SENESCO TECHNOLOGIES INC
Form 10-K
September 29, 2014

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, 2014

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

(State or other jurisdiction of
incorporation or organization)

721 Route 202/206, Suite 130, Bridgewater, New Jersey **08807**
(Address of principal executive offices) (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
None

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

Common Stock, $0.01 par value per share.

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 x 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. x

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, 2013, the aggregate market value of the registrant’s common stock held by non-affiliates of the registrant was $28,660,614, based on the closing sales price as reported on the OTCQB Marketplace on that date.

The number of shares outstanding of each of the registrant's classes of common stock, as of September 15, 2014:

Class	Number of Shares
Common Stock, $0.01 par value	13,846,361
Preferred Stock, $0.01 par value	580

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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 subsidiaries, Senesco, Inc., a New Jersey corporation incorporated in 1998, and Fabrus, Inc., a Delaware corporation incorporated in 2011, collectively referred to as "Senesco," "we," "us" or "our," is to utilize our patented and patent-pending technology related to antibody genes, antibody discovery technology, modified cow antibodies, and antibody drug candidates, and 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.

In September 2014, the Company began the process of changing its name from Senesco Technologies, Inc. to Sevion Therapeutics, Inc.

Acquisition of Fabrus, Inc. - On May 16, 2014 we acquired Fabrus, Inc., a Delaware corporation, or Fabrus, pursuant to that certain Agreement and Plan of Merger and Reorganization, or the Merger Agreement, by and among Senesco, Fabrus and Senesco Fab Acquisition Corporation, a Delaware corporation and wholly-owned subsidiary of Senesco, referred to herein as the Merger Sub. Pursuant to the terms of the Merger Agreement, at the effective time of the merger, Merger Sub merged with and into Fabrus, with Fabrus surviving the merger as a wholly-owned subsidiary of Senesco. In accordance with the terms of the Merger Agreement, at the effective time of the merger, each issued and outstanding share of common stock of Merger Sub was automatically converted into one share of common stock of the surviving company and each issued and outstanding share of common stock of Fabrus was cancelled and automatically converted into the right to receive a pro rata portion of the transaction consideration.

Antibody Genes - We believe our antibody platforms have broad applicability to human health by allowing the discovery of unique monoclonal antibodies against difficult membrane targets in several therapeutic areas. Our antibody therapeutic candidates target the Kv1.3 ion channel, which is important in the pathogenesis of several autoimmune and inflammatory disorders. Other antibodies in our pipeline target important cell surface molecules involved in cancer progression.

Antibody Discovery Technology - Traditional antibody drug discovery methods, such as phage/yeast display or immunization, rely on competitive selection from a pool of antibodies to identify a lead therapeutic candidate. In these

methods, a mixture of antibodies compete for binding to a purified target, and the antibody molecules that bind the strongest to the target, referred to as high affinity, are ultimately discovered. While these approaches have led to many successful antibody therapeutics, there are at least two drawbacks. First, the drug targets have been limited to only those proteins which can be easily purified. Many important target classes, including multispanning membrane proteins, cannot be easily purified in functional form. Secondly, when discovery is driven by selection based on competitive binding and affinity, the result is a significant limitation in the number of functional lead antibodies. In this regards, the highest affinity antibody, however, isn't always the best therapeutic since lower affinity molecules may have unique activities or lower toxicities than the highest affinity binder. Thus, modulating a pathway more subtly to treat disease is often preferable to affecting it in a binary fashion through competition related to high-affinity binding. We believe the technology to identify (i) antibodies against unpurified targets, particularly multispanning membrane proteins like G Protein Coupled Receptors, or GPCR's, and ion channels, and (ii) a range of antibodies with different affinities and activities will enable us to discover new antibody drug leads compared to existing technologies.

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We have developed the world's first "spatially addressed" antibody library with an expansive combinatorial collection of recombinant antibodies in which each well contains a single species of antibody of known concentration, composition and sequence. Our spatially addressed library allows us to evaluate the therapeutic potential of each antibody individually in a non-competitive way and allows direct discovery on the cell surface. This approach is more analogous to traditional small molecule drug discovery and allows us to screen antibodies for functional drug activity as opposed to simple binding properties. This next generation discovery system unlocks epitopes, targets, and functions that are only identifiable in the context of a living cell.

Modified Cow Antibodies - Despite the enormous diversity of the antibody repertoire, human antibodies all have a similar geometry, shape and binding mode. Our scientists have discovered and humanized a novel class of therapeutic antibodies derived from cows that have a highly unusual structure for binding targets. This unique ultralong Complementary Determining Region 3, or CDR3 structural domain found in cow antibodies is comprised of a knob on a stalk that protrudes far from the antibody surface, creating the potential for entirely new types of therapeutic functionality. Using both our humanized spatially addressed antibody library and direct engineering of the knob, we are exploring the ability of utilizing the knob and stalk structure to functionally interact with important therapeutic targets, including GPCRs, ion channels and other multispanning membrane therapeutic targets on the cell surface. Our lead antibody, SVN001, was derived from these efforts.

Antibody Drug Candidates – We have created functional antibodies that modulate GPCRs and ion channels, two classes of targets that have proven difficult to address using conventional antibody discovery approaches.

SVN001

SVN001 is an ion channel blocking antibody which is potentially the first therapeutic antibody against this target class. SVN001 targets an ion channel, Kv1.3, which has been implicated in a number of different autoimmune disorders including rheumatoid arthritis, psoriasis and multiple sclerosis. By targeting a unique subset of immune cells, SVN001 is not believed to be broadly immunosuppressive, therefore potentially improving the safety profile compared to typical immunosuppressants. We are advancing SVN001 through preclinical development where it has demonstrated potent activity.

SVN002

SVN002 is a unique antibody against an oncology target that holds the potential to significantly impact highly metastatic tumors that are resistant to the class of drugs that target vascular endothelial growth factor, or VEGF. The target is highly expressed in clear cell renal carcinoma, where it is associated with poor prognosis. We are advancing SVN002 through preclinical development.

Factor 5A

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.

Scripps License

On August 8, 2014, our subsidiary Fabrus entered into a license agreement with The Scripps Research Institute, or Scripps, whereby Fabrus licensed from Scripps certain intellectual property related to Fabrus' antibody platforms. In consideration for the license, Fabrus will pay to Scripps an annual license fee in the low five figures as well as a running royalty equal to a rate in the low single digits on net sales of products that include the intellectual property licensed under the agreement. In addition, Fabrus is required to make certain cash payments to Scripps upon the achievement of certain significant product development milestones, such payments ranging from the low six figures to the low seven figures, depending upon the event.

SNS01-T for B-cell cancers

We have developed a therapeutic candidate, SNS01-T, for the potential treatment of B-cell cancers such as multiple myeloma and non-Hodgkin B-cell lymphomas. 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 small 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, by silencing the eIF5A gene, reduces expression of the hypusine form of Factor 5A that supports cell survival and proliferation. The silencing of the eIF5A gene by an eIF5A 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 the nanoparticle is taken up by the tumor cell, where the siRNA and DNA plasmid are released.

We have been granted orphan drug status for SNS01-T by the United States Food and Drug Administration, or FDA, for the potential treatment of multiple myeloma, mantle cell lymphoma, or MCL, and diffuse large B-cell lymphoma, or DLBCL, and are completing a Phase 1b/2a clinical study to assess the effects of SNS01-T in patients with these indications. The clinical study was an open-label, multiple-dose, dose-escalation study, which is evaluating the safety and tolerability of SNS01-T when administered by intravenous infusion in patients with relapsed or refractory multiple myeloma and non-Hodgkin B-cell lymphoma. The study design called for four cohorts of three to six patients each. Patients in each cohort received twice-weekly dosing for six weeks followed by up to a four-week safety data review period before escalating to a higher dose level in the next cohort.

While the primary objective of this study was to evaluate safety and tolerability, the effect of SNS01-T on tumor response and time to relapse or progression was also assessed using multiple well-established metrics including measurement of monoclonal protein in multiple myeloma and CT/PET imaging in MCL and DLBCL.

The study was performed at Mayo Clinic in Rochester, MN, the University of Arkansas for Medical Sciences in Little Rock, AR, the Mary Babb Randolph Cancer Center in Morgantown, WV, the John Theurer Cancer Center at Hackensack University Medical Center in Hackensack, NJ, the Seattle Cancer Care Alliance in Seattle, WA, the Pretoria East Hospital, in Pretoria, South Africa and the Groote Schuur Hospital in Cape Town, South Africa.

The results of the first three cohorts showed that SNS01-T met the criteria for Stable Disease at the end of treatment in 4 of the 10 evaluable patients. Review of the adverse events by the Data Review Committee concluded that SNS01-T showed sufficient safety and tolerability to permit escalation to the dose level in cohort 4. In August 2014, the safety portion of the study established a maximum tolerated dose following the reporting of a second dose limiting toxicity, or DLT, in the fourth and highest dosing cohort (0.375 mg/kg). The first DLT observed was a Grade 4 infusion reaction that occurred in a patient who had not received the designated pre-medications. The second DLT, an uncomplicated Grade 4 neutropenia, occurred after eight doses in a lymphoma patient. A total of eight patients were enrolled into cohort 4. With the completion of the high dose cohort, the trial has completed recruitment. All patients currently enrolled may continue treatment at the recommended cohort 3 dose level of 0.2 mg/kg and will be monitored through completion of their study treatment.

SNS01-T used in combination with other drugs

We have demonstrated in human multiple myeloma cell lines that there may be an additional benefit to combining SNS01-T with other approved myeloma drugs, such as bortezomib and lenalidomide. We have shown, in vitro, that these drugs are up to forty (40) times more effective in inhibiting cell growth when used in combination with SNS01-T. These results further reinforce the significance of our target and will guide us in designing future clinical studies. We have demonstrated that a high level of tumor eradication in a mouse model of human multiple myeloma was achieved with a combination of SNS01-T and lenalidomide. While SNS01-T alone performed well by completely eliminating tumors in 40% of the animals, complete tumor eradication was achieved in five out of six or 83% of the treated animals that received SNS01-T combined with the optimal study dose of lenalidomide. This effect lasted throughout 6 weeks of observation after the end of treatment. Neither dose of lenalidomide used alone eliminated tumors in any of the treated mice. Most recently, we have demonstrated the benefits of combining SNS01-T with bortezomib. In a mouse model of human multiple myeloma, SNS01-T as a monotherapy achieved 59% tumor growth inhibition, which exceeded that of bortezomib alone at either the 0.2 mg/kg dose (22% inhibition) or at the 0.5 mg/kg dose (39% inhibition). However, the combination of SNS01-T with 0.5 mg/kg of bortezomib resulted in 89% tumor inhibition, which was significantly more effective than either SNS01-T or bortezomib alone.

We have demonstrated that the combination of lenalidomide and SNS01-T performs better than either treatment alone in mouse xenograft models of human mantle cell lymphoma. When SCID mice, implanted with an aggressive human mantle cell lymphoma cell line (JVM2), were treated with either 15 mg/kg lenalidomide (5 times weekly by intra-peritoneal injection) or 0.375 mg/kg SNS01-T (twice weekly by intravenous injection) there was a growth delay of 4 days and 14 days, respectively. Mice treated with a combination of both drugs using the same dose levels and dosing regimens exhibited a tumor growth delay of 27 days (p value = 0.0008).

The median survival of mice treated with control nanoparticles was 21 days. Mice treated with lenalidomide or SNS01-T had a median survival of 28 days (33 % increase) and 37 days (76 % increase), respectively. Mice treated with the drug combination had a median survival of 52 days, an increase in survival of 148 %. Survival analysis using the Kaplan-Meier method revealed that treatment of mice with the drug combination resulted in statistically significant increases in survival compared to both SNS01-T (p value = 0.002) and lenalidomide (p value = 0.007) alone. We believe that the results of these studies not only support moving forward in multiple myeloma, but also support extending our clinical evaluation of SNS01-T in other B-cell cancers.

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 where tumor cells do not respond to immune system signals 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.

We anticipate that we may enter into a collaboration with a biotechnology or pharmaceutical company to support the further development of SNS01-T after we complete our Phase 1b/2a clinical trial in multiple myeloma, MCL and DLBCL. However, there can be no assurance that we will be able to enter into such a collaboration or that one will be available on terms satisfactory to us.

Human Therapeutic Research Program

Our antibody research program consists of preclinical in vitro and in vivo experiments aimed at discerning the role of inhibition of the Kv1.3 ion channel with SVN001. These experiments show potent (sub-nanomolar) activities against human T-cells in regard to inhibiting pro-inflammatory cytokine release, for example TNFa, IL-17, granzyme B as well as T-cell activation and proliferation. Biochemical studies indicate the feasibility of manufacturing and formulation for subcutaneous administration in future studies. Our second antibody, SVN002, blocks a key pathway in angiogenesis and could be useful in treating solid tumors, particularly clear cell renal cell carcinoma, which is highly angiogenic and ultimately develops resistance to VEGF inhibitors. In vitro and in vivo experiments are designed to assess the activity of SVN002 on angiogenic signaling pathways and tumor inhibitory activity. Planned future research for SVN001 and SVN002 includes further in vitro and in vivo mechanistic and toxicology studies to support an investigational new drug or IND application.

Our human gene-regulation 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 Phase 1b/2a clinical trial, was performed by third party researchers, at our direction, at Criterium, our contract research organization and the University of Waterloo and other facilities. Additionally, we outsource certain projects, such as our clinical trial, to other third party research organizations.

On September 1, 1998, we entered into, and have extended through August 31, 2015, a research and development agreement with the University of Waterloo and Dr. Thompson as the principal inventor. The Research and Development Agreement provides that the University of Waterloo will perform research and development under our direction, and we will pay for the cost of this work and make certain payments to the University of Waterloo. In return for payments made under the Research and Development Agreements, we have all rights to the intellectual property derived from the research.

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

- Multiple Myeloma, Mantle Cell Lymphoma and Diffuse Large B-Cell Lymphoma. Complete our Phase 1b/2a clinical trial by October 2014.

- We may consider targeting cancers in other tissues by modifying the structure of SNS01-T, e.g., liver cancer.

- We are exploring the use of our Factor 5A technology in other disease applications in oncology and inflammation.

In order to pursue the above research initiatives, as well as other research initiatives that may arise, we will use our cash reserves as of June 30, 2014. 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 or all 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 eIF5A^{K50R}; an 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, we entered into a supply agreement with VGXI, Inc., or VGXI, under which VGXI will supply us with the plasmid portion of the Company's combination therapy, hereinafter referred to as the VGXI Product. The agreement has an initial term that commenced on the date of the agreement and runs for a period of five (5) years, which has been extended through March 2015. Our financial obligation under the agreement is dependent upon the amount of VGXI Product ordered by the Company.

On June 30, 2008, we 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 commenced 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.

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:

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

- Developing in-house production and marketing capabilities.

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

There are many large companies working in the therapeutic antibody field including Genentech, Inc., Amgen, Inc., Biogen Idec, Inc., Novartis AG, Janssen Biotech, Inc., Sanofi-aventis U.S. LLC, Regeneron Pharmaceuticals, Inc., Bristol-Myers Squibb Company, Teva Pharmaceutical Industries Ltd., Pfizer, Inc., Takeda Pharmaceutical Company Limited, Kyawa Hokko Kirin Pharma, Inc., Daiichii Sankyo Company Limited, Astellas Pharma Inc., Merck & Co. Inc., AbbVie, Inc., Seattle Genetics, Inc., and Immunogen, Inc.. Similarly, there are several small companies developing technologies for antibody discovery, including Adimab LLC, X-body Biosciences, Inc., Innovative Targeting Solutions, Inc., Heptares Therapeutics Ltd, Kymab Ltd, and Novimmune SA. Other companies are working on unique scaffolds, including Ablynx NV and ArGen-X N.V. Additionally, there are many large companies and development stage companies working in the field of apoptosis and B-cell cancer research including Celgene, Inc., Takeda/Millennium, ONYX Pharmaceuticals, Inc., Amgen Inc., Janssen Biotech, Inc., Novartis AG, and Pharmacyclics, Inc.

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 is focused 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. We may continue to license this technology, as opportunities arise, to additional strategic partners and/or enter into joint collaborations or ventures.

Agricultural Development and License Agreements

We previously entered into several development and license agreements with certain licensees. Below is a summary of the activity that has occurred with each licensee during the fiscal year ended June 30, 2014:

Bayer CropScience ("Bayer")

In 2006, we licensed our technology to Bayer to enhance canola yields and in 2007 for rice and cotton. Although considerable progress had been made by Bayer, continuing research on eIF5A and DHS did not achieve Bayer's commercial performance requirements and was deprioritized from Bayer's portfolio of technologies. Therefore, in November 2013, we received notice from Bayer that it has decided not to further pursue applications of our eIF5A and DHS technology to enhance the yields of cotton, rice and Brassica (canola) and returned the rights to do so to us.

Monsanto Company ("Monsanto")

In 2007, we licensed our technology to Monsanto to enhance corn and soy yields. Monsanto developed several constructs and has performed field trials on those constructs. However, those constructs did not meet Monsanto's commercial performance. Therefore, in July 2014, we received notice from Monsanto that unless there are further developments in our technology, it has decided not to further produce additional transgenic plants incorporating our technology to enhance the yields of corn and soy.

Rahan Meristem ("Rahan")

In 1999, we entered into a joint collaboration agreement with Rahan, which was converted into a license agreement in 2012, to develop a banana with enhanced shelf-life and disease resistance using our Lipase, DHS and eiF5A. Rahan has achieved positive results for shelf life and disease resistance and is continuing to work with our technology.

BioCorp Ventures, LLC (“BCV”)

On May 14, 2013, we entered into a research and development agreement with BCV, to evaluate our eIF5A technology platform for the development of plants and plant products suitable for use in the production of biofuel and biofuel feedstock, including all species of algae and all species in the genus Miscanthus (perennial grasses).

On May 15, 2014, BCV was in breach of the agreement. Specifically, BCV did not make the payment required or issue our equity interest to us on the due date. On June 19, 2014, we sent BCV a notice of breach. As such breach had not been cured by July 19, 2014, the Agreement was terminated in its entirety.

The Scotts Company ("Scotts")

In March 2004, we licensed our technology to the Scotts Company to enhance bloom yield, biomass and stress tolerance of ornamental plants and turf grass. Scotts has performed field trials and is continuing to work with our technology.

Arborgen, LLC ("Arborgen")

In June 2006, we licensed our technology to ArborGen to enhance the growth of certain species of trees. ArborGen has seen strong enhancement of growth in greenhouse-grown seedlings and in its initial field trials. However, these initial enhancements began to fade over successive years of growth in the field. While they still have field trials in process, they have indicated to us that they do not anticipate continuing future development efforts.

Cal/West Seeds

In September 2002, we entered into an exclusive development and license agreement with Cal/West Seeds to commercialize our technology in certain varieties of alfalfa. In 2013, Cal/West Seeds became Alforex and was sold to Dow AgroSciences. Recently, Dow informed us that for budgetary reasons, they will not pursue regulatory approval of the enhanced alfalfa and will be discontinuing future development efforts.

As a result of the activity that has occurred during the fiscal year ended June 30, 2014, we are unable to determine the probability of any of our current partners or potential future partners developing or commercializing a product containing our technology.

Intellectual Property

We have thirty-one (31) issued patents from the United States Patent and Trademark Office, or PTO, and seventy-seven (77) issued patents from foreign countries. Of our one hundred and eight (108) domestic and foreign issued patents, sixty-eight (68) are for the use of our technology in agricultural applications and forty (40) relate to human therapeutics applications.

In addition to our one hundred and eight (108) 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.

Additionally, we have entered into royalty bearing license agreements whereby we license certain worldwide patent rights. The licenses provide for the payment of an annual maintenance fee, milestone payments upon our achievement of certain milestones and royalty payments based on net sales of a product containing technology covered by the patent rights.

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. Our agricultural patents are generally set to expire in 2019 in the United States and 2025 outside the United States.

On June 13, 2013, the Supreme Court of the United States of America ruled that naturally-occurring DNA sequences are unpatentable since they are products of nature. The Court further fund that cDNA sequences, which are copies of non-intron containing mRNA sequences created in the laboratory, are patent eligible. We believe that the Supreme Court ruling has little impact on our patent portfolio overall and no impact on our human patents, which do not rely on claims on naturally-occurring DNA sequences. SNS01-T comprises two synthetic constructs, siRNA and a DNA plasmid, which are protected by composition of matter and method of use patent claims.

During our 2014, 2013 and 2012 fiscal years, 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.

Government Regulation

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.

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.

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.

Employees

We have thirteen (13) employees, four (4) of whom are executive officers and who are involved in our management and we also have eight (8) consultants. Additionally, we are performing funded research at the University of Waterloo, and other commercial research facilities.

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

- Greg Adams, Ph.D., is an Associate Professor and a Co-Leader of the Developmental Therapeutics Program at the Fox Chase Cancer Center. Dr. Adams heads an active research group focused on developing engineered antibodies

using phage display and knowledge-based (rational) design. His current research is focused on developing antibodies and antibody-drug conjugates for the treatment of breast and ovarian cancers, characterizing the properties required for efficient tumor-targeting by engineered antibody-based molecules and the detection of circulating tumor antigens using piezoelectric immuno-nanocantilevers. He graduated with a Ph.D. in Immunology from the University of California at Davis, where he researched preclinical tumor targeting with radiolabelled monoclonal antibodies, focusing on the interactions between the antibodies and receptors on the liver. Dr. Adams also serves on the scientific advisory boards of Symphogen A/S, Viventia Bio, Inc., Endo Health Solutions, Inc. (Oncology Advisory Board), Avipep Pty Ltd. and Avid Biologics, Inc. and has served in the past on the advisory boards of YM Biosciences, Inc., Arana Therapeutics Limited, Absalus, Inc. and Xerion Pharmaceuticals AG. Dr. Adams is a member of the Editorial Boards of Cancer Immunology Research, MAbs and Cancer Biotherapy Radiopharmaceuticals and recently rotated off of the editorial board of Cancer Research.

- Tom Boone, was responsible for discovery and protein engineering as Vice Present and Global head of Proteins Sciences at Amgen, Inc. for 28 years. He was responsible for moving many molecules in to the clinic, including several approved drugs such as Neupogen, Prolia/Xgeva, N-plate etc. His expertise is in protein engineering, production, purification and process development from the bench scale to the clinical grade materials.

- Richard A. Lerner, M.D., served as President of The Scripps Research Institute, a private, non-profit biomedical research organization, from 1986 until 2011 and is currently serving as an institute professor. He is well known for major discoveries in antibody biology and engineering, including development of antibody phage display tehnology. Dr. Lerner is a member of numerous scientific associations, including the National Academy of Sciences and the Royal Swedish Academy of Sciences. Dr. Lerner serves as director of Sequenom, Inc. (Nasal: SQNM), a life sciences company. He is also on the Board of Directors for OPKO Health, Inc., Intra-Cellular Therapies, Inc., a privately held biotechnology company, and the board of Teva Pharmaceutical Industries Ltd. (NYSE:TEVA). He previously served as a director of Kraft Foods, Inc. and Xencor, Inc., a biotechnology company, and on the Siemens' Advisory Board for Molecular Medicine of Siemens AG.

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 founder and Vice President. 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 negative thereof or other variations thereon or comparable terminology, or by discussions of strategy that involve risks and uncertainties. In particular, our statements regarding the anticipated growth in the markets for our technologies, the continued advancement of our research, the approval of our patent applications, the possibility of governmental approval in order to sell or offer for sale to the general public a genetically engineered plant or plant product, the successful implementation of our commercialization strategy, including the success of our human therapeutic partners, statements relating to our patent applications, the anticipated long term growth of our business, the results of our preclinical or clinical studies, if any, the quotation of the Company’s common stock on an over-the-counter securities market, 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 ability to integrate the Fabrus science and operations, our ability to continue as a going concern, our ability to recruit patients for its clinical trial, 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 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 biotechnology industry, 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, fluctuations in the market price of our common stock, our dividend policy and potential for our stockholders to be diluted.

ITEM 1A: Risk Factors

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

Risks Related to Our Business

Recurring losses and negative cash flows from operations raise substantial doubt about our ability to continue as a going concern and we may not be able to continue as a going concern.

Our recurring losses from operations and negative cash flows from operations raise substantial doubt about our ability to continue as a going concern and as a result, our independent registered public accounting firm included an explanatory paragraph in its report on our consolidated financial statements for the fiscal year ended June 30, 2014. Substantial doubt about our ability to continue as a going concern may create negative reactions to the price of the common shares of our stock and we may have a more difficult time obtaining financing.

We have prepared our financial statements on a going concern basis, which contemplates the realization of assets and the satisfaction of liabilities and commitments in the normal course of business. The financial statements do not include any adjustments relating to the recoverability and classification of recorded asset amounts or amounts of liabilities that might be necessary should we be unable to continue in existence.

However, as of June 30, 2014, we believe we have enough cash to fund operations through at least March 31, 2015.

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 $88,280,266 at June 30, 2014. 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.

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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 at least through March 31, 2015.

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 limited number of technologies and, if our technologies are not commercially successful, we will have no alternative source of revenue.

Our primary business is the development and licensing of technology to (i) discover and engineer monoclonal antibodies and (ii) 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 much 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 much of our research and development activities. At this time, we have limited 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, 2014, we had a cash balance of $6,111,340 and working capital of $5,399,227. Using our available reserves as of June 30, 2014, we believe that we can operate according to our current business plan at least through March 31, 2015.

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:

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- 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 we will 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, 2014, we had 476,643,652 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 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.

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As of June 30, 2014, we have been issued thirty-one (31) patents by the PTO and seventy-seven (77) 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. In addition, we have licensed certain antibody technology from The Scripps Research Institute, or Scripps, pursuant to a license agreement dated August 8, 2014. If we are in breach of this license agreement, and Scripps elects to terminate the agreement, this termination could have a material adverse effect to our business in the future.

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.

The current patent landscape surrounding siRNA technology is unclear due to the recent proliferation of siRNA-related patent litigation and grants of third-party patents encompassing this technology. 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. We require all employees to disclose and assign to us the rights to their ideas, developments, discoveries and inventions. All of the current employees have also entered into Non-disclosure, Non-competition and Invention Assignment Agreements. 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. 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 are in the process of combining the assets and operations of Fabrus into our company, which will increase our infrastructure and reporting burden.

The integration of the business and assets of Fabrus is of critical importance to our future success. The success of the integration will depend, in a large part, on our ability to realize the anticipated benefits, including synergies, cost savings, innovation and operational efficiencies, from combining Fabrus and Senesco. To realize these anticipated benefits, these businesses must be successfully integrated. The failure to integrate successfully and to manage successfully the challenges presented by the integration process may prevent us from achieving the anticipated benefits of this acquisition. Any difficulties in successfully integrating these businesses, or any delays in the integration process, could adversely affect our business, financial results and financial condition.

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 industry 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.

There are many large companies working in the therapeutic antibody field and similarly may develop technologies related to antibody discovery. These companies include Genentech, Inc., Amgen, Inc., Biogen Idec, Inc., Novartis AG, Janssen Biotech, Inc., Sanofi-aventis U.S. LLC, Regeneron Pharmaceuticals, Inc., Bristol-Myers Squibb Company, Teva Pharmaceutical Industries Ltd, Pfizer, Inc., Takeda Pharmaceutical Company Limited, Kyawa Hokko Kirin Pharma, Inc., Daiichi Sankyo Company Limited, Astellas Pharma, Inc., Merck & Co. Inc., AbbVie, Inc., Seattle Genetics, Inc., and Immunogen, Inc.. Similarly, there are several small companies developing technologies for antibody discovery, including Adimab LLC, X-body Biosciences, Inc., Innovative Targeting Solutions, Inc., Heptares Therapeutics Ltd, Kymab Ltd., and Novimmune SA. Other companies are working on unique scaffolds, including Ablynx NV and ArGen-X N.V.

Many human therapeutic companies are engaged in research and development activities relating to apoptosis and senescence. 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. Some of our competitors that are involved in apoptosis research include: Celgene Corporation; Takeda/Millennium; ONYX Pharmaceuticals, Inc.; Amgen Inc.; Janssen Biotech, Inc.; Novartis AG; and Pharmacyclics, Inc. Many of these competitors have substantially greater financial, marketing, sales, distribution and technical resources than us and have more experience in research and development, clinical trials, regulatory matters, manufacturing and marketing. We anticipate increased competition in the future as new companies enter the market and new technologies become available. Our technology may be rendered obsolete or uneconomical by technological advances or entirely different approaches developed by one or more of our competitors, which will prevent or limit our ability to generate revenues from the commercialization of our technology.

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

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

- the 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.

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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.

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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 candidates have 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, except for our Chief Executive Officer, 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, 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

Penny stock regulations may impose certain restrictions on marketability of our securities.

The SEC has adopted regulations which generally define a "penny stock" to be any equity security that has a market price of less than $5.00 per share or an exercise price of less than $5.00 per share, subject to certain exceptions. As a result, our common stock is subject to rules that impose additional sales practice requirements on broker dealers who sell such securities to persons other than established customers and accredited investors (generally those with assets in excess of $1,000,000 or annual income exceeding $200,000, or $300,000 together with their spouse). For transactions covered by such rules, the broker dealer must make a special suitability determination for the purchase of such securities and have received the purchaser's written consent to the transaction prior to the purchase. Additionally, for any transaction involving a penny stock, unless exempt, the rules require the delivery, prior to the transaction, of a risk disclosure document mandated by the SEC relating to the penny stock market. The broker dealer must also disclose the commission payable to both the broker dealer and the registered representative, current quotations for the securities and, if the broker dealer is the sole market maker, the broker dealer must disclose this fact and the broker dealer's presumed control over the market.

Finally, monthly statements must be sent disclosing recent price information for the penny stock held in the account and information on the limited market in penny stocks. Broker-dealers must wait two business days after providing buyers with disclosure materials regarding a security before effecting a transaction in such security. Consequently, the "penny stock" rules restrict the ability of broker dealers to sell our securities and affect the ability of investors to sell our securities in the secondary market and the price at which such purchasers can sell any such securities, thereby affecting the liquidity of the market for our common stock.

Stockholders should be aware that, according to the SEC, the market for penny stocks has suffered in recent years from patterns of fraud and abuse. Such patterns include:

- control of the market for the security by one or more broker-dealers that are often related to the promoter or issuer;
- manipulation of prices through prearranged matching of purchases and sales and false and misleading press releases;
- "boiler room" practices involving high pressure sales tactics and unrealistic price projections by inexperienced sales persons;
- excessive and undisclosed bid-ask differentials and markups by selling broker-dealers; and

- the wholesale dumping of the same securities by promoters and broker-dealers after prices have been manipulated to a desired level, along with the inevitable collapse of those prices with consequent investor losses.

Our management is aware of the abuses that have occurred historically in the penny stock market.

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, 2014, our executive officers and directors together beneficially own approximately 31% of the outstanding shares of our common stock, assuming the exercise of options and warrants which are currently exercisable or will become exercisable within 60 days of June 30, 2014, held by these stockholders. Additionally, there are four shareholders that each beneficially own more than 5% of the outstanding shares of our common stock. 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, 2014, we had 13,846,361 shares of our common stock issued and outstanding and 580 shares of convertible preferred stock outstanding which can convert into 290,000 shares of common stock. 5,194,494 shares are registered pursuant to registration statements on Forms S-1 or S-3 or are either eligible to be sold under SEC Rule 144 or are in the public float. An additional 1,746,666 shares will become eligible to be sold under SEC Rule 144 on August 21, 2014 and the remaining 6,905,201 shares will become eligible to be sold under SEC Rule 144 on November 16, 2014. In addition, we have registered 1,876,722 shares of our common stock underlying warrants previously issued and still outstanding and we registered 1,845,976 shares of our common stock underlying options granted or to be granted under our stock option plans. 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 currently quoted on the OTCQB Marketplace, operated by the OTC Markets Group, or OTCQB, and our common stock currently has a limited trading market. We cannot assure you that an active trading market will develop or, if developed, will be maintained. As a result, our stockholders may find it difficult to dispose of shares of our common stock and, as a result, may suffer a loss of all or a substantial portion of their investment.

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

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

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

For example, during the fiscal year ended June 30, 2014, our common stock traded between $1.90 and $7.00 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, 2014, we have outstanding 580 shares of convertible preferred stock which may convert into 290,000 shares of our common stock and warrants to purchase 7,237,774 shares of our common stock. In addition, as of June

30, 2014, we have reserved 1,845,976 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 146,236 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 is also subject to certain anti-dilution adjustments.

Item 1B. Unresolved Staff Comments.

None.

Item 2. Properties.

Effective May 19, 2011, we lease office space in Bridgewater, New Jersey for a current monthly rental fee of $6,032. The lease expires on November 30, 2014. Additionally, we lease laboratory space in La Jolla, California on a month to month basis for a current monthly rental fee of $14,875.The office and laboratory space is in good condition, and we believe they will adequately serve as our headquarters and laboratory over the term of the lease. We also believe that the office and laboratory space is adequately insured by the lessors.

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. Mine Safety Disclosures.

None.

PART II

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

Our common stock currently trades on the OTCQB Marketplace under the symbol SNTI.

The following table sets forth, for each of the quarters since the quarter ended September 30, 2012, the range of the high and low bid information or sales price, as applicable, for our common shares quoted on the OTCQB Marketplace or the NYSE MKT, as applicable. The prices in the table represent prices between dealers and do not include adjustments for retail mark-up, markdown or commission and may not represent actual transactions.

Quarter Ended	Common Stock	
	High	Low
September 30, 2012	$32.00	$17.20
December 31, 2012	$23.00	$11.39
March 31, 2013	$17.00	$8.00
June 30, 2013	$9.00	$2.00
September 30, 2013	$7.00	$1.90
December 31, 2013	$6.35	$3.00
March 31, 2014	$6.09	$3.03
June 30, 2014	$3.69	$2.40

As of September 15, 2014, the approximate number of holders of record of our common stock was 272**.** 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.

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The following table provides information about the securities authorized for issuance under our equity compensation plans as of June 30, 2014.

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	979,304	(1)	$ 9.49	856,672	(2)
Equity compensation plans not approved by security holders	—		—	—	
Total	979,304	(1)	$ 9.49	856,672	(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 graph below matches the Company's cumulative 5-Year total shareholder return on common stock with the cumulative total returns of the NYSE MKT Composite index and the RDG MicroCap Biotechnology index. The graph tracks the performance of a $100 investment in our common stock and in each index (with the reinvestment of all dividends) from 6/30/2009 to 6/30/2014.

	6/09	6/10	6/11	6/12	6/13	6/14
Senesco Technologies, Inc.	100.00	37.95	33.73	25.06	3.25	3.37
NYSE MKT Composite	100.00	129.08	158.87	150.97	154.48	208.87
RDG MicroCap Biotechnology	100.00	103.21	106.22	125.11	102.93	91.09

The stock price performance included in this graph is not necessarily indicative of future stock price performance.

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

	Fiscal Year Ended June 30,				
	2014	2013	2012	2011	2010
	(In thousands, except per share data)				
Statement of Operations Data:					
Revenue	$100	$-	$200	$-	$140
Operating expenses:					
General and administrative	3,683	2,500	2,724	2,610	2,349
Research and development	3,339	2,086	3,566	2,720	2,637
Acquisition related costs	545	-	-	-	-
Impairment of patents	1,351	-	-	-	-
Write off of patents abandoned	330	64	321	1,588	-
Total operating expenses	9,248	4,650	5,611	7,918	4,986
Loss from operations	(9,148)	(4,650)	(5,411)	(7,918)	(4,846)
Grant income	-	-	-	244	-
Fair value – warrant liability	-	371	472	609	2,517
Other noncash expense	-	-	-	(116)	-
Loss on extinguishment of debt	-	(1,725)	-	-	(362)
Amortization of debt discount and financing costs	-	-	-	-	(10,081)
Interest expense – convertible notes	-	-	-	-	(587)
Interest expense, net	(77)	(119)	(127)	(88)	(24)
Net loss	(9,225)	(6,123)	(5,066)	(7,269)	(13,383)
Preferred dividends	(4,629)	(863)	(1,626)	(2,638)	(6,240)
Net loss available to common shares	$(13,854)	$(6,986)	$(6,692)	$(9,907)	$(19,623)
Basic and diluted net loss per common share	$(2.53)	$(5.11)	$(7.81)	$(14.29)	$(67.40)

Basic and diluted weighted average number of common shares outstanding	5,477	1,366	857	693	291
Balance Sheet Data:					
Cash and cash equivalents	$6,111	$1,602	$2,001	$3,610	$8,026
Working capital	5,399	310	387	1,788	6,002
Total assets	33,335	7,097	6,955	8,597	13,912
Accumulated deficit	(88,280)	(74,426)	(67,440)	(60,748)	(50,841)
Total stockholders' equity	27,490	3,786	3,453	4,517	7,981

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 do not expect to generate significant revenues for several years, during which time we will engage in significant research and development efforts.

Our protein biologics technology comprises (i) a platform to discover and engineer human antibodies directly on the cell surface, (ii) antibodies derived from cows that contain ultralong binding regions that may be useful in binding certain therapeutic epitopes, and (iii) a chimerasome nanocage capable of encapsulating therapeutic payloads for drug delivery.

Our preclinical antibody development program comprises an antibody against the ion channel Kv1.3, which is an important molecule in regulating T-cell activation in a number of autoimmune diseases. We have performed experiments showing that this antibody potently blocks activation of human T-cells *in vitro*. Future development efforts will include a Phase I clinical trial.

Our human therapeutic research program, which has consisted of clinical and 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, at our direction, at our laboratory, the University of Waterloo and other commercial research facilities.

We have developed a therapeutic candidate, SNS01-T, for the potential treatment of multiple myeloma, mantle cell lymphoma and diffuse large b-cell lymphoma and have been granted orphan drug status for SNS01-T by the FDA for

the potential treatment of multiple myeloma, mantle cell lymphoma and diffuse large B-cell lymphoma.

We have completed a Phase 1b/2a clinical study with SNS01-T in multiple myeloma, mantle cell and diffuse large b-cell lymphoma patients. The clinical study was an 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 called for four cohorts of three to six patients each. Patients in each cohort received twice-weekly dosing for six weeks followed by a safety data review period before escalating to a higher dose level in the next cohort. While the primary objective of the initial study was to evaluate safety and tolerability, the effect of SNS01-T on tumor response was also evaluated using multiple, well-established criteria including measurement of the monoclonal protein, or M-protein.

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

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, the estimated volatility of our stock price over the expected term and the probability of achievement of any performance goals that may be required to be achieved in order for the stock options to vest. 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 any performance goals that may be required to be achieved in order for the stock options to vest, 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.

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Patent Costs

We test patent costs 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, 2014, we determined that market value of our agricultural patent costs was less than its carrying value. Therefore, we recorded an impairment for the full carrying value of the agricultural patent costs at June 30, 2014.

Goodwill and Intangible Assets

Goodwill represents the excess of purchase price over the fair value of net assets acquired by the Company. Goodwill is not amortized, but assessed for impairment on an annual basis or more frequently if impairment indicators exist. The impairment model prescribes a two-step method for determining impairment.

The first step compares a reporting unit's fair value to its carrying amount to identify potential goodwill impairment. If the carrying amount of a reporting unit exceeds the reporting unit's fair value, the second step of the impairment test must be completed to measure the amount of the reporting unit's goodwill impairment loss, if any. Step two requires an assignment of the reporting unit's fair value to the reporting unit's assets and liabilities to determine the implied fair value of the reporting unit's goodwill. The implied fair value of the reporting unit's goodwill is then compared with the carrying amount of the reporting unit's goodwill to determine the goodwill impairment loss to be recognized, if any. For the year ended June 30, 2014, the Company determined that there was no impairment to goodwill.

Intangible assets include in-process research and development (IPR&D) of pharmaceutical product candidates. IPR&D are considered indefinite-lived intangible assets and are assessed for impairment annually or more frequently if impairment indicators exist. If the associated research and development effort is abandoned, the related assets will be written-off and the Company will record a non-cash impairment loss on its consolidated statement of operations. For those compounds that reach commercialization, the IPR&D assets will be amortized over their estimated useful lives. For the year ended June 30, 2014, the Company determined that there was no impairment to IPR&D.

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.

Impairment of intangible assets

We assess the impairment in value of intangible assets at least annually or sooner if circumstances indicate that their carrying value may not be recoverable. Factors we consider important which could trigger an impairment review include the following:

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

If a triggering event occurs and if our review determines that the future undiscounted cash flows related to the groups, including these assets, will not be sufficient to recover their carrying value, we will reduce the carrying values of these assets down to its estimate of fair value.

Liquidity and Capital Resources

Overview

For the fiscal year ended June 30, 2014, net cash of $4,868,133 was used in operating activities primarily due to a net loss of $9,225,234 which was reduced by non-cash expenses of $3,327,661 and by changes in operating assets and liabilities in the amount of $1,029,440.

The $1,029,440 change in operating assets and liabilities was the result of a decrease in prepaid research supplies and expenses in the amount of $868,837 and an increase in accounts payable and accrued expenses in the amount of $160,603 due to the timing of expenses and payments.

During the fiscal year ended June 30, 2014, cash provided by investing activities amounted to $646,937. The Company received $1,274,662 in cash from the acquisition of Fabrus, Inc., which was partially reduced by $627,725 of patent costs incurred and fixed assets purchased.

Cash provided by financing activities during the fiscal year ended June 30, 2014 amounted to $8,730,243, which comprises $10,917,325 as a result of the issuance of common stock and warrants and the exercise of certain warrants, offset by the repayment and cancellation of the line of credit in the amount of $2,187,082.

As of June 30, 2014, our cash balance totaled $6,111,340, and we had working capital of $5,399,227.

Capital Resources

During the fiscal year ended June 30, 2014, we received $100,000 under our license and development agreements. We have not been profitable since inception, we will continue to incur additional operating losses in the future, and we will require additional financing to continue the development and subsequent commercialization of our technology. While we do not expect to generate significant revenues from the licensing of our technology for 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

In October 2013, we issued an aggregate of 690,000 shares of common stock for gross proceeds in the amount of $1,725,000 and net proceeds in the amount of $1,560,770.

In December 2013, we issued an aggregate of 1,800,000 shares of common stock and 5,400,000 warrants in a public offering for gross proceeds in the amount of $5,400,000 and net proceeds in the amount of $5,278,236.

In February 2014, we amended certain warrants issued in December 2013 to reduce the exercise price from $4.00 to $2.00 per share. In connection with this amendment, certain of these warrants were exercised, resulting in gross proceeds in the amount of $3,493,332.

Additionally, during the year ended June 30, 2014, we received additional gross proceeds in the amount of $585,289 from the exercise of warrants.

Contractual Obligations

The following table lists our cash contractual obligations as of June 30, 2014:

	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][2]	$796,708	$717,508	$ 79,200	$ —	$ —
Facility, Rent and Operating Leases	$30,160	$30,160	$ —	$ —	$ —
Employment and Consulting Agreements	$1,286,860	$1,286,860	$ —	$ —	$ —
Total Contractual Cash Obligations	$2,113,728	$2,034,528	$ 79,200	$ —	$ —

(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) Certain of our agreements provide for automatic renewal, which is 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 Phase 1b/2a clinical trial for the treatment of multiple myeloma, MCL and DLBCL. The agreement, as amended, has an initial term that commences on the date of the agreement and runs for a period of thirty-nine (39) months. Our remaining financial obligation under the agreement, as amended, is estimated to be $210,000 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 Phase 1b/2a clinical trial for the treatment of multiple myeloma, MCL and DLBCL. 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. The cost per patient is not included in the above table.

Effective September 1, 2014, we extended our research and development agreement with the University of Waterloo for an additional one-year period through August 31, 2015, in the amount of CAD $475,200, or approximately USD $475,000. Effective March 1, 2014, the budget for the research and development agreement was amended to increase the monthly amount from $30,950 to $39,600 through August 31, 2014. The agreement automatically renews for successive one-year terms unless terminated 180 days prior to renewal. Research and development expenses under this agreement for the fiscal years ended June 30, 2014, 2013 and 2012 aggregated USD $413,220, USD $628,995 and USD $573,368, respectively, and USD $8,191,516 for the cumulative period through June 30, 2014. Future obligations to be paid under the agreement through August 31, 2015 equal approximately U.S. $554,400.

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On May 16, 2014, the Company entered into a retention agreement with the former Chief Executive Officer and current President of the Company, providing for certain severance benefits in the event of certain terminations of employment with the Company. Pursuant to the terms of the retention agreement, if, during the one-year period following the effective date of the retention agreement the employee (i) is terminated without cause, (ii) resigns for good reason or (iii) is not offered the position of "Chief Executive Officer" of the Company and the employee resigns within 30 days of the expiration of such one year period, the employee would receive (a) a lump sum cash payment equal to his target bonus plus his annual base salary for the year in which such event occurs, (b) COBRA benefits for one year beginning on the first day of the month following such event and (c) reimbursement of life-insurance costs for one year following such event. Moreover, if in connection with a change of control transaction, the employee's employment is terminated or he resigns for good cause, the employee would receive (a) a lump sum cash payment equal to his target bonus plus two times his annual base salary for the year in which such event occurs and (b) COBRA benefits for two years beginning on the first day of the month following such event. Additionally, in connection with the occurrence of any of the triggering events described above, the employee's outstanding equity awards would become fully vested and exercisable and would remain exercisable until the expiration of each equity award's maximum term. The estimated value of the retention agreement is approximately $293,000 if for one year or $586,000 if for two years.

On June 25, 2014, the Company entered into an employment agreement with the current Chief Executive Officer, providing for certain severance benefits in the event of certain terminations of employment with the Company. Pursuant to the terms of the employment agreement, if, during the one-year period following the effective date of the employment agreement the employee, (i) is terminated without cause or (ii) resigns for good reason (each a "Qualifying Termination"), the employee would receive (a) a lump sum cash payment in an amount equal to 18 months' salary, calculated at the rate of his then current Base Salary, (b) COBRA benefits for 18 months beginning on the first day of the month following such Qualifying Termination and (c) reimbursement of life-insurance costs for 18 months following such Qualifying Termination. If the employee undergoes a Qualifying Termination after the one-year period following the effective date of the Employment Agreement, the employee would receive (a) a lump sum cash payment in an amount equal to 12 months' salary, calculated at the rate of his then current Base Salary, (b) COBRA benefits for 12 months beginning on the first day of the month following such Qualifying Termination and (c) reimbursement of life-insurance costs for 12 months following such Qualifying Termination. Moreover, if in connection with a change of control transaction, the employee is terminated or he resigns for good cause, the employee would receive (a) a lump sum cash payment in an amount equal to 24 months' salary, calculated at the rate of his then current Base Salary, (b) COBRA benefits for 24 months beginning on the first day of the month following such Qualifying Termination and (c) reimbursement of life-insurance costs for 24 months following such Qualifying Termination. Additionally, in connection with the occurrence of any of the triggering events described above, the employee's outstanding equity awards would become fully vested and exercisable and would remain exercisable until the expiration of the equity award's maximum term. The estimated value of the employment agreement in the event is approximately $317,000 if for one year, $475,000 if for eighteen months or $634,000 if for two years.

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.

We anticipate that, based upon our current cash balance at June 30, 2014, we will be able to fund our operations at least through March 31, 2015.

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

- by utilizing our current cash balance and investments,
- by raising capital through the placement of equity or debt instruments, and
- by raising capital through the execution of additional licensing agreements for our technology.

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, 2014

On May 16, 2014 we acquired Fabrus, Inc., or Fabrus. Accordingly, the results of operations for the fiscal year ended June 30, 2014 include the accounts of Fabrus for the period from May 16, 2014 through June 30, 2014.

Revenue

During the fiscal year ended June 30, 2014, we earned revenue in the amount of $100,000, which consisted of a milestone payment in connection with an agricultural license agreement.

We did not earn any revenue during the fiscal year ended June 30, 2013

Operating expenses

	Fiscal Year Ended June 30,			
	2014	2013	Change	%
General and administrative	$3,683,350	$2,499,624	$1,183,726	47.4 %
Research and development	3,338,687	2,086,666	1,252,021	60.0 %
Acquisition related costs	544,978	-	544,978	-
Impairment of patents	1,350,591	-	1,350,591	-
Write-off of patents abandoned	330,190	64,210	265,980	414.2%
Total operating expenses	$9,247,796	$4,650,500	$4,597,296	98.9 %

Due to the acquisition of Fabrus, we expect cash operating expenses to increase over the next 12 months as we anticipate that research and development 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:

	Fiscal Year ended June 30,			
	2014	2013	Change	%
Stock-based compensation	$1,185,118	$639,828	$545,290	85.2 %
Payroll and benefits	622,421	594,456	27,965	4.7 %
Investor relations	731,749	103,816	627,933	604.9%
Professional fees	277,712	475,274	(197,562)	(41.6)%
Depreciation and amortization	333,465	293,629	39,836	13.6 %
Consultants	216,869	35,594	181,275	509.3%
Other general and administrative expenses	316,016	357,027	(41,011)	(11.5)%
Total general and administrative expenses	$3,683,350	$2,499,624	$1,183,726	47.4 %

- Stock-based compensation for the fiscal years ended June 30, 2014 and June 30, 2013 consisted of the amortized portion of the Black-Scholes value of options, restricted stock units and warrants granted to directors, employees and consultants. During the fiscal years ended June 30, 2014 and 2013, 778,480 and 89,670 options, respectively, were granted to such individuals.

Stock-based compensation for the fiscal year ended June 30, 2014 was higher than the fiscal year ended June 30, 2013 primarily due to more options being issued during the fiscal year ended June 30, 2014. Additionally, 105,000 shares of common stock were issued in connection with certain consulting agreements during the year ended June 30, 2014.

- Payroll and benefits for the fiscal year ended June 30, 2014 was higher than for the fiscal year ended June 30, 2013, primarily due to separating the position of CEO and President effective May 16, 2014.

- Investor relations fees for the fiscal year ended June 30, 2014 was higher than for the fiscal year ended June 30, 2013 primarily as a result of a new investor relations program started in October 2013, the termination of an investor relations consulting agreement in September 2013 and a special meeting of stockholders held in August 2013.

- Professional fees for the fiscal year ended June 30, 2014 was lower than for the fiscal year ended June 30, 2013 primarily as a result of a decrease in legal fees as, during the fiscal year ended June 30, 2014 it was not necessary to address certain items that were being addressed during the fiscal year ended June 30, 2013.

- Depreciation and amortization for the fiscal year ended June 30, 2014 was higher than for the fiscal year ended June 30, 2013 primarily as a result of an increase in amortization of patent costs.

- Consulting fees for the fiscal year ended June 30, 2014 were higher than for the fiscal year ended June 30, 2013 primarily due to certain financial advisory agreements entered into during the fiscal year ended June 30, 2014.

- Other general and administrative expenses for the fiscal year ended June 30, 2014 were lower than for the fiscal year ended June 30, 2013 primarily due to a decrease in cash director fees, which was partially offset by an increase in insurance and conferences.

We expect cash-based general and administrative expenses to increase over the next twelve months.

Research and development expenses

Fiscal Year Ended June 30,

	2014	2013	Change	%
Stock-based compensation	$112,106	$84,865	$27,241	32.1 %
Phase 1b/2a clinical trial	2,170,160	1,035,079	1,135,081	109.7%
Research contract with the University of Waterloo	413,220	628,997	(215,777)	34.3 %
Payroll	297,872	174,360	123,512	70.8 %
Other research and development	345,329	163,365	81,964	111.4%
Total research and development	$3,338,687	$2,086,666	$1,252,021	60.0 %

- Stock-based compensation for the fiscal year ended June 30, 2014 was higher than the fiscal year ended June 30, 2013 primarily due to the number of options granted during the fiscal year ended June 30, 2014 being higher than the fiscal year ended June 30, 2013.

- The cost of the Phase 1b/2a clinical trial for the fiscal year ended June 30, 2014 was higher than for the fiscal year ended June 30, 2013 primarily due to the number of patients being treated and the number of sites treating patients during the fiscal year ended June 30, 2014 being higher than for the fiscal year ended June 30, 2013.

- The cost associated with the research contract with the University of Waterloo for the fiscal year ended June 30, 2014 was lower than for the fiscal year ended June 30, 2013 primarily due to a decrease in amount being funded for agricultural and human health research at this site.

- Payroll for the fiscal year ended June 30, 2014 was higher than for the fiscal year ended June 30, 2013 primarily as a result of an increase in the number of employees effective with the Fabrus acquisition on May 16, 2014.

- Other research and development costs for the fiscal year ended June 30, 2014 were higher than for the fiscal year ended June 30, 2013 primarily due to costs to run the laboratory in connection with the acquisition of Fabrus on May 16, 2014.

We expect our research and development costs to increase as we continue our current research projects, incorporate the Fabrus research projects for and begin new human therapeutic initiatives

Impairment of patents

During the year ended June 30, 2014, we determined that the carrying cost of our agricultural patents exceeded the expected future undiscounted cash flows. Accordingly, we recorded an impairment of the agricultural patents for the fully net carrying cost of $1,350,591.

Write-off of patents abandoned

During the fiscal years ended June 30, 2014 and June 30, 2013, 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 amounts of $330,190 and $64,210, respectively.

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Fiscal Year ended June 30, 2013

Revenue

We did not earn any revenue during the fiscal year ended June 30, 2013.

During the fiscal year ended June 30, 2012, we earned revenue in the amount of $200,000, which consisted of a milestone payment in connection with an agricultural license agreement.

Operating expenses

	Fiscal Year Ended June 30,			
	2013	2012	Change	%
General and administrative	$2,499,624	$2,724,144	$(224,520)	(8.2)%
Research and development	2,086,666	2,566,247	(479,581)	(18.7)%
Write-off of patents abandoned	64,210	321,137	(256,927)	(80.0)%
Total operating expenses	$4,650,500	$5,611,528	$(961,028)	(17.1)%

General and administrative expenses

General and administrative expenses consist of the following:

	Fiscal Year ended June 30,			
	2013	2012	Change	%
Stock-based compensation	$639,828	$721,197	$(81,369)	(11.3)%
Payroll and benefits	594,456	588,407	6,049	1.0 %
Investor relations	103,816	203,871	(100,055)	(49.0)%
Professional fees	475,274	518,473	(43,199)	(8.3)%
Director fees	62,375	44,625	17,750	39.8 %
Depreciation and amortization	293,629	258,023	35,606	13.8 %

Other general and administrative expenses	330,246	389,548	(59,302)	(15.2)%
Total general and administrative expenses	$2,499,624	$2,724,144	$(224.520)	(8.2)%

. Stock-based compensation for the fiscal years ended June 30, 2013 and June 30, 2012 consisted of the amortized portion of the Black-Scholes value of options, restricted stock units and warrants granted to directors, employees and consultants. During the fiscal years ended June 30, 2013 and 2012, 8,966,978 and 5,274,428 options, respectively, were granted to such individuals.

Stock-based compensation for the fiscal year ended June 30, 2013 was lower than the fiscal year ended June 30, 2012 primarily due to management’s assessment of the probability of the vesting of the goal based options granted during the fiscal year ended June 30, 2013 being lower than for the fiscal year ended June 30, 2012. Additionally, the options granted during the fiscal year ended June 30, 2012, vested at a lower percentage than had been estimated at June 30, 2012. Therefore, stock-based compensation for the fiscal year ended June 30, 2013 was further reduced.

- Payroll and benefits for the fiscal year ended June 30, 2013 was higher than for the fiscal year ended June 30, 2012, primarily as a result of a 401K contribution made during the fiscal year ended June 30, 2012. There was no 401K contribution during the fiscal year ended June, 2013. This was partially offset by salary increases effective July 1, 2012.

- Investor relations fees for the fiscal year ended June 30, 2013 was lower than for the fiscal year ended June 30, 2012 primarily as a result of lower consultant fees.

- Professional fees for the fiscal year ended June 30, 2013 was lower than for the fiscal year ended June 30, 2012 primarily as a result of a decrease in legal and accounting fees. Legal fees decreased primarily due to higher discounts received during the fiscal year ended June 30, 2013 and a decrease in fees incurred in connection with the exploration of alternative uses of our technology. Accounting fees decreased primarily due to the use of a consultant to prepare a valuation of the Company's intangible assets during the fiscal year ended June 30, 2012.

- Director fees for the fiscal year ended June 30, 2013 were higher than for the fiscal year ended June 30, 2012, primarily as a result of more meetings being held during the fiscal year ended June 30, 2013.

- Depreciation and amortization for the fiscal year ended June 30, 2013 was higher than for the fiscal year ended June 30, 2012 primarily as a result of an increase in amortization of patent costs.

- Other general and administrative expenses for the fiscal year ended June 30, 2013 were lower than for the fiscal year ended June 30, 2012 primarily due to a decrease in conferences and travel, office supplies, state taxes and transfer agent fees.

Research and development expenses

	Fiscal Year Ended June 30,			
	2013	2012	Change	%
Stock-based compensation	$84,865	$44,807	$40,058	8.9 %
Phase 1b/2a clinical trial	1,035,079	1,101,775	(66,696)	(6.1)%
Research contract with the University of Waterloo	628,997	573,368	55,629	9.7 %
Payroll	174,360	167,834	6,526	3.9 %
Other research and development	163,365	678,463	(515,098)	(75.9)%
Total research and development	$2,086,666	$2,566,247	$(479,581)	(18.7)%

- Stock-based compensation for the fiscal year ended June 30, 2013 was higher than the fiscal year ended June 30, 2012 primarily because the number of options granted during the fiscal year ended June 30, 2013 was higher than the

fiscal year ended June 30, 2012.

- The cost associated with the research contract with the University of Waterloo for the fiscal year ended June 30, 2013 were higher than for the fiscal year ended June 30, 2012 primarily due to an increase in amount being funded for human health research.

- Payroll for the fiscal year ended June 30, 2013 was higher than for the fiscal year ended June 30, 2012 primarily as a result of a salary increases effective July 1, 2012.

- Other research and development costs for the fiscal year ended June 30, 2013 was lower than for the fiscal year ended June 30, 2012 primarily due to a decrease in the costs in connection with agricultural research programs and formulation studies.

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

	Fiscal Year ended June 30,					
	2013	%		2012	%	
Agricultural research programs	$53,566	3	%	$279,736	11	%
Human therapeutic research programs	2,033,100	97	%	2,286,511	89	%
Total research and development expenses	$2,086,666	100	%	$2,566,247	100	%

- Agricultural research expenses for the fiscal year ended June 30, 2013 were lower than for the fiscal year ended June 30, 2012 primarily due to a reduction in the funding for agricultural research at the University of Waterloo and the amendment to the Rahan Meristem agreement for the development of bananas. Effective January 1, 2012, we amended the Rahan Meristem agreement whereby we no longer incur costs related to such development.

- Human therapeutic research expenses for the fiscal year ended June 30, 2013 were lower than for the fiscal year ended June 30, 2012 primarily as a result of the timing of certain aspects of the development of our drug candidate, SNS01-T, for treating multiple myeloma. Specifically, during the nine months ended March 31, 2012, we incurred costs related to the formulation of SNS01-T, which we did not incur during the nine months ended March 31, 2013.

Write-off of patents abandoned

During the fiscal years ended June 30, 2013 and June 30, 2012, 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 amounts of $64,210 and $321,137, respectively.

Other non-operating income and expense

Change in fair value of warrant liability

The amounts represent the change in the fair value of the warrant liability for the fiscal years ended June 30, 2013 and 2012. During the fiscal year ended June 30, 2013 the fair value of the warrant liability decreased due to the expiration of certain warrants and a decrease in the Black-Scholes values of the remaining warrants as the expected term was shorter in 2013 and there was greater disparity between the market price of our common stock and the exercise price of the warrants.

Loss on settlement of warrant liabilities

During the fiscal year ended June 30, 2013, certain warrants that were recorded as liabilities were exchanged for common stock. The loss on the settlement of warrant liabilities represents the fair value of the common stock received by the warrant holders less the Black-Scholes value of the warrants exchanged on the date of the exchange.

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

Our exposure to market risks for interest rate changes is not significant. Interest rates on our short-term debt are subject to change, however, the effect of interest rate changes would not be material.

Our investments in cash represent 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, 2014. In making this assessment, management used the criteria established in *Internal Control-Integrated Framework* issued in 1992 by the Committee of Sponsoring Organizations of the Treadway Commission, or COSO.

Based on this assessment, management has concluded that, as of June 30, 2014 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, 2014 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 2014 Annual Meeting of Stockholders to be filed with the SEC 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 2014 Annual Meeting of Stockholders to be filed with the SEC 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 2014 Annual Meeting of Stockholders to be filed with the SEC 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 2014 Annual Meeting of Stockholders to be filed with the SEC 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 2014 Annual Meeting of Stockholders to be filed with the SEC is incorporated herein by reference to such proxy statement.

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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 58.

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 29th day of September, 2014.

SENESCO TECHNOLOGIES, INC.

By: /s/ Ronald Martell
Ronald Martell, 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 29 , 2014
/s/ Ronald Martell Ronald Martell	Chief Executive Officer and Director (principal executive officer)	September 29, 2014
/s/ Joel Brooks Joel Brooks	Chief Financial Officer, Secretary and Treasurer (principal financial and accounting officer)	September 29, 2014
/s/ Vaughn M. Smider, M.D. Vaughn Smider, M.D.	Chief Scientific Officer and Director	September 29, 2014
/s/ John Braca John Braca	Director	September 29, 2014
/s/ Christopher Forbes Christopher Forbes	Director	September 29, 2014
/s/ Phillip Frost, M.D. Phillip Frost, M.D.	Director	September 29, 2014
/s/ Steven Rubin Steven Rubin	Director	September 29, 2014
/s/ David Rector David Rector	Director	September 29, 2014

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.)
2.3	Agreement and Plan of Merger and Reorganization, dated as of May 16, 2014, by and among Senesco Technologies, Inc., Senesco Fab Acquisition Corporation and Fabrus, Inc. (Incorporated by reference to Exhibit 2.1 of Senesco Technologies, Inc. current report on Form 8-K filed on May 19, 2014.)
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	Certificate of Amendment to the Amended and Restated Certificate of Incorporation of Senesco Technologies, Inc. filed with the State of Delaware on December 22, 2011. (Incorporated by reference to Exhibit 3.1 to Senesco Technologies, Inc. quarterly report on Form 10-Q for the period ended December 31, 2011.)
3.6	Certificate of Amendment to the Amended and Restated Certificate of Incorporation of Senesco Technologies, Inc. filed with the State of Delaware on April 1, 2013. (Incorporated by reference to Exhibit 3.1 to Senesco Technologies, Inc. quarterly report on Form 10-Q for the period ended March 31, 2013.)
3.7	Certificate of Amendment to the Company's Amended and Restated Certificate of Incorporation, as filed with the Secretary of State of the State of Delaware on October 16, 2013. (Incorporated by reference to Exhibit 3.1

of Senesco Technologies, Inc. current report on Form 8-K filed on October 21, 2013).

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Exhibit No.	Description of Exhibit
3.8	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.)
3.9	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.)
4.1	Form of Series FA Warrant issued on May 16, 2014. (Incorporated by reference to Exhibit 4.1 of Senesco Technologies, Inc. current report on Form 8-K filed on May 19, 2014.)
4.2	Form of Series FB Warrant issued on May 16, 2014. (Incorporated by reference to Exhibit 4.2 of Senesco Technologies, Inc. current report on Form 8-K filed on May 19, 2014.)
4.3	Form of Series FC Warrant issued on May 16, 2014. (Incorporated by reference to Exhibit 4.3 of Senesco Technologies, Inc. current report on Form 8-K filed on May 19, 2014.)
4.4	Form of Series FD Warrant issued on May 16, 2014. (Incorporated by reference to Exhibit 4.4 of Senesco Technologies, Inc. current report on Form 8-K filed on May 19, 2014.)
4.5	Form of Series FE Warrant issued on May 16, 2014. (Incorporated by reference to Exhibit 4.5 of Senesco Technologies, Inc. current report on Form 8-K filed on May 19, 2014.)
4.6	Form of December 2013 Series A Warrant. (Incorporated by reference to Exhibit 4.1 of Senesco Technologies, Inc. current report on Form 8-K filed on December 12, 2013.)
4.7	Form of December 2013 Series B Warrant (Incorporated by reference to Exhibit 4.2 of Senesco Technologies, Inc. current report on Form 8-K filed on December 12, 2013.)
4.8	Form of Amended and Restated December 2013 Series B Warrant. (Incorporated by reference to Exhibit 4.1 of Senesco Technologies, Inc. current report on Form 8-K filed on February 27, 2014.)
4.9	Form of December 2013 Series C Warrant (Incorporated by reference to Exhibit 4.3 of Senesco Technologies, Inc. current report on Form 8-K filed on December 12, 2013.)
4.10	Form of Series B Warrant issued to Partlet Holdings Ltd. (Incorporated by reference to Exhibit 4.2 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.)

Exhibit No.	Description of Exhibit
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.)
4.13	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.)
4.14	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.)
4.15	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.)
4.16	Form of Warrant (Incorporated by reference to Exhibit 4.1 of Senesco Technologies, Inc. current report on Form 8-K filed on January 9, 2012.)
4.17	Form of Warrant (Incorporated by reference to Exhibit 4.1 of Senesco Technologies, Inc. current report on Form 8-K filed on March 2, 2012.)
4.18	Form of Warrant Clarification Letter (Incorporated by reference to Exhibit 4.16 of Senesco Technologies, Inc. annual report on Form 10-K for the period ended June 30, 2012.)
4.19	Form of January 2013 Warrant (Incorporated by reference to Exhibit 4.1 of Senesco Technologies, Inc. current report on Form 8-K filed on January 4, 2013.)
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 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.)
10.3	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.)
10.4	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.)

Exhibit No.	Description of Exhibit
10.5	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.)
10.6 †	Indemnification Agreement by and between Senesco Technologies, Inc. and Phillip Frost, M.D. dated as of May 16, 2014. (Filed herewith.)
10.7 †	Indemnification Agreement by and between Senesco Technologies, Inc. and Vaughn Smider dated as of May 16, 2014. (Filed herewith.)
10.8 †	Indemnification Agreement by and between Senesco Technologies, Inc. and Steven Rubin dated as of May 16, 2014. (Filed herewith.)
10.9 †	Indemnification Agreement by and between Senesco Technologies, Inc. and James Graziano dated as of May 16, 2014. (Filed herewith.)
10.10 †	Indemnification Agreement by and between Senesco Technologies, Inc. and Miguel de los Rios dated as of May 16, 2014. (Filed herewith.)
10.11 †	Indemnification Agreement by and between Senesco Technologies, Inc. and Joel Brooks dated as of May 25, 2010. (Filed herewith.)
10.12 †	Indemnification Agreement by and between Senesco Technologies, Inc. and John E. Thompson, Ph.D. dated as of May 25, 2010. (Filed herewith.)
10.13 †	Indemnification Agreement by and between Senesco Technologies, Inc. and Richard Dondero dated as of May 25, 2010. (Filed herewith.)
10.14 †	Indemnification Agreement by and between Senesco Technologies, Inc. and Ronald A. Martell dated as of June 25, 2014. (Filed herewith.)

Exhibit No.	Description of Exhibit
10.15*	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.)
10.16*	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.)
10.17*	Amendment # 8 to Consulting Agreement of July 12, 1999, as modified, by and between Senesco, Inc. and John E. Thompson, Ph.D., dated June 20, 2013. (Incorporated by reference to Senesco Technologies, Inc. annual report on Form 10-K for the period ended June 30, 2013.)
10.18 †*	Amendment # 9 to Consulting Agreement of July 12, 1999, as modified, by and between Senesco, Inc. and John E. Thompson, Ph.D., dated June 20, 2014. (Filed herewith.)
10.19 +	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.)
10.20 +	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.)
10.21 +	Development and License Agreement by and between Senesco Technologies, Inc. and Calwest Seeds, dated September 14, 2002. (Incorporated by reference to Exhibit 10.1 of Senesco Technologies, Inc. quarterly report on Form 10-QSB for the period ended September 30, 2002.)
10.22 +	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.)
10.23 +	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.)
10.24 +	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.)

Exhibit No.	Description of Exhibit
10.25	Biofuels Evaluation and License Agreement by and between BioCorp Ventures LLC, Senesco Technologies, Inc. and Senesco, Inc. dated May 14, 2013. (Incorporated by reference to Exhibit 10.24 of Senesco Technologies, Inc. annual report on Form 10-K/A for the period ended June 30, 2013.)
10.26 †	Notice of Termination of Biofuels Evaluation and License Agreement by and between BioCorp Ventures LLC, Senesco Technologies, Inc. and Senesco, Inc. dated August 13, 2014. (Filed herewith.)
10.27+	Amended and Restated Agreement by and between Rahan Meristem (1998) LTD., Senesco Technologies, Inc. and Senesco, Inc. dated December 22, 2011. (Incorporated by reference to Exhibit 10.1 of Senesco Technologies, Inc. quarterly report on Form 10-Q for the period ended December 31, 2011.)
10.28 †++	License Agreement by and between Fabrus, Inc. and The Scripps Research Institute, dated August 8, 2014. (Filed herewith.)
10.29	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.)
10.30	Amendment to Research Agreement by and among the University of Waterloo, Senesco, Inc., and Dr. John E. Thompson, Ph.D., dated June 11, 2012. (Incorporated by reference to Exhibit 10.31 of Senesco Technologies, Inc. annual report on Form 10-K for the period ended June 30, 2012.)
10.31	Amendment to Research Agreement by and among the University of Waterloo, Senesco, Inc. and Dr. John E. Thompson, Ph.D., dated September 1, 2012. (Incorporated by reference to Exhibit 10.32 of Senesco Technologies, Inc. annual report on Form 10-K for the period ended June 30, 2012.)
10.32	Amendment to Research Agreement by and among the University of Waterloo, Senesco, Inc. and Dr. John E. Thompson, Ph.D., dated May 16, 2013. (Incorporated by reference to Exhibit 10.29 of Senesco Technologies, Inc. annual report on Form 10-K for the period ended June 30, 2013.)
10.33	Amendment to Research Agreement by and between the University of Waterloo, Dr. John Thompson, Ph.D. and Senesco, Inc., dated as of March 1, 2014 (incorporated by reference to Senesco Technologies, Inc. quarterly report on Form 10-Q for the period ended March 31, 2014.)
10.34 +	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
10.35	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.)
10.36	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.)
10.37	Master Services Agreement by and between Criterium, Inc. and Senesco Technologies, Inc. dated June 20, 2011. (Incorporated by reference to Exhibit 10.35 of Senesco Technologies, Inc. annual report on Form 10-K for the period ended June 30, 2011.)
10.38	Clinical Trial Research Agreement by and between Mayo Clinic and Senesco Technologies, Inc. dated August 15, 2011. (Incorporated by reference to Exhibit 10.36 of Senesco Technologies, Inc. annual report on Form 10-K for the period ended June 30, 2011.)
10.39	Form of Securities Purchase Agreement, dated as of December 11, 2013 (Incorporated by reference to Exhibit 10.1 of Senesco Technologies, Inc. current report on Form 8-K filed on December 12, 2013.)
10.40	Form of Securities Purchase Agreement, dated as of September 30, 2013 (Incorporated by reference to Exhibit 10.1 of Senesco Technologies, Inc. current report on Form 8-K filed on October 1, 2013.)
10.41	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.)
10.42	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.)
10.43	Notice of extension of sublease agreement by and between Norris, McLaughlin & Marcus, P.A., as Sublandlord, and Senesco Technologies, Inc., as Subtenant, dated November 26, 2012. (Incorporated by reference to Senesco Technologies, Inc. annual report on Form 10-K for the period ended June 30, 2013.)
10.44 †	Notice of extension of sublease agreement by and between Norris McLaughlin & Marcus, P.A., as Sublandord, and Senesco Technologies, Inc., as Subtenant, dated July 14, 2014 (Filed herewith.)
10.45 *	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.)

Exhibit No.	Description of Exhibit
10.46*	Amended and Restated Senesco Technologies, Inc. 2008 Incentive Compensation Plan (Incorporated by reference to Exhibit 10.3 of Senesco Technologies, Inc. quarterly report on Form 10-Q for the period ended March 31, 2014.)
10.47*	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.)
10.48*	Retention Policy. (Incorporated by reference to Exhibit 10.1 of Senesco Technologies, Inc. current report on Form 8-K filed on October 9, 2012.)
10.49*	Employment Agreement, dated as of June 25, 2014, by and between Senesco Technologies, Inc. and Ronald A. Martell. (Incorporated by reference to Exhibit 10.1 of Senesco Technologies, Inc. current report on Form 8-K filed on June 27, 2014.)
10.50*	Retention Agreement, dated as of May 16, 2014, by and between Senesco Technologies, Inc. and Leslie J. Browne, Ph.D. (Incorporated by reference to Exhibit 10.1 of Senesco Technologies, Inc. current report on Form 8-K filed on May 19, 2014.)
10.51	Form of Series B Warrant Amendment Agreement, dated as of February 21, 2014. (Incorporated by reference to Exhibit 10.1 of Senesco Technologies, Inc. current report on Form 8-K filed on February 27, 2014.)
10.52	Form of Series A Warrant Amendment Agreement, dated as of June 13, 2014. (Incorporated by reference to Exhibit 10.1 of Senesco Technologies, Inc. current report on Form 8-K filed on June 16, 2014.)
10.53	Form of Series FA Warrant Amendment Agreement, dated as of June 13, 2014. (Incorporated by reference to Exhibit 10.1 of Senesco Technologies, Inc. current report on Form 8-K filed on June 16, 2014.)
21.1 †	Subsidiaries of the Registrant (filed herewith).
23.1 †	Consent of McGladrey 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.

Exhibit No.	Description of Exhibit
101.1 †	Financial Statements from the Annual Report on Form 10-K of Senesco Technologies, Inc. for the fiscal year ended June 30, 2014, filed on September 29, 2014, formatted in XBRL (i) the Consolidated Balance Sheets, (ii) the Consolidated Statements of Operations, (iii) the Consolidated Statements of Stockholders' Equity, (iv)the Consolidated Statements of Cash Flows and (v) the Notes to the Consolidated Financial Statements.

* 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.

++ Portions of this Exhibit have been redacted pursuant to a confidential treatment request filed with the SEC.

SENESCO TECHNOLOGIES, INC.

AND SUBSIDIARIES

CONSOLIDATED FINANCIAL STATEMENTS

JUNE 30, 2014

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INDEX TO CONSOLIDATED FINANCIAL STATEMENTS

SENESCO TECHNOLOGIES, INC AND SUBSIDIARIES

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 Subsidiaries as of June 30, 2014 and June 30, 2013, and the related consolidated statements of operations, stockholders' equity and cash flows for each of the three years in the period ended June 30, 2014. 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 audits 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 Subsidiaries as of June 30, 2014 and June 30, 2013, and the results of their operations and their cash flows for each of the three years in the period ended June 30, 2014, in conformity with U.S. generally accepted accounting principles.

The accompanying financial statements have been prepared assuming that the Company will continue as a going concern. As discussed in Note 1 to the financial statements, the Company has suffered recurring losses from operations, generated minimal revenues, and continues to incur significant expenses that exceed revenue streams. This raises substantial doubt about the Company’s ability to continue as a going concern. Management’s plans in regard to these matters are also described in Note 1. The financial statements do not include any adjustments that might result from the outcome of this uncertainty.

/s/ McGladrey LLP

New York, New York

September 26, 2014

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SENESCO TECHNOLOGIES, INC. AND SUBSIDIARIES

CONSOLIDATED BALANCE SHEETS

	June 30, 2014	June 30, 2013
ASSETS		
CURRENT ASSETS:		
Cash and cash equivalents	$6,111,340	$1,602,294
Accounts receivable	43,133	-
Prepaid research supplies and expenses	1,069,925	1,919,220
Total Current Assets	7,224,398	3,521,514
Equipment, furniture and fixtures, net	223,475	4,555
Patents, net	2,178,867	3,566,497
Acquired research and development	9,800,000	-
Goodwill	13,902,917	-
Security deposit	5,171	5,171
TOTAL ASSETS	$33,334,828	$7,097,737
LIABILITIES AND STOCKHOLDERS' EQUITY		
CURRENT LIABILITIES:		
Accounts payable	$901,180	$637,320
Accrued expenses	923,991	387,540
Line of credit	-	2,187,082
Total Current Liabilities	1,825,171	3,211,942
Deferred tax liability	3,920,000	-
Other liabilities	99,728	99,728
TOTAL LIABILITIES	5,844,899	3,311,670
COMMITMENTS (Note 12)		
STOCKHOLDERS' EQUITY:		
Convertible preferred stock, $0.01 par value, authorized 5,000,000 shares Series A 10,297 shares issued and 580 and 800 shares outstanding, respectively (liquidation preference of $594,500 and $820,000 at June 30, 2014 and June 30, 2013, respectively)	6	8

Common stock, $0.01 par value, authorized 500,000,000 shares, issued and outstanding 13,846,361 and 2,272,062, respectively	138,463	22,721
Capital in excess of par	115,631,726	78,189,173
Accumulated deficit	(88,280,266)	(74,425,835)
Total Stockholders' Equity	27,489,929	3,786,067
TOTAL LIABILITIES AND STOCKHOLDERS' EQUITY	$33,334,828	$7,097,737

See Notes to Consolidated Financial Statements

SENESCO TECHNOLOGIES, INC. AND SUBSIDIARIES

CONSOLIDATED STATEMENTS OF OPERATIONS AND COMPREHENSIVE LOSS

	Fiscal Year Ended June 30,		
	2014	2013	2012
Licensing Revenue	$100,000	$-	$200,000
Operating expenses:			
General and administrative	3,683,350	2,499,624	2,724,144
Research and development	3,338,687	2,086,666	2,566,247
Acquisition related costs	544,978	-	-
Impairment of patents	1,350,591	-	-
Write-off of patents abandoned	330,190	64,210	321,137
Total operating expenses	9,247,796	4,650,500	5,611,528
Loss from operations	(9,147,796)	(4,650,500)	(5,411,528)
Other non-operating income (expense)			
Change in fair value of warrant liability	-	371,591	472,463
Loss on settlement of warrant liabilities	-	(1,724,546)	-
Interest expense - net	(77,438)	(119,087)	(127,068)
Net loss	(9,225,234)	(6,122,542)	(5,066,133)
Preferred dividends	(4,629,197)	(862,998)	(1,625,727)
Loss applicable to common shares	(13,854,431)	(6,985,540)	(6,691,860)
Other comprehensive loss	-	-	-
Comprehensive loss	$(13,854,431)	$(6,985,540)	$(6,691,860)
Basic and diluted net loss per common share	$(2.53)	$(5.11)	$(7.81)
Basic and diluted weighted-average number of common shares outstanding	5,476,717	1,366,384	857,033

See Notes to Consolidated Financial Statements

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SENESCO TECHNOLOGIES, INC. AND SUBSIDIARIES

CONSOLIDATED STATEMENT OF STOCKHOLDERS' EQUITY

	Preferred Stock		Common Stock		Capital in Excess	Accumulated	Stockholders'
	Shares	Amount	Shares	Amount	of Par Value	Deficit	Equity
Balance at June 30, 2011	4,890	$ 49	777,697	$7,777	$ 65,258,072	$(60,748,435)	$4,517,463
Issuance of common stock for cash, net	-	-	128,423	1,284	3,226,632	-	3,227,916
Preferred stock converted into common stock	(311)	(3)	11,786	118	(115)	-	-
Issuance of common stock as dividends	-	-	23,219	232	556,918	(434,898)	122,252
Deemed dividend - Preferred Stock	-	-	-	-	1,076,355	(1,076,355)	-
Fair market value of options and warrants vested	-	-	-	-	766,004	-	766,004
Accrued dividends	-	-	-	-	-	(114,474)	(114,474)
Net loss	-	-	-	-	-	(5,066,133)	(5,066,133)
Balance at June 30, 2012	4,579	46	941,125	9,411	70,883,866	(67,440,295)	3,453,028
Issuance of common stock for cash, net	-	-	721,872	7,219	4,037,444	-	4,044,663
Fair value of warrants issued	-	-	-	-	(459,000)	-	(459,000)
Preferred stock converted into common stock	(3,779)	(38)	202,846	2,029	(1,991)	-	-
	-	-	37,197	372	590,949	(476,847)	114,474

Issuance of common stock as dividends							
Issuance of common stock in exchange for warrants	-	-	369,022	3,690	1,720,856	-	1,724,546
Deemed dividend - preferred stock	-	-	-	-	366,151	(366,151)	-
Reclassification of warrant liability	-	-	-	-	326,205	-	326,205
Stock-based compensation	-	-	-	-	724,693	-	724,693
Accrued dividends	-	-	-	-	-	(20,000)	(20,000)
Net loss	-	-	-	-	-	(6,122,542)	(6,122,542)
Balance at June 30, 2013	800	8	2,272,062	22,721	78,189,173	(74,425,835)	3,786,067
Issuance of common stock and warrants for cash, net	-	-	2,490,000	24,900	6,814,106	-	6,839,006
Exercise of warrants for cash	-	-	1,941,956	19,419	4,059,202	-	4,078,621
Cash paid for fractional shares due to reverse split	-	-	(100)	(1)	(302)	-	(303)
Stock-based compensation	-	-	10,000	100	861,136	-	861,236
Issuance of common stock for services	-	-	123,750	1,238	434,750	-	435,988
Issuance of equity in the acquisition of Fabrus, Inc.			6,905,201	69,052	20,639,995	-	20,709,047
Preferred stock converted into common stock	(220)	(2)	73,333	733	(731)		-
Issuance of common stock as dividends	-	-	30,159	301	118,316	- (98,616)	20,001

Deemed dividend in conjunction with warrant amendments	-	-	-	-	4,516,081	(4,516,081)	-
Accrued dividends	-	-	-	-	-	(14,500)	(14,500)
Net loss	-	-	-	-	-	(9,225,234)	(9,225,234)
Balance at June 30, 2014	580	$ 6	13,846,361	$138,463	$ 115,631,726	$(88,280,266)	$27,489,929

See Notes to Consolidated Financial Statements

SENESCO TECHNOLOGIES, INC. AND SUBSIDIARIES

CONSOLIDATED STATEMENT OF CASH FLOWS

	Fiscal Year Ended June 30,		
	2014	2013	2012
Cash flows from operating activities:			
Net loss	$(9,225,234)	$(6,122,542)	$(5,066,133)
Adjustments to reconcile net loss to net cash used in operating activities:			
Noncash income related to change in fair value of warrant liability	-	(371,591)	(472,463)
Stock-based compensation expense	1,297,224	724,693	766,004
Depreciation and amortization	349,656	293,629	258,023
Write-off of patent costs	1,680,781	64,210	321,137
Loss on settlement of warrant liabilities	-	1,724,546	-
(Increase) decrease in operating assets, net of effects of acquisition:			
Prepaid expenses and other current assets	868,837	(370,696)	(102,460)
Security deposit	-	-	7,187
Increase (decrease) in operating liabilities, net of effects of acquisition:			
Accounts payable	(145,257)	42,806	34,989
Accrued expenses	305,860	112,319	(132,333)
Net cash used in operating activities	(4,868,133)	(3,902,626)	(4,386,049)
Cash flows from investing activities:			
Cash received on acquisition of Fabrus, Inc.	1,274,662	-	-
Patent costs	(624,532)	(527,761)	(446,035)
Purchase of equipment, furniture and fixtures	(3,194)	(1,281)	(4,461)
Net cash provided by (used in) investing activities	646,936	(529,042)	(450,496)
Cash flows from financing activities:			
Repayment of line of credit	(2,187,082)	(12,026)	-
Proceeds from issuance of common stock and warrants, net and exercise of warrants and options	10,917,325	4,044,663	3,227,916
Net cash provided by financing activities	8,730,243	4,032,637	3,227,916
Net increase (decrease) in cash and cash equivalents	4,509,046	(399,031)	(1,608,629)
Cash and cash equivalents at beginning of period	1,602,294	2,001,325	3,609,954
Cash and cash equivalents at end of period	$6,111,340	$1,602,294	$2,001,325
Supplemental disclosure of non-cash transactions:			
Conversion of preferred stock into common stock	$731	$202,808	$11,783
Allocation of common stock proceeds to warrants	-	459,000	-
Allocation of preferred stock proceeds to warrants and beneficial conversion feature	-	-	1,076,355
Issuance of common stock for dividend payments on preferred stock	67,541	591,321	557,153
Dividends accrued on preferred stock	14,500	20,000	114,474

Supplemental disclosure of cash flow information:			
Cash paid for interest	85,893	122,454	134,549
Supplemental disclosure of non-cash investing and financing transactions			
Issuance of common stock, warrants and options in connection with the acquisition of Fabrus, Inc.	20,709,047	-	-
Noncash Assets acquired:			
Accounts Receivable	43,133	-	-
Prepaid Expenses	19,542	-	-
Equipment	234,000	-	-
Acquired Research and Development	9,800,000	-	-
Goodwill	13,902,917	-	-
	23,999,592		
Liabilities assumed:			
Accounts Payable	409,117	-	-
Accrued Payroll	74,525	-	-
Accrued Expenses	161,565	-	-
Deferred Tax Liability	3,920,000		
	4,565,207		
Cash acquired in acquisition of Fabrus, Inc.	1,274,662	-	-

See Notes to Consolidated Financial Statements

SENESCO TECHNOLOGIES, INC. AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

1. Principal Business Activity:

The Company

Senesco Technologies, Inc. (the "Company"), which includes the accounts of Senesco, Inc., a New Jersey corporation ("SI") and Fabrus, Inc., a Delaware corporation ("Fabrus"), is a clinical-stage biotech company specializing in cancer therapeutics and immunological diseases driven by a unique combination of gene regulation, antibody therapeutics and nanocage delivery systems. Its proprietary gene regulation technology has demonstrated the ability to eliminate cancer cells and protect healthy cells from premature death. The antibody approach is a novel discovery paradigm with the proven capability to identify functional therapeutic monoclonal antibodies against challenging cell surface targets that previously have been highly resistant to therapeutic antibody discovery. The Company is completing a Phase 1b/2a trial with a product candidate that is designed to treat B-cell cancers, which include multiple myeloma, chronic lymphocytic leukemia, and non-Hodgkin's B-cell lymphomas. The Company has several antibodies in its preclinical pipeline. The first to move forward is a potentially first/best in class candidate antibody that targets an ion channel important in autoimmunity and inflammation.

Basis of Presentation

The accompanying financial statements have been prepared in conformity with accounting principles generally accepted in the United States of America (GAAP). Any reference in these notes to applicable guidance is meant to refer to the authoritative United States generally accepted accounting principles as found in the Accounting Standards Codification (ASC) and Accounting Standards Update (ASU) of the Financial Accounting Standards Board (FASB).

On May 16, 2014, the Company acquired all of the equity interest in Fabrus. Pursuant to the terms of the Merger Agreement, at the effective time of the merger (the "Merger"), a subsidiary of the Company merged with and into Fabrus, with Fabrus surviving the merger as a wholly-owned subsidiary of the Company. See note 3 for additional information.

Liquidity

The financial statements of the Company have been prepared on a going-concern basis, which contemplates the realization of assets and the satisfaction of liabilities in the normal course of business. Accordingly, the financial statements do not include any adjustments that might be necessary should the Company be unable to continue in existence. The Company has not generated substantial revenues and has not yet achieved profitable operations. There is no assurance that profitable operations, if ever achieved, could be sustained on a continuing basis. In addition, development activities, clinical and preclinical testing, and commercialization of the Company's products will require significant additional financing. The Company's accumulated deficit at June 30, 2014 totalled $88,280,266, and management expects to incur substantial and increasing losses in future periods. The success of the Company is subject to certain risks and uncertainties, including among others, uncertainty of product development; competition in the Company's field of use; uncertainty of capital availability; uncertainty in the Company's ability to enter into agreements with collaborative partners; dependence on third parties; and dependence on key personnel. The Company plans to finance future operations with a combination of proceeds from the issuance of common stock, licensing fees, and revenues from future product sales, if any. The Company has not generated positive cash flows from operations, and there are no assurances that the Company will be successful in obtaining an adequate level of financing for the development and commercialization of its planned products. These factors raise substantial doubt about the Company's ability to continue as a going concern. The Company does not have adequate cash on hand to cover its anticipated expenses for the next 12 months. If the Company fails to raise a significant amount of capital, it may need to significantly curtail operations, cease operations or seek federal bankruptcy protection in the near future. These conditions raise substantial doubt about its ability to continue as a going concern. Consequently, the audit report prepared by the Company's independent public accounting firm relating to its financial statements for the year ended June 30, 2014 includes a going concern explanatory paragraph.

SENESCO TECHNOLOGIES, INC. AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

As of June 30, 2014, the Company had cash and cash equivalents in the amount of $6,111,340, which consisted of checking accounts and money market funds. The Company estimates that its cash and cash equivalents will cover its expenses at least through March 31, 2015. In order to provide the Company with the cash resources necessary to fund operations through at least June 30, 2015, the Company will continue its efforts to raise additional capital through a private or public equity placement in the near future.

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.

The Company’s limited capital resources and operations to date have been funded primarily with the proceeds from public and private equity and debt financings and milestone payments on license agreements.

2. Summary of Significant Accounting Policies:

Principles of consolidation

The accompanying consolidated financial statements include the accounts of Senesco Technologies, Inc. and its wholly owned subsidiaries, Senesco, Inc. and Fabrus, Inc. All significant intercompany accounts and transactions have been eliminated in consolidation.

Management Estimates and Judgments

Management considers many factors in selecting appropriate financial accounting policies and controls, and in developing the estimates and assumptions that are used in the preparation of these financial statements. Management must apply significant judgment in this process. In addition, other factors may affect estimates, including expected business and operational changes, sensitivity and volatility associated with the assumptions used in developing estimates, and whether historical trends are expected to be representative of future trends. The estimation process often may yield a range of potentially reasonable estimates of the ultimate future outcomes and management must select an amount that falls within that range of reasonable estimates. This process may result in actual results differing materially from those estimated amounts used in the preparation of the financial statements if these results differ from historical experience, or other assumptions do not turn out to be substantially accurate, even if such assumptions are reasonable when made. In preparing these financial statements, management used significant estimates in the following areas, among others: stock-based compensation expense, the determination of the fair value of stock-based awards, the accounting for research and development costs and accrued expenses.

Business Combinations

The Company accounts for business combinations using the acquisition method of accounting in accordance with ASC Topic 805, *Business Combinations*. Identifiable assets acquired and liabilities assumed are recorded at their acquisition date fair values. Goodwill represents the excess of the purchase price over the fair value of identifiable assets and liabilities acquired as a result of the business combination. Acquisition-related costs, which amounted to $544,978 including advisory, legal, accounting, valuation and other costs, are expensed in the periods in which the costs are incurred.

SENESCO TECHNOLOGIES, INC. AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

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 its 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 the Company’s 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 carrying value of prepaid research supplies and expenses, accounts payable and accrued expenses reported in the consolidated balance sheets equal or approximate fair value due to their short maturities.

Concentrations of Credit Risk

The Company maintains its cash primarily in investment accounts within two large financial institutions. 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, Net

Equipment, furniture and fixtures are recorded at cost, except for the equipment acquired in the acquisition of Fabrus, which is recorded at fair value (see note 3). Depreciation is calculated on a straight-line basis over three to four years for office equipment, five years for lab equipment and five to seven years for furniture and fixtures. Expenditures for major renewals and improvements are capitalized, and expenditures for maintenance and repairs are charged to operations as incurred. (See note 5).

SENESCO TECHNOLOGIES, INC. AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

Patent Costs, Net

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 or the Company no longer is pursuing the issuance of a patent, the associated cost of that application would be written off. 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 the lessor of 17 years from inception, the expected economic life of the patent, or the remaining life of the patent from the time the costs are incurred. (See note 6).

Goodwill and Intangible Assets

Goodwill represents the excess of purchase price over the fair value of net assets acquired by the Company. Goodwill is not amortized, but assessed for impairment on an annual basis or more frequently if impairment indicators exist. The impairment model prescribes a two-step method for determining impairment.

The first step compares a reporting unit's fair value to its carrying amount to identify potential goodwill impairment. If the carrying amount of a reporting unit exceeds the reporting unit's fair value, the second step of the impairment test must be completed to measure the amount of the reporting unit's goodwill impairment loss, if any. Step two requires an assignment of the reporting unit's fair value to the reporting unit's assets and liabilities to determine the implied fair value of the reporting unit's goodwill. The implied fair value of the reporting unit's goodwill is then compared with the carrying amount of the reporting unit's goodwill to determine the goodwill impairment loss to be recognized, if any.

For the year ended June 30, 2014, the Company determined that there was no impairment to goodwill.

Intangible assets include in-process research and development (IPR&D) of pharmaceutical product candidates. IPR&D are considered indefinite-lived intangible assets and are assessed for impairment annually or more frequently if impairment indicators exist. If the associated research and development effort is abandoned, the related assets will be written-off and the Company will record a non-cash impairment loss on its consolidated statement of operations. For those compounds that reach commercialization, the IPR&D assets will be amortized over their estimated useful lives. For the year ended June 30, 2014, the Company determined that there was no impairment to IPR&D

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.

If a triggering event occurs and if the Company's review determines that the future undiscounted cash flows related to the groups, including 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.

Net Loss per Common Share

Basic loss per share is computed by dividing net loss available to common stockholders by the weighted average number of shares of the Company’s common stock, par value $0.01 per share (the “Common Stock”) 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 shares of Common Stock that would have been outstanding if the potential shares of Common Stock had been issued and if the additional shares of Common Stock were dilutive.

SENESCO TECHNOLOGIES, INC. AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

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 shares of Common Stock as follows:

	June 30, 2014	2013	2012
Common Stock to be issued upon conversion of convertible preferred stock	290,000	266,667	176,115
Outstanding warrants	7,237,774	283,156	572,260
Outstanding options	979,304	231,748	156,477
Total potentially dilutive shares of Common Stock	8,507,078	781,571	904,852

Income Taxes

Income taxes are recorded in accordance with ASC Topic 740, Income Taxes, which provides for deferred taxes using an asset and liability approach. The Company recognizes deferred tax assets and liabilities for the expected future tax consequences of events that have been included in the financial statements or tax returns. Deferred tax assets and liabilities are determined based on the difference between the financial statement and tax bases of assets and liabilities using enacted tax rates in effect for the year in which the differences are expected to reverse. Valuation allowances are provided, if based upon the weight of available evidence, it is more likely than not that some or all of the deferred tax assets will not be realized.

The Company accounts for uncertain tax positions in accordance with the provisions of ASC 740. When uncertain tax positions exist, the Company recognizes the tax benefit of tax positions to the extent that the benefit will more likely than not be realized. The determination as to whether the tax benefit will more likely than not be realized is based upon the technical merits of the tax position as well as consideration of the available facts and circumstances. As of June 30, 2014, the Company’s tax years prior to June 30, 2010 are no longer subject to examination by the tax authorities. The Company is not currently under examination by any U.S. federal or state jurisdictions. As of June 30, 2014 and 2013, the Company does not have any significant uncertain tax positions.

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, 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.

SENESCO TECHNOLOGIES, INC. AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

For stock options issued to employees, the Company estimates the grant-date fair value of each option using the Black-Scholes option-pricing model. The use of the Black-Scholes option pricing model requires management to make assumptions with respect to the expected term of the option, the expected volatility of the common stock consistent with the expected life of the option, risk-free interest rates, the value of the common stock and expected dividend yields of the common stock. For awards subject to service-based vesting conditions, the Company recognizes stock-based compensation expense, net of estimated forfeitures, equal to the grant date fair value of stock options on a straight-line basis over the requisite service period, which is generally the vesting term. For awards subject to both performance and service-based vesting conditions, the Company recognizes stock-based compensation expense using the straight-line recognition method when it is probable that the performance condition will be achieved. Forfeitures are required to be estimated at the time of grant and revised, if necessary, in subsequent periods if actual forfeitures differ from those estimates. Share-based payments issued to non-employees are recorded at their fair values, and are periodically revalued as the equity instruments vest and are recognized as expense over the related service period in accordance with the provisions of ASC 718 and ASC Topic 505, Equity.

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 fiscal years ended June 30, 2014, 2013 and 2012 and from inception to date.

	Fiscal Year Ended June 30,		
	2014	2013	2012
General and administrative	$1,185,118	$639,828	$721,197
Research and development	112,106	84,865	44,807
Total	$1,297,224	$724,693	$766,004

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

	Fiscal Year Ended June 30,		
	2014	**2013**	**2012**
Risk-free interest rate (1)	1.6 - 2.7%	0.3-0.8%	0.4-1.9%
Expected volatility	85 - 99%	67-102%	78-105%
Dividend yield	None	None	None
Expected life (2)	5.0 - 10.0	2.5 - 10.0	2.5 - 10.0

(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 which cannot be forecast with reasonable accuracy.

Research and Development

Research and development costs are charged to expense as incurred. These costs include, but are not limited to, employee-related expenses, including salaries, benefits and travel and stock-based compensation of the Company’s research and development personnel; expenses incurred under agreements with contract research organizations and investigative sites that conduct preclinical studies; facilities; other supplies; allocated facilities, depreciation and other expenses, which include rent and utilities; insurance; and costs associated with preclinical activities and regulatory operations.

SENESCO TECHNOLOGIES, INC. AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

Costs for certain development activities, such as clinical trials, are recognized based on an evaluation of the progress to completion of specific tasks using data such as subject enrollment, clinical site activations or information provided to the Company by its vendors with respect to their actual costs incurred. Payments for these activities are based on the terms of the individual arrangements, which may differ from the pattern of costs incurred, and are reflected in the financial statements as prepaid or accrued research and development expense, as the case may be.

Comprehensive Loss

Comprehensive loss is defined as the change in equity of a business enterprise during a period from transactions and other events and circumstances from non-owner sources. Comprehensive loss was equal to net loss for all periods presented.

Recent Accounting Pronouncements Applicable to the Company

On June 10, 2014, the FASB issued Accounting Standards Update No. 2014-10, Development Stage Entities (Topic 915): Elimination of Certain Financial Reporting Requirements, Including an Amendment to Variable Interest Entities Guidance in Topic 810, Consolidation ("ASU 2014 10"). The guidance is intended to reduce the overall cost and complexity associated with financial reporting for development stage entities without reducing the availability of relevant information. The FASB also believes the changes will simplify the consolidation accounting guidance by removing the differential accounting requirements for development stage entities. As a result of these changes, there no longer will be any accounting or reporting differences in GAAP between development stage entities and other operating entities. For organizations defined as public business entities, the presentation and disclosure requirements in Topic 915 will no longer be required starting with the first annual period beginning after December 15, 2014, including interim periods therein. Early application is permitted for any annual reporting period or interim period for which the entity's financial statements have not yet been issued (public business entities) or made available for issuance (other entities). The Company early adopted this guidance in 2014 and, as a result, the Company will no longer need to present inception-to-date information about income statement line items, cash flows, and equity transactions.

In June 2014, the FASB issued ASU No. 2014-12, "Compensation - Stock Compensation (Topic 718): Accounting for Share-Based Payments When the Terms of an Award Provide that a Performance Target Could be Achieved after the Requisite Service Period," ("ASU 2014-12"). ASU 2014-12 requires that a performance target that affects vesting, and

that could be achieved after the requisite service period, be treated as a performance condition. As such, the performance target should not be reflected in estimating the grant date fair value of the award. This update further clarifies that compensation cost should be recognized in the period in which it becomes probable that the performance target will be achieved and should represent the compensation cost attributable to the period(s) for which the requisite service has already been rendered. The Company does not anticipate that the adoption of this standard will have a material impact on its financial statements.

Reclassifications

The Company’s board of directors authorized a 1:100 reverse stock split on September 30, 2013, to take effect on October 21, 2013. All share and related option and warrant information presented in these financial statements and accompanying footnotes have been retroactively adjusted to reflect the reduced number of shares resulting from this action.

SENESCO TECHNOLOGIES, INC. AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

3. Acquisition of Fabrus, Inc.

On May 16, 2014, the Company completed a merger pursuant to a Plan of Merger and Reorganization (the "Merger Agreement"), whereby the Company acquired all of the outstanding ownership interests of Fabrus, Inc., a privately-owned biotechnology company which has developed an advanced platform for therapeutic antibody discovery and development. Pursuant to the terms of the Merger Agreement, the Company issued 6,905,201 shares of its common stock with a fair value of $18,298,782, 3,578,481 warrants to purchase common stock with exercise prices ranging from $2.00 to $4.00 with a fair value of $2,349,853 and options to purchase common stock with an exercise price of $2.65 with a fair value of $285,224 totaling $20,933,859. The primary purpose for the acquisition was to acquire additional cutting edge technologies in development in order to increase the Company's portfolio.

In accordance with the acquisition method of accounting, the issuance of replacement stock options to the employees of Fabrus at the date of the merger must be accounted for as a modification of the original award by Fabrus. As a result, $60,412 represented the fair value of pre-acquisition services to the Company and was accounted for as additional purchase price in the merger. In addition, $224,812, will be amortized as post combination services from the merger date through the end of the vesting period.

The Company's consolidated financial statements reflect the operating results of Fabrus since May 16, 2014. The following table summarizes the estimated fair values of the assets acquired and liabilities assumed at the acquisition date:

Purchase price per valuation	20,933,859
Less: options to be recognized in the future	(224,812)
Purchase price for goodwill calculation	20,709,047
Assets acquired:	
Cash	1,274,662
Accounts receivable	43,133
Prepaid expenses	19,542
Equipment	234,000
Acquired research and development	9,800,000
Goodwill	13,902,917
	25,274,254

Liabilities assumed:	
Accounts payable	(409,117)
Accrued payroll	(74,525)
Accrued expenses	(161,565)
Deferred tax liability	(3,920,000)
	(4,565,207)
Net assets of Fabrus, Inc. acquired	20,709,047

Goodwill, which is comprised of synergies from combining operations, and acquired research and development is accounted for as an indefinite lived intangible asset and is subject to annual impairment testing. Goodwill is not expected to be deducted for income tax purposes.

SENESCO TECHNOLOGIES, INC. AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

The following represents our pro-forma Consolidated Statements of Income as if Fabrus had been included in our consolidated results since July 1, 2012:

	Year Ended June 30, 2014 (unaudited)	June 30, 2013 (unaudited)
Total revenue	$182,229	$7,819
Net loss	$(11,017,792)	$(6,308,007)
Loss applicable to common shares	$(15,646,989)	$(7,171,005)
Basis and diluted net loss per common share	$(1.36)	$(1.16)

For 2013, pro-forma adjustments of $11,458 and $47,545, respectively, were made to eliminate transaction cost and interest expense related to the convertible debt that were converted into common shares at the time of the acquisition.

The following represents our pro-forma Consolidated Statements of Income as if Fabrus had been included in our consolidated results since July 1, 2013:

SENESCO TECHNOLOGIES, INC. AND SUBSIDIARIES

CONDENSED CONSOLIDATED STATEMENTS OF OPERATIONS AND COMPREHENSIVE LOSS

FOR THE YEAR ENDED JUNE 30, 2014

(unaudited)

	Senesco (unaudited)	Fabrus (unaudited)	Pro-Forma Adjustments (unaudited)	Notes	Combined Pro-Forma (unaudited)

Revenue	$100,000	$82,229			$182,229
Operating expenses:					
General and administrative	3,623,200	592,539	10,026	(1)	4,225,765
Research and development	3,079,789	2,136,512	-		5,216,301
Acquisition related costs	513,028	478,522	(991,550)	(2)	-
Impairment of patent costs	1,350,591	-	-		1,350,591
Write-off of patents abandoned	330,190	-	-		330,190
Total operating expenses	8,896,798	3,207,573	(981,524)		11,122,847
Loss from operations	(8,796,798)	(3,125,344)	981,524		(10,940,618)
Interest (expense) income - net	(77,174)	(130,505)	130,505	(3)	(77,174)
Net loss	(8,873,972)	(3,255,849)	1,112,029		(11,017,792)
Preferred dividends	(4,629,197)	-	-		(4,629,197)
Loss applicable to common shares	(13,503,169)	(3,255,849)	1,112,029		(15,646,989)
Other comprehensive loss	-	-	-		-
Comprehensive loss	$(13,503,169)	$(3,255,849)	$1,112,029		$(15,646,989)
Basic and diluted net loss per common share	$(2.47)	-	-		$(1.36)
Basic and diluted weighted-average number of common shares outstanding	5,476,717	-	6,034,957		11,511,674

(1) Reflects an adjustment to record additional depreciation expense for the step up in fair value of Fabrus fixed assets.

(2) Reflects adjustments to eliminate acquisition-related costs included in the historical financial statements which are directly attributable to the acquistion, but are not expected to have a continuing impact on the results of the combined entity.

(3) Reflects an adjustment to eliminate interest expense included in the historical financial statements of Fabrus related to convertible promissory notes that were converted into shares of common stock in connection with the acquisition.

For the year ended June 30, 2014, net loss for the period from May 16, 2014 through June 30, 2014 related to Fabrus was $351,262.

4. **Fair Value Measurements:**

The following tables provide the assets and liabilities carried at fair value measured on a recurring basis as of June 30, 2014 and 2013:

	Carrying	Fair Value Measurement at June 30, 2014

	Value	Level 1	Level 2	Level 3
Assets:				
Cash and cash equivalents	$6,111,340	$ 6,111,340	$ -	$ -

	Carrying	Fair Value Measurement at June 30, 2013		
	Value	Level 1	Level 2	Level 3
Assets:				
Cash and cash equivalents	$1,602,294	$ 1,602,294	$ -	$ -

5. **Equipment, Furniture and Fixtures:**

Equipment, Furniture and Fixtures consist of the following:

	June 30, 2014	2013
Laboratory Equipment	$225,854	$-
Office Equipment	$37,950	$32,334
Furniture and fixtures	73,398	67,674
	337,202	100,008
Less—Accumulated depreciation	(113,727)	(95,453)
	$223,475	$4,555

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Depreciation expense aggregated $18,275, $2,583 and $2,386 for the fiscal years ended June 30, 2014, 2013 and 2012, respectively.

6. Patent Costs:

Patent costs consist of the following:

	June 30, 2014	2013
Patents approved	$1,082,759	$2,665,436
Patents pending	1,264,462	1,919,360
	2,347,221	4,584,796
Accumulated amortization	(168,354)	(1,018,299)
	$2,178,867	$3,566,497

During the fiscal years ended June 30, 2014 and 2013, the Company incurred $624,531 and $527,761 of legal fees related to the prosecution of patent costs.

During the fiscal years ended June 30, 2014, 2013 and 2012, 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 fiscal years ended June 30, 2014, 2013 and 2012, the Company wrote off patent costs in the net amount of $330,190, $64,210 and $321,137, respectively.

As of June 30, 2014, the Company determined that carrying value of its agricultural patents and patent applications was impaired. Accordingly, the Company recorded an impairment of the full carrying value of its agricultural patents in the amount of $1,350,591.

Amortization expense amounted to $331,381, $291,046 and $255,637 for the fiscal years ended June 30, 2014, 2013 and 2012, respectively.

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

Fiscal Year ended June 30,	
2015	$150,000
2016	150,000
2017	150,000
2018	150,000
2019	150,000

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7. Accrued Expenses:

Accrued expenses were comprised of the following:

	June 30, 2014	2013
Accrued research	$588,613	$210,696
Accrued payroll	114,872	12,869
Accrued dividends payable	14,500	20,000
Accrued other	206,006	143,975
	$923,991	$387,540

8. Line of Credit:

On February 17, 2010, the Company entered into a credit agreement with JMP Securities LLC. The agreement provided 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 could draw at any time (the “Line of Credit”). Any draws upon the Line of Credit accrued interest at an annual rate of (i) the broker rate in effect at the interest date (which was 3.75% throughout Fiscal 2014), plus (ii) 2.0%. There were no other conditions or fees associated with the Line of Credit. The Line of Credit was not secured by any assets of the Company, but it was secured by certain assets of one of a member of the Company’s Board of Directors, Harlan W. Waksal, M.D., which was held by JMP Securities.

On February 26, 2014, the Company repaid the then outstanding balance of $2,187,082 and cancelled the Line of Credit. In connection with the termination of the Line of Credit, the security interest on Dr. Waksal’s assets mentioned above was terminated. Accordingly, the balance outstanding as of June 30, 2014 and 2013 was $0 and $2,187,082, respectively.

Total interest expense recorded under the Line of Credit for the fiscal years ended June 30, 2014, 2013 and 2012 amounted to $85,629, $122,453 and $134,549, respectively.

9.Stockholders' Equity:

Preferred Stock

On April 1, 2010, the Company sold 10,297 shares of 10% Series A convertible preferred stock to non-affiliated purchasers for $10,297,000. On June 2, 2010, the Company sold 1,200 shares of 10% Series B convertible preferred stock (together with the Series A preferred stock, the "Convertible Preferred Stock") to affiliated purchasers for $1,200,000. After deducting cash closing costs of $742,159, the Company received aggregate net cash proceeds from the sale of the Convertible Preferred Stock in the amount of $10,754,841.

Pursuant to the terms of the Convertible Preferred Stock agreements, the Convertible Preferred Stock was initially convertible into approximately 359,281 shares of the Company's Common Stock, subject to adjustment. In addition, the holders of the Convertible Preferred Stock received immediately exercisable warrants to purchase up to approximately 359,281 shares of the Company's Common Stock.

Each share of Convertible Preferred Stock has a stated value of $1,000 (the "Stated Value"). Each holder of shares of Convertible Preferred Stock is entitled to receive semi-annual dividends at the rate of 10% per annum of the Stated Value for each share of Convertible 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 volume weighted-average price for the 20 trading days immediately preceding the payment date or $22.40. The dividends were subject to a 30% make whole provision. On April 1, 2013 the make whole provision had been satisfied.

SENESCO TECHNOLOGIES, INC. AND SUBSIDIARIES

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During the fiscal years ended June, 30, 2014, 2013 and 2012, a total of 17,524, 37,197 and 23,219 shares of common stock with a fair value of $67,541, $591,321 and $557,170 were issued in connection with the payment of dividends on the Convertible Preferred Stock. The adjustments were recorded as an increase to both additional paid-in capital and accumulated deficit.

The shares of Convertible Preferred Stock were convertible into shares of Common Stock at an initial conversion price of $32.00 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 Convertible Preferred Stock. After 18 months from the date of issuance of the Convertible Preferred Stock, if the Company's Common Stock trades above $80.00 for 20 out of 30 consecutive trading days, the Convertible Preferred Stock will no longer be subject to adjustment. As a result of multiple issuances of shares of common stock, as of June 30, 2014, the initial conversion prices have been adjusted from $32.00 per share to $2.00 per share.

During the fiscal years ended June 30, 2014, 2013 and 2012, in connection with the adjustments to the conversion price, due to a beneficial conversion feature, dividends in the amount of $0, $1,076,355 and $366,151 were recorded as an increase to both additional-paid-in capital and accumulated deficit.

In connection with a convertible preferred stock conversion agreement entered into in June 2013, an additional 11,250 shares of Common Stock were issued to the holders of Convertible Preferred Stock.

Warrants

Pursuant to the purchase agreements, the Company delivered a Warrant to purchase shares of Common Stock to the Series A Non-Affiliate Investors and a Warrant to purchase shares of Common Stock to the Series B Affiliate Investors (the "Warrants"). Each Warrant has an initial exercise price of $35.00 per share of Common Stock. The Warrants were immediately exercisable and have a five year term. The Warrants issued to the Series A Non-Affiliate Investors 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).

On August 8, 2012, pursuant to a warrant exchange agreement, 172,625 warrants were exchanged for 69,022 shares of Common Stock. In connection with the warrant exchange, a loss on the settlement of warrant liabilities in the amount of $785,171 was recorded.

Common Stock

On December 14, 2011, the stockholders approved a proposal to increase the authorized Common Stock of the Company from 250,000,000 shares to 350,000,000 shares. On March 25, 2013, the stockholders approved a proposal to increase the authorized Common Stock of the Company from 350,000,000 shares to 500,000,000 shares.

Public Placements of Common Stock and Warrants

December 16, 2013

On December 16, 2013, the Company completed a Common Stock and Warrant offering for $5,400,000 in gross proceeds, before deducting offering expenses, in a registered direct offering of 180,000 units consisting of ten shares of the Company's Common Stock, six month warrants to purchase ten shares of Common Stock at an exercise price of $3 per share (the "Series A Warrants"), six month warrants to purchase ten shares of Common Stock at an exercise price of $4 per share (the "Series B Warrants"), and three year warrants to purchase ten shares of Common Stock at an exercise price of $4 per share (the "Series C Warrants").

The net offering proceeds to the Company from the sale of the units, after deducting the offering expenses of $121,764, was $5,278,236. The net proceeds of the offering is being used for working capital, research and development and general corporate purposes.

SENESCO TECHNOLOGIES, INC. AND SUBSIDIARIES

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On February 21, 2014, the Company amended and restated 1,746,666 of the Series B Warrants pursuant to a Warrant Amendment Agreement (the "Series B Warrant Amendment Agreement") by and among the Company and certain holders of the Series B Warrants (the "Warrant Holders"). Pursuant to the terms of the Series B Warrant Amendment Agreement, the Company and each Warrant Holder agreed to amend and restate the Warrant held by such Warrant Holder for a new amended and restated warrant, with an exercise price of $2.00 per share and an expiration date of February 21, 2014 (the "Amended Warrants"). In connection with the amendment of such warrants, a dividend was recorded in the amount of $2,820,866, which represents the difference in pre-amendment and post-amendment Black-Scholes value of the Series B Warrants.

Following the amendment of the series B Warrants, the Warrant Holders of Amended Warrants to purchase 1,746,666 shares of Common Stock exercised their Amended Warrants, resulting in gross proceeds to the Company of $3,493,332.

On June 13, 2014, the Company amended and restated 1,630,000 of the Series A Warrants pursuant to a Series A Warrant Amendment Agreement by and among the Company and all remaining holders of the Series A Warrants whereby such warrants were extended for a six month period through December 16, 2014. In connection with the amendment of such warrants, a dividend was recorded in the amount of $847,600, which represents the difference in pre-amendment and post-amendment Black-Scholes value of the Series A Warrants.

October 2, 2013

On October 2, 2013, the Company completed a Common Stock offering for $1,725,000 in gross proceeds, before deducting estimated offering expenses, in a registered direct offering of 690,000 shares of the Company's Common Stock. Each share was sold at a price of $2.50 per share. The shares were sold pursuant to the Registration Statement in the form of a unit, at $5.00 per unit, with each unit consisting of 2 shares of Common Stock.

The net offering proceeds to the Company from the sale of the Common Stock, after deducting the offering expenses of $164,230, were $1,560,770. The net proceeds of the offering will be used for working capital, research and development and general corporate purposes.

May 9, 2013 Placement

On May 9, 2013, the Company entered into definitive agreements to issue 418,333 shares of Common Stock at an offering price of $3.00 per share for gross proceeds of $1,255,000, before deducting offering expenses, in a registered direct offering. Additionally, the shares contained exercise price reset features for a period of one year from the date of issuance.

The net offering proceeds to the Company from the sale of the Common Stock, after deducting the offering expenses of $153,318, were $1,101,682. The net proceeds of the offering are being used for working capital, research and development and general corporate purposes.

The Offering closed on May 10, 2013.

In connection with the offering of common stock on October 2, 2013, the Company issued an additional 3,867 shares of common stock under the exercise price reset feature. A dividend in the amount of $15,468 was recorded by the Company.

In connection with the amendment to the Series B warrants on February 21, 2014, the Company issued an additional 8,770 shares of common stock under the exercise price reset feature. A dividend in the amount of $35,606 was recorded by the Company.

SENESCO TECHNOLOGIES, INC. AND SUBSIDIARIES

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January 4, 2013 Placement

On January 4, 2013, the Company entered into definitive agreements to issue 300,000 shares of Common Stock and five year warrants to purchase 300,000 shares of Common Stock with an exercise price of $12.00 per share for gross proceeds of $3,000,000, before deducting offering expenses, in a registered direct offering. The warrants were exercisable from the date that was one year and one day following the issuance date until the fifth anniversary of the issuance date and contained standard anti-dilution provisions and adjustment provisions in the event of stock splits, combinations, dividends, distributions or reorganizations. Additionally, the warrants contained exercise price reset features for a period of eighteen months from the date of issuance and cash settlement features in the event of a fundamental transaction. Due to the cash settlement features in the Warrants, $459,000 of the net proceeds was recorded as a warrant liability. Each Share, together with the Warrant, was sold at a price of $10.00 per unit. In April and June 2013, all of the warrants were exchanged for Common Stock.

The net offering proceeds to the Company from the sale of the Common Stock and Warrants, after deducting the offering expenses of $151,202, were $2,848,798. Six hundred thousand dollars of the net proceeds of the offering was used for investor relations purposes and the remainder was used for working capital, research and development and general corporate purposes.

The Offering closed on January 8, 2013.

January 6, 2012 and March 1, 2012 Placement

On January 6, 2012 and March 1, 2012, the Company entered into securities purchase agreements to raise an aggregate of $2,862,012 in gross proceeds through the sale of an aggregate of 110,077 shares of its Common Stock. The investors, excluding officers and directors of Senesco or funds affiliated with such officers or directors participating in the offering, also received 50% warrant coverage at an exercise price of $28.60 per share. The Common Stock and 50% warrant coverage (the “Unit”) was priced at $26.00 per Unit.

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, 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.

During the fiscal year ended June 30, 2013, the Company issued 3,539 shares of Common Stock under the ATM for proceeds of $94,183, net of offering costs.

During the fiscal year ended June 30, 2012, the Company issued 18,346 shares of Common Stock under the ATM for proceeds of $477,257, net of offering costs.

From the inception of the ATM through June 30, 2013, the Company had issued 80,999 shares of Common Stock under the ATM for proceeds of $2,311,137, net of offering costs.

In November 2012, the Company was delisted from the NYSE MKT exchange and is now quoted on the OTCQB. Since the Company is no longer listed on the NYSE MKT exchange, the Company is no longer be able to issue and sell shares of its Common Stock under the ATM and the ATM was terminated.

SENESCO TECHNOLOGIES, INC. AND SUBSIDIARIES

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10. 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 and subsequent amendments, an aggregate of 1,830,810 shares of Common Stock has been reserved for issuance. Additionally, on January 1 of each calendar year beginning with the calendar year 2012, 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 500,000 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.

Between February 19, 2009 and May 5, 2014, the Company filed a registration statement with the SEC to register all of the 1,830,810 shares of Common Stock underlying the 2008 Plan. The registration statement and amendments were deemed effective upon filing.

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.

On November 16, 2012, the Company issued 37,050 options that were subject to vesting first based upon specified goals and milestones and then based upon time-based conditions. On the issuance date, such options had an aggregate Black-Scholes value of $489,060. As of June 30, 2013, the Company reviewed the specified goals and milestones on an employee by employee basis. Based upon the review, the Company has estimated that it was probable that, on average, the employees would achieve 55% of the target goals. As a result, the Company was recognizing 55% of the aggregate fair value of the options ratably over the time-based vesting period. Subsequent to June 30, 2013, the compensation committee determined that the employees actually achieved 25% of the target goals. As a result, the Company is now recognizing 25% of the aggregate fair value of the options ratably over the time-based vesting period.

On September 13, 2013, the Company issued 46,780 options that are subject to vesting first based upon specified goals and milestones and then based upon time-based conditions. On the issuance date, such options had an aggregate Black-Scholes value of $201,154. As of June 30, 2014, the Company reviewed the specified goals and milestones on

an employee by employee basis. Based upon the review, the Company has estimated that it was probable that, on average, the employees would achieve 81% of the target goals. As a result, the Company is recognizing 81% of the aggregate fair value of the options ratably over the time-based vesting period.

SENESCO TECHNOLOGIES, INC. AND SUBSIDIARIES

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

	Aggregate Number	Weighted Average Exercise Price	Exercise Price Range
Outstanding, July 31, 2011	113,483	$ 78.00	$ 26.00 - 400.00
Granted	52,744	23.00	20.00 - 26.00
Exercised	-	-	-
Cancelled	-	-	-
Expired	(9,750)	232.00	150.00 – 400.00
Outstanding, June 30, 2012	156,477	50.00	20.00 - 345.00
Granted	89,670	14.00	4.00 - 18.00
Exercised	-	-	-
Cancelled	(11,525)	23.00	23.00
Expired	(2,875)	202.00	109.00 - 235.00
Outstanding, June 30, 2013	231,748	35.00	4.00 – 345.00
Granted	778,480	2.94	2.65 - 5.40
Exercised	-	-	-
Cancelled	(27,788)	16.50	16.50
Expired	(3,136)	229.65	52.00 - 315.00
Outstanding, June 30, 2014	979,304	$ 9.49	$2.65 - 345.00
Options exercisable at June 30, 2012	101,011	$ 62.00	
Options exercisable at June 30, 2013	166,122	$ 41.00	
Options exercisable at June 30, 2014	428,286	$ 17.48	
Weighted average fair value of options granted during the fiscal year ended June 30, 2012	$ 17.00		
Weighted average fair value of options granted during the fiscal year ended June 30, 2013	$ 11.00		
Weighted average fair value of options granted during the fiscal year ended June 30, 2014	$ 2.11		

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

	Number of	Weighted-average Grant-Date

	Options	Fair Value
Non-vested stock options at July 1, 2013	65,626	$ 16.00
Granted	778,480	2.11
Vested	(265,300)	3.62
Forfeited	(27,788)	13.20
Non-vested stock options at June 30, 2014	551,018	$ 2.29

As of June 30, 2014, the aggregate intrinsic value of stock options outstanding was $86,157, with a weighted-average remaining term of 9.2 years. The aggregate intrinsic value of stock options exercisable at that same date was $17,433, with a weighted-average remaining term of 8.3 years. As of June 30, 2014, the Company has 856,672 shares available for future stock option grants.

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As of June 30, 2014, total estimated compensation expense not yet recognized related to stock option grants amounted to $1,285,624, which will be recognized over the next 48 months.

Warrants

Total outstanding warrants at June 30, 2014 were as follows:

Strike Price	Warrants
$ 345.00	150
$ 140.00	50
$ 108.00	25
$ 60.00	27,703
$ 35.00	197,453
$ 32.00	3,000
$ 28.60	49,270
$ 26.00	50
$ 4.00	3,600,033
$ 3.00	3,260,030
$ 2.00	95,050
$ 1.00	4,960
	7,237,774

As of June 30, 2014, all of the above warrants are exercisable expiring at various dates through 2019. At June 30, 2014, the weighted-average exercise price on the above warrants was $4.83.

On August 8, 2012, pursuant to a warrant exchange agreement, 172,625 of the warrants with an exercise price of $35.00 were exchanged for 69,022 shares of Common Stock. In connection with this warrant exchange, a loss on the settlement of warrant liabilities was recorded in the amount of $785,171.

On April 8, 2013 and June 24, 2013, pursuant to warrant exchange agreements, an aggregate of 300,000 of the warrants with an initial exercise price of $12.00, which was subsequently reset to $3.00, were exchanged for an aggregate of 300,000 shares of Common Stock. In connection with this warrant exchange, a loss on the settlement of warrant liabilities was recorded in the amount of $939,375.

On February 21, 2014, pursuant to warrant amendment agreements, an aggregate of 1,746,666 of the Series B warrants with an initial exercise price of $4.00 and expiration date of June 16, 2014, were amended and restated to have an exercise price of $2.00 per share and an expiration date of February 21, 2014. Following the amendment, the warrant holders of amended warrants to purchase 1,746,666 shares of Common Stock exercised their amended warrants, resulting in gross proceeds to the Company of $3,493,332. In connection with the amendment of such warrants, a dividend was recorded in the amount of $2,820,866, which represents the difference in pre-amendment and post-amendment Black-Scholes value of the Series B Warrants.

On June 13, 2014, pursuant to warrant amendment agreements, an aggregate of 3,260,030 of the Series A and FA warrants with an exercise price and an expiration date of June 16, 2014 were amended and restated whereby such warrants were extended for a six month period through December 16, 2014. In connection with the amendment of such warrants, a dividend was recorded in the amount of $1,695,216, which represents the difference in pre-amendment and post-amendment Black-Scholes value of the Series A Warrants.

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11. 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 Company files a consolidated federal income tax return. The subsidiaries file separate state and local income tax returns.

As of June 30, 2014, the Company had federal net operating loss ("NOL") carry forwards of $60,404,000 and state NOL carry forwards of approximately $53,024,000 which are available to reduce future taxable income. The federal NOL carry forwards will begin to expire in 2019. The state NOL carry forwards will begin to expire at various dates starting in 2019. The NOL carry forwards are subject to review and possible adjustment by the Internal Revenue Service and state tax authorities. NOL carry forwards may become subject to an annual limitation in the event of certain cumulative changes in the ownership interest of significant shareholders over a three-year period in excess of 50%, as defined under Sections 382 and 383 of the Internal Revenue Code of 1986, as amended, as well as similar state tax provisions. This could limit the amount of NOLs that the Company can utilize annually to offset future taxable income or tax liabilities. The amount of the annual limitation, if any, will be determined based on the value of the Company immediately prior to the ownership change. As of June 30, 2014, The Company has not performed such an analysis. Subsequent ownership changes may further affect the limitation in future years.

The Company's reserves related to taxes are based on a determination of whether and how much of a tax benefit taken by the Company in its tax filings or positions is more likely than not to be realized. The Company recognized no material adjustment for unrecognized income tax benefits. Through June 30, 2014, the Company had no unrecognized tax benefits or related interest and penalties accrued.

ASC 740 requires a valuation allowance to reduce the deferred tax assets reported if, based on the weight of available evidence, it is more likely than not that some portion or all of the deferred tax assets will not be realized. After consideration of all the evidence, both positive and negative, the Company has recorded a full valuation allowance against its deferred tax assets at June 30, 2014 and 2013, respectively, because the Company's management has determined that is it more likely than not that these assets will not be fully realized. The valuation allowance increased by $5,271,000 and $ 1,881,000 during the years ended June 30, 2014 and 2013, respectively, due primarily to the generation of net operating losses during the periods.

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

	June 30, 2014	2013	2012
Federal income tax provision at statutory rate	(34.0)%	(34.0)%	(34.0)%
State income taxes, net of federal benefit	(5.4)%	-	-
Fair value - warrant liability	-	(2.0)%	(3.2)%
Loss on settlement of warrant liabilities	-	1.0 %	-
Other	-	(4.0)%	(0.6)%
Permanet items	3.1 %	-	-
Valuation allowance	36.3 %	39.0 %	37.8 %
Actual income tax provision (benefit) effective tax rate	- %	- %	- %

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The principal components of deferred income tax assets consist of the following:

	June 30, 2014	2013
Deferred Tax Assets:		
Net operating loss carryforwards	$23,719,000	$19,269,000
Stock-based compensation	2,721,000	2,507,000
Other	651,000	44,000
Deferred tax assets	27,091,000	21,820,000
Deferred Tax Liabilities:		
Indefinite-lived intangibles	(3,920,000)	-
Deferred tax liabilities	(3,920,000)	-
Less: valuation allowance	(27,091,000)	(21,820,000)
Net deferred tax asset / (liability)	$(3,920,000)	$-

The Company will recognize interest and penalties related to uncertain tax positions in income tax expense. As of June 30, 2014 and 2013, the Company had no accrued interest or penalties related to uncertain tax positions and no amounts have been recognized in the Company's Statements of Operations and Comprehensive Loss.

The Company files income tax returns in the United States, and various state jurisdictions. The federal and state income tax returns are generally subject to tax examinations for the tax years ended June 30, 2011 through June 30, 2014. To the extent the Company has tax attribute carryforwards, the tax years in which the attribute was generated may still be adjusted upon examination by the Internal Revenue Service or state tax authorities to the e-xtent utilized in a future period.

12. 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 an officer 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. The Company has extended the research and development agreement for an additional one-year period through August 31, 2015 in the amount of Can $475,200.

Research and development expenses under this agreement for the fiscal years ended June 30, 2014, 2013 and 2012 aggregated U.S. $413,220, U.S. $628,995 and U.S. $573,368, respectively. Future obligations to be paid under the agreement through August 31, 2015 equal approximately U.S. $554,400.

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, as amended, had an initial term that commences on the date of the agreement and runs through September 30, 2014. The Company’s remaining financial obligation under the agreement is estimated to be approximately $210,000.

Consulting and other Agreements

Effective May 1, 1999, the Company entered into a consulting agreement for research and development with 1438120 Ontario Limited, which is owned by an officer of the Company. The agreement was renewed for an additional one-year term through June 30, 2015. Future obligations to be paid under the agreement equal $67,500.

The Company is obligated under a non-cancelable operating lease of office space expiring on November 30, 2015. The aggregate minimum future payments are $30,160. Rent expense charged to operations under this lease aggregated $70,170, $69,538 and $69,174 for the fiscal years ended June 30, 2013, 2012 and 2011, respectively.

Retention Agreement

On May 16, 2014, the Company entered into a retention agreement with the former Chief Executive Officer and current President of the Company, providing for certain severance benefits in the event of certain terminations of employment with the Company.

SENESCO TECHNOLOGIES, INC. AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

Pursuant to the terms of the retention agreement, if, during the one-year period following the effective date of the retention agreement if the employee (i) is terminated without cause, (ii) resigns for good reason or (iii) is not offered the position of “Chief Executive Officer” of the Company and the employee resigns within 30 days of the expiration of such one year period, the employee would receive (a) a lump sum cash payment equal to his target bonus plus his annual base salary for the year in which such event occurs, (b) COBRA benefits for one year beginning on the first day of the month following such event and (c) reimbursement of life-insurance costs for one year following such event. Moreover, if in connection with a change of control transaction, the employee’s employment is terminated or he resigns for good cause, the employee would receive (a) a lump sum cash payment equal to his target bonus plus two times his annual base salary for the year in which such event occurs and (b) COBRA benefits for two years beginning on the first day of the month following such event. Additionally, in connection with the occurrence of any of the triggering events described above, the employee’s outstanding equity awards would become fully vested and exercisable and would remain exercisable until the expiration of each equity award’s maximum term.

The estimated value of the retention agreement is approximately $293,000 if for one year or $586,000 if for two years.

Employment Agreement

On June 25, 2014, the Company entered into an employment agreement with the current Chief Executive Officer, providing for certain severance benefits in the event of certain terminations of employment with the Company.

Pursuant to the terms of the employment agreement, if, during the one-year period following the effective date of the employment agreement the employee, (i) is terminated without cause or (ii) resigns for good reason (each a “Qualifying Termination”), the employee would receive (a) a lump sum cash payment in an amount equal to 18 months’ salary, calculated at the rate of his then current Base Salary, (b) COBRA benefits for 18 months beginning on the first day of the month following such Qualifying Termination and (c) reimbursement of life-insurance costs for 18 months following such Qualifying Termination. If the employee undergoes a Qualifying Termination after the one-year period following the effective date of the Employment Agreement, the employee would receive (a) a lump sum cash payment in an amount equal to 12 months’ salary, calculated at the rate of his then current Base Salary, (b) COBRA benefits for 12 months beginning on the first day of the month following such Qualifying Termination and (c) reimbursement of life-insurance costs for 12 months following such Qualifying Termination. Moreover, if in connection with a change of control transaction, the employee is terminated or he resigns for good cause, the employee would receive (a) a lump sum cash payment in an amount equal to 24 months’ salary, calculated at the rate of his then current Base Salary, (b) COBRA benefits for 24 months beginning on the first day of the month following such Qualifying Termination and (c) reimbursement of life-insurance costs for 24 months following such Qualifying Termination. Additionally, in

connection with the occurrence of any of the triggering events described above, the employee's outstanding equity awards would become fully vested and exercisable and would remain exercisable until the expiration of the equity award's maximum term.

The estimated value of the employment agreement in the event is approximately $317,000 if for one year, $475,000 if for eighteen months or $634,000 if for two years.