

SCHEDULE 14A
(Rule 14a-101)
INFORMATION REQUIRED IN PROXY STATEMENT
SCHEDULE 14A INFORMATION

PROXY STATEMENT PURSUANT TO SECTION 14(A) OF THE SECURITIES
EXCHANGE ACT OF 1934 (AMENDMENT NO.)

Filed by the Registrant

Filed by a Party other than the Registrant

Check the appropriate box:

- Preliminary Proxy Statement
- Confidential, for Use of the
Commission Only (as permitted
by Rule 14a-6(e)(2))
- Definitive Proxy Statement
- Definitive Additional Materials
- Soliciting Material Pursuant to Rule 14a-11(c) or Rule 14a-12

SENESCO TECHNOLOGIES, INC.

(Name of Registrant as Specified in Its Charter)

(Name of Person(s) Filing Proxy Statement, if Other Than the Registrant)

Payment of Filing Fee (Check the appropriate box):

- No fee required.
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(1) Title of each class of securities to which transaction applies:

(2) Aggregate number of securities to which transaction applies:

(3) Per unit price or other underlying value of transaction computed pursuant to Exchange Act Rule 0-11
(set forth the amount on which the filing fee is calculated and state how it was determined):

(4) Proposed maximum aggregate value of transaction:

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statement number, or the form or schedule and the date of its filing.

(1) Amount Previously Paid:

(2) Form, Schedule or Registration Statement No.:

(3) Filing Party:

(4) Date Filed:

SENESCO TECHNOLOGIES, INC.
721 Route 202/206, Suite 130
Bridgewater, New Jersey 08807

To Our Stockholders:

You are cordially invited to attend the 2013 Annual Meeting of Stockholders of Senesco Technologies, Inc. at 10:00 A.M., local time, on March 28, 2013, at the offices of Morgan, Lewis & Bockius LLP at 101 Park Avenue, New York, NY 10178.

The Notice of Meeting and Proxy Statement on the following pages describe the matters to be presented at the meeting.

It is important that your shares be represented at this meeting to assure the presence of a quorum. Whether or not you plan to attend the meeting, we hope that you will have your stock represented by voting *as soon as possible*, by signing, dating and returning your proxy card in the enclosed envelope, which requires no postage if mailed in the United States. You may also vote electronically via the Internet or by telephone. Your stock will be voted in accordance with the instructions you have given in your proxy.

Thank you for your continued support.

Sincerely,

/s/ Harlan W. Waksal, M.D.

Harlan W. Waksal, M.D.
Chairman of the Board

SENESCO TECHNOLOGIES, INC.
721 Route 202/206, Suite 130
Bridgewater, New Jersey 08807

NOTICE OF ANNUAL MEETING OF STOCKHOLDERS
To Be Held March 28, 2013

The Annual Meeting of Stockholders (the "Meeting") of Senesco Technologies, Inc., a Delaware corporation (the "Company"), will be held at the office of Morgan, Lewis & Bockius LLP at 101 Park Avenue, New York, NY 10178 on March 28, 2013, at 10:00 A.M., local time, for the following purposes. Capitalized terms are defined in the attached proxy statement.

1. To elect ten (10) directors to serve until the next Annual Meeting of Stockholders and until their respective successors shall have been duly elected and qualified.
2. To approve an amendment to the Company's Certificate of Incorporation to increase the total number of authorized shares of common stock, \$0.01 par value per share, of the Company from 350,000,000 to 500,000,000.
3. To authorize our Board of Directors to effect a reverse stock split of our outstanding common stock, \$0.01 par value per share, at any ratio up to 1-for-20.
4. To vote on an advisory non-binding resolution to approve the compensation of the Company's named executive officers.
5. To vote on an advisory non-binding basis to determine whether the non-binding vote on the compensation of the Company's named executive officer should occur every one, two or three years.
6. To ratify the appointment of McGladrey, LLP as the Company's independent registered public accounting firm for the fiscal year ending June 30, 2013.
7. To transact such other business as may properly come before the Meeting or any adjournment or adjournments thereof.

The holders of common stock (the "Stockholders") of record at the close of business on February 12, 2013 (the "Record Date"), are entitled to notice of and to vote at the Meeting, or any adjournment or adjournments thereof. A complete list of such Stockholders will be open to the examination of any Stockholder at the Company's principal executive offices at 721 Route 202/206, Suite 130, Bridgewater, New Jersey 08807 for a period of ten (10) days prior to the Meeting and at the New York offices of Morgan, Lewis & Bockius LLP on the day of the Meeting. The Meeting may be adjourned from time to time without notice other than by announcement at the Meeting; *provided, however*, if the adjournment is for more than thirty (30) days after the date of the Meeting, or if after the adjournment a new record date is fixed for the adjourned meeting, a notice of the adjourned meeting is required to be given to each Stockholder.

IT IS IMPORTANT THAT YOUR SHARES BE REPRESENTED REGARDLESS OF THE NUMBER OF SHARES YOU MAY HOLD. WHETHER OR NOT YOU PLAN TO ATTEND THE MEETING IN PERSON, PLEASE COMPLETE, DATE, SIGN AND RETURN THE ENCLOSED PROXY CARD PROMPTLY IN THE ENCLOSED RETURN ENVELOPE. YOU MAY ALSO VOTE ELECTRONICALLY VIA THE INTERNET OR BY TELEPHONE. THE PROMPT RETURN OF PROXIES WILL ENSURE A QUORUM AND SAVE THE COMPANY THE EXPENSE OF FURTHER SOLICITATION. EACH PROXY GRANTED MAY BE REVOKED BY THE STOCKHOLDER APPOINTING SUCH PROXY AT ANY TIME BEFORE IT IS VOTED. IF YOU RECEIVE MORE THAN ONE PROXY CARD BECAUSE YOUR SHARES ARE REGISTERED IN DIFFERENT NAMES OR ADDRESSES, EACH PROXY SHOULD BE SIGNED AND RETURNED TO ENSURE THAT ALL OF YOUR SHARES WILL BE VOTED.

**Important Notice Regarding the Availability of
Proxy Materials for the Annual Meeting of Stockholders to be held on March 28, 2013**

Our proxy statement is attached. Financial and other information concerning our company is contained in our Annual Report for the fiscal year ended June 30, 2012. Pursuant to new rules promulgated by the SEC, we have elected to provide access to our proxy materials both by sending you this full set of proxy materials, including a proxy card, and by notifying you of the availability of our proxy materials on the Internet. This proxy statement and our June 30, 2012 Annual Report are available at <https://materials.proxyvote.com/817208>.

By Order of the Board of Directors

/s/ Joel Brooks

Joel Brooks

Secretary

Bridgewater, New Jersey
February 26, 2013

SENECO TECHNOLOGIES, INC.
721 Route 202/206, Suite 130
Bridgewater, New Jersey 08807

PROXY STATEMENT

This proxy statement is furnished in connection with the solicitation by the board of directors, or the board, of Senesco Technologies, Inc., a Delaware corporation, referred to herein as the Company, Senesco, we, us or our, of proxies to be voted at our annual meeting of stockholders to be held on March 28, 2013, referred to herein as the Meeting, at the offices of Morgan, Lewis & Bockius LLP at 101 Park Avenue, New York, NY 10178, at 10:00 A.M., local time, and at any adjournment or adjournments thereof. The holders of record of our common stock, \$0.01 par value per share, also referred to herein as common stock, as of the close of business on February 12, 2013, also referred to herein as the Record Date, will be entitled to notice of and to vote at the Meeting and any adjournment or adjournments thereof. As of the Record Date, there were 146,975,283 shares of our common stock issued and outstanding and entitled to vote. Each share of our common stock is entitled to one (1) vote on any matter presented at the Meeting.

If proxies in the accompanying form are properly voted and received, the shares of our common stock represented thereby will be voted in the manner specified therein. If not otherwise specified, the shares of our common stock represented by the proxies will be voted:

1. FOR the election of the ten (10) nominees named below as directors;
2. FOR the approval of an amendment to the Company's Certificate of Incorporation to increase the total number of authorized shares of common stock, \$0.01 par value per share, of the Company from 350,000,000 to 500,000,000;
3. FOR the authorization of our Board of Directors to effect a reverse stock split in any ratio up to 1-for-20;
4. FOR the advisory (non-binding) vote on executive compensation;
5. FOR every three years on the advisory (non-binding) vote on frequency of holding an advisory vote on executive compensation;
6. FOR the ratification of the appointment of McGladrey, LLP as our independent registered public accounting firm for the fiscal year ending June 30, 2013; and
7. In the discretion of the persons named in the enclosed form of proxy, on any other proposals which may properly come before the Meeting or any adjournment or adjournments thereof.

Any stockholder who has submitted a proxy may revoke it at any time before it is voted, by timely delivery of a later dated proxy (including a telephone or Internet vote), by delivering a written notice of your revocation addressed to and received by our Corporate Secretary or by electing to vote in person at the Meeting. The mere presence at the Meeting of the person appointing a proxy does not, however, revoke the appointment.

The presence, in person or by proxy, of holders of shares of our common stock having a majority of the votes entitled to be cast at the Meeting shall constitute a quorum.

Proposal No. 1—Election of Directors. Approval of the election of directors requires the affirmative vote of a plurality of the shares present in person or represented by proxy and entitled to vote on Proposal No. 1. Brokers are not authorized to vote without instructions on this proposal. As a result, abstentions will have the same effect as voting against the proposal and broker non-votes will have no effect on the vote outcome.

Proposal No. 2—Increase of Authorized Shares. Approval of an amendment to the Company's Certificate of Incorporation to increase the total number of authorized shares of common stock, \$0.01 par value per share, of the Company from 350,000,000 to 500,000,000 requires the affirmative vote of our stockholders representing a majority of the shares of common stock outstanding as of the Record Date. Brokers are authorized to vote without instructions on this proposal. Abstentions will have the same effect as voting against the proposal.

Proposal No. 3—Approval of Reverse Split. Approval of the authorization of our Board of Directors to effect a reverse stock split in any ratio up to 1-for-20 requires the affirmative vote of our stockholders representing a majority of the shares of common stock outstanding as of the Record Date. Brokers are authorized to vote without instructions on this proposal. Abstentions will have the same effect as voting against the proposal.

Proposal No. 4—Advisory and non-binding vote on executive compensation. Approval of the advisory non-binding resolution regarding the compensation of the Company's named executive officers requires the affirmative vote of a majority of the shares present in person or represented by proxy and entitled to vote on Proposal No. 4. Brokers are not authorized to vote without instructions on this proposal. As a result, abstentions will have the same effect as voting against the proposal and broker non-votes will have no effect on the vote outcome.

Proposal No. 5—Advisory and non-binding vote on frequency of holding an advisory vote on executive compensation. This advisory vote provides a choice among three frequency periods for future advisory votes on executive compensation, i.e., every one, two or three years. A particular frequency will be deemed to have been approved if it receives the affirmative vote of a majority of the shares present in person or represented by proxy and entitled to vote on Proposal No. 5. Brokers are not authorized to vote without instructions on this proposal. Accordingly, abstentions will count as negative votes and broker non-votes will have no effect on Proposal No. 5. However, whether or not a particular frequency receives majority approval in accordance with the above standard, our Board of Directors will have the discretion to determine the actual frequency at which the required advisory stockholder vote on the compensation of our named executive officers will be conducted, because the vote on such frequency is only advisory and non-binding. The Board's determination on the actual frequency of such vote will be disclosed in a Form 8-K to be filed in accordance with the rules of the Securities and Exchange Commission.

Proposal No. 6—Ratification of Appointment of Independent Registered Accounting Firm. Ratification of the appointment of McGladrey, LLP as our independent registered public accounting firm for the fiscal year ending June 30, 2013 requires the affirmative vote of a majority of the shares present in person or represented by proxy and entitled to vote on Proposal No. 6. Brokers are authorized to vote without instructions on this proposal. Abstentions will have the same effect as voting against the proposal.

Abstentions are included in the shares present at the Meeting for purposes of determining whether a quorum is present, and are counted as a vote against for purposes of determining whether any of the foregoing Proposals are approved. Broker non-votes are when shares are represented at the Meeting by a proxy specifically conferring only limited authority to vote on certain matters and no authority to vote on other matters. Therefore, broker non-votes are included in the determination of the number of shares represented at the Meeting for purposes of determining whether a quorum is present but are not counted for purposes of determining whether a proposal has been approved in matters where the proxy does not confer the authority to vote on such proposal. In this year's vote, brokers are entitled to vote without instructions on Proposals 2, 3 and 6, but not on Proposals 1, 4 or 5. Accordingly, broker non-votes are not counted as a vote against and will not affect the outcome of Proposals 1, 4 or 5.

Your vote is very important. All properly completed proxy cards delivered pursuant to this solicitation, whether via mail, telephone or the Internet, and not revoked will be voted at the Meeting in accordance with the directions given. In voting by proxy with regard to the election of directors, you may vote in favor of all nominees, withhold your votes as to all nominees or withhold your votes as to specific nominees. With regard to other proposals, you may vote in favor of each proposal or against each proposal, or in favor of some proposals and against others or you may abstain from voting on any or all proposals. You should specify your respective choices on the proxy card. If you do not give specific instructions with regard to the matters to be voted upon, the shares of common stock represented by your completed proxy card will be voted in accordance with the board of directors' recommendation with respect to Proposals 1 through 6. If any other matters properly come before the Meeting, the persons named as proxies will vote for or against these matters according to their best judgment. We strongly encourage you to submit your voting instructions and exercise your right to vote as a stockholder.

You may revoke your proxy and reclaim your right to vote up to and including the day of the Meeting by giving written notice of your revocation to the Secretary of Senesco, by timely delivery of a later dated proxy (including a telephone or Internet vote) or by voting in person at the Meeting. All written notices of revocation and other communications with respect to revocations of proxies should be addressed to: Secretary, Senesco Technologies, Inc., 721 Route 202/206, Suite 130, Bridgewater, New Jersey 08807.

On or about February 26, 2013, this proxy statement, together with the related proxy card, is being mailed to our stockholders of record as of the Record Date. Our annual report to our stockholders for the fiscal year ended June 30, 2012, including our financial statements, is being mailed together with this proxy statement to all of our stockholders of record as of the Record Date. In addition, we have provided brokers, dealers, banks, voting trustees and their nominees, at our expense, with additional copies of our annual report so that our record holders could supply these materials to our beneficial owners as of the Record Date.

Our common stock is quoted on the OTCQB Marketplace, operated by the OTC Markets Group, or OTCQB, under the symbol "SNTI". On February 12, 2013, the Record Date, the closing price for the common stock as reported by OTCQB was \$0.13 per share.

PROPOSAL 1
ELECTION OF DIRECTORS

At the Meeting, ten (10) directors are to be elected, which number shall constitute our entire board, to hold office until the next Annual Meeting of Stockholders or until their successors shall have been duly elected and qualified.

Unless otherwise specified in the proxy, it is the intention of the persons named in the enclosed form of proxy to vote the stock represented thereby for the election as directors, each of the nominees whose names and biographies appear below. All of the nominees whose names and biographies appear below are at present our directors. In the event any of the nominees should become unavailable or unable to serve as a director, it is intended that votes will be cast for a substitute nominee designated by our board. Our board has no reason to believe that the nominees named will be unable to serve if elected. Each nominee has consented to being named in this proxy statement and to serve if elected.

The following are the nominees for election to our board, and all of these nominees are current members of our board:

Name	Age	Served as a Director Since	Position with Senesco
Harlan W. Waksal, M.D.	59	2008	Chairman of the Board and Director
David Rector.....	66	2002	Lead Director
Jack Van Hulst.....	73	2007	Director
John N. Braca	55	2003	Director
Christopher Forbes.....	62	1999	Director
Warren J. Isabelle	61	2009	Director
Thomas C. Quick	57	1999	Director
Rudolf Stalder	72	1999	Director
Leslie J. Browne, Ph.D.	63	2011	President, Chief Executive Officer and Director
John E. Thompson, Ph.D.	71	2001	Executive Vice President, Chief Scientific Officer and Director

The principal occupations and business experience, for at least the past five (5) years, of each director and nominee is as follows:

Harlan W. Waksal, M.D. has been our chairman of the board of directors since June 2009 and a director since October 2008. From July 2003 to present, Dr. Waksal has been the President and Sole Proprietor of Waksal Consulting L.L.C., which provides strategic business and clinical development counsel to biotechnology companies. From July 2011 to present, he has served as the Executive Vice-President, Business and Scientific Affairs of Acasti Pharma, Inc., which is a subsidiary of Neptune Technologies & Bioresources, Inc. Dr. Waksal co-founded the biotechnology company ImClone Systems Inc. in 1984. From March 1987 through July 2003, Dr. Waksal had served in various senior roles for ImClone Systems Inc. as follows: March 1987 through April 1994 – President; April 1994 through May 2002 – Executive Vice President and Chief Operating Officer; May 2002 through July 2003 – President, Chief Executive Officer and Chief Operating Officer. He also served as a director of ImClone Systems Inc. from March 1987 through January 2005. From January 2005 to February 2010, he served on the Board of Trustees of and as Chair of the New Jersey Region of the Weizmann Institute of Science. Dr. Waksal is currently a member of the Board of Trustees of Oberlin College, the Board of Directors of Neptune Technologies and is on the Advisory Board of Northern Rivers Funds. Dr. Waksal received a Bachelor of Arts in Biology from Oberlin College and an M.D. from Tufts University School of Medicine. Dr. Waksal is knowledgeable in science, drug development, regulatory and clinical affairs. In addition, he ran and operated a public biotechnology company and is familiar with the issues of corporate governance.

John N. Braca has been our director since October 2003. Mr. Braca has also served as a director and board observer for other healthcare, technology and biotechnology companies over the course of his career. Since August 2010, Mr. Braca has been the executive director controller for Iroko Pharmaceuticals, a privately-held global pharmaceutical company based in Philadelphia. From April 2006 through July 2010, Mr. Braca was the managing director of Fountainhead Venture Group, a healthcare information technology venture fund based in the Philadelphia area, and has been working with both investors and developing companies to establish exit and business development opportunities. From May 2005 through March 2006, Mr. Braca was a consultant and advisor to GlaxoSmithKline management in their research operations. From 1997 to April 2005, Mr. Braca was a general partner and director of business investments for S.R. One, Limited, or S.R. One, the venture capital subsidiary of GlaxoSmithKline. In addition, from January 2000 to July 2003, Mr. Braca was a general partner of Euclid SR Partners Corporation, an independent venture capital partnership. Prior to joining S.R. One, Mr. Braca held various finance and operating positions of increasing responsibility within several subsidiaries and business units of GlaxoSmithKline. Mr. Braca is a licensed Certified Public Accountant in the state of Pennsylvania and is affiliated with the American Institute of Certified Public Accountants and the Pennsylvania Institute of Certified Public Accountants. Mr. Braca received a Bachelor of Science in Accounting from Villanova University and a Master of Business Administration in Marketing from Saint Joseph's University. Mr. Braca's financial background, operating experience with both large pharmaceutical companies and developing biotechnology companies, provides the board with practical experience for issues facing the Company. In addition, Mr. Braca also has a strong corporate governance background through his experience with other company boards.

Christopher Forbes has been our director since January 1999. From September 2011 to present, Mr. Forbes has been the Vice Chairman of Forbes Media LLC and Forbes Family Holdings, and Vice President of Forbes Management Co. Inc. From 1989 through September 2011, Mr. Forbes had been Vice Chairman of Forbes, Inc. From 1981 to 1989, Mr. Forbes was Corporate Secretary at Forbes. Prior to 1981, he held the position of Vice President and Associate Publisher. Mr. Forbes is the Chairman of the American Friends of the Louvre. He is also a member of the board of advisors of The Princeton University Art Museum. Mr. Forbes received a Bachelor of Arts degree in Art History from Princeton University in 1972. In 1986, he was awarded the honorary degree of Doctor of Humane Letters by New Hampshire College and in 2003 was appointed a Chevalier of the Legion of Honor by the French Government and in July 2012 was promoted to the rank of Officer. Mr. Forbes's knowledge regarding corporate operations as well as his business acumen, provide the board with experience in running a corporation and addressing the issues that face a growing company, such as ours.

Warren J. Isabelle has been our director since June 2009. Mr. Isabelle is a founder and principal of Ironwood Investment Management L.L.C., located in Boston, MA. Mr. Isabelle founded Ironwood Investment Management L.L.C in August 1997. From 1983 until 1997, Mr. Isabelle was with Pioneer Management Corporation where he served most recently as Director of Research and Head of U.S. Equities. Since January 2004, Mr. Isabelle has also served as a member of the Public Board and Vice-Chairman of the Investment Committee of the University of Massachusetts Foundation. Additionally, since 2012, Mr. Isabelle has served as a member of the Investment Committee of the UMass Memorial Healthcare Foundation. From 1998 through 2009, Mr. Isabelle was Chairman of the ICM Series Mutual Funds Trust. Mr. Isabelle is a Chartered Financial Analyst and member of the CFA institute and the American Chemical Society. Mr. Isabelle received a Bachelor of Science degree in chemistry from Lowell Technological Institute, a Master of Science degree in Polymer Science and Engineering from the University of Massachusetts, and a MBA from the Wharton School, University of Pennsylvania. Mr. Isabelle's experience as an investment analyst and portfolio manager provides the Company with valuable insight into the biotechnology industry and the publicly-traded capital markets.

Thomas C. Quick has been our director since February 1999. Since 2003, Mr. Quick has been the President of First Palm Beach Properties, Inc. From 2001 through 2003, Mr. Quick was the Vice Chairman of Quick & Reilly/Fleet Securities, Inc., successor to The Quick & Reilly Group, Inc., a holding company for four (4) major financial services businesses. From 1996 until 2001, Mr. Quick was the President and Chief Operating Officer and a director of Quick & Reilly/Fleet Securities, Inc. From 1985 to 1996, he was President of Quick & Reilly, Inc., a Quick & Reilly subsidiary and a national discount brokerage firm. Mr. Quick serves as a member of the board of directors and compensation committee of B.F. Enterprises. He is also a member of the board of directors of Best Buddies, The American Ireland Fund and Venetian Heritage, Inc. He is a trustee of the National Corporate Theater Fund, Cold Spring Harbor Laboratories, Hospice of Palm Beach County Foundation, the Palm Beach Zoo and the Inter-City Scholarship Foundation of New York City. Mr. Quick is a graduate of Fairfield University. As a result of his professional and other experiences, Mr. Quick has a deep understanding of corporate operations and strategy, and operations in both the US and internationally. Mr. Quick also has significant corporate governance experience through his service on other company boards.

David Rector has been our director since February 2002. Mr. Rector also serves as a director and member of the compensation and audit committee of the Dallas Gold and Silver Exchange (formerly Superior Galleries, Inc.) Mr. Rector also serves on the board of directors of Standard Drilling, Valor Gold Corp., and American Strategic Minerals Corp. Since 1985, Mr. Rector has been the Principal of The David Stephen Group, which provides enterprise consulting services to emerging and developing companies in a variety of industries. Since January 2013 through present, Mr. Rector has served as interim Chief Executive Officer of Valor Gold Corp. Since October 2007 through present, Mr. Rector has served as President and CEO of Standard Drilling, Inc. From February 2012 through December 2012, Mr. Rector had served as the VP Finance & Administration of Pershing Gold Corp. From May 2011 through February 2012, Mr. Rector served as the President of Sagebrush Gold, Ltd. From October 2009 through August 2011, Mr. Rector had served as President and CEO of Li3 Energy, Inc. From July 2009 through May 2011, Mr. Rector had served as President and CEO of Nevada Gold Holdings, Inc. From September 2008 through November 2010, Mr. Rector served as President and CEO Universal Gold Mining Corp. From May 2004 through December 2006, Mr. Rector had served in senior management positions with Nanoscience Technologies, Inc., a development stage company engaged in the development of DNA Nanotechnology. From 1983 until 1985, Mr. Rector served as President and General Manager of Sunset Designs, Inc., a domestic and international manufacturer and marketer of consumer product craft kits, and a wholly-owned subsidiary of Reckitt & Coleman N.A. From 1980 until 1983, Mr. Rector served as the Director of Marketing of Sunset Designs. From 1971 until 1980, Mr. Rector served in progressive roles in the financial and product marketing departments of Crown Zellerbach Corporation, a multi-billion dollar pulp and paper industry corporation. Mr. Rector received a Bachelor of Science degree in Business/Finance from Murray State University in 1969. As a result of these professional and other experiences, Mr. Rector has a deep business understanding of developing companies. Mr. Rector also brings corporate governance experience through his service on other company boards.

Rudolf Stalder has been our director since February 1999 and was appointed as our Chairman and Chief Executive Officer on January 10, 2000. On October 4, 2001, Mr. Stalder resigned as our Chief Executive Officer. On June 8, 2009, Mr. Stalder resigned as our Chairman. Mr. Stalder is a former member of the executive boards of Credit Suisse Group and Credit Suisse First Boston and former Chief Executive Officer of the Americas Region of Credit Suisse Private Banking. Mr. Stalder joined Credit Suisse in 1980 as a founding member and Deputy Head of the Multinational Services Group. In 1986, he became Executive Vice President. He was named to Credit Suisse's Executive Board in 1989. In 1990, he became Head of the Commercial Banking Division and a Member of the Executive Committee. From 1991 to 1995, Mr. Stalder was Chief Financial Officer of Credit Suisse First Boston and a Member of the Executive Boards of Credit Suisse Group and Credit Suisse First Boston. He became head of the Americas Region of Credit Suisse Private Banking in 1995 and retired in 1998. Prior to moving to the United States, Mr. Stalder was a member of the Board of Directors for several Swiss subsidiaries of major corporations including AEG, Bayer, BTR, Hoechst, Saint Gobain, Solvay and Sony. He is a fellow of the World Economic Forum. He currently serves on the board of the Greater Bridgeport Symphony. He was a member of the Leadership Committee of the Consolidated Corporate Fund of Lincoln Center for the Performing Arts, Board of The American Ballet Theatre and a Trustee of Carnegie Hall. From 1991 through 1998, Mr. Stalder was Chairman of the New York Chapter of the Swiss-American Chamber of Commerce. He continues to serve as an advisory board member of the American-Swiss Foundation. Mr. Stalder received a diploma in advanced finance management at the International Management Development Institute in Lausanne, Switzerland in 1976. He completed the International Senior Managers Program at Harvard University in 1985. Mr. Stalder is an experienced executive with former CEO experience and senior executive

level experience at large multinational companies. He also has corporate governance experience through service on other public company boards.

Jack Van Hulst has been our director since January 2007. Mr. Van Hulst was appointed as our President and Chief Executive Officer effective November 16, 2009. Mr. Van Hulst was further appointed as our Secretary effective February 1, 2010. Mr. Van Hulst resigned as our President and Chief Executive Officer and Secretary effective May 25, 2010. Since June 2010, Mr. Van Hulst has been the operating partner of SK Capital Partners. Mr. Van Hulst also serves as a director and member of the compensation and audit committees of HiTech Pharmacal, Inc. He has more than 42 years of international experience in the pharmaceutical industry. He began his career in 1968 at Organon, which was subsequently acquired by AKZO, N.V., the multinational human and animal healthcare company, where he was based in Europe and the US and responsible for establishing AKZO's position in the US in the manufacturing and sales and marketing of fine chemicals. Mr. Van Hulst later became President of AKZO's US Pharmaceutical Generic Drug Business and was responsible for establishing AKZO in the US generic drug industry. From 1989 to 1999, Mr. Van Hulst successively owned and led two generic pharmaceutical companies, improving their operations and then selling them to a private equity group and a pharmaceutical company. From 1999 to 2005, he was Executive Vice President at Puerto Rico-based MOVA Pharmaceutical Corporation, a contract manufacturer to the pharmaceutical industry that recently merged with Canadian-based Patheon. Mr. Van Hulst received a Masters degree in law from the University in Utrecht, Netherlands in 1968. Mr. Van Hulst possesses management experience as a result of his prior positions. Mr. Van Hulst spent years holding a number of management roles at other pharmaceutical companies and this experience assists the Company in working through the similar issues that it may face in its own operations.

Leslie J. Browne, Ph.D. was appointed our President and Chief Executive Officer in May 2010 and has been our director since March 2011. Dr. Browne has over 30 years of experience in the pharmaceutical industry. Prior to joining Senesco in May 2010, he served from October 2008 to May 2010 as President and CEO, and is currently chair, of Phrixus Pharmaceuticals, Inc., a private biotech working on muscular dystrophy and heart failure. He recently served from January 2007 to January 2009 as chair of the New Jersey Technology Council, where he continues as a member of the board. He also served from April 2007 to January 2009 as an independent director of Genelabs Technologies, which was sold to GSK, and from September 2004 to May 2008 as President, CEO and Director of Pharmacopeia, a Nasdaq listed company, where he transformed the company from a discovery contract research organization to a clinical development stage biopharmaceutical company with multiple internal development programs. Prior to joining Pharmacopeia, Dr. Browne was the Chief Operating Officer at Iconix Pharmaceuticals, Inc., a privately-held chemogenomics company from October 2001 to July 2004. Before Iconix, Dr. Browne held key positions at Berlex/Schering AG from 1990 to 2000, including Corporate Vice President, Berlex Laboratories, Inc. and President of Schering Berlin Venture Corporation. In 1979, Dr. Browne began his industrial career at Ciba-Geigy, now Novartis, where he invented fadrozole, for the treatment of breast cancer and was closely involved in the discoveries of Femara® and Diovan®, which became major products for Novartis. Dr. Browne received his Bachelor of Science degree in Chemistry in 1972 from the University of Strathclyde, Glasgow Scotland. He received his Ph.D. in Organic Chemistry in 1978 from the University of Michigan and his postdoctoral training as a National Institutes of Health Postdoctoral Fellow at Harvard University from January 1978 to April 1979. Dr. Browne is an experienced executive with former CEO experience and senior executive level experience at large multinational, as well as development stage, life sciences companies. He also has corporate governance experience through service on boards of other companies and organizations. Dr. Browne's educational background also provides him with the tools necessary to understand the science underlying our technology and how it relates to human health and agricultural applications.

John E. Thompson, Ph.D. has been our director since October 2001. Dr. Thompson was appointed our President and Chief Executive Officer in January 1999, and he continued in that capacity until September 1999 when he was appointed Executive Vice President of Research and Development. In July 2004, Dr. Thompson became our Executive Vice President and Chief Scientific Officer. Dr. Thompson is the inventor of the technology that we develop. Since July 2001, he has been the Associate Vice President, Research and, from July 1990 to June 2001, he was the Dean of Science at the University of Waterloo in Waterloo, Ontario, Canada. Dr. Thompson has a Ph.D. in Biology from the University of Alberta, Edmonton, and he is a Fellow of the Royal Society of Canada. Dr. Thompson is also the recipient of a Lady Davis Visiting Fellowship, the Sigma Xi Award for Excellence in Research, the CSPP Gold Medal and the Technion Visiting Fellowship. Dr. Thompson has an in-depth knowledge and understanding of the science underlying our technology and how it relates to human health and agricultural applications.

Director Experience, Qualifications, Attributes and Skills

We believe that the backgrounds and qualifications of our directors, considered as a group, should provide a composite mix of experience, knowledge and abilities that will allow the board to fulfill its responsibilities. The board is composed of a diverse group of leaders in their respective fields. Many of the current directors have leadership experience at major domestic and international companies with operations inside and outside the United States, which provides an understanding of different business processes, challenges and strategies. Other directors have prior experience as former executive officers of other entities, which brings unique perspectives to the board. Further, the Company's directors also have other experience that makes them valuable members, such as prior public policy or regulatory experience that provides insight into issues faced by companies.

OUR BOARD OF DIRECTORS RECOMMENDS A VOTE "FOR" THE ELECTION OF EACH OF THE NOMINEES TO THE BOARD OF DIRECTORS.

Board Leadership Structure and Role in Risk Oversight

The board evaluates its leadership structure and role in risk oversight on an ongoing basis. In March 2010, the Company's board leadership structure separated the Chairman of the Board, the Chief Executive Officer and the Lead Director roles into three positions. Currently, Harlan W. Waksal, M.D. is the Chairman of the Board, Leslie J. Browne, Ph.D. is the Chief Executive Officer and David Rector is the Lead Director. The board determines what leadership structure it deems appropriate based on factors such as the experience of the applicable individuals, the current business environment of the Company or other relevant factors. In his capacity as Lead Director, Mr. Rector consults independently of the Chairman of the Board with other members of the board in matters that are presented for the independent board member's consideration. After considering these factors, the board determined that continuing to separate the positions of Chairman of the Board, Lead Director and Chief Executive Officer is the appropriate board leadership structure at this time.

The board is also responsible for oversight of the Company's risk management practices while management is responsible for the day-to-day risk management processes. This division of responsibilities is the most effective approach for addressing the risks facing the Company, and the Company's board leadership structure supports this approach. The board receives periodic reports from management regarding the most significant risks facing the Company. In addition, the Audit Committee assists the board in its oversight role by receiving periodic reports regarding the Company's risk and control environment.

Corporate Governance Guidelines

Our board has long believed that good corporate governance is important to ensure that we are managed for the long-term benefit of our stockholders. During the past year, our board has continued to review our governance practices in light of the Sarbanes-Oxley Act of 2002, the new rules and regulations of the Securities and Exchange Commission and the new listing standards, policies and requirements of NYSE MKT. Although we are no longer listed on the NYSE MKT, we intend to continue to adhere to the corporate governance policies and requirements of the NYSE MKT.

Our board has adopted corporate governance guidelines to assist it in the exercise of its duties and responsibilities and to serve the best interests of Senesco and its stockholders. These guidelines, which provide a framework for the conduct of our board's business, include that:

- the principal responsibility of the directors is to oversee the management of Senesco;
- a majority of the members of our board shall be independent directors;
- the independent directors met regularly in executive session;
- directors have full and free access to management and, as necessary and appropriate, independent advisors;
- new directors participate in an orientation program and all directors are expected to participate in continuing director education on an ongoing basis; and
- at least annually, our board and its committees will conduct a self-evaluation to determine whether they are functioning effectively.

Board Determination of Independence

Under the current rules set forth in the NYSE MKT Company Guide, a director will, among other things, qualify as an "independent director" if, in the determination of our board, that person does not have a relationship that would interfere with his or her exercise of independent judgment in carrying out the responsibilities of a director. Our board currently consists of Rudolf Stalder, John E. Thompson, Ph.D., John N. Braca, Christopher Forbes, Warren J. Isabelle, Thomas C. Quick, David Rector, Jack Van Hulst, Leslie J. Browne, Ph.D. and Harlan W. Waksal, M.D. We were traded on the NYSE MKT, which requires our board be comprised of a majority of independent directors. Our board has determined that each of Messrs. Stalder, Braca, Forbes, Isabelle, Quick and Rector is an "independent director" as defined under Section 803 of the NYSE MKT Company Guide.

Committees and Meetings of our Board of Directors

Our board held four (4) meetings during Fiscal 2012. Throughout this period, each member of our board attended or participated in at least 75% of the aggregate of the total number of meetings of our board held during the period for which such person has been a director, and the total number of meetings held by all committees of our board on which each the director served during the periods the director served, except for Jack Van Hulst who attended 50% of the aggregate of the total number of meetings of our board held during the period,. Our board has three standing committees: the Compensation Committee, the Audit Committee, and the Nominating and Corporate Governance Committee. From time to time, our board may form additional committees on a short-term basis, such as a Pricing Committee to review the Company's financing activities and an Executive Committee to review certain of the Company's significant developments. Each standing committee operates under a charter that has been approved by our board. Each of these charters is also posted on our website at www.senesco.com. Our corporate governance guidelines provide that directors are expected to attend the annual meeting of stockholders. All of our directors, except for Jack Van Hulst, attended the 2012 annual meeting of stockholders.

Compensation Committee. Our Compensation Committee was established in July 1999, pursuant to the Compensation Committee Charter. Our Compensation Committee generally makes recommendations concerning salaries and incentive compensation for our management and our employees. The primary responsibilities of our Compensation Committee, as more fully set forth in the Compensation Committee Charter adopted in July 1999 and amended and restated on March 11, 2011, include:

- annually reviewing and approving, or recommending for approval by our board, the corporate goals and objectives relevant to executive officer compensation;
- reviewing and approving, or recommending for approval by our board, the salaries and incentive compensation of our executive officers;
- preparing the Compensation Committee report, including the Compensation Discussion and Analysis;
- retaining, appointing, determining compensation and oversight of any independent compensation consultants or other advisors deemed necessary;
- working with the Audit Committee to review and minimize risks related to compensation;
- administering our 2008 Incentive Compensation Plan, or similar stock plan adopted by our stockholders; and
- reviewing and making recommendations to our board with respect to director compensation.

Our Compensation Committee is currently comprised of David Rector and John. N. Braca. Mr. Rector currently serves as the chairman of the Compensation Committee. All members of our Compensation Committee are considered independent pursuant to Section 803 of the NYSE MKT Company Guide. Our Compensation Committee held five (5) meetings during Fiscal 2012.

Compensation Committee Interlocks and Insider Participation

No member of the Compensation Committee is or has been an officer or employee of our company or any of our subsidiaries. In addition, no member of the Compensation Committee had any relationships with us or any other entity that requires disclosure under the proxy rules and regulations promulgated by the SEC and none of our executive officers served on the Compensation Committee or board of any company that employed any member of our board.

Audit Committee. Our Audit Committee was established in July 1999. On March 11, 2011, our board adopted an Amended and Restated Audit Committee Charter. The primary responsibilities of our Audit Committee include:

- appointing, approving the compensation of, and assessing the independence of our independent registered public accounting firm;
- overseeing the work of our independent registered public accounting firm, including through the receipt and consideration of certain reports from our independent registered public accounting firm;
- reviewing and discussing with management and our independent registered public accounting firm our annual and quarterly financial statements and related disclosures;
- monitoring our internal control over financial reporting, disclosure controls and procedures and code

- of business conduct and ethics;
- discussing our risk management policies;
- establishing policies regarding hiring employees from our independent registered public accounting firm and procedures for the receipt and retention of accounting related complaints and concerns;
- meeting independently with our independent registered public accounting firm and management; and
- preparing the audit committee report required by SEC rules.

Our Audit Committee is currently comprised of John N. Braca, David Rector and Rudolf Stalder. Mr. Braca currently serves as the chairman of the Audit Committee. The NYSE MKT currently requires an Audit Committee comprised solely of independent directors. Messrs. Braca, Rector and Stalder are “independent” members of our board as defined in Rule 10A-3 under the Securities Exchange Act of 1934, as amended, or the Exchange Act, and Section 803 of the NYSE MKT Company Guide. In addition, our board of directors has determined that Mr. Braca satisfies the definition of an audit committee “financial expert” as set forth in Item 407(d) (5) of Regulation S-K promulgated by the SEC. Our Audit Committee held five (5) meetings during Fiscal 2012.

Review and Approval of Related Person Transactions

Our Audit Committee Charter requires that our Audit Committee review and approve or ratify transactions involving us and any executive officer, director, director nominee, 5% stockholder and certain of their immediate family members, also referred to herein as a related person. The policy and procedures cover any transaction involving a related person, also referred to herein as a related person transaction, in which the related person has a material interest and which does not fall under an explicitly stated exception set forth in the applicable disclosure rules of the SEC.

A related person transaction will be considered approved or ratified if it is authorized by the Audit Committee after full disclosure of the related person’s interest in the transaction. In considering related person transactions, the Audit Committee will consider any information considered material to investors and the following factors:

- the related person’s interest in the transaction;
- the approximate dollar value of the transaction;
- whether the transaction was undertaken in the ordinary course of our business;
- whether the terms of the transaction are no less favorable to us than terms that we could have reached with an unrelated third party; and
- the purpose and potential benefit to us of the transaction.

Nominating and Corporate Governance Committee. The primary responsibilities of our Nominating and Corporate Governance Committee, as more fully set forth in the Nominating and Corporate Governance Committee Charter and Corporate Governance Guidelines adopted on October 15, 2004, and amended and restated on March 11, 2011 include:

- identifying individuals qualified to become our board members;
- evaluating and recommending to our board the persons to be nominated for election as directors at any meeting of stockholders and to each of our board’s committees;
- reviewing and making recommendations to our board with respect to management succession planning;
- developing and recommending to our board a set of corporate governance principles applicable to Senesco; and
- overseeing the evaluation of our board.

Our Nominating and Corporate Governance Committee was formed on September 29, 2004, and it is currently comprised of Messrs. Stalder, Forbes and Quick. Mr. Forbes currently serves as the chairman of the Nominating and Corporate Governance Committee. All members of our Nominating and Corporate Governance Committee are independent, as independence for nominating and corporate governance committee members is defined under Section 803 of the NYSE MKT company Guide. The Nominating and Corporate Governance Committee did not hold any meetings during Fiscal 2012.

The Nominating and Corporate Governance Committee does not have a specific policy with regard to the consideration of diversity in identifying director nominees. The Nominating and Corporate Governance Committee considers the diversity of the professional experience, education and skill set in identifying the director nominees.

Code of Business Ethics and Conduct. On March 17, 2003, our board adopted a Code of Business Ethics and Conduct, which may also be found on our website at www.senesco.com. Our Code of Ethics contains written standards designed to deter wrongdoing and to promote:

- honest and ethical conduct, including the ethical handling of actual or apparent conflicts of interest between personal and professional relationships;
- full, fair, accurate, timely, and understandable disclosure in reports and documents filed with the SEC and in other public communications made by the Company;
- compliance with applicable governmental laws, rules and regulations;
- the prompt internal reporting of violations of our Code of Ethics to an appropriate person or persons identified in our Code of Ethics; and
- accountability for adherence to our Code of Ethics.

Each of our employees, officers and directors completed a signed certification to document his or her understanding of and compliance with our Code of Ethics.

Director Candidates

The process followed by our Nominating and Corporate Governance Committee to identify and evaluate director candidates includes requests to board members and others for recommendations, meetings from time to time to evaluate biographical information and background material relating to potential candidates and interviews of selected candidates by members of the committee and the board.

In considering whether to recommend any particular candidate for inclusion in the board's slate of recommended director nominees, our Nominating and Corporate Governance Committee will apply the criteria contained in the committee's charter. These criteria include, but are not limited to, the candidate's integrity, business acumen, knowledge of our business and industry, age, experience, diligence, conflicts of interest and the ability to act in the interests of all stockholders. Our Nominating and Corporate Governance Committee does not assign specific weights to particular criteria and no particular criterion is a prerequisite for each prospective nominee. In addition, although we do not have a formal diversity policy, we review diversity as one of the criteria for nomination. We believe that the backgrounds and qualifications of our directors, considered as a group, should provide a composite mix of experience, knowledge and abilities that will allow the board to fulfill its responsibilities.

Stockholders may recommend individuals to our Nominating and Corporate Governance Committee for consideration as potential director candidates by submitting their names, together with appropriate biographical information and background materials and a statement as to whether the stockholder or group of stockholders making the recommendation has beneficially owned more than \$2,000 in market value, or 1%, of our common stock for at least one (1) year as of the date such recommendation is made, to: Nominating and Corporate Governance Committee, c/o Corporate Secretary, Senesco Technologies, Inc., 721 Route 202/206, Suite 130, Bridgewater, NJ 08807. Assuming that appropriate biographical and background material has been provided on a timely basis, the committee will evaluate stockholder-recommended candidates by following substantially the same process, and applying substantially the same criteria, as it follows for candidates submitted by others.

Communicating with our Independent Directors

Our board will give appropriate attention to written communications that are submitted by stockholders, and will respond if and as appropriate. The Lead Director, with the assistance of our outside counsel, is primarily responsible for monitoring communications from our stockholders and for providing copies or summaries to the other directors as he considers appropriate. Communications are forwarded to all directors if they relate to important substantive matters and include suggestions or comments that the Lead Director considers to be important for the directors to know. In general, communications relating to corporate governance and long-term corporate strategy are more likely to be forwarded than communications relating to ordinary business affairs, personal grievances and matters as to which we tend to receive repetitive or duplicative communications.

Stockholders who wish to send communications on any topic to our board should address such communications to: Board of Directors, c/o Corporate Secretary, Senesco Technologies, Inc., 721 Route 202/206, Suite 130, Bridgewater, NJ 08807. Our Corporate Secretary will forward such communications to our Lead Director, with a copy to the Chairman of our board.

Compensation of Directors

We use a combination of cash and equity-based compensation to attract and retain qualified individuals to serve on our board, as described below. We provide reimbursement to directors for reasonable and necessary expenses incurred in connection with attendance at meetings of the board of directors and other Senesco business.

Dr. Thompson has received compensation for providing research and development management services to us and does not receive any additional compensation for his services as a board member. See “Certain Relationships and Related Transactions” which sets forth the details of the compensation arrangement with Dr. Thompson.

Cash Compensation

We pay our non-employee directors cash compensation, paid in quarterly increments as consideration for their service on our board for each fiscal year as follows:

Annual (Base) Retainer.....	\$	10,000
Per Scheduled Board Meeting Fee	\$	1,500 ⁽¹⁾
Per Committee Meeting Fee	\$	750 ⁽²⁾
Additional Annual Retainer:		
Chairman of the Board.....	\$	5,000
Audit Committee Chair.....	\$	3,500
Compensation Committee Chair	\$	3,500
Nominating and Corporate Governance Committee Chair	\$	1,500
Non-Chair Committee Member Additional Retainer (All Committees)	\$	1,000
Maximum Per Diem For All Meetings	\$	2,000

(1) \$750 for telephonic meetings (less than 30 minutes: \$375).

(2) \$375 for telephonic meetings.

Equity Election Program

A director may elect to receive, in lieu of such cash retainer and meeting fees, either (i) restricted stock units, or RSU's, covering that number of shares having a fair market value on the grant date equal to such cash award or (ii) a number of option shares equal to twice the number of RSU's that would have been received, with an exercise price per share equal to the fair market value of our common stock on the option grant date. Such election must be timely made and applies for the entire year. The RSU's or options are granted quarterly, effective two (2) days following the filing of our quarterly reports on Form 10-Q for that quarter, and are fully vested as of the grant date.

In Fiscal 2012, all of the directors elected to receive options in lieu of cash, except for Messrs. Braca and Rector, who elected to receive their retainer fees in cash and their meeting fees in options, and Mr. Isabelle, who elected to receive his fees in cash. Accordingly, on November 16, 2011, February 16, 2012, and May 16, 2012, each of these non-employee directors received options to purchase shares of our common stock pursuant to the provisions of the 2008 Stock Plan and their equity elections. The dollar amount of the fees paid in equity pursuant to such program by each director for Fiscal 2012 was as follows:

Director	\$ Amount of Fees Paid in Equity
Harlan W. Waksal, M.D.	\$ 25,000
Rudolf Stalder.....	\$ 19,500
Christopher Forbes	\$ 16,750
Thomas C. Quick.....	\$ 13,250
John N. Braca	\$ 11,250
David Rector.....	\$ 11,250
Jack Van Hulst.....	\$ 13,750
Warren J. Isabelle	-

The following table sets forth information relating to the options granted to the directors during Fiscal 2012 pursuant to the equity election program.

Director	Option Grant Date	Exercise Price	# of Shares	Grant Date Fair Value
Rudolf Stalder.....	05/16/2012	\$0.21	40,244	\$ 6,278
	02/16/2012	\$0.24	40,626	\$ 7,638
	11/16/2011	\$0.20	105,000	\$ 16,485
Christopher Forbes	05/16/2012	\$0.23	35,366	\$ 4,350
	02/16/2012	\$0.26	36,458	\$ 4,703
	11/16/2011	\$0.22	87,500	\$ 9,625
Thomas C. Quick.....	05/16/2012	\$0.21	34,146	\$ 5,327
	02/16/2012	\$0.24	29,166	\$ 5,483
	11/16/2011	\$0.20	62,500	\$ 9,813
John N. Braca	05/16/2012	\$0.21	10,976	\$ 1,712
	02/16/2012	\$0.24	15,626	\$ 2,938
	11/16/2011	\$0.20	82,500	\$ 12,953

Director	Option Grant Date	Exercise Price	# of Shares	Grant Date Fair Value
David Rector.....	05/16/2012	\$0.21	10,976	\$ 1,712
	02/16/2012	\$0.24	15,626	\$ 2,938
	11/16/2011	\$0.20	82,500	\$ 12,953
Jack Van Hulst.....	05/16/2012	\$0.21	31,708	\$ 4,946
	02/16/2012	\$0.24	20,834	\$ 3,917
	11/16/2011	\$0.20	80,000	\$ 12,560
Harlan W. Waksal, M.D.	05/16/2012	\$0.21	46,342	\$ 7,229
	02/16/2012	\$0.24	45,834	\$ 8,617
	11/16/2011	\$0.20	147,500	\$ 23,158
Warren J. Isabelle	-	-	-	-

Equity Awards

We do not automatically grant options or other equity to our directors. Our Compensation Committee reviews the non-employee director equity program each year with its compensation consultant and determines the appropriate equity awards to be made for that year. Effective September 30, 2011, the Committee granted the options identified below to the non-employee directors for their board service during Fiscal 2012. Such options are in addition to the options awarded to our directors pursuant to the equity election program described above.

Director	Total # of Options Granted
Harlan W. Waksal, M.D.	305,000 (1)
Rudolf Stalder.....	155,000 (1)
Rudolf Stalder.....	300,000 (2)
Christopher Forbes	190,000 (1)
Thomas C. Quick.....	155,000 (1)
John N. Braca	230,000 (1)
David Rector.....	230,000 (1)
Jack Van Hulst.....	155,000 (1)
Warren J. Isabelle	155,000 (1)

(1) Fifty percent (50%) of the option shares vested on the option grant date and the remaining fifty percent (50%) of the option shares shall vest on the first anniversary of the option grant date, subject to the optionee's continued board service through the vesting date.

(2) Twenty-five percent (25%) of the option shares shall vest on the first anniversary of the option grant date and the remaining option shares shall vest in a series of thirty-six equal monthly thereafter, subject to continued board service through each such vesting date.

Director Compensation Summary

The table below shows the compensation paid or awarded to our non-employee directors (other than Dr. Thompson) during the fiscal year ended June 30, 2012.

Name (a)	Fees Earned or Paid in Cash (\$)(1) (b)	Stock Awards (\$) (c)	Option Awards (2)(3) (\$) (d)	Non-Equity Incentive Plan Compensation (\$) (e)	Change in Pension Value and Nonqualified Deferred Compensation Earnings (\$) (f)	All Other Compensation (\$) (g)	Total (\$) (h)
Rudolf Stalder.....	--	--	\$ 113,491	--	--	--	\$ 113,491
Christopher Forbes	--	--	\$ 45,848	--	--	--	\$ 45,848
Thomas C. Quick..	--	--	\$ 48,213	--	--	--	\$ 48,213
John N. Braca	\$14,500	--	\$ 58,543	--	--	--	\$ 73,043
David Rector.....	\$14,500	--	\$ 58,543	--	--	--	\$ 73,043
Jack Van Hulst.....	--	--	\$ 49,013	--	--	--	\$ 49,013
Harlan W. Waksal, M.D....	--	--	\$ 93,294	--	--	--	\$ 93,294
Warren J. Isabelle.	\$15,250	--	\$ 27,590	--	--	--	\$ 42,840

- (1) Consists of annual retainer fees and meeting fees for service as a member of the Board. Please see the "Cash Compensation" section above. Excludes retainer fees paid in stock-based awards as described under the heading "Equity Election Program".
- (2) Represents the aggregate grant date fair value of stock options granted in Fiscal 2012, including annual retainer fees paid under the equity election program, calculated in accordance with the FASB ASC Topic 718 and were not adjusted to take into account any estimated forfeitures. For information regarding assumptions underlying the FASB ASC Topic 718 valuation of equity awards, see Notes 2 and 10 of the Notes to the Consolidated Financial Statements in our Annual Report on Form 10-K for the fiscal year ended June 30, 2012.
- (3) The following table shows the total number of shares of our common stock subject to option awards (vested and unvested) held by each non-employee director as of June 30, 2012. None of our non-employee directors held RSUs as of June 30, 2012.

Director	Total # of Options Outstanding
Rudolf Stalder	1,472,657
Christopher Forbes.....	1,050,563
Thomas C. Quick	841,185
John N. Braca	1,053,591
David Rector	1,030,899
Jack Van Hulst.....	967,917
Harlan W. Waksal, M.D.	1,702,330
Warren J. Isabelle	280,000

Section 16(a) Beneficial Ownership Reporting Compliance

Section 16(a) of the Exchange Act requires a company's directors, officers and stockholders who beneficially own more than 10% of any class of equity securities of the company registered pursuant to Section 12 of the Exchange Act, collectively referred to herein as the Reporting Persons, to file initial statements of beneficial ownership of securities and statements of changes in beneficial ownership of securities with respect to the company's equity securities with the SEC. All Reporting Persons are required by SEC regulation to furnish us with copies of all reports that such Reporting Persons file with the SEC pursuant to Section 16(a).

Based solely on our review of the copies of such forms received by us and upon written representations of the Reporting Persons received by us, we believe that there has been compliance with all Section 16(a) filing requirements applicable to our Reporting Persons except that (i) Forms 4 which were due in connection with the purchase of our common stock on January 6, 2012 by Christopher Forbes and Harlan W. Waksal were filed on January 19, 2012; (ii) Forms 4 which were due in connection with February 16, 2012 option grants to our independent directors were filed on February 24, 2012 by each of Harlan W. Waksal, John N. Braca, Jack Van Hulst, Christopher Forbes, Rudolf Stalder, Thomas C. Quick and David Rector; and (iii) a Form 4 which was due in connection with certain transfers of our common stock on March 15, 2012 and March 22, 2012 by Paul E. Klaver was filed on April 12, 2012.

EXECUTIVE OFFICERS

The following table identifies our current executive officers:

Name	Age	Capacities in Which Served	In Current Position Since
Leslie J. Browne, Ph.D.	63	President, Chief Executive Officer and Director	May 2010
John E. Thompson, Ph.D.....	71	Executive Vice President and Chief Scientific Officer, Director	July 2004
Joel P. Brooks ⁽¹⁾	54	Chief Financial Officer, Treasurer and Secretary	December 2000
Richard Dondero ⁽²⁾	63	Vice President of Research and Development	July 2004

- (1) Mr. Brooks was appointed our Chief Financial Officer and Treasurer in December 2000. Mr. Brooks was appointed our Secretary in May 2010. From September 1998 until November 2000, Mr. Brooks was the Chief Financial Officer of Blades Board and Skate, LLC, a retail establishment specializing in the action sports industry. Mr. Brooks was Chief Financial Officer from 1997 until 1998 and Controller from 1994 until 1997 of Cable and Company Worldwide, Inc. He also held the position of Controller at USA Detergents, Inc. from 1992 until 1994, and held various positions at several public accounting firms from 1983 through 1992. Mr. Brooks is also a director and chairman of the audit committee of USA Technologies, Inc. Mr. Brooks received his Bachelor of Science degree in Commerce with a major in Accounting from Rider University in February 1983.
- (2) Mr. Dondero was appointed our Vice President of Research and Development in July 2004. From July 2002 until July 2004, Mr. Dondero was a Group Leader in the Proteomics Reagent Manufacturing division of Molecular Staging, Inc., a biotech firm engaged in the measurement and discovery of new biomarkers. From 1985 through June 2001, Mr. Dondero served in several roles of increasing responsibility through Vice President of Operations and Product Development at Cistron Biotechnology, Inc. From 1977 through 1985, Mr. Dondero served as a senior scientist at Johnson and Johnson, and from 1975 through 1977, as a scientist at Becton Dickinson. Mr. Dondero received his Bachelor of Arts degree from New Jersey State University in 1972 and his Master of Science degree from Seton Hall University in 1976.

None of our current executive officers are related to any other executive officer or to any of our directors. Our executive officers are elected annually by our board and serve until their successors are duly elected and qualified.

COMPENSATION DISCUSSION AND ANALYSIS

This Compensation Discussion and Analysis explains the principles underlying our compensation policies and decisions and the principal elements of compensation paid to our executive officers during Fiscal 2012 and as anticipated for Fiscal 2013. Our Chief Executive Officer, Chief Financial Officer and all of our other executive officers included in the Summary Compensation Table will be referred to as the “named executive officers” for purposes of this discussion.

Compensation Objectives and Philosophy

The Compensation Committee of the board, also referred to herein as the Committee, is responsible for the following:

- annually reviewing and approving, or recommending for approval by our board, the corporate goals and objectives relevant to executive officer compensation;
- reviewing and approving, or recommending for approval by our board, the salaries and incentive compensation of our executive officers;
- preparing the Compensation Committee report, including the Compensation Discussion and Analysis;
- administering our 2008 Incentive Compensation Plan, or similar stock plan adopted by our stockholders; and
- reviewing and making recommendations to our board with respect to director compensation.

We are a development stage biotechnology company utilizing our patented and patent-pending technology related to certain genes, primarily eukaryotic translation initiation Factor 5A, or Factor 5A, and deoxyhypusine synthase, or DHS, and related technologies for human therapeutic applications to develop novel approaches to treat cancer and inflammatory diseases. To achieve this strategic objective, we have emphasized the recruitment of executives with significant industry or scientific experience. This is a very competitive industry and our success depends upon our ability to attract and retain qualified executives through competitive compensation packages. The Compensation Committee administers the compensation programs for our executive officers with this competitive environment in mind.

Pharmaceutical research, development and commercialization require sustained and focused effort over many years. As a consequence, the Compensation Committee believes our compensation program must balance long-term incentives that create rewards for the realization of our long-term strategic objectives with near term compensation that rewards employees for the achievement of annual goals that further the attainment of our long-term objectives and align the interests of our employees with those of our stockholders.

To this end, the objectives of our compensation program are:

- to motivate, recruit and retain executives with extensive industry or scientific experience and who are capable of meeting our strategic objectives;
- to provide incentives to ensure superior executive performance and successful financial results for us; and
- to align the interests of executives with the long-term interests of our stockholders.

The Committee seeks to achieve these objectives by:

- linking a substantial portion of compensation to our achievement of long-term and short-term research and development objectives and financial objectives and the individual's contribution to the attainment of those objectives;
- providing long-term equity-based incentives and encouraging direct share ownership by executives with the intention of providing incentive-based compensation to encourage a long-term focus on company profitability and stockholder value; and
- understanding the marketplace and establishing a compensation structure that is adjusted for our position in the marketplace and our current financial condition and limited capital resources.

Setting Executive Compensation

For Fiscal 2012, the Committee's objective was to target each component of compensation listed below to be competitive with comparable positions at peer group companies, and to target the total annual compensation of each named executive officer at the appropriate level for comparable positions at the competitive peer group companies. However, the Committee did not target each component of compensation or total annual compensation to a specific level or percentage as compared to the competitive peer group.

In establishing the peer group for Fiscal 2012, the Committee identified various companies in the biotech sector it felt were similar in scope of operation to Senesco. For Fiscal 2012, the companies we elected to evaluate as a peer group were as follows: Access Pharma (ACCP.OB); Adventrx (ANX); Poniard (PARD); Cortex (CORX.OB); Callisto (CLSP.OB); RXi Pharmaceuticals (RXII); Titan Pharma (TTNP.OB); Oxigene (OXGN); Entremed (ENMD); and Silence Therapeutics (SLNCF). For Fiscal 2013, the companies we elected to evaluate as a peer group were as follows: Access Pharma (ACCP.OB); Adventrx (ANX); Poniard (PARD); Cortex (CORX.OB); RXi Pharmaceuticals (RXII); Titan Pharma (TTNP.OB); Oxigene (OXGN); Entremed (ENMD); and Silence Therapeutics (SLNCF). In selecting companies to survey for compensatory purposes, the Committee considered many factors not directly associated with the stock price performance of those companies, such as geographic location, development stage, organizational structure and market capitalization. Because the biotechnology industry is a dynamic industry, our comparator group is periodically updated to ensure that companies continue to meet established criteria and remain similar in scope of operation to us.

During the compensation review process for Fiscal 2012, the Committee engaged J. Richard and Co., also referred to herein as J. Richard, a nationally recognized compensation consulting firm, as its compensation consultant, on an as needed basis regarding its proposed programs and approaches to compensation during Fiscal 2012. In particular, J. Richard provided advice with respect to the following key decisions made by the Committee during Fiscal 2012: the establishment of the appropriate level of base salary and incentive compensation for each executive officer, the size and structure of equity awards granted in Fiscal 2012 and Fiscal 2013 and the establishment of a severance policy in Fiscal 2013. J. Richard did not provide any additional services to the Committee or Senesco for Fiscal 2012, and compensation to J. Richard for services rendered in Fiscal 2012 was less than \$120,000. In addition, the Committee consulted with J. Richard in connection with its plans for Fiscal 2013.

There is no pre-established policy for allocation of compensation between cash and non-cash components or between short-term and long-term components. Instead, the Committee determines the mix of compensation for each named executive officer based on its review of the competitive data, its subjective analysis of that individual's performance and contribution to our financial performance, the financial strength and outlook of Senesco, recommendations of the CEO, and what is considered fair and reasonable by the Committee based on the scope of operations and responsibilities of the officer. As part of this process, the Committee considers a number of factors important to our stockholders, including ongoing concerns over the dilutive effect of option grants on our outstanding shares, the compensation expense we must take for financial accounting purposes in accordance with FASB Accounting Standards Codification Topic 718 (ASC 718, Compensation-Stock Compensation) with respect to option grants in relation to the actual value anticipated to be delivered to our executive officers from such awards, and the market volatility of our stock.

Finally, the Committee reviews the compensation metrics of the CEO versus the other named executive officers. Although certain percentages and allocations may differ, the overall cash and equity compensation package of the CEO is not materially greater than the overall cash and equity compensation package of each other named executive officer. On average, a large portion of an executive officer's total compensation is at risk, with the amount actually paid tied to our stock price performance and achievement of pre-established Company objectives and individual goals.

Components of Compensation

For Fiscal 2012, our executive compensation program included the following components:

- base salary; and
- annual equity incentives.

Currently, for Fiscal 2013, our executive compensation program includes the following components:

- base salary; and
- annual equity incentives.

Base Salary

In General – It is the Committee's objective to set a competitive rate of annual base salary (or consulting fees for our Chief Scientific Officer) for each named executive officer as compared to the peer group companies. The Committee believes competitive base salaries are necessary to attract and retain top quality executives, since it is common practice for public companies to provide their executive officers with a guaranteed annual component of compensation that is not subject to performance risk. However, in establishing a competitive rate of base salary, the Committee recognizes that it must keep in mind the constraints imposed by our development stage and reliance on the capital markets as the primary source of our cash needs. Accordingly, when compared to comparable positions at the competitive peer group companies, historically, the base salary level for our executive officers has been below the 25th percentile of competitive peer group companies.

In setting the appropriate level of base salary, the Committee also considers a number of other factors, including our recent performance and each officer's individual performance, the officer's position and responsibilities and the CEO's recommendations (with respect to officers other than the CEO).

Base Salary for Fiscal 2012 – After a review of the factors discussed above, and in connection with our decision not to award cash bonuses in Fiscal 2011, the base salaries of our named executive officers were increased for Fiscal 2012 as follows:

<u>Name</u>	<u>Title</u>	<u>2012 Salary</u>	<u>2011 Salary</u>	<u>% Increase</u>
Leslie J. Browne, Ph.D.	President and Chief Executive Officer	\$262,500	\$250,000	5.0%
John E. Thompson, Ph.D.	Executive Vice-President and Chief Scientific Officer	\$ 67,500 (1)	\$ 65,000 (1)	3.8%
Joel P. Brooks	Chief Financial Officer, Secretary and Treasurer	\$170,000	\$164,800	3.0%
Richard Dondero	Vice-President of Research and Development	\$153,200	\$147,300	4.0%

(1) Represents consulting fees paid under a consulting agreement.

Base Salary for Fiscal 2013 – After a review of the factors discussed above, and in connection with our decision not to award cash bonuses in Fiscal 2012, the base salaries of our named executive officers were increased for Fiscal 2013 as follows:

<u>Name</u>	<u>Title</u>	<u>2013 Salary</u>	<u>2012 Salary</u>	<u>% Increase</u>
Leslie J. Browne, Ph.D.	President and Chief Executive Officer	\$271,000	\$ 262,500	3.5%
John E. Thompson, Ph.D.	Executive Vice-President and Chief Scientific Officer	\$ 70,000 (1)	\$ 67,500 (1)	3.5%
Joel P. Brooks	Chief Financial Officer, Secretary and Treasurer	\$176,000	\$170,000	3.5%
Richard Dondero	Vice-President of Research and Development	\$159,000	\$153,200	3.5%

(1) Represents consulting fees paid under a consulting agreement.

Annual Bonuses for Fiscal 2012

In order to link a substantial portion of the cash compensation of our executive officers to our performance, the Committee generally provides the opportunity each year to all of the named executive officers to earn additional compensation through incentive programs based on the individual performance of each named executive officer and attainment of stated company objectives that enhance stockholder value. However, in order to conserve our limited cash resources, the Committee decided not to implement a cash incentive program for Fiscal 2012.

Annual Bonuses for Fiscal 2013

Bonuses will be determined at the discretion of the board after the end of the fiscal year based upon the recommendation of the Committee.

Equity Incentive Awards

In General – Historically, the Compensation Committee has granted incentive stock options to our executive officers in order to provide long term incentives that align the interests of our executive officers with the achievement of our long term vision to develop and commercialize pharmaceutical products and with the interests of our stockholders. Given the long time periods involved in pharmaceutical development, the Committee believes that these long term incentives are critical to our success. The Compensation Committee’s goal each year is to weight the equity component of each executive officer’s compensation heavily, as part of our pay-for-performance philosophy and in order to align the interests of our executive officers with our stockholders. The exercise price for options granted by the Company is equal to the closing price of the Company’s stock on the option grant date; accordingly, the stock options only produce realizable value to the executive officer to the extent the Company’s stock price appreciates.

The Committee has followed a grant practice of tying equity awards to its annual year-end review of individual performance, and its assessment of our performance and our operational results. In determining the size of equity awards to make in Fiscal 2012, in order to provide an appropriate retention and incentive program for the Company’s executive officers, the Committee considered a number of factors, including peer group data, ongoing concerns over the dilutive effect of option grants on our outstanding shares, the compensation expense we must take for financial accounting purposes in accordance with FASB Accounting Standards Codification Topic 718 (ASC 718, Compensation-Stock Compensation) for option grants in relation to the actual value anticipated to be delivered to our executive officers, and the market volatility of our stock.

Equity Incentive Plan for Fiscal 2012 – The Committee awarded stock option grants to each executive officer that vest on the basis of individual achievements related to company performance and on each executive officer’s continued service. For the portion of the award that is to vest on the basis of our performance, the Committee, in coordination with our Chief Executive Officer, established goals and objectives for Fiscal 2012 based on the following:

- Contributions relating to the development of our SNS01-T assets:
 - Demonstrate the pre-clinical effects of SNS01-T in combination with certain approved therapeutic products;
 - Develop an improved SNS01-T formulation;
 - Complete treatment under the Phase 1b/2a clinical study for SNS01-T in multiple myeloma; and
 - Plan a clinical study for SNS01-T in B cell cancers in addition to multiple myeloma;
- Contributions relating to finance objectives:
 - Maintain sufficient working capital and plan and execute financing activities; and
 - Regain and maintain NYSE MKT compliance;
- Contributions relating to corporate development:
 - Expand product portfolio; and
 - Investigate partnering opportunities.

The foregoing goals and objectives were generally weighted as follows: 50% for contributions relating to the development of our SNS01-T assets; 25% to contributions relating to finance objectives; and 25% to contributions relating to corporate development. However, the specific weighting varied from executive officer to executive officer, in order to reflect that officer’s specific duties and responsibilities.

The Committee established the following individual performance goals and objectives for Fiscal 2012 our Chief Executive Officer, Dr. Browne:

management of clinical trials, initiation of new clinical trials for our SNS01-T assets; raising capital through financings and maintaining NYSES MKT compliance; and expanding the product portfolio and integrating business acquisitions.

The Committee, working with our Chief Executive Officer, identified individual performance goals and objectives for Fiscal 2012 for Messrs. Brooks and Dondero and Dr. Thompson. Mr. Brooks's goals and objectives primarily include raising capital through financings, regaining and maintaining NYSE MKT compliance and increasing Senesco's trading volume. Mr. Dondero's goals and objectives primarily include management of Senesco's clinical trials, initiation of new clinical trials for our SNS01-T assets and expanding our product portfolio. Dr. Thompson's goals primarily include demonstrating the pre-clinical effects of SNS01-T in combination with certain approved therapeutic products and developing an improved SNS01-T formulation.

In September 2011, the Committee awarded options to purchase shares of our common stock to our named executive officers which vest on the basis of a two-step process. First, option shares vest based on the company's overall performance and the executive officer's individual performance based on the pre-established individual performance metrics. Second, the number of shares that were earned based on corporate and individual performance vest on the basis of the executive officer's continued service as follows: 25% of the option shares vest on the first anniversary of the option grant date, and the balance of the option shares vest in a series of thirty-six successive equal monthly installments, subject to the executive officer's continued service through each applicable vesting date.

The options were granted on September 30, 2011, two days after the filing of our annual report on Form 10-K for the year ended June 30, 2011, and have an exercise price of \$0.23 per share, which is equal to the closing price of the common stock on the date of grant.

In October 2012, the Committee evaluated our performance against the Fiscal 2012 goals and objectives and each executive officer's individual performance based on the pre-established individual performance metrics. Based on the Committee's determination, a percentage of the options granted in September 2011 were forfeited as follows:

Name	Initial Grant	Performance Adjustment Percentage	Options Retained	Options Forfeited
Leslie J. Browne, Ph.D.	819,000	45%	368,550	450,450
Joel Brooks	468,000	40%	187,200	280,800
Richard Dondero	468,000	40%	187,200	280,800
John E. Thompson, Ph.D.	468,000	70%	327,600	140,400

The retained option shares will continue to vest pursuant to the service-based vesting schedule set forth above.

Equity Incentive Plan for Fiscal 2013 – The Committee awarded stock option grants to each executive officer that vest on the basis of individual and company performance and on each executive officer's continued service. For the portion of the award that is to vest on the basis of our performance, the Committee, in coordination with our Chief Executive Officer, established goals and objectives for Fiscal 2013 based on the following:

- Contributions relating to the development of our SNS01-T assets:
 - Maintain schedule to complete multiple myeloma study in the second half of fiscal 2013;
 - Plan a clinical study for SNS01-T in B cell cancers in addition to multiple myeloma;
 - Validate preclinical candidate for approval for IND preparation; and
 - Develop an improved SNS01-T formulation;
- Contributions relating to finance objectives:
 - Improve the capital resources of the company through a financing transaction; and
 - Regain and maintain NYSE MKT compliance;
- Contributions relating to corporate development:
 - Expand product portfolio; and
 - Integrate business acquisitions.

The foregoing goals and objectives were generally weighted as follows: 50% for contributions relating to the development of our SNS01-T assets; 25% to contributions relating to finance objectives; and 25% to contributions relating to corporate development. However, the specific weighting varied from executive officer to executive officer, in order to reflect that officer's specific duties and responsibilities.

The Committee established the following individual performance goals for Dr. Browne: adding value to the Company's current assets, maintaining the Company's financial runway, building value in the Company through business development and building the Company's internal capabilities. The Committee, working with our Chief Executive Officer, identified individual performance goals and objectives for Fiscal 2013 for Messrs. Brooks and Dondero and Dr. Thompson. Mr. Brooks's goals and objectives primarily include raising capital through financings, regaining and maintaining NYSE MKT compliance and increasing Senesco's trading volume. Mr. Dondero's goals and objectives primarily include management of Senesco's clinical trials, initiation of new clinical trials for our SNS01-T assets and expanding our product portfolio. Dr. Thompson's goals primarily include demonstrating the pre-clinical effects of SNS01-T in combination with certain approved therapeutic products and developing an improved SNS01-T formulation.

In October 2012, the Committee awarded options to purchase shares of our common stock to our named executive officers which vest on the basis of a two-step process. First, option shares vest based on the company's overall performance and the executive officer's individual performance based on the pre-established individual performance metrics. Second, the number of shares that were earned based on corporate and individual performance vest on the basis of the executive officer's continued service as follows: 25% of the option shares vest on the first anniversary of the option grant date, and the balance of the option shares vest in a series of thirty-six successive equal monthly installments, subject to the executive officer's continued service through each applicable vesting date.

The following options were granted on November 16, 2012, two days after the filing of our annual report on Form 10-K for the year ended June 30, 2012, and have an exercise price of \$0.165 per share, which is equal to the closing price of the common stock on the date of grant:

Leslie J. Browne, Ph.D.	1,365,000
Joel Brooks	780,000
Richard Dondero	780,000
John E. Thompson, Ph.D.	780,000

Market Timing of Equity Awards

The Compensation Committee does not engage in any market timing of the equity awards made to the executive officers or other award recipients, and accordingly, there is no established practice of timing our awards in advance of the release of favorable financial results or adjusting the award date in connection with the release of unfavorable financial developments affecting our business. In general, we will attempt, when possible, to make equity awards to our executive officers and directors promptly after the release of our financial results.

Clawback Policy

Our current "clawback" policy provides for recoupment of incentive compensation paid to any executive as required by the provisions of the Sarbanes-Oxley Act of 2002 or the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010.

Analysis of Risk Associated with our Compensation Plans

We do not believe that the performance-based nature of the executive compensation program encourages excessive risk-taking by our executive officers that would threaten our economic viability. In Fiscal 2012 the Compensation Committee's performance milestones under the stock option grants for certain clinical objectives were focused on the achievement of specific milestones, rather than a successful outcome. The Compensation Committee believes that this strategy protects against the potential of short-term incentives to encourage excessive risk taking. In addition, long-term equity awards tied to the value of our common stock represent a significant component of an executive officer's total direct compensation, as evidenced by the compensation breakdown contained in the Summary Compensation Table that follows. Those awards promote a commonality of interest between the executive officers and our stockholders in sustaining and increasing stockholder value. Because the equity awards are typically made on an annual basis to the executive officers, those officers always have unvested awards outstanding that could decrease significantly in value if our business is not managed to achieve its long term goals. Accordingly the overall compensation structure is not overly-weighted toward short-term incentives, and we have taken what we believe are reasonable steps to protect against the potential of disproportionately large short-term incentives that might encourage excessive risk taking.

Executive Benefits and Perquisites

We do not offer a defined benefit pension plan, deferred compensation plan or supplemental executive retirement plan. Instead, we provide our executive officers with the opportunity to accumulate retirement income primarily through equity awards that increase in value as stockholder value is created and sustained.

The remaining elements of our executive compensation program, like our broader employee compensation programs, are intended to make our overall compensation program competitive with those of our peer companies, keeping in mind the constraints imposed by our reliance on the capital markets as the primary source of our cash needs. With the exception of the severance Policy described below, all of the remaining elements of our executive compensation program (401(k) Plan, Medical, Dental, and Vision Plans, Life and Disability Insurance) are available to all Company employees. We do not generally provide any additional benefits and perquisites.

Executive Compensation Agreements

None of our named executive officers have a current employment agreement with us. However, based on the advice of J. Richard on October 9, 2012, our board of directors approved a Retention Policy for officers of the Company (the "Policy"). Pursuant to the terms and provisions of the Policy, in the event that an officer is terminated without cause or resigns for good reason in connection with a change of control transaction, such officer will become entitled to receive the following payments and benefits, subject to his or her execution of a release of claims against us:

(i) A lump sum cash payment in an amount equal to the sum of (A) the officer's target bonus for the calendar year in which the officer's termination occurs, plus (B) a multiple of the officer's annual base salary, based on the officer's position with us as follows: CEO, 2x base salary; CFO, 1.5x base salary; VP R&D, 1.5x base salary; VP Clinical, 1.5x base salary; all other officers, 1x base salary;

(ii) Reimbursement of the officer's cost to continue health care coverage for the following period: CEO, 2 years; CFO, 1.5 years; VP R&D, 1.5 years; VP Clinical, 1.5 years; all other officers, 1 year; and

(iii) each of the officer's outstanding equity awards shall become fully vested and to the extent applicable, exercisable, and each such option outstanding following the effective date of the change in Control shall remain exercisable until the expiration of the maximum option term.

Notwithstanding the foregoing, if the aggregate compensation set forth in clauses (i) and (ii) above to be paid to all officers exceeds 10% of the value of the transaction, then the board of directors shall have the discretion to reduce such compensation pro-rata to the extent the Board determines is necessary or advisable in order to consummate the change of control transaction.

The Policy also provides our Board with discretion to grant a termination package in the event an officer is terminated without cause or resigns for good reason in the absence of a change in control.

The Compensation Committee believes that the severance benefits under the Policy provide financial protection against the potential loss of employment in designated circumstances and will allow our executive officers to focus attention on changes that are in the best interests of the stockholders, without undue concern as to each officer's own financial situation. The Compensation Committee also believes the accelerated vesting of equity awards is justified because those awards are designed to serve as the primary vehicle for the executives to accumulate financial resources for retirement. Finally, given the time periods and risks involved in pharmaceutical development, the Compensation Committee believes that the extended exercise period is an appropriate way to provide the officers with an opportunity to realize financial gains from decisions made during his or her tenure as an officer. J. Richard advised the Compensation Committee that the Policy is within the competitive range of comparable executive officer severance packages at other companies in the comparator group.

IRC Section 162(m) compliance

As a result of Section 162(m) of the Internal Revenue Code, publicly-traded companies such as us are not allowed a federal income tax deduction for compensation, paid to the Chief Executive Officer and the three other highest paid executive officers, to the extent that such compensation exceeds \$1 million per officer in any one year and does not otherwise qualify as performance-based compensation. Currently, our stock option compensation packages are structured so that compensation deemed paid to an executive officer in connection with the exercise of a stock option should qualify as performance-based compensation that is not subject to the \$1 million limitation. However, our equity incentive plan enables us to award other types of equity awards which may or may not so qualify. In establishing the cash and equity incentive compensation programs for the executive officers, it is the Committee's view that the potential deductibility of the compensation payable under those programs should be only one of a number of relevant factors taken into consideration, and not the sole governing factor. For that reason the Committee may deem it appropriate to continue to provide one or more executive officers with the opportunity to earn incentive compensation, including cash bonus programs tied to our financial performance and RSU awards, which may be in excess of the amount deductible by reason of Section 162(m) or other provisions of the Internal Revenue Code. It is the Committee's belief that cash and equity incentive compensation must be maintained at the requisite level to attract and retain the executive officers essential to our financial success, even if part of that compensation may not be deductible by reason of the Section 162(m) limitation.

It is important to note that as of June 30, 2012, the Company had net operating loss carryforwards for federal income tax purposes of approximately \$45,451,000 that will expire between 2019 and 2032. These loss carryforwards would defer the impact of any deductions that the Company might lose under Section 162(m) for one or more of those carryforward years.

For Fiscal 2012, none of our executive officer's compensation reached the \$1 million limitation.

Report of the Compensation Committee

The Compensation Committee has reviewed and discussed the Compensation, Discussion and Analysis with management, and based on this review and these discussions, the Compensation Committee recommended to the board that the Compensation, Discussion and Analysis be included in Senesco's Annual Report on Form 10-K/A.

This report is submitted on behalf of the
Compensation Committee
David Rector, Chairman
John N. Braca

Summary Compensation Table

The following table sets forth information concerning compensation for services rendered in all capacities during the fiscal years ended June 30, 2012, June 30, 2011 and June 30, 2010 awarded to, earned by or paid to: (i) our Chief Executive Officer; (ii) our Chief Financial Officer; and (iii) each of our two other executive officers whose total compensation for Fiscal 2012 was in excess of \$100,000, collectively referred to herein as the named executive officers. No other executive officers who would have otherwise been includable in such table on the basis of total compensation for Fiscal 2012 have been excluded by reason of their termination of employment or change in executive status during that year.

Name and Principal Position (a)	Year (1) (b)	Salary (\$)(2) (c)	Bonus (\$)(3) (d)	Stock Awards (\$)(4) (e)	Option Awards (\$)(5) (f)	Non- Equity Incentive Plan Compensati on (\$) (g)	Change in Pension Value and Nonqualified Deferred Compensation Earnings (\$) (h)	All Other Compensation (\$)(6) (i)	Total (\$) (j)
Leslie J. Browne, Ph.D. (7) (President and Chief Executive Officer)	2012	\$ 266,322	-	-	\$ 151,515	-	-	\$ 9,800	\$ 427,637
	2011	\$ 250,468	-	-	\$ 154,425	-	-	-	\$ 404,893
	2010	\$ 27,885	-	-	\$ 440,000	-	-	-	\$ 467,885
Joel Brooks (Chief Financial Officer , Secretary and Treasurer)	2012	\$ 172,682	-	-	\$ 86,580	-	-	-	\$ 259,262
	2011	\$ 165,976	-	\$ 2,600	\$ 90,525	-	-	-	\$ 259,101
	2010	\$ 163,306	\$15,000	-	\$ 66,000	-	-	-	\$ 244,306
Richard Dondero (Vice-President of Research)	2012	\$ 155,775	-	-	\$ 86,580	-	-	-	\$ 242,355
	2011	\$ 148,827	-	-	\$ 90,525	-	-	-	\$ 239,352
	2010	\$ 146,677	\$15,000	-	\$ 66,000	-	-	-	\$ 227,677
John E. Thompson Ph.D. (Executive Vice-President and Chief Scientific Officer)	2012	\$ 67,500	-	-	\$ 86,580	-	-	-	\$ 154,080
	2011	\$ 65,000	-	-	\$ 90,525	-	-	-	\$ 155,525
	2010	\$ 65,000	-	-	-	-	-	-	\$ 65,000

(1) Senesco's fiscal year ends on June 30.

(2) The dollar amount shown includes amounts deferred in connection with our 401(k) plan, a qualified plan under Section 401(k) of the Internal Revenue Code.

(3) The bonus earned for the fiscal year ended June 30, 2010 was declared and paid in October 2010.

(4) The dollar amounts shown are the grant date fair value of restricted stock units awarded to each named executive officer in each year. The fair values of the restricted stock units awarded were calculated based on the fair market value of the underlying shares of common stock on the respective grant dates in accordance with FASB ASC Topic 718 and were not adjusted to take into account any estimated forfeitures. For a discussion of valuation assumptions used in the calculations, see Notes 2 and 10 of Notes to Consolidated Financial Statements included in Part II, Item 8 of our 2012 Form 10-K.

(5) The dollar amounts shown are the grant date fair value of stock options granted to each named executive officer, in accordance with FASB ASC Topic 718 based on the probable outcome of the attainment of one or more pre-established performance objectives. For a discussion of valuation assumptions used in the calculations, see Notes 2 and 10 of Notes to Consolidated Financial Statements included in Part II, Item 8 of our 2012 Form 10-K.

In October 2012, the Committee determined that the performance metrics had not been fully met and a percentage of the options granted in 2012 were forfeited as follows: Leslie J. Browne, Ph.D.; 55%; Joel Brooks and Richard Dondero, 60%; John E. Thompson, Ph.D., 30%. The grant date fair values used to calculate compensation costs were not adjusted to take into account the effect of the forfeitures.

(6) Represents a company contribution to the 401(k) plan.

(7) Dr. Browne was appointed President and Chief Executive Officer on May 25, 2010.

Grants of Plan-Based Awards

The following Grants of Plan Based Awards table provides additional information about stock and option awards and equity incentive plan awards granted to our named executive officers during the fiscal year ended June 30, 2012.

Name	Grant Date	Estimated Future Payouts Under Non-Equity Incentive Plan Awards			Estimated Future Payouts Under Equity Incentive Plan Awards			All Other Stock Awards: Number of Shares of Stock or Units (#)	All Other Option Awards: Number of Securities Underlying Options (#)	Exercise or Base Price of Option Awards (\$/Sh)	Grant Date Fair Value of Equity Awards \$(2)
		Threshold (\$)	Target (\$)	Maximum (\$)	Threshold (#)	Target (#)	Maximum (#)(1)				
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	
Leslie J. Browne, Ph.D.	9/30/2011	-	-	-	-	-	819,000	-	-	\$0.23	\$151,515
John E. Thompson, Ph.D.	9/30/2011	-	-	-	-	-	468,000	-	-	\$0.23	\$ 86,580
Joel P. Brooks	9/30/2011	-	-	-	-	-	468,000	-	-	\$0.23	\$ 86,580
Richard Dondero	9/30/2011	-	-	-	-	-	468,000	-	-	\$0.23	\$ 86,580

(1) Represents a stock option grant that vests on the basis of corporate and individual performance, and the executive officer's continued service, as described below. In October 2012, based on Company performance and the executive officer's individual performance against the pre-established goals, a number of option shares were forfeited by each executive officer. The actual number of option shares outstanding for each executive officer following the performance adjustment is as follows: Leslie J. Browne, Ph.D., 368,550, Joel Brooks and Richard Dondero, 187,200; John E. Thompson, 327,600.

(2) The dollar amounts shown are the grant date fair value of stock options granted to each named executive officer, in accordance with FASB ASC Topic 718 based on the probable outcome of the attainment of one or more pre-established performance objectives. For a discussion of valuation assumptions used in the calculations, see Notes 2 and 10 of Notes to Consolidated Financial Statements included in Part II, Item 8 of our 2012 Form 10-K. The reported grant date fair values were not adjusted to take into account any estimated forfeitures. The grant date fair values used to calculate such compensation costs were not adjusted to take into account the effect of the actual forfeitures, which occurred in October 2012.

In September 2011 the Compensation Committee granted options to our executive officers that vest on the basis of a two-step process. First, option shares vest based on the company's overall performance and the executive officer's individual performance based on the pre-established individual performance metrics. For a discussion of these goals and objectives, please see the Equity Incentive Awards section of our Compensation Discussion and Analysis. Second, the number of shares that were earned based on corporate and individual performance vest on the basis of the executive officer's continued service as follows: 25% of the option shares vest on the first anniversary of the option grant date, and the balance of the option shares vest in a series of thirty-six successive equal monthly installments, subject to the executive officer's continued service through each applicable vesting date.

In October 2012, the Committee evaluated our performance against the Fiscal 2012 goals and objectives and each executive officer's individual performance based on the pre-established individual performance metrics. Based on the Committee's determination, a percentage of the options granted in September 2011 were forfeited as follows:

Name	Initial Grant	Performance Adjustment Percentage	Options Retained	Options Forfeited
Leslie J. Browne, Ph.D.	819,000	45%	368,550	450,450
Joel Brooks	468,000	40%	187,200	280,800
Richard Dondero	468,000	40%	187,200	280,800
John E. Thompson, Ph.D.	468,000	70%	327,600	140,400

Outstanding Equity Awards at Fiscal Year-End

The following table summarizes the equity awards we have made to our named executive officers which are outstanding as of June 30, 2012.

Name (a)	Option Awards					Stock Awards			
	Number of Securities Underlying Unexercised Options (#) Exercisable (b)	Number of Securities Underlying Unexercised Options (#) Unexercisable (c)	Equity Incentive Plan Awards: Number of Securities Underlying Unexercised Options (#) (d)	Option Exercise Price (\$) (e)	Option Expiration Date (f)	Number of Shares or Units of Stock That Have Not Vested (#) (g)	Market Value of Shares or Units of Stock That Have Not Vested (\$) (h)	Equity Incentive Plan Awards: Number of Unearned Shares, Units or Other Rights That Have Not Vested (#) (i)	Equity Incentive Plan Awards: Market or Payout Value of Unearned Shares, Units or Other Rights That Have Not Vested (\$) (j)
Leslie J. Browne, Ph.D.	-	-	819,000 (1)(3)	\$0.23	09/30/2021	-	-	-	-
	286,978	-	438,022 (1)	\$0.26	11/17/2020	-	-	-	-
	520,833	-	479,167 (1)	\$0.55	05/25/2020	-	-	-	-
Joel P. Brooks	-	-	468,000 (1)(3)	\$0.23	9/30/2021	-	-	-	-
	168,228	-	256,772 (1)	\$0.26	11/17/2020	-	-	-	-
	240,000	60,000 (2)	-	\$0.29	02/19/2020	-	-	-	-
	12,500	-	-	\$1.65	10/09/2012	-	-	-	-
	20,000	-	-	\$2.16	06/19/2013	-	-	-	-
	15,000	-	-	\$3.15	12/16/2013	-	-	-	-
	20,000	-	-	\$3.45	12/16/2014	-	-	-	-
	25,000	-	-	\$1.40	12/14/2015	-	-	-	-
25,000	-	-	\$1.08	12/14/2016	-	-	-	-	
Richard Dondero	-	-	468,000 (1)(3)	\$0.23	09/30/2021	-	-	-	-
	168,228	-	256,772 (1)	\$0.26	11/17/2020	-	-	-	-
	240,000	60,000 (2)	-	\$0.29	02/19/2020	-	-	-	-
	10,000	-	-	\$3.45	12/16/2014	-	-	-	-
	25,000	-	-	\$1.40	12/14/2015	-	-	-	-
	25,000	-	-	\$1.08	12/14/2016	-	-	-	-
	71,924	-	-	\$0.99	12/13/2017	-	-	-	-
	60,000	-	-	\$0.99	12/13/2017	-	-	-	-
76,000	-	-	\$0.60	11/19/2018	-	-	-	-	
John E. Thompson Ph.D.	-	-	468,000 (1)(3)	\$0.23	09/30/2021	-	-	-	-
	168,228	-	256,772 (1)	\$0.26	11/17/2020	-	-	-	-
	20,000	-	-	\$2.35	01/07/2013	-	-	-	-
	20,000	-	-	\$3.15	12/16/2013	-	-	-	-
	55,000	-	-	\$3.45	12/16/2014	-	-	-	-
	20,000	-	-	\$1.40	12/14/2015	-	-	-	-
	25,000	-	-	\$1.08	12/14/2016	-	-	-	-
	52,676	-	-	\$0.99	12/13/2017	-	-	-	-
50,000	-	-	\$0.99	12/13/2017	-	-	-	-	
48,000	-	-	\$0.60	11/19/2018	-	-	-	-	

- (1) One-quarter of such options will vest on the first anniversary of the date of grant with one-thirty-sixth of the balance vesting each month thereafter.
- (2) Options will vest on June 30, 2013.
- (3) Such amounts consist of performance based options which vest upon the achievement of certain milestones under our long-term incentive plan, as well as the executive officer's continued service. In October 2012, the Committee determined that the performance metrics had not been fully met. Therefore, a percentage of the options granted in 2012 were forfeited as follows:

	<u>Original Grant</u>	<u>Percentage Forfeited</u>	<u>Options Forfeited</u>	<u>Options Retained</u>
Leslie J. Browne, Ph.D.	819,000	55%	450,450	368,550
Joel Brooks	468,000	60%	280,800	187,200
Richard Dondero	468,000	60%	280,800	187,200
John E. Thompson, Ph.D.	468,000	30%	140,400	327,600

The equity awards outstanding as of June 30, 2012 were not adjusted to take into account the effect of the forfeitures.

Options Exercised and Stock Vested

The table below shows option exercise and stock award vesting activity for our named executive officers during the year ended June 30, 2012.

Name	Option Awards		Stock Awards	
	Number of Shares		Number of Shares	
(a)	Acquired on Exercise	Value Realized on Exercise	Acquired on Vesting	Value Realized on Vesting
	(#)	(\$)	(#)	\$(1)
	(b)	(c)	(d)	(e)
Leslie J. Browne, Ph.D.	--	--	536,975	\$ 20,162
Joel P. Brooks	--	--	228,228	\$ 49,699
Richard Dondero	--	--	228,228	\$ 49,699
John E. Thompson, Ph.D.	--	--	168,228	\$ 37,099

- (1) Such amounts in this column were calculated by multiplying the number in column (d) by the closing price of our common stock on the applicable vesting date.

Employment Contracts, Termination of Employment, and Change-in-Control Arrangements

None of our named executive officers have a current employment agreement with us. However, on October 9, 2012, our board of directors approved a Retention Policy for officers (the “Policy”) that provides for the payment of severance benefits in the event that an officer is terminated without cause or resigns for good reason in connection with a change of control transaction, as follows:

(i) A lump sum cash payment in an amount equal to the sum of (A) the officer’s target bonus for the calendar year in which the officer’s termination occurs, plus (B) a multiple of the officer’s annual base salary, based on the officer’s position as follows: CEO, 2x base salary; CFO, 1.5x base salary; VP R&D, 1.5x base salary; VP Clinical, 1.5x base salary; all other officers, 1x base salary;

(ii) Reimbursement of the officer’s cost to continue health care coverage for the following period: CEO, 2 years; CFO, 1.5 years; VP R&D, 1.5 years; VP Clinical, 1.5 years; all other officers, 1 year; and

(iii) Each of the officer’s outstanding equity awards shall become fully vested and to the extent applicable, exercisable, as of the effective date of the officer’s termination without cause or resignation for good reason and each such option outstanding following the effective date of the change in control shall remain exercisable until the expiration of the maximum option term.

Notwithstanding the foregoing, if the aggregate compensation set forth in clauses (i) and (ii) above to be paid to all officers exceeds 10% of the value of the transaction, then the Board shall have the discretion to reduce such compensation pro-rata to the extent the Board determines is necessary or advisable in order to consummate the change of control transaction.

The Policy also provides our Board with discretion to grant a termination package in the event an officer is terminated without cause or resigns for good reason in the absence of a change in control.

Equity Compensation Plans

The following table reflects information relating to equity compensation plans as of June 30, 2012.

	Number of securities to be issued upon exercise of outstanding options, warrants and rights	Weighted-average exercise price of outstanding options, warrants and rights	Number of securities remaining available for future issuance under equity compensation plans
Stock Option plans approved by security holders.....	15,647,742 ⁽¹⁾	\$0.50	11,588,876 ⁽²⁾
Equity compensation plans not approved by security holders.....	--	--	--
Total.....	15,647,742 ⁽¹⁾	\$0.50	11,588,876 ⁽²⁾

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

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

SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT

Our common stock is the only class of stock entitled to vote at the Meeting. Only our stockholders of record as of the close of business on the Record Date are entitled to receive notice of and to vote at the Meeting. As of the Record Date, there were 212 holders of record of our common stock, and we had outstanding 146,975,283 shares of our common stock and each outstanding share is entitled to one (1) vote at the Meeting. The following table sets forth certain information, as of the Record Date, with respect to holdings of our common stock by (i) each person known by us to be the beneficial owner of more than 5% of the total number of shares of our common stock outstanding as of such date; (ii) each of our directors, which includes all nominees, and our named executive officers; and (iii) all of our directors and our current executive officers as a group.

<u>Name and Address of Beneficial Owner</u> ⁽¹⁾	<u>Amount and Nature of Beneficial Ownership</u> ⁽²⁾	<u>Percent of Class</u> ⁽³⁾
(i) Certain Beneficial Owners:		
Paul E. Klaver 134 Columbia Street W Unit 18 Waterloo, Ontario N2L 3K8	16,865,190 ⁽⁴⁵⁾	11.2%
Partlet Holdings Ltd. International House, 1 st Floor 41, The Parade St. Helier, JERSEY, Channel Islands.....	7,961,309 ⁽⁵⁾	5.2%
Denville Dover Fund LLC 4 South Orange Avenue South Orange, NJ 07079	7,500,000 ⁽⁶⁾	5.1%
(ii) Directors (which includes all nominees), Named Executive Officers and Chief Executive Officer:		
Harlan W. Waksal, M.D.	5,501,714 ⁽⁷⁾	3.7%
John N. Braca	1,439,391 ⁽⁸⁾	1.0%
Jack Van Hulst	1,208,661 ⁽⁹⁾	*
Christopher Forbes.....	18,475,177 ⁽¹⁰⁾	12.1%
Warren J. Isabelle	512,328 ⁽¹¹⁾	*
Thomas C. Quick	1,945,297 ⁽¹²⁾	1.3%
David Rector	1,616,824 ⁽¹³⁾	1.1%
Rudolf Stalder	2,762,273 ⁽¹⁴⁾	1.9%
John E. Thompson, Ph.D.	1,242,692 ⁽¹⁵⁾	*
Joel P. Brooks.....	772,495 ⁽¹⁶⁾	*
Richard Dondero.....	884,544 ⁽¹⁷⁾	*
Leslie J. Browne, Ph.D.....	1,389,245 ⁽¹⁸⁾	1.0%
(iii) All Directors and current executive officers as a group (12 persons).....	37,850,641 ⁽¹⁹⁾	22.8%

* Less than 1%

(1) Unless otherwise provided, all addresses should be care of Senesco Technologies, Inc., 721 Route 202/206, Suite 130, Bridgewater, New Jersey 08807.

- (2) Except as otherwise indicated, all shares of common stock are beneficially owned and sole investment and voting power is held by the persons named.
- (3) Applicable percentage of ownership is based on 146,975,283, shares of our common stock outstanding as of February 12, 2013, plus any common stock equivalents and options or warrants held by such holder which are presently or will become exercisable within sixty (60) days after February 12, 2013.
- (4) Excludes 7,500,000 warrants which become exercisable after sixty (60) days from February 12, 2013.
- (5) Includes 3,618,056 shares of common stock issuable pursuant to presently exercisable warrants.
- (6) Includes 4,423,077 shares of common stock issuable pursuant to presently exercisable warrants. Also includes 2,000,000 shares of common stock issuable pursuant to the conversion of convertible preferred stock at a conversion rate of \$0.10.
- (7) Includes 2,695,964 shares of common stock issuable pursuant to presently exercisable warrants and options or options which will become exercisable within sixty (60) days after February 12, 2013. Excludes 418,332 shares of common stock issuable pursuant to options which become exercisable after sixty (60) days from February 12, 2013.
- (8) Includes 1,301,427 shares of common stock issuable pursuant to presently exercisable warrants and options or options which will become exercisable within sixty (60) days after February 12, 2013. Excludes 147,000 shares of common stock issuable pursuant to options which become exercisable after sixty (60) days from February 12, 2013.
- (9) Includes 1,168,593 shares of common stock issuable pursuant to presently exercisable warrants and options or options which will become exercisable within sixty (60) days after February 12, 2013. Excludes 125,824 shares of common stock issuable pursuant to options which become exercisable after sixty (60) days from February 12, 2013.
- (10) Includes 5,717,859 shares of common stock issuable pursuant to presently exercisable warrants and options or options which will become exercisable within sixty (60) days after February 12, 2013. Excludes 126,000 shares of common stock issuable pursuant to options which become exercisable after sixty (60) days from February 12, 2013.
- (11) Includes 410,564 shares of common stock issuable pursuant to presently exercisable warrants and options or options which will become exercisable within sixty (60) days after February 12, 2013. Excludes 105,000 shares of common stock issuable pursuant to options which become exercisable after sixty (60) days from February 12, 2013.
- (12) Represents 675,173 shares of common stock and 101,175 shares of common stock issuable pursuant to warrants issued to Thomas C. Quick Charitable Foundation, of which Mr. Quick is the sole trustee. Represents 139,734 shares of common stock and 1,029,215 shares of common stock issuable pursuant to presently exercisable options or options which will become exercisable within sixty (60) days after February 12, 2013 issued to Thomas C. Quick. Excludes 105,000 shares of common stock issuable pursuant to options which become exercisable after sixty (60) days from February 12, 2013.
- (13) Includes 1,264,039 shares of common stock issuable pursuant to presently exercisable warrants and options or options which will become exercisable within sixty (60) days after February 12, 2013. Excludes 147,000 shares of common stock issuable pursuant to options which become exercisable after sixty (60) days from February 12, 2013.
- (14) Includes 1,708,335 shares of common stock issuable pursuant to presently exercisable warrants and options or options which will become exercisable within sixty (60) days after February 12, 2013. Excludes 292,500 shares of common stock issuable pursuant to options which become exercisable after sixty (60) days from February 12, 2013.
- (15) Represents 572,000 shares of common stock held by 2091794 Ontario Ltd., of which Dr. Thompson is the sole owner, and 670,692 shares of common stock issuable pursuant to presently exercisable options or options which will become exercisable within sixty (60) days after February 12, 2013 issued to John E. Thompson, Ph.D. Excludes 1,132,584 shares of common stock issuable pursuant to options which become

exercisable after sixty (60) days from February 12, 2013.

- (16) Includes 721,620 shares of common stock issuable pursuant to presently exercisable options or options which will become exercisable within sixty (60) days after February 12, 2013. Excludes 1,075,580 shares of common stock issuable pursuant to options which become exercisable after sixty (60) days from February 12, 2013.
- (17) Includes 884,544 shares of common stock issuable pursuant to presently exercisable options or options which will become exercisable within sixty (60) days after February 12, 2013. Excludes 1,075,580 shares of common stock issuable pursuant to options which become exercisable after sixty (60) days from February 12, 2013.
- (18) Includes 1,370,245 shares of common stock issuable pursuant to presently exercisable options or options which will become exercisable within sixty (60) days after February 12, 2013. Excludes 2,085,305 shares of common stock issuable pursuant to options which become exercisable after sixty (60) days from February 12, 2013.
- (19) See Notes 6 through 18.

CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS

Contractual Relationships

Service Agreements

Christopher Forbes, our director, is Vice Chairman of Forbes Media LLC, Vice Chairman of Forbes Family Holdings, Inc. and Vice President of Forbes Management Co., Inc. Mr. Forbes was also Vice Chairman of Forbes Inc. Forbes, Inc. and Forbes Management Company, Inc. have provided and will continue to provide us with introductions to strategic alliance partners and, from time to time, use of its office space. In recognition of these services, during Fiscal 2011, we granted to Forbes, Inc. a warrant to purchase shares of our common stock, and during Fiscal 2012, we granted to Forbes Management Company, Inc. an option to purchase shares of our common stock. The awards to the Forbes entities are described in the table below.

<u>Date of Grant</u>	<u># of Warrant / Option Shares</u>	<u>Exercise Price</u>	<u>Value of Services on Date of Grant</u>	<u># of Warrant Shares Vested</u>
November 17, 2010	5,000	\$0.26	\$ 1,300	3,334
September 30, 2011	10,000	\$0.23	\$ 1,780	6,666

The exercise price of the warrant granted to Forbes, Inc. and option granted to Forbes Management Company, Inc. represented the fair market value of our common stock on the respective dates of grant.

Research and Development Agreements

Effective September 1, 1998, we entered into a three-year research and development agreement, which has been extended for successive periods through August 31, 2013, with John E. Thompson, Ph.D. and the University of Waterloo in Waterloo, Ontario, Canada, referred to as the University. Dr. Thompson is our director and officer and beneficially owns approximately 0.9% of our common stock. Dr. Thompson is the Associate Vice President, Research and former Dean of Science of the University. Dr. Thompson and the University will provide research and development under our direction. Research and development expenses under this agreement for the years ended June 30, 2012 and 2011 aggregated US \$573,368 and US \$622,872, respectively. Effective September 1, 2012, we, Dr. Thompson and the University extended the agreement for an additional one-year period through August 31, 2013 in the amount of CAN \$611,500. As of August 31, 2012, such amount represented approximately US \$612,000.

Consulting Agreement

Effective May 1, 1999, we entered into a three-year consulting agreement, which has been extended for successive periods through June 30, 2013, for research and development with Dr. Thompson. This agreement provided for monthly payments of \$3,000 through June 2004. However, effective January 1, 2003, 2006, 2007 and 2011, the agreement was amended to increase the monthly payments from \$3,000 to \$5,000, from \$5,000 to \$5,200, from \$5,200 to \$5,417, and from \$5,417 to \$5,625, respectively.

Debt / Equity Transactions

Line of Credit

On February 17, 2010, we entered into a credit agreement with JMP Securities LLC. The agreement provides us with, subject to certain restrictions, including the existence of suitable collateral, up to a \$3.0 million line of credit upon which we may draw at any time (the "Line of Credit"). Any draws upon the Line of Credit accrue at a monthly interest rate of the broker rate in effect at the interest date (which was 3.75% at June 30, 2012), plus 2.0%. There are no other conditions or fees associated with the Line of Credit. The Line of Credit is not secured by any of our assets, but it is secured by certain assets of a member of our board of directors, Harlan W. Waksal, M.D., which security interest is currently held by JMP Securities. The balance outstanding as of June 30, 2012 was \$2,199,108.

January 2012 Transaction with Christopher Forbes and Harlan W. Waksal, M.D.

On January 6, 2012, in connection with a public placement of our common stock, we entered into securities purchase agreements with, among others, certain of our directors, Christopher Forbes and Harlan Waksal, pursuant to which such directors purchased an aggregate of 1,153,846 shares of our common stock at a purchase price of \$0.26 per share, for an approximate aggregate value of \$300,000.

Conversion of Preferred Stock

On August 8, 2012, in connection with a warrant exchange, certain of our directors, Christopher Forbes and Harlan Waksal, converted their 1,200 shares of Series B preferred stock into 4,615,385 shares of our common stock, as determined pursuant to the terms set forth in the Certificate of Designation of Preferences, Rights and Limitations of 10% Series B Convertible Preferred Stock. The aggregate value of such shares of common stock was approximately \$1,292,308 on the date of conversion based upon the closing price of \$0.28 per share on August 8, 2012. Such conversions were not made pursuant to warrant exchange agreements and therefore such directors did not receive any additional Common Stock. Following this conversion, no shares of Series B Preferred Stock remain outstanding.

Review and Approval of Related Person Transactions

Our Audit Committee Charter requires that our Audit Committee review and approve or ratify transactions involving us and any executive officer, director, director nominee, 5% stockholder and certain of their immediate family members, also referred to herein as a related person. The policy and procedures cover any transaction involving a related person, also referred to herein as a related person transaction, in which the related person has a material interest and which does not fall under an explicitly stated exception set forth in the applicable disclosure rules of the SEC.

A related person transaction will be considered approved or ratified if it is authorized by the Audit Committee after full disclosure of the related person's interest in the transaction. In considering related person transactions, the Audit Committee will consider any information considered material to investors and the following factors:

- the related person's interest in the transaction;
- the approximate dollar value of the transaction;
- whether the transaction was undertaken in the ordinary course of our business;
- whether the terms of the transaction are no less favorable to us than terms that we could have reached with an unrelated third party; and
- the purpose and potential benefit to us of the transaction.

PROPOSAL 2

APPROVAL OF AMENDMENT TO SENESCO'S CERTIFICATE OF INCORPORATION TO INCREASE THE TOTAL NUMBER OF AUTHORIZED SHARES OF COMMON STOCK

Overview and Reasons for Amendment

Stockholders are being asked to approve an amendment to our Amended and Restated Certificate of Incorporation, as amended to date, referred to herein as our Certificate of Incorporation, to increase the number of authorized shares of our common stock from 350,000,000 to 500,000,000. On February 12, 2013, our board adopted resolutions approving and authorizing the amendment and directing that the amendment be submitted to a vote of the stockholders at the meeting.

The board determined that the amendment is in the best interests of Senesco and its stockholders and unanimously recommends approval by the stockholders. If the proposed amendment is approved by the stockholders, the board currently intends to file, with the Secretary of State of the State of Delaware, a Certificate of Amendment to the Certificate of Incorporation, referred to herein as the Certificate of Amendment, reflecting such amendment as soon as practicable following stockholder approval. The following summary is qualified in its entirety by reference to the Certificate of Incorporation. Attached hereto as *Appendix A* to this proxy statement is the proposed Certificate of Amendment.

Our board has proposed this increase in authorized shares of common stock to ensure that we have sufficient shares of common stock available for general corporate purposes including, without limitation, to reserve sufficient shares available underlying the securities issued in the financings, or to complete equity financings or acquisitions, establish strategic relationships with corporate and other partners, provide equity incentives to employees, and pay of stock dividends, stock splits or other recapitalizations. As disclosed in our public filings, we are also exploring additional financing opportunities and will likely issue such equity when an opportunity presents itself. Currently, we do not have any specific plans, arrangements, undertakings or agreements to issue shares in connection with the foregoing prospective activities.

Our Certificate of Incorporation currently authorizes the issuance of up to 350,000,000 shares of common stock and 5,000,000 shares of preferred stock, par value \$0.01 per share, referred to herein as the preferred stock. As of close of business on the Record Date, there were 995 shares of preferred stock currently issued and outstanding. The proposed amendment will not, if adopted, result in an increase in the number of authorized shares of preferred stock.

Of the 350,000,000 shares of common stock currently authorized, as of the close of business on the Record Date, there were 146,975,283 shares of common stock issued and outstanding. Furthermore, we have reserved for future issuance:

- a. 1,989,100 shares of common stock upon the exercise of outstanding options granted under the 1998 Stock Plan;
- b. 26,081,023 shares of common stock upon the exercise of options, of which 19,059,902 have been granted and 7,021,121 may be granted in the future, under the 2008 Incentive Compensation Plan;
- c. 61,882,277 shares of common stock upon the exercise of warrants issued and outstanding;
- d. 9,950,000 shares of common stock upon conversion, at the current conversion price of \$0.10, of the convertible preferred stock issued pursuant to a previously disclosed financing;
- e. 8,975,223 shares of common stock which may be issued upon conversion, if the conversion rate is either adjusted in connection with the anti-dilution feature of the convertible preferred stock issued pursuant to a previously disclosed financing; and
- f. an estimated 222,098 shares of common stock, which may be issued as dividend shares pursuant to a previously disclosed financing.

If the proposed amendment is approved, then after the meeting, there will still be 146,975,283 shares of common stock issued and outstanding.

Reason For Request For Stockholder Approval

In accordance with Delaware law, approval and adoption of an amendment to our Certificate of Incorporation to increase the authorized shares of our common stock and preferred stock requires stockholder approval.

Consequences if Stockholders Approve this Proposal

Dilution. As is the case with the current authorized but unissued shares of common stock, the additional shares of common stock authorized by this proposed amendment could be issued upon approval by our board without further vote of our stockholders except as may be required in particular cases by our Certificate of Incorporation, applicable law, or regulatory agencies. Under our Certificate of Incorporation, stockholders do not have preemptive rights to subscribe to additional securities that may be issued by Senesco, which means that current stockholders do not have a prior right to purchase any new issue of common stock in order to maintain their proportionate ownership interest in Senesco. However, the preferred stockholders do have preemptive rights in the event of a future equity issuance. In addition, if we issue additional shares of common stock or securities convertible into or exercisable for common stock, such issuance would have a dilutive effect on the voting power and could have a dilutive effect on the earnings per share of Senesco's currently outstanding shares of common stock.

The following table sets forth the total number of: (1) authorized shares of our common stock, (2) outstanding shares of our common stock, (3) reserved shares of our common stock, (4) shares of our common stock available for issuance, (5) proposed shares authorized by this Proposal 2 and (6) common stock available for issuance if this Proposal 2 is approved by the stockholders.

Currently Authorized Shares (1)	Currently Outstanding Shares	Shares Currently Reserved for Issuance	Shares Currently Available for Issuance	Proposed Authorized Shares (2)	Shares Potentially Available for Issuance(3)
350,000,000	146,975,283	109,099,721	93,924,996	500,000,000	243,924,996

- (1) As of February 12, 2013.
- (2) The number of authorized shares of our common stock, if this Proposal 2 is approved by the stockholders.
- (3) The number of shares of our common stock available for issuance, if this Proposal 2 is approved by the stockholders.

Anti-takeover Effects. The proposed Certificate of Amendment could also, under certain circumstances, have an anti-takeover effect. The proposed increase in the number of authorized shares of common stock may discourage or make it more difficult to effect a change in control of Senesco. For example, we could issue additional shares to dilute the voting power of, create voting impediments for, or otherwise frustrate the efforts of persons seeking to take over or gain control of Senesco, whether or not the change in control is favored by a majority of our unaffiliated stockholders. We could also privately place shares of common stock with purchasers who would side with our board in opposing a hostile takeover bid. The board is not aware of any plans for or attempt to take control of Senesco.

No Appraisal Rights

Under Delaware law, stockholders are not entitled to appraisal rights with respect to the actions contemplated by Proposal 2.

Required Vote

The affirmative vote of a majority of the outstanding shares of common stock is required for approval of the proposed amendment. Therefore, abstentions and broker non-votes will have the same effect as votes against this Proposal.

**OUR BOARD OF DIRECTORS RECOMMENDS A VOTE "FOR" THE PROPOSAL TO AMEND
SENESCO'S CERTIFICATE OF INCORPORATION TO INCREASE THE TOTAL NUMBER OF
AUTHORIZED SHARES OF COMMON STOCK.**

PROPOSAL 3

BOARD AUTHORIZATION TO EFFECT REVERSE STOCK SPLIT

Our Board of Directors is proposing that our stockholders approve a proposal to authorize our Board of Directors to effect a reverse stock split of all outstanding shares of our Common Stock, at any ratio up to 1-for-20; however, please note that prior to July 4, 2013, the timing and ratio of any reverse stock split approved by our Board of Directors will require the prior approval of the purchasers holding a majority in interest of the shares of common stock and warrants to purchase shares of common stock issued by the Company in connection with the Securities Purchase Agreement dated as of January 4, 2013 among the Company and the investors signatory thereto. If this proposal is approved, our Board of Directors would have the authority to effect a reverse stock split at any time before our 2014 annual meeting, subject to the approvals described above. Our Board of Directors believes that approval of a proposal providing the Board of Directors with this generalized grant of authority with respect to setting the split ratio, rather than mere approval of a pre-defined reverse stock split, will give the Board of Directors the flexibility to set the ratio in accordance with current market conditions and therefore allow the Board of Directors to act in the best interests of the Company and our stockholders.

If our stockholders grant the Board of Directors the authority to effect a reverse stock split, we would file a Certificate of Amendment to the Company's Amended and Restated Certificate of Incorporation, as amended, with the Delaware Secretary of State to effect the proposed reverse stock split, in substantially the form attached to this proxy statement as *Appendix A*, the text of which may be altered for any changes required by the Delaware Secretary of State and changes deemed necessary or advisable by the Board of Directors. Our Board of Directors has approved and declared advisable the proposed Certificate of Amendment. If the proposed reverse stock split is implemented, then the number of issued and outstanding shares of our Common Stock would be reduced.

Purpose of Proposed Reverse Stock Split

The Board of Directors is proposing the reverse stock split in order to attempt to reduce the number of issued and outstanding shares and to increase the per share trading value of our Common Stock. Our Board of Directors believes that the reverse stock split would be beneficial in this regard because it would increase the price of our Common Stock and decrease the number of issued and outstanding shares of our Common Stock.

An increase in the per share trading value of our Common Stock would be beneficial because it would:

- improve the perception of our Common Stock as an investment security;
- reset our stock price to more normalized trading levels in the face of potentially extended market dislocation;
- appeal to a broader range of investors to generate greater investor interest in us; and
- reduce stockholder transaction costs because investors would pay lower commission to trade a fixed dollar amount of our stock if our stock price were higher than they would if our stock price were lower.

An increase in the price of our Common Stock would assist the Company in regaining compliance with the listing standards of a national securities exchange, such as the NYSE MKT. A decrease in the number of issued and outstanding shares of our Common Stock would be beneficial for the Company because by doing so, we will have more shares available for future issuance for financing or strategic purposes. Specifically, as we are required to reserve for future issuance any shares underlying the Series A Preferred Stock, effecting a reverse stock split will reduce the number of issued and outstanding shares, thereby increasing the number of shares available for future issuance upon conversion of the Series A Preferred Stock (as further discussed below).

You should consider that, although our Board of Directors believes that a reverse stock split will in fact increase the price of our Common Stock, in many cases, because of variables outside of a company's control (such as market volatility, investor response to the news of a proposed reverse stock split and the general economic environment), the market price of a company's shares of common stock may in fact decline in value after a reverse stock split. You should also keep in mind that the implementation of a reverse stock split does not have an effect on the actual or intrinsic value of our business or a stockholder's proportional ownership in our Company. However, should the overall value of our Common Stock decline after the proposed reverse stock split, then the actual or intrinsic value of the shares of our Common Stock held by you will also proportionately decrease as a result of the overall decline in value.

Potential Effects of the Proposed Reverse Stock Split

The immediate effect of a reverse stock split would be to reduce the number of shares of our Common Stock outstanding and to increase the trading price of our Common Stock. Notwithstanding the decrease in the number of outstanding shares following the proposed reverse stock split, our Board of Directors does not intend for this transaction to be the first step in a “going private transaction” within the meaning of Rule 13e-3 of the Exchange Act.

However, we cannot predict the effect of any reverse stock split upon the market price of our Common Stock over an extended period, and in many cases, the market value of a company’s Common Stock following a reverse stock split declines. We cannot assure you that the trading price of our Common Stock after the reverse stock split will rise in inverse proportion to the reduction in the number of shares of our Common Stock outstanding as a result of the reverse stock split. Also, we cannot assure you that a reverse stock split would lead to a sustained increase in the trading price of our Common Stock. The trading price of our Common Stock may change due to a variety of other factors, including our operating results and other factors related to our business and general market conditions.

Examples of Potential Reverse Stock Split at Various Ratios. The table below provides examples of reverse stock splits at various ratios up to 1-for-20:

<u>Shares outstanding at February 12, 2013</u>	<u>Reverse Stock Split Ratio</u>	<u>Shares outstanding after Reverse Stock Split</u>	<u>Reduction in Shares Outstanding</u>
146,975,283	1-for-2	73,487,642	50%
146,975,283	1-for-5	29,395,057	80%
146,975,283	1-for-10	14,697,528	90%
146,975,283	1-for-20	7,348,764	95%

The resulting decrease in the number of shares of our Common Stock outstanding could potentially adversely affect the liquidity of our Common Stock, especially in the case of larger block trades.

Effects on Ownership by Individual Stockholders. If we implement a reverse stock split, the number of shares of our Common Stock held by each stockholder would be reduced by multiplying the number of shares held immediately before the reverse stock split by the appropriate ratio and then rounding down to the nearest whole share. We would pay cash to each stockholder in lieu of any fractional interest in a share to which each stockholder would otherwise be entitled as a result of the reverse stock split, as described in further detail below. The reverse stock split would not affect any stockholder's percentage ownership interest in our Company or proportionate voting power, except to the extent that interests in fractional shares would be paid in cash.

Effect on Restricted Stock Units, Warrants, Series A Convertible Preferred Stock. In addition, we would adjust all outstanding shares of any restricted stock units, warrants and preferred stock entitling the holders to purchase shares of our Common Stock as a result of the reverse stock split, as required by the terms of these securities. In particular, we would reduce the conversion ratio for each instrument, and would increase the exercise price in accordance with the terms of each instrument and based on the 1-for-2, up to 1-for-20 ratio of the reverse stock split (i.e., the number of shares issuable under such securities would decrease by 50%, up to 95%, respectively, and the exercise price per share would be multiplied by 2, up to 20, respectively). However, please note that prior to July 4, 2013, the timing and ratio of any reverse stock split approved by our Board of Directors will require the prior approval of the purchasers holding a majority in interest of the shares of common stock and warrants to purchase shares of common stock issued by the Company in connection with the Securities Purchase Agreement dated as of January 4, 2013 among the Company and the investors signatory thereto. Also, we would reduce the number of shares reserved for issuance under our existing 2008 Incentive Compensation Plan proportionately based on the ratio of the reverse stock split. A reverse stock split would not otherwise affect any of the rights currently accruing to holders of our Common Stock or warrants exercisable for our Common Stock.

Other Effects on Outstanding Shares. If we implement a reverse stock split, the rights pertaining to the outstanding shares of our Common Stock would be unchanged after the reverse stock split. Each share of our Common Stock issued following the reverse stock split would be fully paid and nonassessable.

The reverse stock split would result in some stockholders owning "odd-lots" of less than 100 shares of our Common Stock. Brokerage commissions and other costs of transactions in odd-lots are generally higher than the costs of transactions in "round-lots" of even multiples of 100 shares.

Our Common Stock is currently registered under Section 12(g) of the Securities Exchange Act of 1934. As a result, we are subject to the periodic reporting and other requirements of the Securities Exchange Act. The proposed reverse stock split would not affect the registration of our Common Stock under the Securities Exchange Act.

Authorized Shares of Stock

The reverse stock split would affect all issued and outstanding shares of Common Stock and outstanding rights to acquire Common Stock. We will not change the number of shares of Common Stock currently authorized. However, upon the effectiveness of the reverse stock split, the number of authorized shares of Common Stock that are not issued or outstanding would increase due to the reduction in the number of shares of Common Stock issued and outstanding as a result of the reverse stock split.

As of February 12, 2013, we had (i) 350,000,000 shares of authorized Common Stock, of which 146,975,283 shares of Common Stock, par value \$.01 per share, were issued and outstanding, and (ii) 5,000,000 shares of authorized preferred stock of which 995 shares of Series A Preferred Stock, par value \$.01 per share, were issued and outstanding. If we issue additional shares, the ownership interest of holders of Common Stock will be diluted.

We will reserve for issuance any authorized but unissued shares of Common Stock that would be made available as a result of the proposed reverse stock split.

We do not have any plans, arrangements or understandings for the remaining portion of the authorized but unissued shares that will be available following the reverse stock split.

Procedure for Effecting the Proposed Stock Split and Exchange of Stock Certificates

If stockholders approve the proposal, we will file with the Delaware Secretary of State a Certificate of Amendment to our Amended and Restated Certificate of Incorporation, as amended. The reverse stock split will become effective at the time and on the date of filing of, or at such later time as is specified in, the Certificate of Amendment, which we refer to as the “effective time” and “effective date,” respectively. Beginning at the effective time, each certificate representing shares of Common Stock will be deemed for all corporate purposes to evidence ownership of the number of whole shares into which the shares previously represented by the certificate were combined pursuant to the reverse stock split.

Upon a reverse stock split, we intend to treat stockholders holding our Common Stock in “street name,” through a bank, broker or other nominee, in the same manner as registered stockholders whose shares are registered in their names. Banks, brokers or other nominees will be instructed to effect the reverse stock split for their beneficial holders holding our Common Stock in “street name.” However, these banks, brokers or other nominees may have different procedures than registered stockholders for processing the reverse stock split. If you hold your shares with a bank, broker or other nominee and if you have any questions in this regard, we encourage you to contact your nominee.

Following any reverse stock split, stockholders holding physical certificates must exchange those certificates for new certificates and a cash payment in lieu of any fractional shares.

Our transfer agent will advise registered stockholders of the procedures to be followed to exchange certificates in a letter of transmittal to be sent to stockholders. No new certificates will be issued to a stockholder until the stockholder has surrendered the stockholder’s outstanding certificate(s), together with the properly completed and executed letter of transmittal, to the transfer agent. Any old shares submitted for transfer, whether pursuant to a sale, other disposition or otherwise, will automatically be exchanged for new shares. Stockholders should not destroy any stock certificate(s) and should not submit any certificate(s) until requested to do so.

Fractional Shares

We would not issue fractional shares in connection with the reverse stock split. Instead, any fractional share resulting from the reverse stock split because the stockholder owns a number of shares not evenly divisible by the ratio would instead receive cash upon surrender to the exchange agent of the certificates and a properly completed and executed letter of transmittal. The cash amount to be paid to each stockholder would be equal to the resulting fractional interest in one share of our Common Stock to which the stockholder would otherwise be entitled, multiplied by the closing

trading price of our Common Stock on the trading day immediately preceding the effective date of the reverse stock split. We do not anticipate that the aggregate cash amount paid by the Company for fractional interests will be material to the Company.

No Appraisal Rights

No appraisal rights are available under the Delaware General Corporation Law or under our Amended and Restated Certificate of Incorporation, as amended, or by-laws with respect to the reverse stock split. There may exist other rights or actions under state law for stockholders who are aggrieved by reverse stock splits generally.

Accounting Consequences

The par value of our Common Stock would remain unchanged at \$0.01 per share after the reverse stock split. Also, our capital account would remain unchanged, and we do not anticipate that any other accounting consequences would arise as a result of the reverse stock split.

Material U.S. Federal Income Tax Consequences of the Reverse Stock Split

The following is a summary of the material U.S. federal income tax consequences of the reverse stock split to holders of our shares. This summary is based on the Internal Revenue Code of 1986, as amended, or the Code, the Treasury regulations promulgated thereunder, and administrative rulings and court decisions in effect as of the date of this document, all of which may be subject to change, possibly with retroactive effect. This summary only addresses holders who hold their shares as capital assets within the meaning of the Code and does not address all aspects of U.S. federal income taxation that may be relevant to holders subject to special tax treatment, such as financial institutions, dealers in securities, insurance companies, foreign persons and tax-exempt entities. In addition, this summary does not consider the effects of any applicable state, local, foreign or other tax laws.

We have not sought and will not seek any ruling from the Internal Revenue Service, or the IRS, or an opinion from counsel with respect to the U.S. federal income tax consequences discussed below. There can be no assurance that the tax consequences discussed below would be accepted by the IRS or a court. The tax treatment of the reverse stock split to holders may vary depending upon a holder's particular facts and circumstances.

We urge holders to consult with their own tax advisors as to any U.S. federal, state, local or foreign tax consequences applicable to them that could result from the reverse stock split.

Except as described below with respect to cash received in lieu of fractional shares, the receipt of Common Stock in the reverse stock split should not result in any taxable gain or loss to a holder for U.S. federal income tax purposes. The aggregate tax basis of the Common Stock received by a holder as a result of the reverse stock split (including the basis of any fractional share to which a holder is entitled) will be equal to the aggregate basis of the existing Common Stock exchanged for such stock. A holder's holding period for the Common Stock received in the reverse stock split will include the holding period of the Common Stock exchanged therefor.

A holder who receives cash in lieu of a fractional share of Common Stock will be treated as first receiving such fractional share and then receiving cash in redemption of such fractional share. A holder generally will recognize capital gain or loss on such deemed redemption in an amount equal to the difference between the amount of cash received and the adjusted basis of such fractional share.

Recommendation of the Board of Directors

THE BOARD OF DIRECTORS UNANIMOUSLY RECOMMENDS THAT YOU VOTE "FOR" THE APPROVAL OF THE PROPOSAL TO AUTHORIZE OUR BOARD OF DIRECTORS TO EFFECT A REVERSE STOCK SPLIT.

PROPOSAL 4:

ADVISORY VOTE ON EXECUTIVE COMPENSATION

General

Pursuant to Section 14A(a)(1) of the Securities Exchange Act of 1934, as amended (the “Exchange Act”), the Company’s Stockholders are entitled to vote at the annual meeting to approve the compensation of the Company’s named executive officers, commonly known as a “Say on Pay”, as disclosed in this proxy statement in accordance with the standards established under Item 402 of Regulation S-K under the Exchange Act. However, the Stockholder vote on executive compensation is an advisory vote only, and it is not binding on the Company or the Company’s Board of Directors or the Compensation Committee of the Board.

Although the vote is non-binding, the Company’s Board of Directors and the Compensation Committee of the Board value the opinions of the Stockholders and will consider the outcome of the vote when making future compensation decisions affecting the Company’s executive officers.

We design our executive compensation program to implement our core objectives of attracting and retaining superior executive talent, motivating and rewarding executives whose knowledge, skills and performance are critical to our business, ensuring executive compensation is aligned with our corporate strategies and business objectives and aligning executives’ incentives with the creation of Stockholder value. The key elements of the compensation programs that were in effect during the 2012 fiscal year for the Company’s named executive officers are described in detail in the Compensation Discussion and Analysis section of this proxy statement.

Resolution

The Company’s Stockholders are being asked to approve by advisory vote the following resolution relating to the compensation of the named executive officers as described in this proxy statement:

“Resolved that the Company’s Stockholders hereby approve the compensation paid to the Company’s executive officers named in the Summary Compensation Table of this proxy statement, as that compensation is disclosed pursuant to the compensation disclosure rules of the Securities and Exchange Commission, including the Compensation Discussion and Analysis, the various compensation tables and the accompanying narrative discussion included in this proxy statement.”

The vote on this resolution is not intended to address any specific element of compensation; rather the vote relates to the compensation of the Company’s named executive officers, as described in this proxy statement in accordance with the compensation disclosure rules of the Securities and Exchange Commission.

Recommendation of the Board of Directors

THE BOARD OF DIRECTORS BELIEVES OUR EXECUTIVE COMPENSATION PROGRAM USES APPROPRIATE STRUCTURES AND SOUND PAY PRACTICES THAT ARE EFFECTIVE IN ACHIEVING OUR CORE OBJECTIVES. THE BOARD OF DIRECTORS UNANIMOUSLY RECOMMENDS AN ADVISORY VOTE FOR THE RESOLUTION TO APPROVE THE COMPENSATION OF THE NAMED EXECUTIVE OFFICERS AS DISCLOSED IN THIS PROXY STATEMENT IN ACCORDANCE WITH THE STANDARDS ESTABLISHED UNDER ITEM 402 OF REGULATION S-K UNDER THE EXCHANGE ACT. UNLESS OTHERWISE INSTRUCTED, THE PROXY HOLDERS NAMED IN EACH PROXY WILL VOTE THE SHARES REPRESENTED THEREBY FOR THE APPROVAL OF SUCH RESOLUTION.

PROPOSAL 5:

ADVISORY VOTE AS TO FREQUENCY OF THE ADVISORY STOCKHOLDER VOTE ON EXECUTIVE COMPENSATION

General

Pursuant to Section 14A(a)(2) of the Exchange Act, the Company's Stockholders are also entitled to vote at the annual meeting regarding whether the stockholder vote to approve the compensation of the named executive officers as required by Section 14A(a)(1) of the Exchange Act (and as presented in Proposal 4 of this proxy statement) should occur every year, once every two years or once every three years. Stockholders will also have the option to abstain from voting on the matter. The stockholder vote on the frequency of the say-on-pay vote to approve executive compensation is an advisory vote only, and it is not binding on the Company or the Board of Directors. Such an advisory vote will be provided to the Stockholders every six years.

Although the vote is non-binding, both the Board of Directors and the Compensation Committee value the opinions of the Stockholders and will consider the outcome of the vote when setting the frequency of the stockholder vote on executive compensation.

Stockholders have four choices with respect to the frequency of the stockholder vote for the approval of the compensation of the Company's named executive officers. The four choices are as follows:

- Every year;
- Every two years;
- Every three years; or
- Abstain.

Recommendation of the Board of Directors

The Board of Directors has determined that an advisory stockholder vote on executive compensation once every three years is the best approach for the Company and its Stockholders for a number of reasons, including the following:

- A three-year cycle is in line with the long-term pay-for-performance objectives that the Compensation Committee seeks to attain in structuring executive officer compensation in a manner that focuses on long-term growth and sustained stockholder value rather than short-term results.
- A three-year cycle will provide Stockholders with sufficient time and opportunity to evaluate the effectiveness of the Company's short-term and long-term incentive programs, compensation strategies and pay-for-performance philosophy.
- A three-year cycle will also provide the Board of Directors and the Compensation Committee with sufficient time to thoughtfully evaluate and respond to stockholder input and effectively implement appropriate changes or modifications to the Company's executive compensation programs.

ACCORDINGLY, THE BOARD OF DIRECTORS UNANIMOUSLY RECOMMENDS THAT THE STOCKHOLDERS CHOOSE, ON AN ADVISORY BASIS, A THREE-YEAR FREQUENCY (A VOTE FOR EVERY THREE YEARS) FOR THE ADVISORY STOCKHOLDER VOTE TO APPROVE THE COMPENSATION OF THE COMPANY'S NAMED EXECUTIVE OFFICERS. UNLESS OTHERWISE INSTRUCTED, THE PROXY HOLDERS NAMED IN EACH PROXY WILL VOTE THE SHARES REPRESENTED THEREBY FOR EVERY THREE YEARS AS THE FREQUENCY OF THE ADVISORY STOCKHOLDER VOTE ON EXECUTIVE COMPENSATION DESCRIBED IN THIS PROPOSAL 5.

However, the stockholder vote under this Proposal 5 is not to approve the Board's recommendation but is instead a direct advisory vote on the particular frequency at which each stockholder would like the advisory vote on executive officer compensation to be conducted.

PROPOSAL 6

RATIFICATION OF APPOINTMENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

The audit committee of our board of directors intends to, subject to stockholder ratification, retain McGladrey, LLP as our independent registered public accounting firm for the fiscal year ending June 30, 2013. Neither the firm nor any of its directors has any direct or indirect financial interest in or any connection with us in any capacity other than as auditors.

Although stockholder ratification of the selection of McGladrey, LLP, is not required by law, our board of directors believes that it is desirable to give our stockholders the opportunity to ratify this selection. If this Proposal is not approved at the Meeting, our board of directors will reconsider the selection of McGladrey, LLP.

OUR BOARD OF DIRECTORS RECOMMENDS A VOTE “FOR” THE RATIFICATION OF THE APPOINTMENT OF MCGLADREY, LLP AS OUR INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM FOR THE FISCAL YEAR ENDING JUNE 30, 2013.

Principal Accountant Fees and Services

The aggregate fees billed by McGladrey, LLP and RSM McGladrey, Inc. for services performed for the years ended June 30, 2012 and 2011 are as follows:

	<u>2012</u>	<u>2011</u>
Audit Fees	\$ 101,118	\$ 98,500
Audit Related Fees	4,000	38,500
Tax Fees	-	-
All Other Fees	-	-
Total Fees	<u>\$ 105,118</u>	<u>\$ 137,000</u>

AUDIT FEES

The aggregate audit fees for the years ended June 30, 2012 and 2011 were primarily related to the audit of the our annual financial statements and review of those financial statements included in our quarterly reports on Form 10-Q and fees for professional services rendered in connection with documents filed with the Securities and Exchange Commission.

AUDIT RELATED FEES

Audit related fees for the years ended June 30, 2012 and 2011 were primarily incurred in connection with our equity offerings and registration statements.

Pre-Approval Policies and Procedures

In accordance with its charter, the Audit Committee is required to approve all audit and non-audit services provided by the independent auditors and shall not engage the independent auditors to perform the specific non-audit services prescribed by law or regulation.

The Audit Committee has adopted policies and procedures relating to the pre-approval of all audit and non-audit services that are to be performed by our independent registered public accounting firm. This policy generally provides that we will not engage our independent registered public accounting firm to render audit or non-audit services unless the service is specifically approved in advance by the Audit Committee or the engagement is entered into pursuant to one of the pre-approval procedures described below.

From time to time, the Audit Committee may pre-approve specified types of services that are expected to be provided to us by our independent registered public accounting firm during the next 12 months. Any such pre-approval is detailed as to the particular service or type of services to be provided and is also generally subject to a maximum dollar amount.

The Audit Committee has also delegated to the chairman of the Audit Committee the authority to approve any audit or non-audit services to be provided to us by our independent registered public accounting firm. Any approval of services by a member of the Audit Committee pursuant to this delegated authority is reported on at the next meeting of the Audit Committee.

Audit Committee Report

The Audit Committee oversees our financial reporting process on behalf of the board. The Audit Committee consists of three members of the board who meet the independence and experience requirements of the NYSE MKT.

On March 11, 2011, we amended and restated our Audit Committee Charter, which was originally adopted on July 26, 1999.

The Audit Committee held five (5) meetings during Fiscal 2012.

Management is responsible for our financial reporting process including its system of internal controls and for the preparation of consolidated financial statements in accordance with generally accepted accounting principles. Our independent registered public accounting firm is responsible for auditing those financial statements. The Audit Committee's responsibility is to monitor and review these processes. As appropriate, the Audit Committee reviews and evaluates, and discusses with our management and our independent registered public accounting firm, the following:

- the plan for, and the independent registered public accounting firm's report on, each audit of our financial statements;
- the independent registered public accounting firm's review of our unaudited interim financial statements;
- our financial disclosure documents, including all financial statements and reports filed with the Securities and Exchange Commission or sent to stockholders;
- our management's selection, application and disclosure of critical accounting policies;
- changes in our accounting practices, principles, controls or methodologies;
- significant developments or changes in accounting rules applicable to us; and
- the adequacy of our internal controls and accounting and financial personnel.

The Audit Committee reviewed and discussed with our management our audited financial statements for the year ended June 30, 2012. The Audit Committee also reviewed and discussed the audited financial statements and the matters required by Statement on Auditing Standards No. 61, titled Communication with Audit Committees, with our independent registered public accounting firm. These standards require our independent registered public accounting firm to discuss with our Audit Committee, among other things, the following:

- methods used to account for significant unusual transactions;
- the effect of significant accounting policies in controversial or emerging areas for which there is a lack of authoritative guidance or consensus;
- the process used by management in formulating particularly sensitive accounting estimates and the basis for the auditors' conclusions regarding the reasonableness of those estimates; and
- disagreements with management over the application of accounting principles, the basis for management's accounting estimates and the disclosures in the financial statements.

The Audit Committee has received the written disclosures from the independent registered public accounting firm required by the applicable requirements of the Public Company Accounting Oversight Board regarding the independent accountants' communications with the audit committee concerning independence, as currently in effect, and has considered whether the provision of non-audit services by the independent registered public accounting firm to us is compatible with maintaining the auditor's independence and has discussed with the auditors the auditors' independence.

Based on our discussions with management and our independent registered public accounting firm, and our review of the representations and information provided by our management and our independent registered public accounting firm, the Audit Committee recommended to our board that the audited financial statements be included in our annual report on Form 10-K for the year ended June 30, 2012.

By the Audit Committee of the Board of Directors of
Senesco Technologies, Inc.
John N. Braca, Chairman
Rudolf Stalder
David Rector

The above Audit Committee report is not deemed to be “soliciting material,” is not “filed” with the SEC and is not incorporated by reference in any filings including Form S-3 that we file with the SEC.

STOCKHOLDERS’ PROPOSALS

Stockholders may submit proposals on matters appropriate for stockholder action at annual meetings in accordance with the rules and regulations adopted by the Securities and Exchange Commission. Any proposal that an eligible stockholder wishes to submit for inclusion in our proxy statement must advise our Secretary of such proposals in writing by August 6, 2013. Such proposal will be included if it complies with Securities and Exchange Commission rules regarding inclusion of proposals in proxy statements.

Stockholders who intend to submit a proposal at such meeting without inclusion in our proxy statement must advise our Secretary of such proposals in writing by September 20, 2013.

If we do not receive notice of a stockholder proposal within the timeframes set forth above, our management will use its discretionary authority to vote the shares they represent, as our board of directors may recommend. We reserve the right to reject, rule out of order, or take other appropriate action with respect to any proposal that does not comply with these requirements.

FINANCIAL INFORMATION

Financial and other information concerning our company is contained in our Annual Report for the fiscal year ended June 30, 2012, which has been mailed to you along with this proxy statement. This proxy statement and our June 30, 2012 Annual Report are also available at <https://materials.proxyvote.com/817208>.

HOUSEHOLDING OF ANNUAL MEETING MATERIALS

Some banks, brokers and other nominee record holders may be participating in the practice of “householding” proxy statements and annual reports. This means that only one (1) copy of our proxy statement or annual report may have been sent to multiple stockholders in your household. We will promptly deliver a separate copy of either document to you if you call or write us at the following address or phone number: Senesco Technologies, Inc., 721 Route 202/206, Suite 130, Bridgewater, NJ, 08807 (908) 864-4444. If you want to receive separate copies of the annual report and proxy statement in the future or if you are receiving multiple copies and would like to receive only one (1) copy for your household, you should contact your bank, broker, or other nominee record holders, or you may contact us at the above address and phone number.

OTHER MATTERS

Our board is not aware of any matter to be presented for action at the Meeting other than the matters referred to above and does not intend to bring any other matters before the Meeting. However, if other matters should come before the Meeting, it is intended that holders of the proxies will vote thereon in their discretion.

GENERAL

The accompanying proxy is solicited by and on behalf of our board, whose notice of meeting is attached to this proxy statement, and the entire cost of such solicitation will be borne by us. Our officers and selected employees may solicit proxies from stockholders. In addition to the use of the mails, proxies may be solicited by personal interview, telephone and telegram by our directors, officers and other employees who will not be specially compensated for these services. We will also request that brokers, nominees, custodians and other fiduciaries forward soliciting materials to the beneficial owners of shares held of record by such brokers, nominees, custodians and other fiduciaries. We will reimburse such persons for their reasonable expenses in connection therewith.

Certain information contained in this proxy statement relating to the occupations and security holdings of our directors and officers is based upon information received from the individual directors and officers.

WE WILL FURNISH, WITHOUT CHARGE, A COPY OF OUR REPORT ON FORM 10-K FOR THE YEAR ENDED JUNE 30, 2012, INCLUDING FINANCIAL STATEMENTS AND SCHEDULES THERETO, BUT NOT INCLUDING EXHIBITS, TO EACH OF OUR STOCKHOLDERS OF RECORD ON FEBRUARY 12, 2013 AND TO EACH BENEFICIAL STOCKHOLDER ON THAT DATE UPON WRITTEN REQUEST MADE TO OUR SECRETARY. A REASONABLE FEE WILL BE CHARGED FOR COPIES OF REQUESTED EXHIBITS.

PLEASE DATE, SIGN AND RETURN THE PROXY CARD AT YOUR EARLIEST CONVENIENCE IN THE ENCLOSED RETURN ENVELOPE OR VOTE VIA TELEPHONE OR THE INTERNET. A PROMPT RETURN OF YOUR PROXY CARD WILL BE APPRECIATED AS IT WILL SAVE THE EXPENSE OF FURTHER MAILINGS.

By Order of the Board of Directors

/s/ Joel Brooks

Joel Brooks
Secretary

Bridgewater, New Jersey
February 26, 2013

Appendix A

CERTIFICATE OF AMENDMENT
OF THE
AMENDED AND RESTATED
CERTIFICATE OF INCORPORATION
OF
SENESCO TECHNOLOGIES, INC.

Pursuant to Sections 228 and 242
of the
Delaware General Corporation Law

Senesco Technologies, Inc. (the "Corporation"), a corporation organized and existing under and by virtue of the General Corporation Law of the State of Delaware (the "DGCL");

DOES HEREBY CERTIFY THAT:

FIRST: The name of the corporation (hereinafter, the "Corporation") is:

Senesco Technologies, Inc.

SECOND: The Amended and Restated Certificate of Incorporation of the Corporation was filed with the office of the Secretary of State of Delaware on January 22, 2007 (the "Restated Certificate"), a Certificate of Amendment of the Restated Certificate was filed with the office of the Secretary of State of Delaware on each of December 13, 2007, September 22, 2009, May 25, 2010 and December 22, 2011 and two Certificates of Designations were filed with the office of the Secretary of State of Delaware on March 31, 2010 (the "Amendment" together with the Restated Certificate, the "Charter").

THIRD: The Charter is hereby amended as follows:

(a) The first paragraph of Article FOURTH of the Charter is hereby deleted in its entirety and replaced by the following:

"The total number of shares of all classes of stock which the Corporation shall have authority to issue is Five Hundred - Five Million (505,000,000) shares. The Corporation is authorized to issue two classes of stock designated "Common Stock" and "Preferred Stock," respectively. The total number of shares of Common Stock authorized to be issued by the Corporation is Five Hundred Million (500,000,000), each such share of Common Stock having a \$0.01 par value. The total number of shares of Preferred Stock authorized to be issued by the Corporation is Five Million (5,000,000), each such share of Preferred Stock having a \$0.01 par value.

"Effective as of the close of business on the day that the Certificate of Amendment which contains this provision shall be effective with the Office of the Secretary of State of the State of Delaware (the "Effective Time"), each 100 shares of Common Stock issued and outstanding at such time ("Existing Common Stock") shall be and hereby are automatically reclassified and changed into one share of Common Stock ("New Common Stock"), provided that no fractional shares of New Common Stock shall be issued, and in lieu of a fractional share of New Common Stock to which any holder is entitled, such holder shall receive a cash payment in an amount to be determined by multiplying the fractional share by the fair market value of a share of New Common Stock at the Effective Time (the "Reverse Split"). Shares of Common

Stock that were outstanding prior to the Effective Time, and that are not outstanding after and as a result of the Reverse Split, shall resume the status of authorized but unissued shares of Common Stock.

“From and after the Effective Time, the term “New Common Stock” as used in this Article IV shall mean Common Stock as provided in this Amended and Restated Certificate of Incorporation. The par value of the New Common Stock shall be \$0.01 per share.”

FOURTH: That the foregoing amendments have been duly adopted in accordance with the provisions of Sections 228 and 242 of the DGCL.

FIFTH: This Certificate of Amendment shall be deemed effective upon its filing with the Secretary of State of the State of Delaware.

IN WITNESS WHEREOF, this Certificate of Amendment of the Certificate of Incorporation has been duly executed by the undersigned officer of the Corporation this [__] day of [___], 2013.

SENESCO TECHNOLOGIES, INC.

By: /s/ Joel Brooks
Name: Joel Brooks
Title: Chief Financial Officer, Treasurer and Secretary