreement is dependent upon the amount of VGXI Product ordered by the Company.

On June 30, 2008, the Company entered into a supply agreement with Polyplus-transfection, or POLYPLUS, under which POLYPLUS will supply the Company with its "in vivo-jetPEI", hereinafter referred to as the POLYPLUS Product, which is used in the formulation and systemic delivery of the Company's combination therapy. The agreement has an initial term which commences on the date of the agreement and runs until the eighth anniversary of the first sale of our product containing the POLYPLUS Product. The agreement shall automatically renew for consecutive one (1) year periods thereafter, except if terminated by either party upon six (6) months written notice prior to the initial or any subsequent renewal term. The Company's financial obligation under the agreement is dependent upon the amount of POLYPLUS Product ordered by the Company.

On September 4, 2008, the Company entered into a supply agreement with Avecia Biotechnology, Inc., or AVECIA, under which AVECIA will supply the Company with the siRNA portion of the Company's combination therapy consisting of the Factor 5A gene and siRNA against Factor 5A, hereinafter referred to as the Plasmid Product. The agreement has a term which commences on the date of the agreement and terminates on the later of the completion of all services to be provided under the agreement or 30 days following delivery of the final shipment of the Plasmid Product.

Human Therapeutic Competition

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

o Entering into strategic alliances, including licensing technology to major marketing and distribution partners; or

o Developing in-house production and marketing capabilities.

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

There are many large companies and development stage companies working in the field of apoptosis and multiple myeloma research including: Celgene, Inc., Takeda/Millennium, ONYX Pharmaceuticals, Inc., Amgen Inc., Centocor, Inc., Novartis AG, and Genta Incorporated, among others.

We do not currently have any commercialized products, and therefore, it is difficult to assess our competitive position in the market. However, we believe that if we are able to develop and commercialize a product or products under our patents to our Factor 5A platform technology, we will have a competitive position in the markets in which we will operate.

Agricultural Applications

Our agricultural research focuses on the discovery and development of certain gene technologies, which are designed to confer positive traits on fruits, flowers, vegetables, forestry species and agronomic crops.

We have licensed this technology to various strategic partners and have entered into a joint collaboration. We may continue to license this technology, as opportunities present themselves, to additional strategic partners and/or enter into additional joint collaborations or ventures.

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

- further develop and implement the DHS and Factor 5A gene technology in banana, canola, cotton, turfgrass, rice, alfalfa, corn, soybean and trees; and

- test the resultant crops for new beneficial traits such as increased yield, increased tolerance to environmental stress, disease resistance and more efficient use of fertilizer.

Agricultural Target Markets

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

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

Agricultural Development and License Agreements

Through June 30, 2011, we have seven (7) active license agreements and one (1) joint collaboration with established agricultural biotechnology companies.

Agricultural Research Program

Our agricultural research and development is performed by one (1) researcher, at our direction, at the University of Waterloo, where the technology was developed. Additional agricultural research and development is performed by our license or joint collaboration partners.

The discoverer of our technology, John E. Thompson, Ph.D., is the Associate Vice President, Research and former Dean of Science at the University of Waterloo in Ontario, Canada, and is our Executive Vice President and Chief Scientific Officer. Dr. Thompson is also one of our directors and owns 1.2% of the outstanding shares of our common stock, $0.01 par value, as of June 30, 2011.

On September 1, 1998, we entered into, and have extended through August 31, 2012, a research and development agreement with the University of Waterloo and Dr. Thompson as the principal inventor. The Research and Development Agreement provides that the University of Waterloo will perform research and development under our direction, and we will pay for the cost of this work and make certain payments to the University of Waterloo. In return for payments made under the Research and Development Agreements, we have all rights to the intellectual property derived from the research.

Agricultural Competition

Our competitors in 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 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: Mendel Biotechnology; Renessen LLC; Exelixis Plant Sciences, Inc.; and Syngenta International AG; among others.

We do not currently have any commercialized products, and therefore, it is difficult to assess our competitive position in the market. However, we believe that if we or our licensees are able to develop and commercialize a product or products using our technology, we will have a competitive position in the markets in which we or our licensees operate.

Agricultural Development Program

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

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

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

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

The 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
Trees	Arborgen	
- Growth		Field trials
Alfalfa	Cal/West	Field trials
Corn	Monsanto	Field trials
Cotton	Bayer	Greenhouse
Canola	Bayer	Field trials
Rice	Bayer	Greenhouse
Soybean	Monsanto	Field trials
Turfgrass	The Scotts Company	Greenhouse
Ethanol	Poet	Discontinued

The license agreement with Poet called for modifying certain inputs in the production of ethanol in order to increase the yield of ethanol in Poet's optimized production system. While we have been able to modify those inputs, to date, we have not been successful in increasing the yield from Poets optimized production system. As such, we have discontinued our efforts to modify those 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.

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

Intellectual Property

We have twenty-three (23) issued patents from the United States Patent and Trademark Office, or PTO, and seventy-six (76) issued patents from foreign countries. Of our ninety-nine (99) domestic and foreign issued patents, sixty-four (64) are for the use of our technology in agricultural applications and thirty-five (35) relate to human therapeutics applications.

In addition to our ninety-nine (99) 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.

Our agricultural patents are generally set to expire in 2019 in the United States and 2025 outside the United States. Our core human therapeutic technology patents are set to expire in 2021 in the United States and 2025 outside the United States, and our patents related to multiple myeloma are set to expire, both in and outside the United States in 2029. To the extent our patents have different expiration dates abroad than in the United States, we are currently

developing a strategy to extend the United States expiration dates to the foreign expiration dates.

During Fiscal 2011, we reviewed our patent portfolio in order to determine if we could reduce our cost of patent prosecution and maintenance. We identified several patents and patents pending that we believe we no longer need to maintain without having a material impact on the portfolio. We determined that we would no longer incur the cost to prosecute or maintain those patents or patents pending and may allow them to lapse when the next payment was due. Therefore, some of the issued patents may be allowed to lapse in the future.

Government Regulation

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

In addition, our ongoing preclinical research with cell lines and lab animal models of human disease is not currently subject to the FDA requirements that govern clinical trials. However, use of our technology, SNS01-T, for human therapeutic applications, is 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 therapeutic 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.

Our current activities in human therapeutics related to our clinical trial in multiple myeloma, requires approval by the FDA. We have an open IND with the FDA for use of SNS01-T for the treatment of multiple myeloma and are subject to additional reporting to and monitoring by the FDA. Additionally, federal, state and foreign regulations relating to crop protection products and human therapeutic 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 therapeutic 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.

Employees

In addition to the twelve (12) scientists and monitors performing funded research for us at our CRO, the University of Waterloo, and other commercial research facilities, we have four (4) employees and two (2) consultants, four (4) of whom are executive officers and who are involved in our management. We do not anticipate hiring any additional employees over the next 12 months.

The officers are assisted by a Scientific Advisory Board that consists of prominent experts in the fields of plant and human cell biology as follows:

- 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.

- James E. Mier, M.D., who serves as a member of the Scientific Advisory Board, is an Associate Professor of Medicine at Beth Israel Deaconess Medical Center, a teaching hospital of Harvard Medical School. He is also a practicing physician in the Division of Hematology-Oncology at Beth Israel. Dr. Mier’s research is funded by the NIH and he is a member of numerous professional societies.

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.

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 neg 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 our agricultural partners and the successful implementation of the Rahan Joint Collaboration, statements relating to our patent applications, the anticipated long term growth of our business, the results of our preclinical or clinical studies, if any, our ability to comply with the continued listing standards of the NYSE Amex, 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, our limited operating history, our need for additional capital to fund our operations until we are able to generate a profit, the current economic environment, our dependence on a single principal technology, our outsourcing of our research and development activities, our significant future capital needs, our dependence on our patents and proprietary rights and the enforcement of these rights, the potential for our competitors or third parties to allege that we are infringing upon their intellectual property rights, the potential that our security measures may not adequately protect our unpatented technology, potential difficulty in managing our growth and expanding our operations, our lack of marketing or sales history and dependence on third-party marketing partners, our potential future dependence on joint ventures and strategic alliances to develop and market our technology, the intense competition in the human therapeutic and agricultural biotechnology industries, the various government regulations that our business is subject to, the potential that our preclinical studies and clinical trials of our human therapeutic applications may be unsuccessful, any inability to license from third parties their proprietary technologies or processes which we use in connection with the development of our technology, the length, expense and uncertainty associated with clinical trials for our human therapeutic technology, the potential that, even if we receive regulatory approval, consumers may not accept products containing our technology, our dependence on key personnel, the potential that certain provisions of our charter, by-laws and Delaware law could make a takeover difficult, increasing political and social turmoil, the potential that our management and other affiliates, due to their significant control of our common stock have the ability to significantly influence our actions, the potential that a significant portion of our total outstanding shares of common stock may be sold in the market in the near future, the limited trading market of our common stock, the potential that our common stock may be delisted from the NYSE Amex Exchange, fluctuations in the market price of our common stock, our dividend policy and potential for our stockholders to be diluted.

ITEM 1A: Factors That May Affect Our Business, Future Operating Results and Financial Condition

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

Risks Related to Our Business

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

We are a development stage biotechnology company with a limited operating history and limited assets and capital. We have incurred losses each year since inception and had an accumulated deficit of $60,748,435 at June 30, 2011. We have generated minimal revenues by licensing our technology for certain crops to companies willing to share in our development costs. In addition, our technology may not be ready for commercialization for several years. We expect to continue to incur losses for the next several years because we anticipate that our expenditures on research and development and administrative activities will significantly exceed our revenues during that period. We cannot predict when, if ever, we will become profitable.

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

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

We will need to obtain more funding in the future through collaborations or other arrangements with research institutions and corporate partners, or public and private offerings of our securities, including debt or equity financing. We may not be able to obtain adequate funds for our operations from these sources when needed or on acceptable terms. Future collaborations or similar arrangements may require us to license valuable intellectual property to, or to share substantial economic benefits with, our collaborators. If we raise additional capital by issuing additional equity or securities convertible into equity, our stockholders may experience dilution and our share price may decline. Any debt financing may result in restrictions on our spending.

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

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

We believe that at the projected rate of spending we should have sufficient cash to maintain our present operations through March 2012. However, we have the ability to raise additional capital through our ATM facility, utilize our unused line of credit and, if necessary, delay certain costs which will provide us with enough cash to fund our operations at least through June 30, 2012.

We may be adversely affected by the current economic environment.

Our ability to obtain financing, invest in and grow our business, and meet our financial obligations depends on our operating and financial performance, which in turn is subject to numerous factors. In addition to factors specific to our business, prevailing economic conditions and financial, business and other factors beyond our control can also affect our business and ability to raise capital. We cannot anticipate all of the ways in which the current economic climate and financial market conditions could adversely impact our business.

Materials necessary to manufacture some of our compounds currently under development may not be available on commercially reasonable terms, or at all, which may delay our development and commercialization of these compounds.

Some of the materials necessary for the manufacture of our compounds under development may, from time to time, be available either in limited quantities, or from a limited number of manufacturers, or both. Our contract manufacturers need to obtain these materials for our clinical trials and, potentially, for commercial distribution when and if we obtain marketing approval for these compounds. Suppliers may not sell us these materials at the time we need them or on commercially reasonable terms. If we are unable to obtain the materials needed to conduct our clinical trials, product testing and potential regulatory approval could be delayed, adversely affecting our ability to develop the product candidates. Similarly, if we are unable to obtain critical manufacturing materials after regulatory approval has been obtained for a product candidate, the commercial launch of that product candidate could be delayed or there could be a shortage in supply, which could materially affect our ability to generate revenues from that product candidate. If suppliers increase the price of manufacturing materials, the price for one or more of our products may increase, which may make our products less competitive in the marketplace. If it becomes necessary to change suppliers for any of these materials or if any of our suppliers experience a shutdown or disruption at the facilities used to produce these materials, due to technical, regulatory or other reasons, it could harm our ability to manufacture our products.

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

Our primary business is the development and licensing of technology to identify, isolate, characterize and promote or silence genes which control the death of cells in humans and plants. Our future revenue and profitability critically depend upon our ability, or our licensees' 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 therapeutic 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 the failure of our current or potential licensees to successfully commercialize such technology would have a material adverse effect on our business.

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

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

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

As of June 30, 2011, we had a cash balance of $3,609,954 and working capital of $1,787,579. Using our available reserves as of June 30, 2011, and the net proceeds from the ATM facility, we believe that we can operate according to our current business plan through March 2012. However, we have the ability to raise additional capital through our ATM facility, utilize our unused line of credit and, if necessary, delay certain costs which will provide us with enough cash to fund our operations at least through June 30, 2012.

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 in accordance with 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;
- provide a license to third parties to develop and commercialize our technology that we would otherwise seek to develop and commercialize ourselves;
- seek strategic alliances or business combinations;
- attempt to sell our company;
- cease operations; or
- declare bankruptcy.

In addition, in connection with any funding, if we need to issue more equity securities than our certificate of incorporation currently authorizes, or more than 20% of the shares of our common stock outstanding, we may need stockholder approval. If stockholder approval is not obtained or if adequate funds are not available, we may be required to curtail operations significantly or to obtain funds through arrangements with collaborative partners or others that may require us to relinquish rights to certain of our technologies, product candidates, products or potential markets. Investors may experience dilution in their investment from future offerings of our common stock. For example, if we raise additional capital by issuing equity securities, such an issuance would reduce the percentage ownership of existing stockholders. In addition, assuming the exercise of all options and warrants outstanding and the conversion of the preferred stock into common stock, as of June 30, 2011, we had 52,815,335 shares of common stock authorized but unissued and unreserved, which may be issued from time to time by our board of directors. Furthermore, we may need to issue securities that have rights, preferences and privileges senior to our common stock. Failure to obtain financing on acceptable terms would have a material adverse effect on our liquidity.

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

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

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

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

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

As of June 30, 2011, we have been issued twenty-three (23) patents by the PTO and seventy-six (76) 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 that it 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 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 incur licensing fees and the payment of significant other fees or royalties to third parties for the use of their intellectual property in order to enable us to conduct our business.

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

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

The PTO and the courts have not established a consistent policy regarding the breadth of claims allowed in biotechnology patents. The allowance of broader claims may increase the incidence and cost of patent interference proceedings and the risk of infringement litigation. On the other hand, the allowance of narrower claims may limit the scope and 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, all employees agreed to a confidentiality provision in their employment agreement that prohibited the disclosure of confidential information to anyone outside of our company, during the term of employment and for five (5) years thereafter. The employment agreements have since been terminated, but the period of confidentiality is still in effect. 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 that the collaborators conduct certain tests. We cannot assure you that the academic institutions will not assert intellectual property rights in the results of the tests conducted by the research collaborators, or that the academic institutions will grant licenses under such intellectual property rights to us on acceptable terms, if at all. If the assertion of intellectual property rights by an academic institution is substantiated, and the academic institution does not grant intellectual property rights to us, these events could limit our ability to commercialize our technology.

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

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

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

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

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

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

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

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

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

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

- the United States Department of Agriculture, or 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 United States Environmental Protection Agency, or EPA, regulates activity related to the invention of plant pesticides and herbicides, which may include certain kinds of transgenic plants; and
- the FDA regulates foods derived from new plant varieties.

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

Use of our technology, if developed for human therapeutic applications, is also 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 United States, any products resulting from the application of our human therapeutic 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 would need to perform extensive preclinical testing which could take several years and may require substantial expenditures.

We believe that our current agricultural activities, which to date have been confined to research and development efforts, do not require licensing or approval by any governmental regulatory agency. However, we are performing clinical trials in connection with our human therapeutic applications, which is subject to FDA approval. Additionally, federal, state and foreign regulations relating to crop protection products and human therapeutic 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 therapeutic 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 of our human therapeutic applications may be unsuccessful, which could delay or prevent regulatory approval.

Preclinical studies may reveal that our human therapeutic technology is ineffective or harmful, and/or may be unsuccessful in demonstrating efficacy and safety of our human therapeutic 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. Any delay in receiving approval for any applicable IND from the FDA would result in a delay in the commencement of the related clinical trial. Additionally, we could be required to perform additional preclinical studies prior to the FDA approving any applicable IND. 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.

Our success will depend on the success of our clinical trials of our human therapeutic applications.

It may take several years to complete the clinical trials of a product, and failure of one or more of our clinical trials can occur at any stage of testing. We believe that the development of our product candidate involves significant risks at each stage of testing. If clinical trial difficulties and failures arise, our product candidate may never be approved for sale or become commercially viable.

There are a number of difficulties and risks associated with clinical trials. These difficulties and risks may result in the failure to receive regulatory approval to sell our product candidate or the inability to commercialize our product candidate. The possibility exists that:

- we may discover that the product candidate does not exhibit the expected therapeutic results in humans, may cause harmful side effects or have other unexpected characteristics that may delay or preclude regulatory approval or limit commercial use if approved;

- the results from early clinical trials may not be statistically significant or predictive of results that will be obtained from expanded advanced clinical trials;

- institutional review boards or regulators, including the FDA, may hold, suspend or terminate our clinical research or the clinical trials of our product candidate for various reasons, including noncompliance with regulatory requirements or if, in their opinion, the participating subjects are being exposed to unacceptable health risks;

- subjects may drop out of our clinical trials;

- our preclinical studies or clinical trials may produce negative, inconsistent or inconclusive results, and we may decide, or regulators may require us, to conduct additional preclinical studies or clinical trials; and
- the cost of our clinical trials may be greater than we currently anticipate.

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

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

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

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

If our clinical trials for our product candidates are delayed, we would be unable to commercialize our product candidates on a timely basis, which would materially harm our business.

Planned clinical trials may not begin on time or may need to be restructured after they have begun. Clinical trials can be delayed for a variety of reasons, including delays related to:

- obtaining an effective IND or regulatory approval to commence a clinical trial;
- negotiating acceptable clinical trial agreement terms with prospective trial sites;
- obtaining institutional review board approval to conduct a clinical trial at a prospective site;
- recruiting qualified subjects to participate in clinical trials;
- competition in recruiting clinical investigators;
- shortage or lack of availability of supplies of drugs for clinical trials;
- the need to repeat clinical trials as a result of inconclusive results or poorly executed testing;
- the placement of a clinical hold on a study;
- the failure of third parties conducting and overseeing the operations of our clinical trials to perform their contractual or regulatory obligations in a timely fashion; and

- exposure of clinical trial subjects to unexpected and unacceptable health risks or noncompliance with regulatory requirements, which may result in suspension of the trial.

We believe that our product candidate has significant milestones to reach, including the successful completion of clinical trials, before commercialization. If we have significant delays in or termination of clinical trials, our financial results and the commercial prospects for our product candidates or any other products that we may develop will be adversely impacted. In addition, our product development costs would increase and our ability to generate revenue could be impaired.

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

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

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

We cannot guarantee that consumers will accept products containing our technology. Recently, there has been consumer concern and consumer advocate activism with respect to genetically-engineered agricultural consumer products. The adverse consequences from heightened consumer concern in this regard could affect the markets for agricultural products developed with our technology and could also result in increased government regulation in response to that concern. If the public or potential customers perceive our technology to be genetic modification or genetic engineering, agricultural products grown with our technology may not gain market acceptance.

We face potential product liability exposure far in excess of our limited insurance coverage.

We may be held liable if any product we or our collaborators develop causes injury or is found otherwise unsuitable during product testing, manufacturing, marketing or sale. Regardless of merit or eventual outcome, product liability claims could result in decreased demand for our product candidates, injury to our reputation, withdrawal of patients from our clinical trials, substantial monetary awards to trial participants and the inability to commercialize any products that we may develop. These claims might be made directly by consumers, health care providers, pharmaceutical companies or others selling or testing our products. We have obtained limited product liability insurance coverage for our clinical trials; however, our insurance may not reimburse us or may not be sufficient to reimburse us for expenses or losses we may suffer. Moreover, if insurance coverage becomes more expensive, we may not be able to maintain insurance coverage at a reasonable cost or in sufficient amounts to protect us against losses due to liability. If we obtain marketing approval for any of our product candidates, we intend to expand our insurance coverage to include the sale of commercial products, but we may be unable to obtain commercially reasonable product liability insurance for any products approved for marketing. On occasion, juries have awarded large judgments in class action lawsuits for claims based on drugs that had unanticipated side effects. In addition, the pharmaceutical and biotechnology industries, in general, have been subject to significant medical malpractice litigation. A successful product liability claim or series of claims brought against us could harm our reputation and business and would decrease our cash reserves.

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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 a research agreement with Dr. John Thompson, this agreement may be terminated upon short or no notice. Additionally, we do not have employment agreements with our key employees. 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, Delaware law and stock plans 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 NYSE Amex, 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.

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 our outstanding equity awards or issue equivalent equity awards, our current equity plans require the accelerated vesting of such outstanding equity awards.

Risks Related to Our Common Stock

We currently do not meet the NYSE Amex continued listing standards. If our common stock is delisted from the NYSE Amex, we may not be able to list on any other stock exchange, and our common stock may be subject to the "penny stock" regulations which may affect the ability of our stockholders to sell their shares.

The NYSE Amex requires us to meet minimum financial requirements in order to maintain our listing. Currently, we do not meet the $6,000,000 minimum net worth continued listing requirement of the NYSE Amex. Failure to regain compliance with the continued listing standards could result in our company being delisted from the NYSE Amex. If we are delisted from the NYSE Amex, 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 and that has a market price of less than $5.00 per share or with an exercise price of less than $5.00 per share, subject to certain exceptions. If our common stock becomes a penny stock, additional sales practice requirements would be imposed on broker-dealers that sell such securities to persons other than certain qualified investors. For transactions involving a penny stock, unless exempt, a broker-dealer must make a special suitability determination for the purchaser and receive the purchaser's written consent to the transaction prior to the sale. In addition, the rules on penny stocks require delivery, prior to and after any penny stock transaction, of disclosures required by the SEC.

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

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

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, 2011, our executive officers and directors together beneficially own approximately 32.4% of the outstanding shares of our common stock, assuming the conversion of preferred stock and exercise of options and warrants which are currently exercisable or will become exercisable within 60 days of June 30, 2011, held by these stockholders. As a result, these stockholders, acting together, will be able to exercise significant influence over matters requiring approval by our stockholders, including the election of directors, and may not always act in the best interests of other stockholders. Such a concentration of ownership may have the effect of delaying or preventing a change in control of us, including transactions in which our stockholders might otherwise receive a premium for their shares over then-current market prices.

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

As of June 30, 2011, we had 77,769,677 shares of our common stock issued and outstanding and 4,890 shares of convertible preferred stock outstanding which can convert into 16,300,000 shares of common stock. Approximately 34,164,431 shares of such shares are registered pursuant to registration statements on Form S-3 and 59,905,246 of which are either eligible to be sold under SEC Rule 144 or are in the public float. In addition, we have registered 35,890,007 shares of our common stock underlying warrants previously issued on Form S-3 registration statements and we registered 23,005,003 shares of our common stock underlying options granted or to be granted under our stock option plan. Consequently, sales of substantial amounts of our common stock in the public market, or the perception that such sales could occur, may have a material adverse effect on our stock price.

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

Our common stock is quoted on the NYSE Amex and currently has a limited trading market. The NYSE Amex requires us to meet minimum financial requirements in order to maintain our listing. Currently, we do not meet the continued listing requirements of the NYSE Amex. If we do not regain compliance with the continued listing standards, we could be delisted. We cannot assure you that an active trading market will develop or, if developed, will be maintained. As a result, our stockholders may find it difficult to dispose of shares of our common stock and, as a result, may suffer a loss of all or a substantial portion of their investment.

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.

For example, during the quarter ended June 30, 2011, our common stock traded between $0.24 per share and $0.32 per share.

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

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

Our stockholders may experience substantial dilution as a result of the conversion of convertible preferred stock, the exercise of options and warrants to purchase our common stock, or due to anti-dilution provisions relating to any on the foregoing.

As of June 30, 2011, we have outstanding 4,890 shares of convertible preferred stock which may convert into 16,300,000 shares of our common stock and warrants to purchase 55,301,226 shares of our common stock. In addition, as of June 30, 2011, we have reserved 25,991,603 shares of our common stock for issuance upon the exercise of options granted or available to be granted pursuant to our stock option plan, all of which may be granted in the future. Furthermore, in connection with the preferred stock agreements, we are required to reserve an additional 21,785,192 shares of common stock. The conversion of the convertible preferred stock and 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. The conversion price of the convertible preferred stock and certain warrants are also subject to certain anti-dilution adjustments.

Item 1B. Unresolved Staff Comments.

None.

Item 2. Properties.

Through May 20, 2011, we leased office space in New Brunswick, New Jersey. Effective May 19, 2011, we lease office space in Bridgewater, New Jersey for a current monthly rental fee of $5,703, subject to certain escalations for our proportionate share of increases, over the base year of 2011, in the building's operating costs. The lease expires on May 31, 2013 but can be extended at our option for one additional year. 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. Removed and Reserved.

PART II

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

Our common stock trades on the NYSE Amex 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, 2009, as reported on the NYSE Amex Exchange.

Quarter Ended	Common Stock High	Low
September 30, 2009	$ 0.83	$ 0.43
December 31, 2009	$ 0.49	$ 0.30
March 31, 2010	$ 0.51	$ 0.25
June 30, 2010	$ 0.75	$ 0.30
September 30, 2010	$ 0.42	$ 0.25
December 31, 2010	$ 0.33	$ 0.22
March 31, 2011	$ 0.36	$ 0.23
June 30, 2011	$ 0.32	$ 0.24

As of September 26, 2011, the approximate number of holders of record of our common stock was 271. 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.

The following table provides information about the securities authorized for issuance under our equity compensation plans as of June 30, 2011.

EQUITY COMPENSATION PLAN INFORMATION

	Number of securities to be issued upon exercise of outstanding options, warrants and rights and restricted stock units		Weighted-average exercise price of outstanding options, warrants and rights and restricted stock units	Number of securities remaining available for future issuance under equity compensation plans	
Equity compensation plans approved by security holders	11,348,314	(1)	$ 0.78	14,643,289	(2)
Equity compensation plans not approved by security holders	—		—	—	
Total	11,348,314	(1)	$ 0.78	14,643,289	(2)

(1) Issued pursuant to our 1998 Stock Plan and 2008 Stock Plan.

(2) Available for future issuance pursuant to our 2008 Stock Plan.

RECENT SALES OF UNREGISTERED SECURITIES; USE OF PROCEEDS FROM REGISTERED SECURITIES

None, except as previously disclosed on our Quarterly reports on Forms 10-Q and Current Reports on Forms 8-K.

PERFORMANCE GRAPH

The following graph compares the cumulative total stockholder return on our common stock with the cumulative total return on the NYSE Amex Market Value (U.S.) Index and the RDG Microcap Biotechnology Index for the period beginning July 1, 2006 and ending on the last day of our last completed fiscal year. The stock performance shown on the graph below is not indicative of future price performance.

	7/1/06	6/30/07	6/30/08	6/30/09	6/30/10	6/30/11
Senesco Technologies, Inc.	$100.00	$60.53	$97.37	$43.68	$16.58	$14.74
NYSE Amex Composite Index	$100.00	$125.56	$124.38	$91.52	$108.41	$138.09
RDG Microcap Biotechnology Index	$100.00	$82.92	$44.44	$32.83	$28.34	$25.84

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,				
	2011	2010	2009	2008	2007
	(In thousands, except per share data)				
Statement of Operations Data:					
Revenue	$-	$140	$275	$457	$300
Operating expenses:					
General and administrative	2,610	2,349	2,206	2,291	2,413
Research and development	3,720	2,637	2,354	1,765	1,208
Total operating expenses	6,330	4,986	4,560	4,056	3,621
Loss from operations	(6,330)	(4,846)	(4,285)	(3,599)	(3,321)
Grant income	244	-	-	-	-
Fair value – warrant liability	609	2,517	-	-	-
Other noncash expense	(116)	-	-	-	-
Loss on extinguishment of debt	-	(362)	-	-	-
Write off of patents abandoned	(1,588)	-	-	-	-
Amortization of debt discount and financing costs	-	(10,081)	(478)	(668)	-
Interest expense – convertible notes	-	(587)	(1,007)	(434)	-
Interest (expense) income, net	(88)	(24)	43	100	69
Net loss	(7,269)	(13,383)	(5,727)	(4,601)	(3,252)
Preferred dividends including beneficial conversion feature of $5,330	(2,638)	(6,240)	-	-	-
Net loss available to common shares	$(9,907)	$(19,623)	$(5,727)	$(4,601)	$(3,252)
Basic and diluted net loss per common share	$(0.14)	$(0.67)	$(0.30)	$(0.26)	$(0.19)
Basic and diluted weighted average number of common shares outstanding	69,332	29,113	18,888	17,660	16,917
Balance Sheet Data:					
Cash, cash equivalents and investments	$3,610	$8,026	$1,431	$6,176	$658

Working capital	1,788	6,002	1,259	5,673	259
Total assets	8,597	13,912	7,122	10,643	3,322
Accumulated deficit	(60,748)	(50,841)	(35,950)	(30,223)	(25,622)
Total stockholders' equity	4,517	7,981	5,668	9,836	2,690

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 several years, during which time we will engage in significant research and development efforts.

Our human therapeutic research program, which has consisted of pre-clinical in-vitro and in-vivo experiments designed to assess the role and method of action of the Factor 5A genes in human diseases, is performed by approximately twelve (12) third party researchers at our direction, at the University of Waterloo and other commercial research facilities.

We have developed a therapeutic candidate, SNS01-T, for the potential treatment of multiple myeloma. We have performed efficacy, toxicological and dose-finding studies in vitro in non-human and human cells and in-vivo in mice for SNS01. We have also completed our pivotal GLP toxicology studies in mice and dogs, employing SNS01-T, a slightly modified formulation of SNS01, and have an open IND, with the FDA. We have also been granted orphan drug status for SNS01-T by the FDA for the potential treatment of multiple myeloma.

We initiated a Phase 1b/2a clinical study with SNS01-T for treatment of multiple myeloma in September 2011 and are currently screening patients. We have selected Mayo Clinic as a clinical site and are considering adding an additional site. We recently met with our CRO to finalize the operational plans for the conduct and analysis of this open-label, multiple-dose, dose-escalation study, which will evaluate the safety and tolerability of SNS01-T when administered by intravenous infusion to relapsed or refractory multiple myeloma patients.

We may consider other human diseases in order to determine the role of Factor 5A and SNS01-T.

Additionally, we have seven active agricultural license agreements to develop and commercialize our technology in corn, soy, cotton, rice, canola, trees, alfalfa, and turf grass. The licenses provide for upfront payments, milestone payments and royalty payments to us upon commercial introduction. We also have entered into a joint collaboration to develop and commercialize our technology in banana plants. In connection with the joint collaboration, we will receive 50% of the profits from the sale of enhanced banana plants.

Consistent with our commercialization strategy, we may license our technology for human health applications or for additional crops, as the opportunities may arise, 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.

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 or prepay the expenses that have been invoiced but the services have not yet been performed. 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.

Income Taxes

We account for income taxes in accordance with an asset and liability approach requiring the recognition of deferred tax assets and liabilities for the expected tax consequences of events that have been recognized in the financial statements or tax returns. Deferred tax assets and liabilities are recorded without consideration as to their ability to be realized. The deferred tax asset includes net operating loss and credit carryforwards, and the cumulative temporary differences related to stock-based compensation. The portion of any deferred tax asset, for which it is more likely than not that a tax benefit will not be realized, must then be offset by recording a valuation allowance against the asset.

In assessing the realizability of deferred tax assets, management considers whether it is more likely than not that some portion or all of the deferred tax assets will not be realized. The ultimate realization of deferred tax assets is dependent upon the generation of future taxable income during the periods in which those temporary differences become deductible. Management considers the scheduled reversal of deferred tax liabilities, projected future taxable income and tax planning strategies in making this assessment. Management believes it is more likely than not that we will not realize the deferred tax assets in excess of deferred tax liabilities, and as such, a full valuation allowance is maintained against the net deferred tax assets.

While we believe that our tax positions are fully supportable, there is a risk that certain positions could be challenged successfully. In these instances, we look to establish reserves. If we determine that a tax position is more likely than not of being sustained upon audit, based solely on the technical merits of the position, we recognize the benefit. We measure the benefit by determining the amount that has likelihood greater than 50% of being realized upon settlement. We presume that all tax positions will be examined by a taxing authority with full knowledge of all relevant information. We regularly monitor our tax positions, tax assets and tax liabilities. We reevaluate the technical merits of our tax positions and recognize an uncertain tax benefit or derecognize a previously recorded tax benefit when (i) there is a completion of a tax audit, (ii) there is a change in applicable tax law including a tax case or legislative guidance, or (iii) there is an expiration of the statute of limitations. Significant judgment is required in accounting for tax reserves.

Stock-based Compensation

We measure all employee stock-based compensation awards using a fair value method and record such expense in our consolidated financial statements. Such expense is amortized on a straight line basis over the requisite service period of the award.

We estimate the grant date fair value of stock options using the Black-Scholes option-pricing model which requires the input of highly subjective assumptions. These assumptions include estimating the expected term of the award and the estimated volatility of our stock price over the expected term. Changes in these assumptions and in the estimated forfeitures of stock option awards may materially affect the amount of stock-based compensation recognized in our consolidated statements of operations.

In connection with our short-term and long-term incentive plans, our management reviews the specific goals of such plans to determine if such goals have been achieved or are probable that they will be achieved. If the goals have been achieved or are probable of being achieved, then the amount of compensation expense determined on the date of grant related to those specific goals is charged to compensation expense at such time.

Intangible Assets

We test all intangible assets for recoverability whenever events or changes in circumstances indicate that we may not be able to recover an asset's carrying amount. We evaluate the recoverability of an asset by comparing its carrying amount to the undiscounted cash flows expected to result from the use and eventual disposition of that asset. If the undiscounted cash flows are not sufficient to recover the carrying amount, we measure any impairment loss as the excess of the carrying amount of the asset over its fair value. Events which could trigger asset impairment include significant underperformance relative to historical or projected future operating results, significant changes in the manner or use of an asset or in our overall business strategy, significant negative industry or economic trends, shortening of product life-cycles, negative changes in third party reimbursement, or changes in technology.

As of June 30, 2011, we have determined that the estimated future discounted cash flows related to our patent applications, after the write off of patents abandoned, will be sufficient to recover their carrying value.

Warrant Liability

We compute valuations each quarter using the Black-Scholes model, which requires the input of subjective assumptions for volatility, for warrants that have an exercise price reset feature to account for the various possibilities that could occur due to changes in the inputs to the Black-Scholes model as a result of contractually-obligated changes. We effectively weight each calculation based on the likelihood of occurrence to determine the value of the derivative at the reporting date. The fair value of the warrants that have cash settlement features is estimated using the Black-Scholes model. Changes in these assumptions may materially affect the amount of the warrant liability recorded on our consolidated balance sheet.

Convertible Preferred Stock

During the year ended June 30, 2010, we issued convertible preferred stock and warrants for gross proceeds in the amount of $11,497,000. The proceeds have been allocated between convertible preferred stock and warrants based upon their fair values, whereby the fair value of the warrants have been determined using the Black-Scholes model. Such amount was recorded as a liability. The remaining amounts were allocated to the convertible preferred stock and were recorded as equity.

Liquidity and Capital Resources

Overview

As of June 30, 2011, our cash balance totaled $3,609,954, and we had working capital of $1,787,579. As of June 30, 2011, we had a federal tax loss carryforward of approximately $40,935,000 and a state tax loss carry-forward of approximately $33,569,000 to offset future taxable income. We cannot assure you that we will be able to take advantage of any or all of such tax loss carryforwards, if at all, in future fiscal years.

Contractual Obligations

The following table lists our cash contractual obligations as of June 30, 2011:

		Payments Due by Period			
Contractual Obligations	Total	Less than 1 year	1 - 3 years	3 - 5 years	More than 5 years
Research and Development Agreements (1)	$580,206	$483,484	$96,722	$—	$—
Facility, Rent and Operating Leases (2)	$131,171	$68,437	$62,734	$—	$—
Employment, Consulting and Scientific Advisory Board Agreements (3)	$166,500	$92,333	$74,167	$—	$—
Total Contractual Cash Obligations	$877,877	$644,254	$233,623	$—	$—

(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 Bridgewater, New Jersey is subject to certain escalations for our proportionate share of increases in the building's operating costs.

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

Effective June 20, 2011, we entered into a Master Services Agreement with Criterium under which CRITERIUM will provide professional and technical services in connection with the management of our planned Phase 1b/2a clinical trial for the treatment of multiple myeloma. The agreement has an initial term that commences on the date of the agreement and runs for a period of eighteen (18) months. Our financial obligation under the agreement is estimated to be $483,608 and is included in the above table.

Effective August 15, 2011, we entered into a Clinical Trial Research Agreement with Mayo Clinic, or MAYO, under which MAYO will perform our planned Phase 1b/2a clinical trial for the treatment of multiple myeloma. The agreement has an initial term that commences on the date of the agreement and continues until the study is completed and all final study documentation required to be provided is received and accepted by us. Our financial obligation under the agreement includes a fixed cost and a cost per patient and is not included in the above table.

Effective September 1, 2011, we extended our research and development agreement with the University of Waterloo for an additional one-year period through August 31, 2012, in the amount of CAD $555,900, or approximately USD $567,000 and is not included in the above table. Research and development expenses under this agreement aggregated USD $622,872 for the year ended June 30, 2011, USD $672,693 for the year ended June 30, 2010, USD $653,104 for the year ended June 30, 2009 and USD $6,575,933 for the cumulative period from inception through June 30, 2011.

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.

Capital Resources

Since inception, we have generated revenues of $1,590,000 in connection with the initial fees and milestone payments received under our license and development agreements. We have also received $244,479 in grants. 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 several 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.

Financing

On December 22, 2010, we initiated an ATM offering pursuant to which we, from time to time, may issue and sell shares of our common stock, par value $0.01 per share, with an aggregate offering price of up to $5,500,000. Such common stock will be offered and sold pursuant to a prospectus supplement filed with the Securities and Exchange Commission in connection with our shelf registration statement on Form S-3 (File No. 333-170140), which became effective on November 9, 2010.

Upon delivery of a placement notice by us, if any, the placement agent may sell the common stock in any method permitted by law deemed to be an “at the market” offering as defined in Rule 415 promulgated under the Securities Act of 1933, as amended, at prices prevailing at the time of sale or at prices related to such prevailing market prices, including sales made directly on the NYSE Amex LLC, or NYSE Amex, or sales made through a market maker other than on an exchange. The placement agent will make all sales using commercially reasonable efforts consistent with its normal sales and trading practices on mutually agreed upon terms between the placement agent and us. We will pay the placement agent a commission of up to 6% of the gross proceeds from the sale of shares of the common stock, depending on the per share sales price. We have agreed to reimburse a portion of the placement agent’s expenses in connection with the offering, up to an aggregate amount of $25,000. In addition, we granted customary indemnification rights to the placement agent.

The ATM will terminate upon the earlier of (1) the sale of all of the common stock subject to the ATM, or (2) upon termination by us or the placement agent. The placement agent may terminate the ATM in certain circumstances, including the occurrence of a material adverse change that, in the placement agent's reasonable judgment, may impair its ability to sell the common stock, our failure to satisfy any condition under the ATM or a suspension or limitation of trading of the common stock on the NYSE Amex. In addition, either we or the placement agent may terminate the ATM at any time and for any reason upon 10 days prior notice to the other party.

During the year ended June 30, 2011, we issued 5,911,457 shares of common stock under the ATM for gross proceeds in the amount of $1,853,419. From July 1, 2011 through September 26, 2011, we issued an additional 1,730,211 shares of common stock under the ATM for gross proceeds in the amount of $481,368.

We anticipate that, based upon our current cash balance at June 30, 2011 and the funds received under the ATM subsequent to June 30, 2011, we will be able to fund our operations through March 2012. However, we have the ability to raise additional capital through our ATM facility, utilize our unused line of credit and, if necessary, delay certain costs which will provide us with enough cash to fund our operations at least through June 30, 2012.

Over the next 12 months, we plan to fund our research and development and commercialization activities by:

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

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

Results of Operations

Fiscal Year ended June 30, 2011

Revenue

We did not earn any revenue during the fiscal year ended June 30, 2011. During the fiscal year ended June 30, 2010, we earned revenue in the amount of $140,000, which consisted of milestone payments in connection with certain agricultural license agreements.

We anticipate that we will receive future milestone payments in connection with our current agricultural development and license agreements. Additionally, we anticipate that we may receive future 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 with no history of receiving development milestone payments or royalties, and 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, 2011	2010	Change	%
General and administrative	$ 2,610,222	$ 2,349,116	$ 261,106	11 %
Research and development	3,720,394	2,637,407	1,082,987	41 %
Total operating expenses	$ 6,330,616	$ 4,986,523	$ 1,344,093	27 %

We expect operating expenses to increase over the next 12 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, 2011	2010
Stock-based compensation	$ 709,207	$ 433,414
Payroll and benefits	568,597	655,958
Investor relations	260,455	250,893
Professional fees	425,640	509,838
Depreciation and amortization	143,274	126,567
Other general and administrative expenses	503,049	372,446
Total general and administrative expenses	$ 2,610,222	$ 2,349,116

- Stock-based compensation in Fiscal 2011 and 2010 consisted of the amortized portion of the Black-Scholes value of options, restricted stock units and warrants granted to directors, employees and consultants. During Fiscal 2011 and 2010, the following options and warrants were granted to such individuals:

	Fiscal 2011	Fiscal 2010
Options	4,579,142	2,951,760
Warrants	305,000	154,184

Stock-based compensation in Fiscal 2011 was higher than in Fiscal 2010 primarily due to the greater number of options and warrants granted.

- Payroll and benefits in Fiscal 2011 was lower than in Fiscal 2010 primarily due to the resignation of the VP-Corporate Development during Fiscal 2010.

- Investor relations expense in Fiscal 2011 was higher than in Fiscal 2010 primarily as a result of an increase in investor relations consulting costs.

- Professional fees in Fiscal 2011 were lower than in Fiscal 2010 primarily as a result of a decrease in legal fees. Legal fees decreased primarily due to discounts negotiated with our law firm and not incurring fees related to the resignation of our former President and CEO and the VP-Corporate Development, the redemption of our convertible notes, the Stanford bankruptcy and other regulatory issues which were incurred in Fiscal 2010.

- Depreciation and amortization in Fiscal 2011 was higher than in Fiscal 2010 primarily as a result of an increase in amortization of patent costs.

We expect general and administrative expenses to modestly increase over the next 12 months primarily due to an increase in payroll and benefits and insurance costs related to our multiple myeloma project.

Research and development expenses

	Year Ended June 30,			
	2011	2010	Change	%
Stock-based compensation	$ 41,159	$ 7,025	$ 34,134	486 %
Other research and development	3,679,235	2,630,382	1,048,853	40 %
Total research and development	$ 3,720,394	$ 2,637,407	$ 1,082,987	41 %

- Stock-based compensation in Fiscal 2011 was higher than in Fiscal 2010 primarily because the number of options granted during Fiscal 2011 was higher than in Fiscal 2010.

- Other research and development costs in Fiscal 2011 was higher than in Fiscal 2010 primarily as a result of the expansion of our human therapeutic programs, specifically performing the pivotal toxicology study and submitting the IND for our multiple myeloma project.

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

	Year ended June 30,			
	2011	%	2010	%
Agricultural research programs	$ 467,141	13 %	$ 553,620	21 %
Human therapeutic research programs	3,253,253	87 %	2,083,787	79 %
Total research and development expenses	$ 3,720,394	100 %	$ 2,637,407	100 %

- Agricultural research expenses in Fiscal 2011 were lower than in Fiscal 2010 primarily as a result of a decrease in the allocation of payroll from agriculture to human therapeutics.

- Human therapeutic research expenses in Fiscal 2011 were higher than in Fiscal 2010 primarily as a result of the progress of the ongoing multiple myeloma project.

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

Other non-operating income and expense

Grant income

We received grant income under the Qualified Therapeutic Discovery Project in the amount of $244,479 during Fiscal 2011. The funds were granted in connection with our program for the use of our lead therapeutic candidate, SNS01-T, in multiple myeloma.

Fair value – warrant liability

This decrease of $1,782,535 was primarily due to a decrease in the number of warrants that are accounted for as a liability as the terms that gave rise to liability accounting for these warrants were modified by the holders during Fiscal 2011. Accordingly, $1,173,296 of the decrease was recorded as an increase to capital in excess of par with the balance of the decrease in the amount of $609,239 being recorded as income from the change in the Black-Scholes value of the remaining warrants.

Other noncash expense or income

During Fiscal 2011, the exercise price of 4,088,540 warrants was adjusted from $0.50 to $0.32 in exchange for those warrant holders giving up their right to future adjustments to the exercise price. This resulted in a charge to stock-based compensation of $115,869.

Write-off of patents abandoned

During Fiscal 2011, we reviewed our patent portfolio in order to determine if we could reduce our cost of patent prosecution and maintenance. We identified several patents and patents pending that we believe we no longer need to maintain without having a material impact on the portfolio. We determined that we would no longer incur the cost to prosecute or maintain those patents or patents pending. Therefore, we wrote-off the net book value of those patents and patents pending in the amount of $1,588,087.

Interest (expense) income

	Year Ended June 30,			
	2011	2010	Change	%
Interest expense	$ (110,649)	$ (34,772)	$ (75,877)	(218)%
Interest income	22,527	10,637	11,890	112 %
Interest expense, net	$ (88,122)	$ (24,135)	$ (63,987)	(265)%

- Interest expense in Fiscal 2011 was higher than in Fiscal 2010 due to the interest incurred on the $3,000,000 line of credit, of which approximately $2,200,000 was utilized during the entirety of Fiscal 2011, but only for the last five months of Fiscal 2010.

- Interest income in Fiscal 2011 was higher than in Fiscal 2010 due to a higher average cash and investment balance during the year.

Fiscal Year ended June 30, 2010

Revenue

During the fiscal year ended June 30, 2010, we earned revenue in the amount of $140,000, which consisted of milestone payments in connection with certain agricultural license agreements. During the fiscal year ended June 30, 2009, we earned revenue in the amount of $275,000, which consisted of milestone payments received in connection with certain agricultural license agreements.

Operating expenses

	Year Ended June 30,			
	2010	2009	Change	%
General and administrative	$ 2,349,116	$ 2,205,739	$ 143,377	7 %
Research and development	2,637,407	2,353,962	283,445	12 %
Total operating expenses	$ 4,986,523	$ 4,559,701	$ 426,822	9 %

General and administrative expenses

General and administrative expenses consist of the following:

	Year ended June 30,	
	2010	2009
Stock-based compensation	$433,414	$445,255
Payroll and benefits	655,958	689,834
Investor relations	250,893	244,537
Professional fees	509,838	415,767
Depreciation and amortization	126,567	111,753
Other general and administrative expenses	372,446	98,593
Total general and administrative expenses	$2,349,116	$2,205,739

- Stock-based compensation in Fiscal 2010 and 2009 consisted of the amortized portion of the Black-Scholes value of options, restricted stock units and warrants granted to directors, employees and consultants. During Fiscal 2010 and 2009, the following options, restricted stock units and warrants were granted to such individuals:

	Fiscal 2010	Fiscal 2009
Options	2,951,760	834,812
Restricted Stock Units	-	136,000
Warrants	-	500

Stock-based compensation in Fiscal 2010 was lower than in Fiscal 2009 primarily due to a lower Black-Scholes value of the options granted due to a lower average stock price during Fiscal 2010.

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- Payroll and benefits in Fiscal 2010 was lower than in Fiscal 2009 primarily due to the resignation of the former President and CEO and the VP-Corporate Development during Fiscal 2010.

- Investor relations expense in Fiscal 2010 was higher than in Fiscal 2009 primarily as a result of an increase in investor relations consulting costs.

- Professional fees in Fiscal 2010 were higher than in Fiscal 2009 primarily as a result of an increase in legal fees. Legal fees increased primarily due to the resignation of our former President and CEO and the VP-Corporate Development, the redemption of our convertible notes, the Stanford bankruptcy and other regulatory issues.

- Depreciation and amortization in Fiscal 2010 was higher than in Fiscal 2009 primarily as a result of an increase in amortization of patent costs.

Research and development expenses

	Year Ended June 30,			
	2010	2009	Change	%
Stock-based compensation	$ 7,025	$ 61,592	$ (54,567)	(89)%
Other research and development	2,630,382	2,292,370	338,012	15 %
Total research and development	$ 2,637,407	$ 2,353,962	$ 283,445	12 %

- Stock-based compensation in Fiscal 2010 was lower than in Fiscal 2009 primarily because the number of options vested during Fiscal 2010 were lower than in Fiscal 2009.

- Other research and development costs in Fiscal 2010 was higher than in Fiscal 2009 primarily as a result of the expansion of our human therapeutic programs, specifically our multiple myeloma project and an increase in the cost of our research agreement with the University of Waterloo due to the weakening of the U.S. dollar against the Canadian dollar.

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

	Year ended June 30,					
	2010	%		2009	%	
Agricultural research programs	$553,620	21	%	$617,783	26	%
Human therapeutic research programs	2,083,787	79	%	1,736,179	74	%
Total research and development expenses	$2,637,407	100	%	$2,353,962	100	%

- Agricultural research expenses in Fiscal 2010 were lower than in Fiscal 2009 primarily as a result of a decrease in the allocation of payroll from agriculture to human therapeutics.

- Human therapeutic research expenses in Fiscal 2010 were higher than in Fiscal 2009 primarily as a result of the progress of the ongoing multiple myeloma project.

Other non-operating income and expense

Fair value – warrant liability

This decrease of $2,516,661 was due to a decrease in the Black-Scholes value of the underlying warrants.

Amortization of debt discount and financing costs

During Fiscal 2008, we issued $10,000,000 of convertible notes and warrants. The discount on the convertible notes was being amortized, using the effective yield method over the term of the convertible notes. The related costs of issuance were recorded as deferred financing costs and were being amortized on a straight line basis over the term of the convertible notes. As of June 30, 2010, all of the notes had been converted or redeemed and the unamortized portion of the convertible notes and deferred financing costs were fully amortized. As of June 30, 2009, $9,455,000 of convertible notes were outstanding.

Interest expense – convertible notes

Interest expense – convertible notes represents the fair value of the common stock issued in lieu of paying cash for the 8% coupon rate of interest related to the convertible notes issued during Fiscal 2008.

Interest (expense) income

	Year Ended June 30,			
	2010	2009	Change	%
Interest expense	$ (34,772)	-	$ (34,772)	-
Interest income	10,637	$ 43,076	(32,439)	(75)%
Interest (expense) income, net	$ (24,135)	$ 43,076	$ (67,211)	(156)%

- Interest expense in Fiscal 2010 was higher than in Fiscal 2009 due to the interest incurred on the $3,000,000 line of credit, of which approximately $2,200,000 was utilized during the last five months of Fiscal 2010.

- Interest income in Fiscal 2010 was lower than in Fiscal 2009 due to a lower average cash and investments balance during the year and lower interest rates.

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 affect our results of operations and financial condition.

Interest Rate Risk

We invest in high-quality financial instruments, primarily money market funds, with an effective duration of the portfolio of less than one year which we believe are subject to limited credit risk. We currently do not hedge our interest rate exposure. Due to the short-term nature of our investments, which we plan to hold until maturity, we do not believe that we have any material exposure to interest rate risk arising from our investments.

Item 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.

Disclosure 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 the end of the period covered by this Annual Report on Form 10-K. Based on this evaluation, our chief executive officer and chief financial officer have concluded that, as of the end of such period, our disclosure controls and procedures were effective.

Internal Control Over Financial Reporting

Management’s Annual Report on Internal Control Over Financial Reporting

Our company’s management is responsible for establishing and maintaining adequate internal control over financial reporting. Internal control over financial reporting is defined in Rules 13a-15(f) and 15d-15(f) under the Exchange Act as a process designed by, or under the supervision of, our company’s principle executive and principal financial officers and effected by our company’s board of directors, management and other personnel to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles in the U.S. and includes those policies and procedures that:

- Pertain to the maintenance of records that in reasonable detail accurately and fairly reflect the transactions and dispositions of the assets of our company;
- Provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of our company are being made only in accordance with authorization of management and directors of our company; and
- Provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use or disposition of our company’s assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Projections of any evaluation of effectiveness to future periods are subject to the risks that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

Management assessed the effectiveness of our company's internal control over financial reporting as of June 30, 2011. In making this assessment, management used the criteria established in Internal Control-Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission, or COSO.

Based on this assessment, management has concluded that, as of June 30, 2011 our company's internal control over financial reporting is effective.

Management's report was not subject to attestation by the company's registered public accounting firm pursuant to applicable law that permits the Company to provide only management's report in this annual report.

Changes in Internal Controls Over Financial Reporting

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, 2011 that has materially affected, or is reasonably likely to materially affect, our internal controls over financial reporting.

Item 9B. Other Information.

None.

PART III

Item 10. Directors, Executive Officers and Corporate Governance.

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 2012 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 2012 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 2012 Annual Meeting of Stockholders is incorporated herein by reference to such proxy statement.

Item 13. Certain Relationships and Related Transactions, and Director Independence.

The discussion under the heading "Certain Relationships and Related Transactions" in our definitive proxy statement for the 2012 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 2012 Annual Meeting of Stockholders is incorporated herein by reference to such proxy statement.

PART IV

Item 15. Exhibits and 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 54.

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 28th day of September 2011.

SENESCO TECHNOLOGIES, INC.

By: /s/ Leslie J. Browne
Leslie J. Browne, Ph.D., President and
Chief Executive Officer
(principal executive officer)

By: /s/ Joel Brooks
Joel Brooks, Chief Financial Officer,
Secretary and Treasurer
(principal financial and accounting
officer)

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.

Signature	Title	Date
/s/ Harlan W. Waksal, M.D. Harlan W. Waksal, M.D.	Chairman and Director	September 28, 2011
/s/ Leslie J. Browne, Ph.D. Leslie J. Browne, Ph.D.	President, Chief Executive Officer and Director (principal executive officer)	September 28, 2011
/s/ Joel Brooks Joel Brooks	Chief Financial Officer, Secretary and Treasurer (principal financial and accounting officer)	September 28, 2011
/s/ John E. Thompson John E. Thompson	Executive Vice President, Chief Scientific Officer and Director	September 28, 2011
/s/ John Braca John Braca	Director	September 28, 2011
/s/ Christopher Forbes Christopher Forbes	Director	September 28, 2011
/s/ Warren J. Isabelle Warren J. Isabelle	Director	September 28, 2011
/s/ Thomas C. Quick Thomas C. Quick	Director	September 28, 2011
/s/ David Rector David Rector	Director	September 28, 2011
/s/ Rudolf Stalder Rudolf Stalder	Director	September 28, 2011
/s/ Jack Van Hulst Jack Van Hulst	Director	September 28, 2011

EXHIBIT INDEX

Exhibit No.	Description of Exhibit
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 January 22, 2007. (Incorporated by reference to Senesco Technologies, Inc. quarterly report on Form 10-Q for the period ended December 31, 2006.)
3.2	Certificate of Amendment to the Amended and Restated Certificate of Incorporation of Senesco Technologies, Inc. filed with the State of Delaware on January 22, 2008. (Incorporated by reference to Exhibit 3.1 of Senesco Technologies, Inc. quarterly report on Form 10-Q for the period ended December 31, 2007.)
3.3	Certificate of Amendment to the Amended and Restated Certificate of Incorporation of Senesco Technologies, Inc. filed with the State of Delaware on September 22, 2009. (Incorporated by reference to Exhibit 3.3 of Senesco Technologies, Inc. annual report on Form 10-K/A for the period ended June 30, 2009.)
3.4	Certificate of Amendment to the Amended and Restated Certificate of Incorporation of Senesco Technologies, Inc. filed with the State of Delaware on May 25, 2010. (Incorporated by reference to Exhibit 3.1 to Senesco Technologies, Inc. current report on Form 8-K filed on May 28, 2010.)
3.5	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.)
3.6	Certificate of Designations to the Company's Certificate of Incorporation (Series A)(Incorporated by reference to Exhibit 3.1 to Senesco Technologies, Inc. current report on Form 8-K filed on March 29, 2010)
3.7	Certificate of Designations to the Company's Certificate of Incorporation (Series B)(Incorporated by reference to Exhibit 3.2 to Senesco Technologies, Inc. current report on Form 8-K filed on March 29, 2010)
4.1	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.)

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Exhibit No.	Description of Exhibit
4.2	Form of Warrant issued to H.C. Wainwright & Co., Inc., or its designees, dated as of October 10, 2006 (Incorporated by reference to Exhibit 10.42 of Senesco Technologies, Inc. annual report on Form 10-K for the period ended June 30, 2006.)
4.3	Form or Warrant issued to certain accredited investors dated October 10, 2006 (with attached schedule of parties and terms thereto). (Incorporated by reference to Exhibit 10.40 of Senesco Technologies, Inc. annual report on Form 10-K for the period ended June 30, 2006.)
4.4	Form of Series A Warrant issued to YA Global Investments, L.P. (Incorporated by reference to Exhibit 4.15 of Senesco Technologies, Inc. annual report on Form 10-K for the period ended June 30, 2007.)
4.5	Form of Series A Warrant issued to Stanford Venture Capital Holdings, Inc. (Incorporated by reference to Exhibit 4.16 of Senesco Technologies, Inc. annual report on Form 10-K for the period ended June 30, 2007.)
4.6	Form of Series B Warrant issued to YA Global Investments, L.P. (Incorporated by reference to Exhibit 4.19 of Senesco Technologies, Inc. annual report on Form 10-K for the period ended June 30, 2007.)
4.7	Form of Series B Warrant issued to Stanford Venture Capital Holdings, Inc. (Incorporated by reference to Exhibit 4.20 of Senesco Technologies, Inc. annual report on Form 10-K for the period ended June 30, 2007.)
4.8	Form of Warrant issued to H.C. Wainwright & Co., Inc or its designees. (Incorporated by reference to Exhibit 4.21 of Senesco Technologies, Inc. annual report on Form 10-K for the period ended June 30, 2008.)
4.9	Form of Series A Warrant issued to Partlet Holdings Ltd. (Incorporated by reference to Exhibit 4.1 of Senesco Technologies, Inc. current report on Form 8-K, filed on July 10, 2009.)
4.10	Form of Series B Warrant issued to Partlet Holdings Ltd. (Incorporated by reference to Exhibit 4.1 of Senesco Technologies, Inc. current report on Form 8-K, filed on July 10, 2009.)
4.11	Form of Series A Warrant issued to each of Robert Forbes, Timothy Forbes, Harlan W. Waksal, M.D., Rudolf Stalder, Christopher Forbes, David Rector, John N. Braca, Jack Van Hulst, Warren Isabelle and the Thomas C. Quick Charitable Foundation. (Incorporated by reference to Exhibit 4.1 of Senesco Technologies, Inc. current report on Form 8-K, filed on July 30, 2009.)
4.12	Form of Series B Warrant issued to each of Robert Forbes, Timothy Forbes, Harlan W. Waksal, M.D., Rudolf Stalder, Christopher Forbes, David Rector, John N. Braca, Jack Van Hulst, Warren Isabelle and the Thomas C. Quick Charitable Foundation. (Incorporated by reference to Exhibit 4.1 of Senesco Technologies, Inc. current report on Form 8-K, filed on July 30, 2009.)

Exhibit No.	Description of Exhibit
4.13	Form of Series A Warrant issued to Cato Holding Company. (Incorporated by reference to Exhibit 4.1 of Senesco Technologies, Inc. current report on Form 8-K, filed on July 30, 2009.)
4.14	Form of Series B Warrant issued to Cato Holding Company. (Incorporated by reference to Exhibit 4.1 of Senesco Technologies, Inc. current report on Form 8-K, filed on July 30, 2009.)
4.15	Form of Series A Common Stock Purchase Warrant issued to certain accredited investors (Incorporated by reference to Exhibit 4.1 of Senesco Technologies, Inc. current report on Form 8-K filed on March 29, 2010.)
4.16	Form of Series B Common Stock Purchase Warrant issued to certain affiliated investors (Incorporated by reference to Exhibit 4.2 of Senesco Technologies, Inc. current report on Form 8-K filed on March 29, 2010.)
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.)
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	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 quarterly period ended December 31, 2001.)
10.5	Indemnification Agreement by and between Senesco Technologies, Inc. and Jack Van Hulst, dated January 16, 2007. (Incorporated by reference to Exhibit 10.13 of Senesco Technologies, Inc. annual report on Form 10-K for the period ended June 30, 2007)
10.6	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.)
10.7	Indemnification Agreement by and between Senesco Technologies, Inc. and 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.)
10.8	Indemnification Agreement by and between Senesco Technologies, Inc. and Harlan W. Waksal, M.D. dated as of October 24, 2008. (Incorporated by reference to Exhibit 10.8 of Senesco Technologies, Inc. annual report on Form 10-K for the period ended June 30, 2009.)

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Exhibit No.	Description of Exhibit
10. 9	Indemnification Agreement by and between Senesco Technologies, Inc. and Warren Isabelle dated as of June 8, 2009. (Incorporated by reference to Exhibit 10.9 of Senesco Technologies, Inc. annual report on Form 10-K for the period ended June 30, 2009.)
10.10	Indemnification Agreement by and between Senesco Technologies, Inc. and Leslie J. Browne, Ph.D. dated as of May 25, 2010. (Incorporated by reference to Exhibit 10.2 of Senesco Technologies, Inc. current report on Form 8-K filed on May 25, 2010.)
10.11	Nondisclosure, Noncompetition and Invention Assignment Agreement by and between Leslie J. Browne, Ph.D. and Senesco Technologies, Inc. dated May 25, 2010. (Incorporated by reference to Exhibit 10.3 of Senesco Technologies, Inc. current report on Form 8-K filed on May 25, 2010.)
10.12*	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.)
10.13*	Amendment to Consulting Agreement of July 12, 1999, as modified on February 8, 2001, by and between Senesco, 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.)
10.14 *	Amendment # 5 to Consulting Agreement of July 12, 1999, as modified, by and between Senesco, Inc. and John E. Thompson, Ph.D., dated June 15, 2007. (Incorporated by reference to Exhibit 10.49 of Senesco Technologies, Inc. annual report on Form 10-K for the period ended June 30, 2007.)
10.15 *	Amendment # 6 to Consulting Agreement of July 12, 1999, as modified, by and between Senesco, Inc. and John E. Thompson, Ph.D., dated June 25, 2009. (Incorporated by reference to Exhibit 10.17 of Senesco Technologies, Inc. annual report on Form 10-K for the period ended June 30, 2009.)
10.16 *	Amendment # 7 to Consulting Agreement of July 12, 1999, as modified, by and between Senesco, Inc. and John E. Thompson, Ph.D., dated June 20, 2011.
10.17 +	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.)
10.18 +	Commercial License Agreement by and between Senesco Technologies, Inc. and ArborGen, LLC dated as of December 21, 2006. (Incorporated by reference to Senesco Technologies, Inc. quarterly report on Form 10-Q for the period ended December 31, 2006.)
10.19 +	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.)

Exhibit No.	Description of Exhibit
10.20 +	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.)
10.21 +	Development and License Agreement with Broin and Associates, Inc. (currently known as Poet) dated as of October 14, 2004. (Incorporated by reference to Exhibit 10.2 of Senesco Technologies, Inc. quarterly report on Form 10-QSB for the period ended September 30, 2004.)
10.22 +	License Agreement by and between Senesco Technologies, Inc. and Bayer CropScience GmbH, dated as of November 8, 2006. (Incorporated by reference to Senesco Technologies, Inc. quarterly report on Form 10-Q for the quarterly period ended December 31, 2006.)
10.23 +	License Agreement with Bayer CropScience AG dated as of July 23, 2007. (Incorporated by reference to Exhibit 10.1 of Senesco Technologies, Inc. quarterly report on Form 10-Q for the period ended September 30, 2007.)
10.24 +	Patent License Agreement with Monsanto Company dated as of August 6, 2007. (Incorporated by reference to Exhibit 10.2 of Senesco Technologies, Inc. quarterly report on Form 10-Q for the period ended September 30, 2007.)
10.25 +	License Agreement with Bayer CropScience AG dated as of September 17, 2007. (Incorporated by reference to Exhibit 10.3 of Senesco Technologies, Inc. quarterly report on Form 10-Q for the period ended September 30, 2007.)
10.26	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.)
10.27	Amendment to Research Agreement by and among the University of Waterloo, Senesco, Inc. and Dr. John E. Thompson, Ph.D., dated September 1, 2010. (Incorporated by reference to Senesco Technologies, Inc. annual report on Form 10-K for the period ended June 30, 2010.)
10.28	Amendment to Research Agreement by and among the University of Waterloo, Senesco, Inc. and Dr. John E. Thompson, Ph.D., dated December 1, 2010. (Incorporated by reference to Exhibit 10.1 of Senesco Technologies, Inc. quarterly report on Form 10-Q for the period ended December 31, 2010.)
10.29 †	Amendment to Research Agreement by and among the University of Waterloo, Senesco, Inc. and Dr. John E. Thompson, Ph.D., dated September 1, 2011.
10.30 +	Master Product Sale Agreement with VGXI, Inc. dated as of June 27, 2008. (Incorporated by reference to Exhibit 10.29 of Senesco Technologies, Inc. annual report on Form 10-K for the period ended June 30, 2008.)

Exhibit No.	Description of Exhibit
10.31	Master Product Sale Agreement with Polyplus-transfection dated as of June 30, 2008. (Incorporated by reference to Exhibit 10.30 of Senesco Technologies, Inc. annual report on Form 10-K for the period ended June 30, 2008.)
10.32	Proposal for Manufacture and Supply by and between Avecia Biotechnology, Inc. and Senesco Technologies, Inc. dated as of September 4, 2008. (Incorporated by reference to Exhibit 10.1 of Senesco Technologies, Inc. quarterly report on Form 10-Q for the period ended September 30, 2008.)
10.33	Proposal for Biodistribution and Repeat Dose Toxicity Studies in Mice by and between BioReliance and Senesco Technologies, Inc. dated as of September 5, 2008. (Incorporated by reference to Exhibit 10.2 of Senesco Technologies, Inc. quarterly report on Form 10-Q for the period ended September 30, 2008.)
10.34	Services Agreement by and between KBI BioPharma, Inc. and Senesco Technologies, Inc. dated as of September 15, 2008. (Incorporated by reference to Exhibit 10.3 of Senesco Technologies, Inc. quarterly report on Form 10-Q for the period ended September 30, 2008.)
10.35 †	Master Services Agreement by and between Criterium, Inc. and Senesco Technologies, Inc. dated June 20, 2011.
10.36 †	Clinical Trial Research Agreement by and between Mayo Clinic and Senesco Technologies, Inc. dated August 15, 2011.
10.37	Master Services Agreement by and among Cato Research Ltd. and Senesco Technologies, Inc., dated October 12, 2007. (Incorporated by reference to Exhibit 10.1 of Senesco Technologies, Inc. quarterly report on Form 10-Q for the period ended March 31, 2011.)
10.38	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.)
10.39	Agreement for Service on Senesco Technologies, Inc. Scientific Advisory Board by and between Senesco Technologies, Inc. and James W. Mier, M.D., dated April 2, 2007. (Incorporated by reference to Exhibit 10.43 of Senesco Technologies, Inc. annual report on Form 10-K for the period ended June 30, 2007.)
10.40	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. (Incorporated by reference to Exhibit 10.36 of Senesco Technologies, Inc. annual report on Form 10-K for the period ended June 30, 2006.)
10.41	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). (Incorporated by reference to Exhibit 10.38 of Senesco Technologies, Inc. annual report on Form 10-K for the period ended June 30, 2006.)

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Exhibit No.	Description of Exhibit
10.42	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). (Incorporated by reference to Exhibit 10.39 of Senesco Technologies, Inc. annual report on Form 10-K for the period ended June 30, 2006.)
10.43	Securities Purchase Agreement by and between Senesco Technologies, Inc. and YA Global Investments, L.P. (Incorporated by reference to Exhibit 10.44 of Senesco Technologies, Inc. annual report on Form 10-K for the period ended June 30, 2007.)
10.44	Registration Rights Agreement by and between Senesco Technologies, Inc. and YA Global Investments, L.P. (Incorporated by reference to Exhibit 10.45 of Senesco Technologies, Inc. annual report on Form 10-K for the period ended June 30, 2007.)
10.45	Securities Purchase Agreement by and between Senesco Technologies, Inc. and Stanford Venture Capital Holdings, Inc. (Incorporated by reference to Exhibit 10.46 of Senesco Technologies, Inc. annual report on Form 10-K for the period ended June 30, 2007.)
10.46	Registration Rights Agreement by and between Senesco Technologies, Inc. and Stanford Venture Capital Holdings, Inc. (Incorporated by reference to Exhibit 10.47 of Senesco Technologies, Inc. annual report on Form 10-K for the period ended June 30, 2007.)
10.47	Securities Purchase Agreement by and between Senesco Technologies, Inc. and Partlet Holdings Ltd. Dated as of July 9, 2009. (Incorporated by reference to Exhibit 10.1 of Senesco Technologies, Inc. current report on Form 8-K, filed on July 10, 2009.)
10.48	Securities Purchase Agreement by and between Senesco Technologies, Inc. and each of Robert Forbes, Timothy Forbes, Harlan W. Waksal, M.D., Rudolf Stalder, Christopher Forbes, David Rector, John N. Braca, Jack Van Hulst, Warren Isabelle and the Thomas C. Quick Charitable Foundation dated as of July 29, 2009. (Incorporated by reference to Exhibit 10.1 of Senesco Technologies, Inc. current report on Form 8-K , filed on July 30, 2009.)
10.49	Securities Purchase Agreement by and between Senesco Technologies, Inc. and Cato Holding Company dated as of July 29, 2009. (Incorporated by reference to Exhibit 10.2 of Senesco Technologies, Inc. current report on Form 8-K , filed on July 30, 2009.)
10.50	Securities Purchase Agreement by and between Senesco Technologies, Inc. and certain investors (Non-Affiliates). (Incorporated by reference to Exhibit 10.2 of Senesco Technologies, Inc. current report on Form 8-K filed on March 29, 2010.)
10.51	Securities Purchase Agreement by and between Senesco Technologies, Inc. and certain investors (Non-Affiliates). (Incorporated by reference to Exhibit 10.3 of Senesco Technologies, Inc. current report on Form 8-K filed on March 29, 2010.)
10.52	Securities Purchase Agreement by and between Senesco Technologies, Inc. and certain investors (Affiliates). (Incorporated by reference to Exhibit 10.4 of Senesco Technologies, Inc. current report on Form 8-K filed on March 29, 2010.)

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Exhibit No.	Description of Exhibit
10.53	Registration Rights Agreement dated March 26, 2010 by and between Senesco Technologies, Inc. and certain investors. (Incorporated by reference to Exhibit 10.1 of Senesco Technologies, Inc. current report on Form 8-K filed on March 29, 2010.)
10.54	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.)
10.55	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.)
10.56	Sublease Agreement, dated as of May 16, 2011 and effective as of May 19, 2011, by and between Norris, McLaughlin & Marcus, P.A., as Sublandlord, and Senesco Technologies, Inc., as Subtenant. (Incorporated by reference to Senesco Technologies, Inc. current report on Form 8-K filed on May 25, 2011.)
10.57	Credit Agreement dated as of February 17, 2010 by and between Senesco Technologies, Inc. and JMP Securities. (Incorporated by reference to Exhibit 10.1 of Senesco Technologies, Inc. quarterly report on Form 10-Q for the period ended March 31, 2010.)
10.58	Promissory Note by and among J.P. Morgan Clearing Corp. and Senesco Technologies, Inc., dated April 8, 2011. (Incorporated by reference to Exhibit 10.2 of Senesco Technologies, Inc. quarterly report on Form 10-Q for the period ended March 31, 2011.)
10.59	Letter Agreement dated as of March 3, 2010 by and between the Company and YA Global Investments L.P. (Incorporated by reference to Exhibit 10.1 of Senesco Technologies, Inc. current report on Form 8-K filed on March 4, 2010.)
10.60	Letter Agreement dated as of March 4, 2010 sent to the Company by certain of its insiders relating to the conversion of convertible debentures. (Incorporated by reference to Exhibit 10.1 of Senesco Technologies, Inc. current report on Form 8-K filed on March 5, 2010.)
10.61	At Market Issuance Sales Agreement by and between Senesco Technologies Inc. and McNicoll, Lewis & Vlak LLC dated December 22, 2010. (Incorporated by reference to Exhibit 10.1 of Senesco Technologies, Inc. current report on Form 8-K filed on December 22, 2010.)
10.62 *	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.)
10.63*	Senesco Technologies, Inc. 2008 Incentive Compensation Plan. (Incorporated by reference to Exhibit 10.1 of Senesco Technologies, Inc. quarterly report on Form 10-Q for the period ended December 31, 2008.)
10.64*	

Amendment to Senesco Technologies, Inc. 2008 Incentive Compensation Plan. (Incorporated by reference to Exhibit 10.1 of Senesco Technologies, Inc. current report on Form 8-K filed on May 28, 2010.)

Exhibit No.	Description of Exhibit
10.65*	Form of Stock Option Agreement under the Senesco Technologies, Inc. 2008 Stock Incentive Plan. (Incorporated by reference to Exhibit 10.5 of Senesco Technologies, Inc. quarterly report on Form 10-Q for the period ended September 30, 2009.)
10.66*	Form of Restricted Stock Unit Issuance Agreement under the Senesco Technologies, Inc. 2008 Stock Incentive Plan. (Incorporated by reference to exhibit 10.6 of Senesco Technologies, Inc. quarterly report on Form 10-Q for the period ended September 30, 2009.)
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 McGladrey & Pullen, 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)

CONSOLIDATED FINANCIAL STATEMENTS

JUNE 30, 2011

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

INDEX TO CONSOLIDATED FINANCIAL STATEMENTS

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Board of Directors and Stockholders
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, 2011 and June 30, 2010, and the related consolidated statements of operations, stockholders' equity and cash flows for each of the three years in the period ended June 30, 2011 and cumulative amounts from July 1, 1998 (inception) to June 30, 2011. 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. The Company is not required to have, nor were we engaged to perform an audit of its internal control over financial reporting. Our audit included consideration of internal control over financial reporting as a basis for designing audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control over financial reporting. Accordingly, we express no such opinion. An audit also includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, 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, 2011 and June 30, 2010, and the results of their operations and their cash flows for each of the three years in the period ended June 30, 2011 and cumulative amounts from July 1, 1998 (inception) to June 30, 2011, in conformity with U.S. generally accepted accounting principles.

/s/ McGladrey & Pullen, LLP
New York, New York

September 28, 2011

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

	June 30, 2011	June 30, 2010
ASSETS		
CURRENT ASSETS:		
Cash and cash equivalents	$3,609,954	$8,026,296
Prepaid research supplies and expenses	1,446,064	1,304,795
Total Current Assets	5,056,018	9,331,091
Equipment, furniture and fixtures, net	3,782	4,554
Intangibles, net	3,524,731	4,568,895
Deferred income tax assets, net	-	-
Security deposit	12,358	7,187
TOTAL ASSETS	$8,596,889	$13,911,727
LIABILITIES AND STOCKHOLDERS' EQUITY		
CURRENT LIABILITIES:		
Accounts payable	$559,525	$557,420
Accrued expenses	509,806	576,857
Line of credit	2,199,108	2,194,844
Total Current Liabilities	3,268,439	3,329,121
Warrant liabilities ($0 and $490,438 to related parties, respectively)	711,259	2,493,794
Deferred rent	-	8,060
Grant payable	99,728	99,728
TOTAL LIABILITIES	4,079,426	5,930,703
STOCKHOLDERS' EQUITY:		
Preferred stock, $0.01 par value, authorized 5,000,000 shares		
Series A 10,297 shares issued and 3,690 and 8,035 shares outstanding, respectively (liquidation preference of $3,782,250 and $8,235,875 at June 30, 2011 and June 30, 2010, respectively)	37	80
Series B 1,200 shares issued and outstanding (liquidation preference of $1,230,000 and $1,210,000 at June 30, 2011 and June 30, 2010, respectively)	12	12
Common stock, $0.01 par value, authorized 250,000,000 shares, issued and outstanding 77,769,677 and 50,092,204, at June 30, 2011 and June 30, 2010, respectively	777,697	500,922
Capital in excess of par	64,488,152	58,321,169

Deficit accumulated during the development stage	(60,748,435)	(50,841,159)
Total Stockholders' Equity	4,517,463	7,981,024
TOTAL LIABILITIES AND STOCKHOLDERS' EQUITY	$8,596,889	$13,911,727

See notes to consolidated financial statements

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

	Year ended June 30,			Cumulative Amounts from Inception
	2011	2010	2009	
Revenue	$-	$140,000	$275,000	$ 1,590,000
Operating expenses:				
General and administrative	2,610,222	2,349,116	2,205,739	28,890,533
Research and development	3,720,394	2,637,407	2,353,962	18,669,358
Total operating expenses	6,330,616	4,986,523	4,559,701	47,559,891
Loss from operations	(6,330,616)	(4,846,523)	(4,284,701)	(45,969,891)
Other non-operating income (expense):				
Grant income	244,479	-	-	244,479
Fair value – warrant liability	609,239	2,516,661	-	7,857,667
Sale of state income tax loss – net	-	-	-	586,442
Other noncash (expense) income, net	(115,869)	-	-	205,390
Loss on extinguishment of debt	-	(361,877)	-	(361,877)
Write off of patents abandoned	(1,588,087)	-	-	(1,588,087)
Amortization of debt discount and financing costs	-	(10,081,107)	(478,000)	(11,227,870)
Interest expense – convertible notes	-	(586,532)	(1,007,244)	(2,027,930)
Interest (expense) income - net	(88,122)	(24,135)	43,076	411,056
Net loss	(7,268,976)	(13,383,513)	(5,726,869)	(51,870,621)
Preferred dividends	(2,638,300)	(6,239,514)	-	(8,877,814)
Loss applicable to common shares	$(9,907,276)	$(19,623,027)	$(5,726,869)	$ (60,748,435)
Basic and diluted net loss per common share	$(0.14)	$(0.67)	$(0.30)	
Basic and diluted weighted-average number of common shares outstanding	69,332,477	29,112,976	18,888,142	

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, 2011

	Preferred Stock		Common Stock		Capital in Excess	Deficit Accumulated During the Development	Stockholders' Equity
	Shares	Amount	Shares	Amount	of Par Value	Stage	(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 at $2.63437 per share	-	-	759,194	7,592	1,988,390	-	1,995,982
Issuance of common stock for placement fees on May 21, 1999 at $0.01 per share	-	-	53,144	531	(531)	-	-
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 at $2.867647 per share	-	-	17,436	174	49,826	-	50,000
Issuance of common stock for cash on January 31, 2000 at $2.87875 per share	-	-	34,737	347	99,653	-	100,000
Issuance of common stock for cash on	-	-	85,191	852	249,148	-	250,000

February 4, 2000 at $2.924582 per share							
Issuance of common stock for cash on March 15, 2000 at $2.527875 per share	-	-	51,428	514	129,486	-	130,000
Issuance of common stock for cash on June 22, 2000 at $1.50 per share	-	-	1,471,700	14,718	2,192,833	-	2,207,551
Commissions, legal and bank fees associated with issuances for the year ended June 30, 2000	-	-	-	-	(260,595)	-	(260,595)
Fair market value of options and warrants vested during the year ended June 30, 2000	-	-	-	-	1,475,927	-	1,475,927
Net loss	-	-	-	-	-	(3,346,491)	(3,346,491)
Balance at June 30, 2000	-	-	7,873,292	78,733	5,955,311	(4,515,486)	1,518,558
Fair market value of options and warrants vested during the year ended June 30, 2001	-	-	-	-	308,619	-	308,619
Net loss	-	-	-	-	-	(2,033,890)	(2,033,890)
Balance at June 30, 2001	-	-	7,873,292	78,733	6,263,930	(6,549,376)	(206,713)

continued

See notes to consolidated financial statements

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, 2011

	Preferred Stock Shares	Preferred Stock Amount	Common Stock Shares	Common Stock Amount	Capital in Excess of Par Value	Deficit Accumulated During the Development Stage	Stockholders' Equity (Deficiency)
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 during the year ended June 30, 2002	-	-	-	-	(846,444)	-	(846,444)
Fair market value of options and warrants vested during the year ended June 30, 2002	-	-	-	-	1,848,726	-	1,848,726
Net loss	-	-	-	-	-	(3,021,709)	(3,021,709)
Balance at June 30, 2002	-	-	11,880,045	118,800	14,237,961	(9,571,085)	4,785,676
Fair market value of options and warrants vested during the year ended June 30, 2003	-	-	-	-	848,842	-	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 for the year ended June 30, 2004	-	-	-	-	(378,624)	-	(378,624)
Fair market value of options and warrants vested during the year ended June 30, 2004	-	-	-	-	1,826,514	-	1,826,514
Options and warrants exercised during the year ended June 30, 2004 at exercise prices ranging from $1.00 to $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

continued

See notes to consolidated financial statements

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, 2011

	Preferred Stock Shares	Preferred Stock Amount	Common Stock Shares	Common Stock Amount	Capital in Excess of Par Value	Deficit Accumulated During the Development Stage	Stockholders' Equity (Deficiency)
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 the issuance on May 9, 2005	-	-	-	-	(428,863)	-	(428,863)
Options and warrants exercised during the year ended June 30, 2005 at exercise prices ranging from $1.50 to $3.25	-	-	84,487	844	60,281	-	61,125
Fair market value of options and warrants vested during the year ended June 30, 2005	-	-	-	-	974,235	-	974,235
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
Warrants exercised during the year ended June 30, 2006 at an	-	-	10,000	100	-	-	100

exercise price of $0.01							
Fair market value of options and warrants vested during the year ended June 30, 2006	-	-	-	-	677,000	-	677,000
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
Issuance of common stock and warrants for cash on October 10, 2006 at $1.135 per unit	-	-	1,986,306	19,863	2,229,628	-	2,249,491
Commissions, legal and bank fees associated with the issuance on October 10, 2006	-	-	-	-	(230,483)	-	(230,483)
Warrants exercised during the year ended June 30, 2007 at an exercise price of $0.01	-	-	10,000	100	-	-	100
Fair market value of options and warrants vested during the year ended June 30, 2007	-	-	-	-	970,162	-	970,162
Net loss	-	-	-	-	-	(3,251,697)	(3,251,697)
Balance at June 30, 2007	-	-	17,473,694	174,737	28,136,342	(25,621,540)	2,689,539

continued

See notes to consolidated financial statements

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, 2011

	Preferred Stock Shares	Preferred Stock Amount	Common Stock Shares	Common Stock Amount	Capital in Excess of Par Value	Deficit Accumulated During the Development Stage	Stockholders' Equity (Deficiency)
Fair market value of options and warrants vested during the year ended June 30, 2008	-	$ -	-	$ -	$ 1,536,968	$ -	$ 1,536,968
Allocation of proceeds, net of fees paid to holder, from the issuance of convertible notes and warrants on September 21, 2007, October 16, 2007, December 20, 2007, and June 30, 2008	-	-	-	-	9,340,000	-	9,340,000
Convertible notes converted into common stock during the year ended June 30, 2008	-	-	555,556	5,556	430,952	-	436,508
Issuance of common stock in lieu of cash payment for interest during the year ended June 30, 2008	-	-	345,867	3,458	430,696	-	434,154
Net loss	-	-	-	-	-	(4,601,490)	(4,601,490)
Balance at June 30, 2008	-	-	18,375,117	183,751	39,874,958	(30,223,030)	9,835,679
Fair market value of options and warrants vested during the	-	-	-	-	506,847	-	506,847

year ended June 30, 2009							
Warrants exercised during the year ended June 30, 2009 at an exercise price of $0.01	-	-	2,395	24	(24)	-	-
Issuance of common stock in lieu of cash payment for interest during the year ended June 30, 2009	-	-	1,271,831	12,718	994,526	-	1,007,244
Convertible notes converted into common stock during the year ended June 30, 2009	-	-	50,000	500	44,433	-	44,933
Issuance of common stock in connection with Short-Term Incentive Plan during the year ended June 30, 2009	-	-	112,700	1,127	(1,127)	-	-
Net loss	-	-	-	-	-	(5,726,869)	(5,726,869)
Balance at June 30, 2009	-	-	19,812,043	198,120	41,419,613	(35,949,899)	5,667,834

See notes to consolidated financial statements

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, 2011

	Preferred Stock		Common Stock		Capital in Excess	Deficit Accumulated During the Development	Stockholders' Equity
	Shares	Amount	Shares	Amount	of Par Value	Stage	(Deficiency)
Cumulative effect of change in accounting principle-implementation of FASB ASC Topic 815-40	-	$ -	-	$ -	$ (7,931,875)	$ 4,731,767	$ (3,200,108)
Issuance of common stock and warrants for cash on July 9, 2009 and September 30, 2009 at $0.90 per unit	-	-	1,700,000	17,000	1,513,000	-	1,530,000
Issuance of common stock and warrants for satisfaction of accounts payable on September 30, 2009	-	-	194,444	1,944	259,588	-	261,532
Legal and regulatory fees associated with the issuances on July 9, 2009 and September 30, 2009	-	-	-	-	(180,862)	-	(180,862)
Issuance of preferred stock and warrants for cash on April 1, 2010 and June 2, 2010	11,497	115	-	-	11,496,885	-	11,497,000
Deemed dividend-Preferred Stock	-	-	-	-	5,330,039	(5,330,039)	-

Legal and regulatory fees associated with the issuances of preferred stock and warrants on April 1, 2010 and June 2, 2010	-	-	-	-	(793,498)	-	(793,498)
Fair value of warrants issued on April 1, 2010 and June 2, 2010	-	-	-	-	(1,759,008)	-	(1,759,008)
Preferred stock converted into common stock during the year ended June 30, 2010	(2,262)	(23)	7,068,750	70,688	(70,665)	-	-
Warrants exercised during the year ended June 30, 2010 at an exercise price of $0.01	-	-	1,005,000	10,050	-	-	10,050
Issuance of common stock in lieu of cash payment for interest during the year ended June 30, 2010	-	-	1,353,132	13,531	539,142	-	552,673
Issuance of common stock in lieu of cash payment for dividends during the year ended June 30, 2010	-	-	3,029,465	30,295	648,305	(678,600)	-
Convertible notes converted into common stock during the year ended June 30, 2010	-	-	15,659,186	156,592	7,462,768	-	7,619,360
	-	-	116,000	1,160	(1,160)	-	-

Issuance of common stock in connection with Short-Term Incentive Plan during the year ended June 30, 2010							
Issuance of common stock for services during the year ended June 30, 2010	-	-	154,184	1,542	52,258	-	53,800
Fair market value of options and warrants vested during the year ended June 30, 2010	-	-	-	-	386,639	-	386,639
Repurchase of warrants during the year ended June 30, 2010	-	-	-	-	(50,000)	-	(50,000)
Dividends accrued for the period from April 1, 2010 through June 30, 2010	-	-	-	-	-	(230,875)	(230,875)
Net loss	-	-	-	-	-	(13,383,513)	(13,383,513)
Balance at June 30, 2010	9,235	$ 92	50,092,204	$ 500,922	$ 58,321,169	$ (50,841,159)	$ 7,981,024

continued

See notes to consolidated financial statements

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, 2011

	Preferred Stock		Common Stock		Capital in Excess	Deficit Accumulated During the Development	Stockholders' Equity
	Shares	Amount	Shares	Amount	of Par Value	Stage	(Deficiency)
Issuance of common stock at prices ranging from $0.30 per share to $0.36 per share	-	-	5,911,457	59,114	1,794,305	-	1,853,419
Commissions and other fees related to the issuance of common stock	-	-	-	-	(197,908)	-	(197,908)
Preferred stock converted into common stock	(4,345)	(43)	13,668,750	136,687	(136,644)	-	-
Warrants converted into common stock			175,000	1,750	-	-	1,750
Issuance of common stock in lieu of cash payment for dividends	-	-	7,912,266	79,124	2,307,066	(2,155,315)	230,875
Fair market value of options and warrants vested and amended	-	-	-	-	866,235	-	866,235
Reclassification of warrant liability	-	-	-	-	1,173,296	-	1,173,296
Issuance of common stock under the Company's the Company's long-term incentive plan	-	-	10,000	100	(100)	-	-

Deemed dividend - Preferred Stock	-	-	-	-	360,733	(360,733)	-
Dividends accrued and unpaid at June 30, 2011	-	-	-	-	-	(122,252)	(122,252)
Net loss	-	-	-	-	-	(7,268,976)	(7,268,976)
Balance at June 30, 2011	4,890	$ 49	77,769,677	$ 777,697	$ 64,488,152	$ (60,748,435)	$ 4,517,463

See notes to consolidated financial statements

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

	Year ended June 30,			Cumulative Amounts from Inception
	2011	2010	2009	
Cash flows from operating activities:				
Net loss	$(7,268,976)	$(13,383,513)	$(5,726,869)	$ (51,870,621)
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	(609,239)	(2,516,661)	-	(8,178,926)
Noncash charge for change in warrant terms	115,869	-	-	115,869
Issuance of common stock and warrants for interest	-	552,673	1,007,244	2,003,386
Issuance of common stock for services	-	53,800	-	53,800
Stock-based compensation expense	750,366	386,639	506,847	11,339,949
Depreciation and amortization	143,274	126,567	111,753	842,282
Write-off Intangibles	1,588,087	-	-	1,588,087
Deferred rent	(8,060)	(7,957)	(7,045)	-
Amortization of convertible note discount	-	9,448,783	51,160	10,000,000
Amortization of deferred financing costs	-	632,324	426,839	1,227,869
Loss on extinguishment of debt	-	361,877	-	361,877
(Increase) decrease in operating assets:				
Prepaid expenses and other current assets	(141,269)	(143,447)	(980,792)	(1,446,064)
Security deposit	(5,171)	-	-	(12,358)
Increase (decrease) in operating liabilities:				
Accounts payable	2,105	(419,260)	606,513	559,525
Accrued expenses	41,572	165,046	41,670	562,555
Net cash used in operating activities	(5,391,442)	(4,743,129)	(3,962,680)	(32,636,341)
Cash flows from investing activities:				
Patent costs	(684,399)	(807,915)	(779,563)	(5,778,677)
Redemption of investments, net	-	1,050,000	(550,000)	-
Purchase of equipment, furniture and fixtures	(2,026)	(1,116)	(4,173)	(180,205)
Net cash (used in) provided by investing activities	(686,425)	240,969	(1,333,736)	(5,958,882)
Cash flows from financing activities:				
Proceeds from grant	-	-	-	99,728
Proceeds from draw-down on line of credit	4,264	2,194,844	-	2,199,108
Proceeds from issuance of bridge notes	-	-	-	525,000
Proceeds from issuance of preferred stock and warrants, net	-	10,754,841	-	10,754,841
Redemption of convertible notes and warrants	-	(2,160,986)	-	(2,160,986)
Proceeds from issuance of convertible notes	-	-	-	9,340,000
Deferred financing costs	-	-	-	(651,781)
	1,657,261	1,359,188	-	22,099,267

Proceeds from issuance of common stock and warrants, net and exercise of warrants and options				
Net cash provided by financing activities	1,661,525	12,147,887	-	42,205,177
Net (decrease) increase in cash and cash equivalents	(4,416,342)	7,645,727	(5,296,416)	3,609,954
Cash and cash equivalents at beginning of period	8,026,296	380,569	5,676,985	-
Cash and cash equivalents at end of period	$3,609,954	$8,026,296	$380,569	$ 3,609,954

See notes to consolidated financial statements

SENESCO TECHNOLOGIES, INC. AND SUBSIDIARY
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NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

1. Principle Business Activity:

The Company

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 to enhance the quality and productivity of fruits, flowers, vegetables and agronomic crops through the control of cell death in plants (senescence).

Senesco, Inc. ("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.

Liquidity

As shown in the accompanying consolidated financial statements, the Company has a history of losses with a deficit accumulated during the development stage from July 1, 1998 (inception) through June 30, 2011 of $60,748,435. Additionally, the Company has generated minimal revenues by licensing its technology for certain crops to companies willing to share in its development costs. In addition, the Company's technology may not be ready for commercialization for several years. The Company expects to continue to incur losses for the next several years because it anticipates that its expenditures on research and development, and administrative activities will significantly exceed its revenues during that period. The Company cannot predict when, if ever, it will become profitable.

As of June 30, 2011, the Company had cash and cash equivalents in the amount of $3,609,954, which consisted of checking accounts and money market funds. In December 2010, the Company entered into an At Market Issuance Sales Agreement ("ATM") whereby it may issue up to $5,500,000 of Common Stock under this facility. From July 1, 2011 through September 26, 2011, the Company has received net proceeds from the issuance of the Company's common stock, par value $0.01 (the "Common Stock") in the amount of $451,096. The Company estimates that its cash and cash equivalents and the net proceeds from its ATM facility will cover its expenses through March 2012. However, the Company has the ability to raise additional capital through its ATM facility, draw down on its unused line of credit and delay certain costs, if necessary, which will provide the Company with enough cash to fund its operations at least through June 30, 2012.

The Company will need additional capital and plans to raise additional capital through the placement of debt instruments or equity or both. However, the Company may not be able to obtain adequate funds for its operations when needed or on acceptable terms. If the Company is unable to raise additional funds, it will need to do one or more of the following:

- delay, scale-back or eliminate some or all of its research and product development programs;
- license third parties to develop and commercialize products or technologies that it would otherwise seek to develop and commercialize itself;
- seek strategic alliances or business combinations;
- attempt to sell the Company;
- cease operations; or
- declare bankruptcy.

Risks and Uncertainties

The Company operates in an industry that is subject to intense competition, government regulation and rapid technological change. The Company's operations are subject to significant risk and uncertainties including financial, operational, technological, regulatory and other risks, including the potential risk of business failure.

SENESCO TECHNOLOGIES, INC. AND SUBSIDIARY
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2. Summary of Significant Accounting Policies:

Principles of consolidation

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

Management Estimates and Judgments

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, the variables and method used to calculate stock-based compensation and warrant liabilities, and the valuation allowance on deferred tax assets. Actual results experienced by the Company may differ from management's estimates.

Cash and Cash Equivalents and Short-Term Investments

The Company considers all highly liquid instruments with an original maturity of 90 days or less at the time of purchase to be cash equivalents. Cash and cash equivalents consist of deposits that are readily convertible into cash.

Fair Value Measurements

ASC Topic 820, Fair Value Measurements, defines fair value, establishes a framework for measuring fair value and expands the related disclosure requirements. The guidance applies under other accounting pronouncements that require or permit fair value measurements. The statement indicates, among other things, that a fair value measurement assumes that the transaction to sell an asset or transfer a liability occurs in the principal market for the asset or liability or, in the absence of a principal market, the most advantageous market for the asset or liability. ASC 820 defines fair value based upon an exit price model.

The Company categorizes our financial instruments into a three-level fair value hierarchy that prioritizes the inputs to valuation techniques used to measure fair value into three broad levels. The fair value hierarchy gives the highest priority to quoted prices in active markets for identical assets or liabilities (Level 1) and the lowest priority to unobservable inputs (Level 3). If the inputs used to measure fair value fall within different levels of the hierarchy, the category level is based on the lowest priority level input that is significant to the fair value measurement of the instrument. Financial assets recorded at fair value on our consolidated balance sheets are categorized as follows:

- Level 1: Observable inputs such as quoted prices in active markets;
- Level 2: Inputs, other than the quoted prices in active markets, that are observable either directly or indirectly; and
- Level 3: Unobservable inputs in which there is little or no market data, which require the reporting entity to develop its own assumptions.

The fair value of the warrant liabilities is based on the Black-Scholes Merton and Modified Black-Scholes Merton option pricing models (“Black-Scholes model”) (Level 3). (See note 9).

The carrying value of prepaid expenses and other current assets, accounts payable, accrued expenses, and line of credit reported in the consolidated balance sheets equal or approximate fair value due to their short maturities.

SENESCO TECHNOLOGIES, INC. AND SUBSIDIARY
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Concentrations of Credit Risk

The Company maintains its cash primarily in investment accounts within one large financial institution. The Federal Deposit Insurance Corporation insures these balances up to $250,000 per bank. The Company has not experienced any losses on its bank deposits and believes these deposits do not expose the Company to any significant credit risk.

Prepaid Research Services and Supplies

Prepaid research services and supplies are carried at cost and are included in prepaid expenses and other current assets on the accompanying consolidated balance sheet. When such services are performed and supplies are used, the carrying value of the supplies are expensed in the period that they are performed or used for the development of proprietary applications and processes.

Equipment, Furniture and fixtures

Equipment, furniture and fixtures are recorded at cost. Depreciation is calculated on a straight-line basis over the estimated useful life of each asset, generally four to seven years. Expenditures for major renewals and improvements are capitalized, and expenditures for maintenance and repairs are charged to operations as incurred. (See note 4).

Intangibles

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

The length of time that it takes for an initial patent application to be approved is generally between four to six years. However, due to the unique nature of each patent application, the actual length of time may vary. If a patent application is denied, the associated cost of that application would be written off. However, the Company has not had any patent applications denied as of June 30, 2011. Additionally, should a patent application become impaired during the application process, the Company would write down or write off the associated cost of that patent application.

Issued patents and agricultural patent applications pending are being amortized over a period of 16 to 17 years, the expected economic life of the patent. (See note 5).

Impairment of Long-lived Assets

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

- significant negative industry trends;
- significant underutilization of the assets;

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

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If the Company's review determines that the future discounted cash flows related to these assets will not be sufficient to recover their carrying value, the Company will reduce the carrying values of these assets down to its estimate of fair value and continue amortizing them over their remaining useful lives. To date, the Company has not recorded any impairment of intangible assets. However, during the year ended June 30, 2011, in order to reduce its cost of patent prosecution and maintenance the Company reviewed its patent portfolio and identified several patents and patent applications that it believed it no longer needed to maintain without having a material impact on the patent portfolio. Accordingly, during the year ended June 30, 2011, the Company wrote off patent costs in the net amount of $1,588,087.

Net Loss per Common Share

Basic earnings (loss) per share is computed by dividing net income (loss) available to common shareholders by the weighted average number of common shares assumed to be outstanding during the period of computation. Diluted earnings per share is computed similar to basic earnings per share except that the denominator is increased to include the number of additional common shares that would have been outstanding if the potential common shares had been issued and if the additional common shares were dilutive.

For all periods presented, basic and diluted loss per share are the same, as any additional common stock equivalents would be anti-dilutive. Potentially dilutive shares of Common Stock have been excluded from the calculation of the weighted average number of dilutive common shares.

For the year ended June 30, 2011, there were 82,949,540 additional potentially dilutive shares of common stock. These additional shares include 16,300,000 shares issuable upon conversion of the Preferred Stock, and 66,649,540 outstanding options and warrants. For the year ended June 30, 2010, there were 91,299,773 additional potentially dilutive shares of common stock. These additional shares include 28,859,375 shares issuable upon conversion of the Preferred Stock, and 62,440,398 outstanding options and warrants. For the year ended June 30, 2009, there were 33,779,411 additional potentially dilutive shares of common stock. These additional shares include 10,505,556 shares issuable upon conversion of the 8% Convertible Notes and 23,273,855 outstanding options and warrants.

Income Taxes

Income taxes are accounted for under the asset and liability method. Deferred tax assets and liabilities are recognized for the future tax consequences attributable to the differences between the financial statement carrying amounts of existing assets and liabilities and their respective tax bases and operating loss and tax credit carryforwards. Deferred tax assets and liabilities are measured using enacted tax rates expected to apply to taxable income in the years in which those temporary differences are expected to be recovered or settled. The effect on deferred tax assets and liabilities of a change in tax rates is recognized in income in the period that includes the enactment date.

The asset and liability method requires that deferred tax assets and liabilities be recorded without consideration as to their realizability. The deferred tax asset primarily includes net operating loss carryforwards. The portion of any deferred tax asset for which it is more likely than not that a tax benefit will not be realized must then be offset by recording a valuation allowance. A valuation allowance has been established against all of the deferred tax assets as it is more likely than not that these assets will not be realized given the history of operating losses.

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While the Company believes that its tax positions are fully supportable, there is a risk that certain positions could be challenged successfully. In these instances, the Company looks to establish reserves. If the Company determined that a tax position is more likely than not of being sustained upon audit, based solely on the technical merits of the position, the Company would recognize the benefit. The Company measures the benefit by determining the amount that has a likelihood greater than 50% of being realized upon settlement. The Company presumes that all tax positions will be examined by a taxing authority with full knowledge of all relevant information. The Company regularly monitors its tax positions, tax assets and tax liabilities. The Company reevaluates the technical merits of its tax positions and would recognize an uncertain tax benefit or derecognize a previously recorded tax benefit when (i) there is a completion of a tax audit, (ii) there is a change in applicable tax law including a tax case or legislative guidance, or (iii) there is an expiration of the statute of limitations. Significant judgment is required in accounting for tax reserves. As of June 30, 2011, the Company determined that it had no liability for uncertain income taxes. The Company's policy is to recognize potential accrued interest and penalties related to the liability for uncertain tax benefits, if applicable, in income tax expense. The Company's tax returns for the years ended June 30, 2011, 2010, 2009 and 2008 are open for examination. (See note 12).

Revenue Recognition

The Company has received certain nonrefundable upfront fees in exchange for the transfer of its technology to licensees. Upon delivery of the technology, the Company had no further obligations to the licensee with respect to the basic technology transferred and, accordingly, recognized revenue at that time. The Company has and may continue to receive additional payments from its licensees in the event such licensees achieve certain development or commercialization milestones in their particular field of use. 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.

Stock-based Payments

The Company accounts for stock-based compensation under the provisions of FASB ASC Topic 718, Compensation—Stock Compensation ("ASC 718"), which requires the measurement and recognition of compensation expense for all stock-based awards made to employees and directors based on estimated fair values on the grant date. The Company estimates the fair value of stock-based awards on the date of grant using the Black-Scholes model. The value of the portion of the award that is ultimately expected to vest is recognized as expense over the requisite service periods using the straight-line method. The Company estimates forfeitures at the time of grant and revises its estimate in subsequent periods if actual forfeitures differ from those estimates.

The Company accounts for stock-based compensation awards to non-employees in accordance with FASB ASC Topic 505-50, Equity-Based Payments to Non-Employees ("ASC 505-50"). Under ASC 505-50, the Company determines the fair value of the warrants or stock-based compensation awards granted as either the fair value of the consideration received or the fair value of the equity instruments issued, whichever is more reliably measurable.

All issuances of stock options or other equity instruments to non-employees as consideration for goods or services received by the Company are accounted for based on the fair value of the equity instruments issued. Any stock options issued to non-employees are recorded as an expense and additional paid-in capital in stockholders' equity over the applicable service periods using variable accounting through the vesting dates based on the fair value of the options at the end of each period.

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The following table sets forth the total stock-based compensation expense and issuance of common stock for services included in the consolidated statements of operations for the years ended June 30, 2011, 2010 and 2009 and from inception to date.

	Year Ended June 30,			Cummulative
	2011	2010	2009	From Inception
General and administrative	709,207	433,414	445,255	9,873,917
Research and development	41,159	7,025	61,592	1,519,832
Total	$ 750,366	$ 440,439	$ 506,847	$ 11,393,749

The Company estimated the fair value of each warrant and option grant throughout the year using the Black-Scholes option-pricing model using the following assumptions:

	Year Ended June 30,		
	2011	2010	2009
Risk-free interest rate (1)	1.3%-2.9%	2.0%-3.9%	1.3%-2.1%
Expected volatility	103-104%	100-106%	100%
Dividend yield	None	None	None
Expected life (2)	5.0 - 10.0	3.5-6.2	3.0-5.5

(1) Represents the interest rate on a U.S. Treasury security with a maturity date corresponding to that of the option term.
(2) Expected life for employee based stock options was estimated using the “simplified” method, as allowed under the provisions of the Securities and Exchange Commission Staff Accounting Bulletin No. 110.

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

Research and Development

Research and development costs are expensed as incurred.

Recent Accounting Pronouncements Applicable to the Company

In March 2010, the FASB issued new guidance that updates ASC Topic 605, Revenue Recognition, which addresses accounting for arrangements in which a vendor satisfies its performance obligations over time, with all or a portion of the consideration contingent on future events, referred to as “milestones.” The Milestone Method of Revenue Recognition is limited to arrangements which involve research or development activities. A milestone is defined as an event for which, at the date the arrangement is entered into, there is substantive uncertainty whether the event will be achieved, and the achievement of the event is based in whole or in part on either the vendor’s performance or a specific outcome resulting from the vendor’s performance. In addition, the achievement of the event would result in additional payments being due to the vendor. The Milestone Method of Revenue Recognition allows a vendor to adopt an

accounting policy to recognize arrangement consideration that is contingent on the achievement of a substantive milestone in its entirety in the period the milestone is achieved. The Milestone Method of Revenue Recognition is effective on a prospective basis, with an option for retrospective application for milestones achieved in fiscal years and interim periods within those fiscal years beginning on or after June 15, 2010. Early adoption is permitted. If an entity elects early application in a period that is not the first reporting period of its fiscal year, then the guidance must be applied retrospectively from the beginning of that fiscal year. The Company will determine the impact of the new accounting standard as it enters into new revenue arrangements that include the achievement of milestones and earns payments under either new or existing revenue arrangements.

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3. Fair Value Measurements:

The following tables provide the assets and liabilities carried at fair value measured on a recurring basis as of June 30, 2011 and 2010:

	Carrying Value	Fair Value Measurement at June 30, 2011 Level 1	Level 2	Level 3
Assets:				
Cash and cash equivalents	$ 3,609,954	$ 3,609,954	$ -	$ -
Liabilities:				
Warrant liabilities	$ 711,259	$ -	$ -	$ 711,259

	Carrying Value	Fair Value Measurement at June 30, 2010 Level 1	Level 2	Level 3
Assets:				
Cash and cash equivalents	$ 8,026,296	$ 8,026,296	$ -	$ -
Liabilities:				
Warrant liabilities	$ 2,493,794	$ -	$ -	$ 2,493,794

The following table summarizes the changes in fair value of the Company's level 3 financial instruments:

	Year ended June 30, 2011	2010
Beginning Balance	$ 2,493,794	$ 3,200,108
Issuance of common stock warrants, exercisable at $0.35		
(37,007,813)	-	1,810,347
Reclassification to equity due to change in terms of common stock warrants exercisable at $0.35	(1,173,296)	-
Gain due to change in fair value of warrant liabilities, net	(609,239)	(2,516,661)
Ending Balance	$ 711,259	$ 2,493,794

4. Equipment, Furniture and Fixtures:

Equipment, Furniture and Fixtures consist of the following:

	June 30, 2011	2010
Equipment	$ 26,592	$ 24,566
Furniture and fixtures	67,674	67,674
	94,266	92,240
Less—Accumulated depreciation	(90,484)	(87,686)

	$ 3,782	$ 4,554

Depreciation expense aggregated $2,798, $2,548, $3,646 and $176,423 for the years ended June 30, 2011, 2010, 2009, and cumulatively from inception through June 30, 2011, respectively.

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5. Intangible assets:

Intangible assets consist of the following:

	June 30, 2011	2010
Patents approved	$ 2,059,323	$ 850,419
Patents pending	1,979,246	4,243,859
	4,038,569	5,094,278
Accumulated amortization	(513,838)	(525,383)
	$ 3,524,731	$ 4,568,895

Amortization expense amounted to $140,476, $124,019, $108,107 and $665,859 for the years ended June 30, 2011, 2010, 2009, and cumulatively from inception through June 30, 2011, respectively.

During the year ended June 30, 2011, the Company abandoned certain patents and patents pending. Accordingly, intangible assets were reduced by the net carrying value of those patents and patents pending in the amount of $1,588,087.

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

Year ended June 30,	
2012	$ 285,000
2013	285,000
2014	285,000
2015	285,000
2016	285,000

6. Accrued Expenses:

Accrued expenses were comprised of the following:

	June 30, 2011	2010
Accrued research	$ 195,992	$ 218,514
Accrued dividends payable	122,252	230,875
Accrued director fees	26,000	29,041
Accrued patent costs	75,393	36,962
Accrued legal	58,710	29,682
Accrued other	29,448	31,773
	$ 509,806	$ 578,857

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7. Line of Credit:

On February 17, 2010, the Company entered into a credit agreement with JMP Securities LLC. The agreement provides the Company with, subject to certain restrictions, including the existence of suitable collateral, up to a $3.0 million line of credit upon which the Company may draw at any time (the "Line of Credit"). Any draws upon the Line of Credit accrue at a monthly interest rate of (i) the broker rate in effect at the interest date (which was 3.75% at June 30, 2011), plus (ii) 2.0%. There are no other conditions or fees associated with the Line of Credit. The Line of Credit is not secured by any assets of the Company, but it is secured by certain assets of one of a member of the Company's Board of Directors, Harlan W. Waksal, M.D., which is currently held by JMP Securities. The balance outstanding as of June 30, 2011 and 2010 was $2,199,108 and $2,194,844, respectively. In April 2011, we were required to enter into a new demand note with the clearing agent for JMP Securities in connection with the Line of Credit.

8. Convertible Notes:

On August 1, 2007 and August 29, 2007, the Company entered into a binding Securities Purchase Agreement to issue $5,000,000 of 8% convertible notes to YA Global Investments L.P. ("YA Global") and $5,000,000 of 8% Convertible Notes to Stanford Venture Capital Holdings, Inc. ("Stanford") for aggregate gross proceeds of $10,000,000. The convertible notes were originally convertible into the Company's Common Stock at a fixed price of $0.90 per share, subject to certain adjustments through August 1, 2009 and December 20, 2009, respectively, at which time the convertible notes could convert into shares of the Company's common stock at the lower of the fixed conversion price or 80% of the lowest daily volume-weighted average price (the "VWAP"), of the common stock during the five trading days prior to the conversion date. The maturity date of each of the convertible notes for YA Global and Stanford was December 30, 2010 and December 31, 2010, respectively.

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

The agreements with YA Global and Stanford provided for the issuance of warrants to purchase an aggregate of 5,550,000 and 8,333,333, respectively, of the Company's Common Stock, exercisable six months and one day from the date of issuance until their expiration on the date that is five years from the date of issuance. The warrants have been issued in two series. The exercise price of the Series A warrants is $1.01 per share, and the exercise price of the Series B warrants was $0.90 per share, subject to certain adjustments. The warrants provide a right of cashless exercise if, at the time of exercise, there is no effective registration statement registering the resale of the shares underlying the warrants.

The conversion rate of each convertible note and the exercise price of the Series B warrants are subject to adjustment for certain events, including dividends, stock splits, combinations and the sale of the Company's Common Stock or securities convertible into or exercisable for the Company's Common Stock at a price less than the then applicable conversion or exercise price. As of June 30, 2011, the exercise price of the Series B warrants has been adjusted to $0.49 per share.

During the year ended June 30, 2008, $7,931,875 of the total net proceeds of $9,340,000 from the convertible notes was allocated to the warrants based upon the fair value of the warrants which was determined using the Black-Scholes

model. The remaining $1,408,125 was allocated to the beneficial conversion feature based upon the effective conversion price of the Convertible Notes compared to the fair value of the common stock on the date of issuance of the convertible notes and warrants.

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Debt discount associated with the Convertible Notes which amounted to $10,000,000 was being amortized to interest expense, using the effective yield method, over the remaining life of the convertible notes. Upon conversion or redemption of the Convertible Notes into Common Stock, any unamortized debt discount relating to the portion converted or redeemed was charged to interest expense.

The material factors incorporated in the Black-Scholes model in estimating the value of the warrants include the following:

Estimated life in years	5.0
Risk-free interest rate	3.5% - 4.4%
Volatility	100%
Dividend paid	None

In connection with the issuance of the convertible notes, the Company incurred costs in the amount of $1,291,427 which was recorded as deferred financing costs and was being amortized ratably over the term of the convertible notes. During the year ended June 30, 2010, as a result of the conversion and redemption of the convertible notes, the remaining balance of the deferred financing costs which amounted to $632,324 was fully amortized.

During the year ended June 30, 2010, YA Global converted $2,619,360 of their convertible notes into 9,635,093 shares of Common Stock. From the inception of the convertible notes, YA Global converted $3,164,360 of the convertible notes into 10,250,648 shares of Common Stock. On March 3, 2010, YA Global and the Company entered into a letter agreement pursuant to which the Company purchased from YA Global all of its remaining outstanding convertible notes, which in the aggregate totaled $1,835,640, for an aggregate purchase price of $2,144,844, including accrued interest of $33,859 on the convertible notes. As a result of this transaction, the Company recorded a loss on the extinguishment of debt in the amount of $275,345. In addition, the Company purchased from YA Global warrants to purchase 2,775,000 shares of the Company's common stock at an exercise price of $1.01 per share, for a purchase price of $50,000.

During the year ended June 30, 2010, certain members of the Company's board of directors acquired all of the $5,000,000 of convertible notes and warrants previously issued to Stanford and converted the $5,000,000 of convertible notes into 6,024,096 shares of Common Stock at a conversion price of $0.83.

Total charges to interest for amortization of debt discount were $0, $9,448,783, $51,160 and $10,000,000 for the years ended June 30, 2011, June 30, 2010 and June 30, 2009 and from inception through June 30, 2011, respectively.

9. Warrant Liabilities:

The warrant liabilities represent the fair value of Common Stock purchase warrants, which have exercise price reset features and cash settlement features.

The fair value of the warrants that have exercise price reset features is estimated using an adjusted Black-Scholes model. The Company computes valuations, each quarter, using the Black-Scholes model for such warrants to account for the various possibilities that could occur due to changes in the inputs to the Black-Scholes model as a result of contractually-obligated changes. The Company effectively weights each calculation based on the likelihood of occurrence to determine the value of the derivative at the reporting date. The fair value of the warrants that have cash

settlement features is estimated using the Black-Scholes model.

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During the year ended June 30, 2011, the holders of an aggregate of 22,641,665 warrants amended the terms of their warrants. As of the dates of the amendments to the warrants, the Black-Scholes value in the amount of $1,173,296 was reclassified from warrant liabilities to equity with the change in fair value from June 30, 2010 through the dates of the amendments being recorded in the consolidated statement of operations.

The Company also recorded a charge of $115,869 during the year ended June 30, 2011, as a result of the amendment to certain of the warrants that had an exercise price reset feature, whereby the exercise price of $0.50, subject to future adjustments, was reset to $0.32 and would no longer be subject to future adjustments and accordingly are no longer deemed to be liabilities. The charge of $115,869 represents the difference in the Black-Scholes value of the warrants immediately prior to the amendment and the Black-Scholes value of the warrants immediately after the amendment.

During the years ended June 30, 2011 and 2010, the Company revalued all of the remaining warrant liabilities, using the adjusted Black-Scholes and Black-Scholes models. A gain on the change in fair value of the warrant liabilities in the amount of $609,239 and $2,516,661 was recorded in the Condensed Consolidated Statement of Operations for the years ended June 30, 2011 and 2010, respectively.

At June 30, 2011 and 2010, there were an aggregate of 21,307,814 and 43,949,479 warrants included in the fair value of the warrant liabilities, which are valued at $711,259 and $2,493,794, respectively.

The assumptions used to value the warrants were as follows:

	June 30, 2011		June 30, 2010	
Warrants issued on December 20, 2007				
Estimated life in years	1.5		2.50	
Risk-free interest rate (1)	0.45	%	0.80	%
Volatility	79	%	106	%
Dividend paid	None		None	
Warrants issued on June 30, 2008				
Estimated life in years	2.00		3.00	
Risk-free interest rate (1)	0.45	%	1.00	%
Volatility	79	%	106	%
Dividend paid	None		None	
Warrants issued on April 1, 2010				
Estimated life in years	3.75		4.75	
Risk-free interest rate (1)	1.29	%	1.79	%
Volatility	107	%	106	%
Dividend paid	None		None	
Warrants issued on June 2, 2010 (2)				
Estimated life in years	-		4.9	
Risk-free interest rate (1)	-		1.79	%
Volatility	-		106	%
Dividend paid	-		None	

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

(2) Such warrants were amended during the year ended June 30, 2011 and are no longer deemed liabilities.

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10. Stockholders' Equity:

Preferred Stock

On April 1, 2010, the Company sold 10,297 shares of 10% Series A preferred stock to non-affiliated purchasers for cash. On June 2, 2010, the Company sold 1,200 shares of 10% Series B preferred stock to affiliated purchasers for cash. The Company received gross proceeds in the aggregate amount of $11,497,000 and net proceeds in the amount of $10,754,841.

Pursuant to the Agreements, the Series A and Series B preferred stock was initially convertible into approximately 35,928,125 shares of the Company's Common Stock, subject to adjustment. In addition, the Series A and Series B Preferred shareholders received immediately exercisable warrants to purchase up to approximately 35,928,125 shares.

Each share of Preferred Stock has a stated value of $1,000 (the "Stated Value"). Each holder of shares of preferred stock is entitled to receive semi-annually dividends at the rate of 10% per annum of the Stated Value for each share of preferred stock held by such holder. Except in limited circumstances, the Company can elect to pay the dividends in cash or shares of Common Stock. If the dividends are paid in shares of Common Stock, such shares will be priced at the lower of 90% of the average VWAP for the 20 days immediately preceding the payment date or $0.224. The dividends are subject to a 30% make whole provision.

The shares of preferred stock are convertible into shares of Common Stock at an initial conversion price of $0.32 per share and are convertible at any time, The conversion price is subject to adjustment if the Company sells or grants any Common Stock or Common Stock equivalents, subject to certain exclusions, at an effective price per share that is lower than the conversion price of the preferred stock. After 18 months from the date of issuance of the preferred stock, if the Company's Common Stock trades above $0.80 for 20 out of 30 consecutive trading days, the preferred stock will no longer be subject to adjustment. On December 27, 2010, in connection with the Company's ATM facility (see below), the conversion price on the then outstanding 5,325 shares of Preferred Stock was adjusted from $0.32 to $0.30, resulting in an additional 1,109,375 shares of Common Stock that will be issued upon conversion of the then outstanding Preferred Stock. In connection with the adjustment of the conversion price, due to a beneficial conversion feature, an additional dividend in the amount of $360,733 was recorded as an increase to both additional paid-in capital and accumulated deficit. As a result of the reset of the conversion price, each share of preferred stock is convertible into 3,333 shares of Common Stock (a conversion price of $0.30).

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The Company may force conversion of the preferred stock if the Company's Common Stock trades above $0.80 for 20 out of 30 consecutive trading days and there is an effective registration statement for the underlying Common Stock or such underlying Common Stock is freely tradable under rule 144.

Warrants

Pursuant to the Purchase Agreements, the Company delivered a Series A Warrant to the Non-Affiliate Investors and a Series B Warrant to the Affiliate Investors (the "Warrants"). Each Warrant has an initial exercise price of $0.35 per share of Common Stock. The Warrants are immediately exercisable and have a five year term. The Series A Warrants also contain a provision which limits the holder's beneficial ownership to a maximum of 4.99% (which percentage may be increased to 9.99% upon 60 days notice to the Company).

Placement Agent Warrants

On April 1, 2010, in connection with the issuance of the Series A preferred stock, the Company issued warrants to purchase 1,079,688 shares of the Company's common stock as partial compensation for services related to the raising of the capital. Each Warrant has an initial exercise price of $0.35 per share of Common Stock. The Warrants are immediately exercisable and have a five year term. In accordance with ASC 480-10, Distinguishing Liabilities from Equity, the Company determined that such warrants are to be accounted for as a liability. Accordingly, using the Black Scholes model, the Company recorded a warrant liability in the amount of $51,339 related to the warrants on the issuance date. The Company recorded a charge to additional paid in capital as an additional cost of capital.

As discussed in note 9 above, the Company is required to record the warrants as liabilities. As a result, the Company must allocate the proceeds to the warrants based upon their fair value with the remainder of the proceeds allocated to the preferred stock. The Company allocated the gross proceeds of the offering as follows:

	Series A Preferred Stock	Series B Preferred Stock	Total
Total gross proceeds	$ 10,297,000	$ 1,200,000	$ 11,497,000
Allocated to warrants	(1,530,070)	(228,938)	(1,759,008)
Allocated to preferred stock	$ 8,766,930	$ 971,062	$ 9,737,992

Due to the allocation of the proceeds to the fair value of the warrant at the issuance dates, the convertible feature of the Preferred Stock was below market value. Such feature, as it specifically relates to the convertible feature of the Preferred Stock, is characterized as a "Beneficial Conversion Feature" ("BCF"). Pursuant to existing accounting standards, FASB ASC topic 470.20 – Debt with Conversion and Other Options", the estimated relative fair value of the BCF was $15,068,031. The value of the BCF which amounted to $5,330,039 was determined utilizing an intrinsic value method with the fair value of the warrants determined using the Black-Scholes model at the date of issuance. Per the guidance of accounting standards, the value of the BCF is treated as a deemed dividend to the Preferred stockholders and, due to the potential immediate convertibility of the Preferred stock at issuance, this value is recorded as an increase to both additional-paid-in-capital and accumulated deficit at the time of issuance.

During the year ended June 30, 2011, 4,345 shares of Preferred Stock were converted into 13,668,750 shares of Common Stock. During the year ended June 30, 2011, the Company issued an additional 7,912,266 shares of Common Stock for the payment of dividends in the amount of $2,277,567. Total dividends payable on the

outstanding 4,890 shares of Preferred Stock at June 30, 2011 amounted to $122,252.

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During the year ended June 30, 2010, 2,262 shares of Preferred Stock were converted into 7,068,750 shares of Common Stock. During the year ended June 30, 2010, the Company issued an additional 3,029,465 shares of Common Stock for the payment of dividends in the amount of $678,600. Total dividends payable on the outstanding 9,235 shares of Preferred Stock at June 30, 2010 amounted to $230,875.

Common Stock

On September 22, 2009, the stockholders approved a proposal to increase the authorized Common Stock of the Company from 100,000,000 shares to 120,000,000 shares. On May 25, 2010, the stockholders approved a proposal to increase the authorized Common Stock of the Company from 120,000,000 shares to 250,000,000 shares.

At the Market Sales Agreement

On December 22, 2010, the Company entered into an At Market Issuance Sales Agreement (the "ATM") under which the Company, from time to time, may issue and sell shares of its Common Stock, par value $0.01 per share, with an aggregate offering price of up to $5,500,000. Such Common Stock will be offered and sold pursuant to a prospectus supplement filed with the Securities and Exchange Commission in connection with the Company's shelf registration statement on Form S-3 (File No. 333-170140), which became effective on November 9, 2010.

Upon delivery of a placement notice by the Company, if any, the placement agent may sell the Common Stock in any method permitted by law deemed to be an "at the market" offering as defined in Rule 415 promulgated under the Securities Act of 1933, as amended, at prices prevailing at the time of sale or at prices related to such prevailing market prices, including sales made directly on the NYSE Amex LLC, or NYSE Amex, or sales made through a market maker other than on an exchange. The placement agent will make all sales using commercially reasonable efforts consistent with its normal sales and trading practices on mutually agreed upon terms between the placement agent and the Company. The Company will pay the placement agent a commission of up to 6% of the gross proceeds from the sale of shares of the Common Stock, depending on the per share sales price. The Company has agreed to reimburse a portion of the placement agent's expenses in connection with the offering, up to an aggregate amount of $25,000. In addition, the Company granted customary indemnification rights to the placement agent.

The ATM will terminate upon the earlier of (1) the sale of all of the Common Stock subject to the ATM, or (2) upon termination by the Company or the placement agent. The placement agent may terminate the ATM in certain circumstances, including the occurrence of a material adverse change that, in the placement agent's reasonable judgment, may impair its ability to sell the Common Stock, the Company's failure to satisfy any condition under the ATM or a suspension or limitation of trading of the Common Stock on the NYSE Amex. In addition, either the Company or the placement agent may terminate the ATM at any time and for any reason upon 10 days prior notice to the other party.

During the year ended June 30, 2011, the Company issued 5,911,457 shares of Common Stock under the ATM for gross proceeds in the amount of $1,853,421. From July 1, 2011 through September 26, 2011, the Company issued an additional 1,730,211 shares of Common Stock under the ATM for gross proceeds in the amount of $481,368 and net proceeds in the amount of $451,096.

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Private Placements of Common Stock and Warrants

In July 2009 and September 2009, the Company issued 1,555,555 shares of common stock in a private placement to unaffiliated investors. The Company received total gross proceeds in the amount of $1,400,000.

In connection with the private placement to the unaffiliated investors in July and September 2009, the Company issued Series A warrants to purchase 1,400,000 shares of the Company's common stock at $0.01 per warrant share. The Series A Warrants have a term of seven years and were exercisable immediately after the date of grant. The Company also issued Series B Warrants to purchase 2,461,110 shares of the Company's common stock at $0.60 per warrant share. The Series B Warrants have a term of seven years and were not exercisable until after the six-month anniversary from the date of grant.

Additionally, on September 30, 2009, the Company issued 144,444 shares of common stock in a private placement to affiliated investors. The Company received total gross proceeds in the amount of $130,000.

In connection with the private placement to the affiliated investors on September 30, 2009, the Company issued Series A warrants to purchase 130,000 shares of the Company's common stock at $0.01 per warrant share. The Series A Warrants have a term of seven years and were exercisable immediately after the date of grant. The Company also issued Series B Warrants to purchase 131,807 shares of the Company's common stock at $0.60 per warrant share. The Series B Warrant has a term of seven years and was not exercisable until after the six-month anniversary from the date of grant.

Also, on September 30, 2009, the Company issued 194,444 Shares of the Company's common stock at $0.90 per share, a Series A warrant and a Series B warrant in exchange for the extinguishment of an accounts payable due to the vendor amounting to $175,000.

The Series A Warrant entitles the holder to purchase in the aggregate, up to 175,000 shares of the Company's common stock at $0.01 per warrant share, has a term of seven years and was exercisable immediately after the date of grant. The Series B Warrant entitles the holder to purchase, up to 177,431 shares of the Company's common stock at $0.60 per warrant share, has a term of seven years and was not exercisable until after the six-month anniversary from the date of grant.

The transaction was accounted for as an extinguishment of debt. The Company valued the common stock and warrants issued at fair value on the date of the closing which amounted to $261,532 and recorded a loss on the extinguishment of debt in the amount of $86,532 for the year ended June 30, 2010.

In connection with the July 2009 and September 2009 private placements, the Company incurred $180,862 in issuance costs which has been recorded as a charge to Capital in Excess of Par Value.

11. Stock-Based Compensation

In December 2008, the Company adopted the 2008 Incentive Compensation Plan (the "2008 Plan"), which provides for the grant of stock options, stock grants 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 2008 Plan, an aggregate of 5,137,200 shares of common stock had been reserved for issuance. On May 25, 2010, the Company

increased the aggregate shares of common stock reserved for issuance under the 2008 Plan to 11,137,200. On March 11, 2011, the Company increased the aggregate shares of common stock reserved for issuance under the 2008 Plan to 23,005,003. Additionally, on January 1 of each calendar year beginning with the calendar year 2012 and ending with the calendar year 2015, the share reserve will automatically increase so that the total number of shares available for issuance under the 2008 Plan is 15% of the fully diluted shares as of the date of such increase, but in no event will such annual increase exceed 7,000,000 shares per year. The 2008 Plan is intended to serve as a successor to the Amended and Restated 1998 Stock Incentive Plan (the "1998 Plan"), which terminated in December 2008. On February 19, 2009, the Company filed a registration statement with the SEC to register all of the 6,137,200 shares of Common Stock underlying the 2008 Plan. On June 8, 2010, the Company filed with the SEC an amendment to the registration statement to register the additional 5,000,000 shares of Common Stock underlying the 2008 Plan. The registration statement and amendment was deemed effective upon filing.

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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 or achievement of specified goals and milestones.

Stock option activity under the 2008 Plan and 1998 Plan is summarized as follows:

	Aggregate Number	Weighted Average Exercise Price
Outstanding, July 31, 2008	3,715,600	$ 1.95
Granted	834,812	0.59
Exercised	-	-
Cancelled	-	-
Expired	-	-
Outstanding, June 30, 2009	4,550,412	1.70
Granted	2,951,760	0.43
Exercised	-	-
Cancelled	-	-
Expired	(233,000)	3.45
Outstanding, June 30, 2010	7,269,172	1.13
Granted	4,579,142	0.26
Exercised	-	-
Cancelled	-	-
Expired	(500,000)	1.14
Outstanding, June 30, 2011	11,348,314	$ 0.78
Options exercisable at June 30, 2011	7,274,422	$ 1.04
Options exercisable at June 30, 2010	5,146,671	$ 1.34
Options exercisable at June 30, 2009	3,667,412	$ 1.90
Weigthed average fair value of options granted during the year ended June 30, 2011	$ 0.21	
Weigthed average fair value of options granted during the year ended June 30, 2010	$ 0.33	
Weigthed average fair value of options granted during the year ended June 30, 2009	$ 0.45	

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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, 2010	2,122,501	$ 0.48
Granted	4,579,142	0.21
Vested	(2,187,751)	0.27
Forfeited	(440,000)	0.77
Non-vested stock options at June 30, 2011	4,073,892	$ 0.25

As of June 30, 2011, the aggregate intrinsic value of stock options outstanding was $81,018, with a weighted-average remaining term of 7.25 years. The aggregate intrinsic value of stock options exercisable at that same date was $20,285, with a weighted-average remaining term of 6.15 years. As of June 30, 2011, the Company has 14,643,289 shares available for future stock option grants.

As of June 30, 2011, total estimated compensation expense not yet recognized related to stock option grants amounted to $952,069, which will be recognized over the next 42 months.

Warrants

Total outstanding warrants at June 30, 2011 were as follows:

Strike Price	Warrants
$ 7.00	10,000
$ 3.45	15,000
$ 3.15	20,000
$ 2.35	15,000
$ 2.15	110,000
$ 1.40	5,000
$ 1.18	993,153
$ 1.08	2,500
$ 1.07	139,041
$ 1.01	5,900,000
$ 0.99	1,000
$ 0.90	388,889
$ 0.74	151,314
$ 0.60	2,770,850
$ 0.50	2,853,126
$ 0.35	37,007,813
$ 0.32	4,388,540
$ 0.26	5,000
$ 0.01	525,000
	55,301,226

As of June 30, 2011, 55,297,892 of the above warrants are exercisable expiring at various dates through 2016. At June 30, 2011, the weighted-average exercise price on the above warrants was $0.46.

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Short-Term Incentive Program

In November 2008, the Company adopted a Short-Term Equity Incentive Program for key employees in which shares of the Company's Common Stock, or options to acquire shares of the Company's Common Stock would be awarded, if the Company achieved certain target goals relating to research, financing, licensing, investor relations and other administrative items during the fiscal year ending June 30, 2009. The number of eligible shares and options to be awarded to the employees was based upon certain performance criteria as defined in the incentive program.

As of June 30, 2009, the Company had determined that the achievement of the target goals was probable and issued 116,000 Restricted Stock Units ("RSU") and 124,000 options to purchase common stock with a fair value based upon the Black Scholes model of $140,480. As a result, the Company recognized the fair value of the awards as compensation expense ratably over the seven and one-half month period from November 19, 2008 through June 30, 2009. In October 2009, it was determined that the executive officers had partially achieved the previously granted short-term performance milestones and the number of RSU's and options to purchase common stock which vested were reduced. As a result, compensation expense was reduced by $13,840 during the year ended June 30, 2010.

Long-Term Incentive Program

On December 13, 2007, the Company adopted a Long-Term Equity Incentive Program for the members of the executive management team in which key employees will be awarded shares of the Company's Common Stock and options to acquire shares of the Company's Common Stock if the Company achieves certain target goals relating to its multiple myeloma research project over the three fiscal year period from the date of adoption.

During the year ended June 30, 2011, the Company determined that the first target goal under the Long-Term Equity Incentive Program had been met and, therefore, recognized $93,500 of compensation. The Company also determined that the second and third target goals under the Long-Term Equity Incentive Program would not be met. As such, the eligible shares and options related thereto will not vest and the remaining $374,000 of potential compensation expense will not be recognized.

12. Income Taxes:

Since the Company has recurring losses and a valuation allowance against deferred tax assets, there is no tax expense (benefit) for all periods presented.

The amount of the deferred tax asset and valuation allowance for the year ended June 30, 2010 was decreased by $3,232,800, from $17,923,000 to $14,690,200, due to a decrease in the taxable net operating loss in the amount of approximately $8,000,000, which represents a correction in the tax treatment of amortization of convertible note discount.

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

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

	June 30, 2011		2010		2009	
Federal income tax provision at statutory rate	(34.0	)%	(34.0	)%	(34.0	)%
Fair value - warrant liability	(2.8	)%	(6.4	)%	-	
Stock-based compensation	3.5	%	1.0	%	0.5	%
Amortization of debt discount and finance costs	-		23.0	%	5.8	%
Other	(1.6	)%	(0.5	)%	0.1	%
Change in valuation allowance	34.9	%	16.9	%	27.6	%
Actual income tax provision (benefit) effective tax rate	-	%	-	%	-	%

The deferred income tax asset consists of the following at:

	June 30, 2011	2010
Deferred tax assets:		
Net operating loss carryforwards	$ 15,931,894	$ 12,943,177
Stock-based compensation	2,101,085	1,800,939
Other	(95,928)	(53,916)
	17,937,051	14,690,200
Valuation allowance	(17,937,051)	(14,690,200)
Net deferred tax asset	$ -	$ -

At June 30, 2011, the Company has federal and state net operating loss carryforwards of approximately $40,935,000 and $33,576,000, respectively, available to offset future taxable income expiring on various dates through 2031. The timing and extent to which the Company can utilize future tax deductions in any year may be limited by provisions of the Internal Revenue Code regarding changes in ownership of Corporations (i.e. IRS Code Section 382).

13. Commitments:

Research Agreement

Effective September 1, 1998, the Company entered into a research and development agreement, which has subsequently been renewed, with The University of Waterloo which Dr. John Thompson, 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, 2010, the Company extended the research and development agreement for an additional three-month period through November 30, 2010, in the amount of Can $164,200, or approximately U.S. $164,200. Effective December 1, 2010, the Company extended the research and development agreement for an additional nine-month period through August 31, 2011, in the amount of Can $434,687. Effective September 1, 2011, the Company extended the research and

development agreement for an additional one-year period through August 31, 2012 in the amount of Can $555,900. Research and development expenses under this agreement for the years ended June 30, 2011, 2010 and 2009 aggregated U.S. $622,872, U.S. $672,693 and U.S. $653,104, respectively, and U.S. $6,575,933 for the cumulative period through June 30, 2011. Future obligations to be paid under the agreement through August 31, 2012 equal approximately U.S. $567,000.

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Supply and service agreements

Effective June 20, 2011, the Company entered into an agreement with Criterium, Inc. (“Criterium”) under which Criterium will provide monitoring, project and data management services in connection with the Company’s Phase 1b/2a clinical trial. The agreement has an initial term that commences on the date of the agreement and runs for a period of eighteen (18) months. The Company’s financial obligation under the agreement is estimated to be approximately $483,000.

Consulting and other Agreements

Effective May 1, 1999, the Company entered into a consulting agreement for research and development with Dr. John Thompson. The agreement was renewed for an additional two-year term through June 30, 2013. Future obligations to be paid under the agreement equal $135,000.

The Company is obligated under a non-cancelable operating lease of office space expiring on May 31, 2013. The aggregate minimum future payments are $131,172. Rent expense charged to operations aggregated $88,766, $86,215, $84,768 and $845,558 for the years ended June 30, 2011, 2010, 2009, and from inception through June 30, 2011, respectively.

14. Collaborative Arrangements:

On May 14, 1999, the Company entered into an agreement ("Collaboration") with an Israeli partnership that is engaged in the worldwide marketing of tissue culture plants. The purpose of the Collaboration is to develop enhanced banana plants which will result in banana fruit with improved consumer- and grower-driven traits. The program has been performed as a joint collaboration whereby the Company pays for 50% of the research costs of the program. The Company's portion of the expenses of the collaboration approximated $205,000, $214,000 and $210,000 for the years ended June 30, 2011, 2010 and 2009, respectively, and is included in research and development expenses.

In July 1999, the Collaboration 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 Collaboration 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 Collaborations technology, as defined. The Company has received a total of $99,728, all of which was received prior to the years ended June 30, 2011, June 30, 2010 and June 30, 2009.

15. Grant Income:

On October 29, 2010, the Company was approved for a grant in the amount of $244,479 in connection with the Qualified Therapeutic Discovery Project, which is Section 48D of the Internal Revenue Code. The funds were granted in connection with the Company’s program for the use of its lead therapeutic candidate, SNS01-T, in multiple myeloma.

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(A DEVELOPMENT STAGE COMPANY)
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

16. Supplemental Cash Flow Information

	Year ended June 30,			Cumulative Amounts from Inception
	2011	2010	2009	
Supplemental disclosure of non-cash transactions:				
Conversion of convertible note into common stock	$-	$7,619,360	$7,619,360	$ 10,000,000
Conversion of bridge notes into common stock	-	-	-	534,316
Conversion of preferred stock into common stock	136,644	-	-	207,331
Allocation of preferred stock proceeds to warrants and beneficial conversion feature	360,733	-	-	7,449,780
Allocation of convertible debt proceeds to warrants and beneficial conversion feature	-	-	-	9,340,000
Warrants issued for financing costs	-	-	-	690,984
Issuance of common stock for interest payments on convertible notes	-	552,673	552,673	2,003,386
Issuance of common stock for dividend payments on preferred stock	2,155,315	-	-	3,574,346
Issuance of common stock in settlement of accounts payable	-	175,000	175,000	175,000
Dividends accrued on preferred stock	122,252	-	-	122,252
Supplemental disclosure of cash flow information:				
Cash paid for interest	110,649	59,645	59,645	237,134