

SENESCO TECHNOLOGIES INC
Form PRE 14A
October 18, 2011
SENESCO TECHNOLOGIES, INC.
721 Route 202/206, Suite 130
Bridgewater, New Jersey 08807

To Our Stockholders:

You are cordially invited to attend the 2012 Annual Meeting of Stockholders of Senesco Technologies, Inc. at 10:00 A.M., local time, on December 16, 2011, 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. 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 December 16, 2011

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 December 16, 2011, 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 250,000,000 to 350,000,000.
3. To ratify the appointment of McGladrey & Pullen, LLP as the Company's independent registered public accounting firm for the fiscal year ending June 30, 2012.
4. 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 October 24, 2011 (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. 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 December 16, 2011

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, 2011. 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, 2011 Annual Report are available on our website at www.senesco.com.

By Order of the Board of Directors
/s/ Joel Brooks
Joel Brooks
Secretary

Bridgewater, New Jersey
November [4], 2011

SENESCO 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 December 16, 2011, 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 October 24, 2011, 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 [80,777,097] 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 250,000,000 to 350,000,000;
3. FOR the ratification of the appointment of McGladrey & Pullen, LLP as our independent registered public accounting firm for the fiscal year ending June 30, 2012; and
4. 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 written notice addressed to and received by our Corporate Secretary, by submitting a duly executed proxy bearing a later date 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. The affirmative vote by the holders of a plurality of the shares of our common stock represented at the Meeting is required for the election of directors (Proposal 1), provided a quorum is present in person or by proxy. Provided a quorum is present in person or by proxy, Proposal 2 requires the affirmative vote of our stockholders representing a majority of the shares of common stock outstanding as of the Record Date. Provided a quorum is present in person or by proxy, Proposal 3 requires the affirmative vote of our stockholders representing a majority of the votes cast by holders of shares present, or represented by proxy, and entitled to vote thereon.

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 and 3, but not on Proposal 1. Accordingly, broker non-votes are not counted as a vote against and will not affect the outcome of Proposal 1.

Your vote is very important. All properly executed proxy cards delivered pursuant to this solicitation 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 signed proxy card will be voted in accordance with the board of directors' recommendation with respect to Proposals 1 through 3. 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 to the Secretary of Senesco, by delivering a proxy card dated after the date of the proxy 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 November [4], 2011, 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, 2011, 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 listed on the NYSE Amex under the symbol "SNT". On October 24, 2011, the Record Date, the closing price for the common stock as reported by NYSE Amex was[\$0.28] 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. | 58 | 2008 | Chairman of the Board and Director |
| David Rector | 64 | 2002 | Lead Director |
| Jack Van Hulst | 72 | 2007 | Director |
| John N. Braca | 53 | 2003 | Director |
| Christopher Forbes | 60 | 1999 | Director |
| Warren J. Isabelle | 59 | 2009 | Director |
| Thomas C. Quick | 55 | 1999 | Director |
| Rudolf Stalder | 70 | 1999 | Director |
| Leslie J. Browne, Ph.D. | 61 | 2011 | President, Chief Executive Officer and Director Executive Vice President, Chief Scientific Officer and |
| John E. Thompson, Ph.D. | 70 | 2001 | 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. Dr. Waksal co-founded the biotechnology company ImClone Systems Inc. in 1984. From July 2011 to present, Dr. Waksal has served as the Executive Vice-President, Business and Scientific Affairs of Acasti Pharma, Inc., which is a subsidiary of Neptune Technologies & Bioresources, Inc. 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. Dr. Waksal also served as a director of ImClone Systems Inc. from March 1987 through January 2005. Dr. Waksal is currently a member of the Board of Trustees of Oberlin College. 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.

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 Sagebrush Gold, Ltd. and California Gold 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 May 2011 through present, Mr. Rector has 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. Since October 2007 through present, Mr. Rector has served as President and CEO of Standard Drilling, Inc. 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.

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 also serves as Chairman of the Board of The International Center in New York, a non-profit organization. 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.

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. Since 1989, Mr. Forbes has been Vice Chairman of Forbes Media, LLC, which publishes Forbes Magazine and Forbes.com. 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, and he also sits on the boards of The Friends of New Jersey State Museum and The New York Academy of Art. 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. 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. Mr. Isabelle has also, since January 2004, served as a member of the Public Board and Vice-Chairman of the Investment Committee of the University of Massachusetts Foundation. 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, the Norton Museum 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.

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.

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 Amex.

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 Amex 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 are currently traded on the NYSE Amex, 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 Amex Company Guide.

Committees and Meetings of our Board of Directors

Our board held seven (7) meetings during Fiscal 2011. 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. 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 Finance 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 are 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 attended the 2011 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;
 - 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 Amex Company Guide. Our Compensation Committee held seven (7) meetings during Fiscal 2011.

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 Amex 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 Amex 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 2011.

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 Amex Company Guide. The Nominating and Corporate Governance Committee had one (1) meeting during Fiscal 2011.

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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.

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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. 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 for Dr. Thompson.

Equity Grants Fiscal 2011:

We do not automatically grant options or other equity to our board. Our Compensation Committee reviews the equity program each year with its compensation consultant and determines the appropriate level of the equity awards.

Effective September 30, 2011, the Committee granted the following options to the non-employee directors for their service during Fiscal 2011:

| 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) Such grants vest as follows: one-half (1/2) upon the date of grant and the remaining one-half (1/2) will vest one (1) year from the date of grant, subject to continued board service through the vesting date.

(2) Additionally, effective September 30, 2011, the Committee granted an additional 300,000 options to Rudolf Stalder for his commitment, leadership and individual performance during Fiscal 2011. Twenty-five percent (25%) of such options shall vest on the first anniversary of the date of grant and one-thirty-six of such grant each month thereafter, subject to continued board service through the vesting date.

Cash Compensation

Commencing in Fiscal 2009, after review and consultation with the Compensation Committee's compensation consultant, we implemented a new cash compensation plan for our directors pursuant to which we pay each non-employee director cash compensation 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.

Such cash compensation is paid in quarterly increments. A director may elect, provided such election is made at the beginning of the Company's fiscal year, to receive, in lieu of such cash payments, 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) options in an amount equal to twice the number of RSU's that would have been received. Such election to receive (y) cash or (z) equity in the form of RSU's or options applies for the entire year. The directors have all elected to receive options in lieu of cash for Fiscal 2011 and Fiscal 2012, except for Messrs. Braca and Rector, who have elected to receive their retainer fees in cash and their meeting fees in options, and Mr. Isabelle, who has elected to receive his fees in cash. The RSU's or options for each quarter are granted 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. The exercise price of the options will be the closing price on the grant date.

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.

Director Compensation

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, 2011.

| Name (a) | Fees Earned or Paid in Cash (\$) (b) | Stock Awards (\$) (c) | Option Awards (1) (\$) (d) | Change in Pension Value and Non-Equity Nonqualified Incentive Plan Deferred Compensation Compensation Compensation | | | Total (\$) (h) |
|------------------------|---|--------------------------------|-------------------------------------|---|-------------------------|--------------------------|-------------------|
| | | | | (\$) (e) | Earnings (\$) (f) | All Other (\$) (g) | |
| Rudolf Stalder | — | — | \$ 52,366 | — | — | — | \$ 52,366 |
| Christopher Forbes | — | — | \$ 53,125 | — | — | — | \$ 53,125 |
| Thomas C. Quick | — | — | \$ 47,536 | — | — | — | \$ 47,536 |
| John N. Braca | \$ 14,500 | — | \$ 50,530 | — | — | — | \$ 65,030 |
| David Rector | \$ 14,500 | — | \$ 49,353 | — | — | — | \$ 63,853 |
| Jack Van Hulst | — | — | \$ 63,009 | — | — | — | \$ 63,009 |
| Harlan W. Waksal, M.D. | — | — | \$ 188,097 | — | — | — | \$ 188,097 |
| Warren J. Isabelle | \$ 17,125 | — | \$ 20,400 | — | — | — | \$ 37,525 |

(1) Represents the aggregate grant date fair value for stock options granted in Fiscal 2011 as described below 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 11 of the Notes to the Consolidated Financial Statements in our Annual Report on Form 10-K for the fiscal year ended June 30, 2011. Does not include the aggregate grant date fair value for stock options granted on September 30, 2011.

As described above, our non-employee directors (other than Mr. Isabelle and Messrs. Braca and Rector (only with respect to their retainer fees)) have elected to receive option grants in lieu of their cash compensation. Accordingly, on November 17, 2010, February 14, 2011, and May 17, 2011, each of these non-employee directors received options to purchase shares of our common stock pursuant to the provisions of the 2008 Stock Plan. Additionally, on November 17, 2010, the non-employee directors were granted additional options for their service during Fiscal 2010. The options have an exercise price of \$0.26 per share, \$0.29 per share and \$0.27 per share, respectively, the fair market value of the common stock on the grant dates (except for the grants to Christopher Forbes, which have exercise prices of \$0.29 per share, \$0.32 per share and \$0.30 per share, respectively (110% of the fair market value of the common stock on the grant date)).

The following table sets forth information relating to options granted to the directors during Fiscal 2011.

| Director | Option Grant Date | Exercise Price | # of Shares | Grant Date Fair Value |
|------------------------|-------------------|----------------|-------------|-----------------------|
| Rudolf Stalder | 5/17/2011 | \$ 0.27 | 48,148 | \$ 10,207 |
| | 2/14/2011 | \$ 0.29 | 31,896 | \$ 7,113 |
| | 11/17/2010 | \$ 0.26 | 171,792 | \$ 35,046 |
| Christopher Forbes | 5/17/2011 | \$ 0.30 | 37,962 | \$ 7,668 |
| | 2/14/2011 | \$ 0.32 | 32,758 | \$ 7,207 |
| | 11/17/2010 | \$ 0.29 | 192,308 | \$ 38,250 |
| Thomas C. Quick | 5/17/2011 | \$ 0.27 | 28,704 | \$ 6,085 |
| | 2/14/2011 | \$ 0.29 | 29,310 | \$ 6,536 |
| | 11/17/2010 | \$ 0.26 | 171,154 | \$ 34,915 |
| John N. Braca | 5/17/2011 | \$ 0.27 | 27,778 | \$ 5,889 |
| | 2/14/2011 | \$ 0.29 | 18,104 | \$ 4,037 |
| | 11/17/2010 | \$ 0.26 | 199,038 | \$ 40,604 |
| David Rector | 5/17/2011 | \$ 0.27 | 27,778 | \$ 5,889 |
| | 2/14/2011 | \$ 0.29 | 18,104 | \$ 4,037 |
| | 11/17/2010 | \$ 0.26 | 193,269 | \$ 39,427 |
| Jack Van Hulst | 5/17/2011 | \$ 0.27 | 32,408 | \$ 6,870 |
| | 2/14/2011 | \$ 0.29 | 32,758 | \$ 7,305 |
| | 11/17/2010 | \$ 0.26 | 237,177 | \$ 48,834 |
| Harlan W. Waksal, M.D. | 5/17/2011 | \$ 0.27 | 51,852 | \$ 10,993 |
| | 2/14/2011 | \$ 0.29 | 45,690 | \$ 10,189 |
| | 11/17/2010 | \$ 0.26 | 796,154 | \$ 166,915 |
| Warren J. Isabelle* | 11/17/2010 | \$ 0.26 | 100,000 | \$ 20,400 |

(*) Represents additional options granted for service during Fiscal 2010, not for cash compensation for Fiscal 2011.

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, 2011:

| Director | Total # of Options Outstanding |
|------------------------|--------------------------------|
| Rudolf Stalder | 1,161,787 |
| Christopher Forbes | 741,239 |
| Thomas C. Quick | 600,373 |
| John N. Braca | 714,489 |
| David Rector | 691,797 |
| Jack Van Hulst | 680,375 |
| Harlan W. Waksal, M.D. | 1,157,654 |
| Warren J. Isabelle | 125,000 |

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.

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. | 61 | President, Chief Executive Officer and Director | May 2010 |
| John E. Thompson, Ph.D. | 70 | Executive Vice President and Chief Scientific Officer, Director | July 2004 |
| Joel P. Brooks(1) | 52 | Chief Financial Officer, Treasurer and Secretary | December 2000 |
| Richard Dondero(2) | 61 | 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 2011 and as anticipated for Fiscal 2012. 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, also referred to herein as the Committee, of the board 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.

As part of this process, the Committee seeks to accomplish the following objectives with respect to our executive compensation programs:

- to motivate, recruit and retain executives 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 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 2011, 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.

During the compensation review process for Fiscal 2011, 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 2011, for which J. Richard was compensated. Other than as described above, J. Richard did not provide any additional services to the Committee or Senesco for Fiscal 2011, and compensation to J. Richard for services rendered in Fiscal 2011 was less than \$120,000. In addition, the Committee consulted with J. Richard in connection with its plans for Fiscal 2012.

The Committee elected to identify various companies in the biotech sector it felt were somewhat close in scope of operation to Senesco. It became evident, as in prior years, that due to the key banner points listed above (the breadth of operations in general, executive officers scope of duties and responsibilities, position in the life cycle, financial responsibilities, capitalization and size of management staff) it is very difficult to identify such public entities for comparative purposes. For Fiscal 2011, the companies we elected to evaluate were as follows: Adolor Corporation (ADLR); MDRNA Inc. (MRNA); Anesiva Inc. (ANSV); Santarus Inc. (SNTS); Sequenom, Inc.(SQNM); Cubist (CBST); Lexicon (LXRX); and Targacept, Inc. (TRGT). For Fiscal 2012, the companies we elected to evaluate 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). In selecting companies to survey for such compensation 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. For this reason, there is not a meaningful correlation between the companies included within the peer group identified for comparative compensation purposes and the companies included within the RDG Micro Biotechnology Index.

In determining the compensation of each named executive officer, the Committee also considers a number of other factors, including our recent performance and the named executive officer's individual performance, the Chief Executive Officer's recommendations and the importance of the executive's position and role in relation to execution of our strategic plan. 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 and, most of all, what is considered fair and reasonable based on the scope of operations and responsibilities of the officer. For the Chief Executive Officer, for Fiscal 2011, the Committee set his performance targets and compensation levels based upon the input from the Committee's analysis and from the Chief Executive Officer. For other named executive officers, the Committee sets performance targets and compensation levels after taking into consideration recommendations from the Chief Executive Officer.

Components of Compensation

For Fiscal 2011, our executive compensation program included the following components:

- base salary;
- annual short-term equity incentives; and
- a continuation of the long-term equity incentive program;

Currently, for Fiscal 2012, our executive compensation program includes the following components:

- base salary;
- annual short-term equity incentives; and
- a continuation of the long-term equity incentive program.

The Committee seeks to align the named executive officers' and stockholders' interests in a pay for performance environment. The Committee also 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 achievement of pre-established objectives and individual goals.

Base Salary

In General – It is the Committee’s objective to set a competitive rate of annual base salary or consulting fees for each named executive officer. 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, the Committee recognizes that we are still a development stage company, with little to no revenue currently and believes that developing too rigid of a compensation structure can become detrimental to our progress.

When compared to comparable positions at the competitive peer group companies, it is the Committee's objective to target the base compensation level of executive officers below the 50th percentile because of our current financial position. Historically, the compensation level for our executive officers has been below the 25th percentile of competitive peer group companies. However, in determining the compensation of each executive officer, the Committee also considers a number of other factors, including recent Senesco and 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 2011 – For Fiscal 2011, after review of the factors discussed above, the following named executive officers' salaries were increased as follows:

| Name | Title | 2011 Salary | 2010 Salary | % Increase | |
|-----------------|--|----------------|----------------|---------------|---|
| Joel P. Brooks | Chief Financial Officer, Secretary and Treasurer | \$ 164,800 | \$ 160,000 | 3.0 | % |
| Richard Dondero | Vice-President of Research and Development | \$ 147,300 | \$ 143,000 | 3.0 | % |

The Committee did not change the salary of Leslie J. Browne, Ph.D., our President and Chief Executive Officer, due to the fact that Dr. Browne's compensation was recently determined in connection with his appointment to his current positions in May 2010. Additionally, the Committee did not change the consulting fee for John E. Thompson, Ph.D., our Executive Vice President and Chief Scientific Officer, as such consulting fee will be reviewed and revised, as necessary, by the Committee in connection with the board's review of our research and development budget for Fiscal 2011.

Base Salary for Fiscal 2012 – For Fiscal 2012, after a review of the factors discussed above, the following named executive officer's salaries were increased as follows.

| Name | Title | 2012 Salary | 2011 Salary | % Increase | |
|-------------------------|---|----------------|----------------|---------------|---|
| 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.

Annual Bonuses for Fiscal 2011– There were no bonuses granted for Fiscal 2011.

The Committee wishes to provide additional compensation to all of the named executive officers, including the Chief Executive Officer, through the development of incentive programs based on the named executives performance and attainment of stated objectives that enhance shareholder value in order to (i) link a substantial portion of their compensation to the achievement of short-term and long-term objectives and (ii) to save cash given our limited capital resources.

Annual Bonuses for Fiscal 2012– Bonuses will be determined at the discretion of the board after the end of the fiscal year based upon the recommendation of the Committee.

Short Term Incentive Equity Awards

In General – A portion of each named executive officer’s compensation is provided in the form of short-term equity awards. It is the Committee’s belief that properly structured equity awards are an effective method of aligning the short-term interests of our named executive officers with those of our stockholders.

Short-term equity awards were made in the form of incentive stock options, also referred to herein as ISO’s, for tax purposes. The Committee has followed a grant practice of tying equity awards to its annual year-end review of individual performance, its assessment of our performance and our operational results.

Short-Term Incentive Plan for Fiscal 2011 – The Committee, in coordination with our Chief Executive Officer, established our short-term goals and objectives for Fiscal 2011, which included the following:

- Contributions relating to the development of our SNS01-T assets:
 - o Submit IND for Phase I/II clinical trial;
 - o Initiate Phase I/II clinical trial;
 - o Plan Phase II clinical trial;
 - o Develop SNS01-T development plan to NDA submission;
- Contributions relating to finance objectives:
 - o Maintain sufficient capital resources;
 - o Maintain NYSE Amex compliance;
 - o Increase shareholder communications and enhance investor relations;
- Contributions relating to corporate development:
 - o Update corporate strategy; and
 - o Re-align our structure to best implement corporate strategies.

The foregoing goals and objectives were 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. The option awards for each of the foregoing goals and objectives were equally allotted to the following named executive officers – Dr. Browne and Messrs. Brooks and Dondero – at one-third each.

The Committee, working with our Chief Executive Officer, identified additional individual performance goals and objectives for Fiscal 2011 for Messrs. Brooks and Dondero, which primarily included broadening their knowledge base and leadership profile within the scientific and business community of our peers, competitors, clients and customers.

In October 2010, the Committee determined to award the following options to purchase shares of our common stock, par value \$0.01, to the following named executive officers in connection with the short-term goals and objectives for Fiscal 2011:

| | |
|-------------------------|---------|
| Leslie J. Browne, Ph.D. | 725,000 |
| Joel Brooks | 425,000 |
| Richard Dondero | 425,000 |
| John E. Thompson, Ph.D. | 425,000 |

Such options were granted on November 17, 2010, which was two days after the filing of our quarterly report on Form 10-Q for the period ended September 30, 2010, and have an exercise price of \$0.26, which is equal to the closing price of the common stock on the date of grant. Twenty-five percent (25%) of such options will vest on the first anniversary of the date of grant with the balance vesting at a rate of 1/36 for each month thereafter, unless the Committee has determined that the performance metrics have not been met.

Upon conclusion of Fiscal 2011, the Committee, working with our Chief Executive Officer, evaluated our performance and the performance of our named executive officers against the previously established goals and objectives for Fiscal 2011. Based on such review, the Committee determined that 80% of the Fiscal 2011 goals and objectives were met and 20% of such goals and objectives were not met. The performance level for Fiscal 2011 was considered in connection with the Fiscal 2012 Short-Term Incentive Plan, and the Fiscal 2012 short-term incentive equity awards allocated to each of our named executive officers (as described below) were reduced by 20% of the Fiscal 2011 short-term incentive equity awards granted to each such named executive officer to reflect the unmet goals and objectives for Fiscal 2011.

Short-Term Incentive Plan for Fiscal 2012 – The Committee, in coordination with our Chief Executive Officer, established our short-term goals and objectives for Fiscal 2012, which include the following:

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

The foregoing goals and objectives were 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. The option awards for each of the foregoing goals and objectives were allotted to the following named executive officers as follows – Dr. Browne: 35%, Mr. Brooks: 20%, Mr. Dondero: 20%, and Dr. Thompson: 20%. Five percent of the option awards allotted for completion of Fiscal 2012 goals and objectives would be allocated at the Committee's discretion for outstanding performance to assist Senesco in reaching such goals.

The Committee, working with our Chief Executive Officer, identified additional individual performance goals and objectives for Fiscal 2012 for Messrs. Brooks and Dondero. Mr. Brooks's goals and objectives primarily include raising capital through financings, regaining and maintaining NYSE Amex 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 determined to award the following options to purchase shares of our common stock, par value \$0.01, to the following named executive officers in connection with the short-term goals and objectives for Fiscal 2012:

| | |
|----------------------------|---------|
| Leslie J. Browne, Ph.D. | 819,000 |
| Joel Brooks | 468,000 |
| Richard Dondero | 468,000 |
| John E. Thompson, Ph.D. | 468,000 |

Such options were granted on September 30, 2011, which was 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, which is equal to the closing price of the common stock on the date of grant. Twenty-five percent (25%) of such options will vest on the first anniversary of the date of grant with the balance vesting at a rate of 1/36 for each month thereafter, unless the Committee has determined that the performance metrics have not been met.

Long-Term Incentive Equity Awards

In General – A portion of each named executive officer’s compensation is provided in the form of long-term incentive equity awards as set forth in the Long-Term Incentive Plan (the “LTIP”) discussed below. It is the Committee’s belief that properly structured equity awards are an effective method of aligning the long term interests of our named executive officers with those of our stockholders.

Beginning with the LTIP for Fiscal 2008, equity awards have been made in the form of restricted stock units, also referred to herein as RSU’s; however, each executive officer could elect to receive an equity award in the form of stock options. Beginning with Fiscal 2010, equity awards have been made in the form of stock options. Under the LTIP, equity awards are based upon the completion of certain event milestones (“LTIP Event Milestones”) to be achieved over a period of 3 years as discussed below. Accordingly, any equity awards to the named executive officers under the LTIP were made promptly after the completion of each LTIP Event Milestone based on the level of achievement of the milestones. The Committee has established LTIP grant guidelines for eligible named executive officers based on competitive annual grant data provided by management’s compensation consultant and by J. Richard, the Committee’s compensation consultant.

Long-Term Incentive Plan – For the Fiscal 2008 LTIP period beginning on December 13, 2007 (the “LTIP Effective Date”) and ending on the earlier of (i) the completion of the Third LTIP Event Milestone or (ii) three (3) years from the LTIP Effective Date, LTIP equity grants were to be made to our named executive officers in the form of RSU’s and ISO’s, based on achievement of the LTIP Event Milestones. Each RSU entitled the recipient to receive one share of our common stock upon vesting or upon a designated date or event following such vesting. Each named executive had the option of receiving their RSU grant in the form of RSU’s or ISO’s. If a named executive chose to receive ISO’s in lieu of RSU’s, then such named executive was granted twice as many ISO’s, due to the exercise price of such ISO’s.

The total RSU’s and ISOs in the LTIP pool awarded to our named executive officers was 775,000 shares, which consisted of 225,000 RSU’s and 550,000 ISO’s, representing 3.9% of the outstanding shares as of July 1, 2009.

The LTIP Event Milestones to be achieved, the weighting allocated to each milestone, amount and percentage of the RSU’s and ISOs to be awarded, as adjusted for forfeitures to all the named executive officers as a whole for the completion of each of the three LTIP Event Milestones were as follows:

| LTIP Event Milestone | Percentage of LTIP RSU and ISO Award Pool | Total Amount of RSUs and ISO's Awarded As a Whole to All Named Executive Officers |
|--|--|--|
| First LTIP Event Milestone. | | |
| The Execution of a Research Agreement to Conduct Phase I/II Trials at a Research Facility | 20 % | 120,000 |
| Second LTIP Event Milestone. | | |
| The Filing and Acceptance by the U.S. FDA of an investigation new drug application, or IND, by the date set by the Committee | 20 % | 120,000 |
| Third LTIP Event Milestone. | | |
| The Successful Completion of Phase I/II Trials Approved by the FDA by the date set by the Committee | 60 % | 360,000 |

The LTIP awards for each named executive officer upon the completion of each individual LTIP Event Milestone were to be as follows:

| Name | Title | Percentage of Total RSU's Awarded Upon Completion of a LTIP Event Milestone | Number of RSU's Awarded upon Completion of First LTIP Event Milestone | Number of RSU's Awarded upon Completion of Second LTIP Event Milestone | Number of RSU's Awarded upon Completion of Third LTIP Event Milestone |
|-----------------------------|--|---|--|--|---|
| Joel P. Brooks (1) | Chief Financial Officer, Treasurer and Secretary | 10 % | 10,000 | 10,000 | 30,000 |
| John E. Thompson (2) | Executive Vice-President and Chief Scientific Officer | 25 % | 50,000 | 50,000 | 150,000 |
| Richard Dondero (2) | Vice-President of Research and Development | 30 % | 60,000 | 60,000 | 180,000 |
| Bruce C. Galton(1) (3) | Former President and Chief Executive Officer | 25 % | 25,000 | 25,000 | 75,000 |
| Sascha P. Fedyszyn(1)(4) | Former Vice-President of Corporate Development and Secretary | 10 % | 10,000 | 10,000 | 30,000 |

(1) Represents RSU's.

(2) Represents ISO's.

(3) Mr. Galton resigned from Senesco on November 16, 2009 and, thus his awards set forth above, which were unvested at the time of his resignation, were forfeited.

(4) Mr. Fedyszyn resigned from Senesco on February 1, 2010 and, thus his awards set forth above, which were unvested at the time of his resignation, were forfeited.

The Committee reviewed the LTIP Event Milestones and determined that the First LTIP Event Milestone had been met and the RSU's and ISOs related to such event were granted to Messrs. Brooks and Dondero and Dr. Thompson on November 17, 2010, which was two trading days after the filing of our quarterly report on Form 10-Q for the period ended September 30, 2010. Each such option grant had an exercise price of \$0.99 per share, the closing selling price of our stock on the grant date. The Committee also determined that none of the remaining LTIP Event Milestones have been met and the RSU's and Options related to such events expired on December 13, 2010.

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. For example, the September 2011 awards were granted on September 30, 2011, which was two trading days after the filing of our annual report on Form 10-K for the year ended June 30, 2011.

Clawback Policy

We are reviewing our current "clawback" policy which provides for recoupment of incentive compensation in certain circumstances in connection with the enactment of recent regulations in that regard and are awaiting final SEC rules and regulations in order to revise our "clawback" policy in compliance with such rules and regulations.

Analysis of Risk Associated with our Compensation Plans

In making decisions regarding compensation program design and pay levels, our Compensation Committee and senior management, working with our Audit Committee, consider many factors, including any potential risks to Senesco and our stockholders. Although a significant portion of our executives' compensation is performance-based and "at-risk," we believe our compensation plans are appropriately structured and are not reasonably likely to have a material adverse effect on us.

Executive Benefits and Perquisites

In General – The named executive officers are also provided with certain market competitive benefits. They are currently not provided with any perquisites. It is the Committee's belief that such benefits are necessary for us to remain competitive and to attract and retain top caliber executive officers, since such benefits are typically provided by companies in the biotechnology industry and with other companies with which we compete for executive talent.

Retirement Benefits – The named executive officers may participate in the company-wide 401(k) plan. We do not make any contributions to the 401(k) plan and do not have any additional retirement benefits.

Other Benefits and Perquisites – All administrative employees, including the named executive officers, are eligible to receive standard health, disability, and life insurance. We do not provide any additional benefits and perquisites.

Executive Compensation Agreements

We had previously entered into employment agreements with our executive officers. During Fiscal 2009, the Committee determined that we could in no manner financially support the terms of the various employment agreements in effect. The Committee issued a notice of non-renewal to all named executive officers in effect not

renewing the employment agreements moving forward following the various upcoming anniversary dates of each agreement. As such, Mr. Brooks's employment agreement expired on June 30, 2010, and Mr. Dondero's employment agreement expired on July 19, 2010. Each of the named executive officers have, following the expiration of their employment agreements, continued as employees on an "at will basis", meaning that either we or the employees may discontinue their employment with or without notice or cause. The employees' respective salaries, duties and titles may be adjusted as determined by the Committee. In May 2010, we entered into an employment agreement with Dr. Browne in connection with his appointment as our chief executive officer. Such agreement was entered into with Dr. Browne as part of an inducement to join Senesco and become our President and CEO in May 2010. The terms of the agreement with Dr. Browne provided for six months of severance at his base salary in effect at such time, in the event that Dr. Browne was terminated without cause within the first year of his employment, which would have amounted to \$125,000. He would also have been provided with a continuation of his medical benefits for a period of six months from the date of his termination. Such agreement has expired.

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, other awards, like RSU's, made under our stock incentive plans 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. For Fiscal 2011, none of our executive officer's compensation reached the \$1 million limitation. The Committee will continue to evaluate such \$1 million limitation in Fiscal 2012.

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.

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, 2011, June 30, 2010 and June 30, 2009 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 2011 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 2011 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 Compensation (\$) (g) | Change in Pension Value and Non- qualified Deferred Compensation (\$) (h) | All Other Compensation (\$) (i) | Total (\$) (j) |
|--|--------------------|--------------------------|-------------------------|-----------------------------------|------------------------------------|--|---|---|----------------------|
| | | | | | | | Change in Pension Value and Non- qualified Deferred Compensation (\$) (h) | | |
| Leslie J. Browne, Ph.D. (6) (President and Chief Executive Officer) | 2011 | \$ 250,468 | - | - | \$ 154,425 | - | - | - | \$ 404,893 |
| | 2010 | \$ 27,885 | - | - | \$ 440,000 | - | - | - | \$ 467,885 |
| | 2009 | - | - | - | - | - | - | - | - |
| Joel Brooks (Chief Financial Officer , Secretary and Treasurer) | 2011 | \$ 165,976 | - | \$ 2,600 | \$ 90,525 | - | - | - | \$ 259,101 |
| | 2010 | \$ 163,306 | \$ 15,000 | - | \$ 66,000 | - | - | - | \$ 244,306 |
| | 2009 | \$ 161,986 | - | \$ 16,800 | \$ - | - | - | - | \$ 178,786 |
| Richard Dondero (Vice-President of Research) | 2011 | \$ 148,827 | - | - | \$ 90,525 | - | - | - | \$ 239,352 |
| | 2010 | \$ 146,677 | \$ 15,000 | - | \$ 66,000 | - | - | - | \$ 227,677 |
| | 2009 | \$ 145,507 | - | - | \$ 34,960 | - | - | - | \$ 180,467 |
| John E. Thompson Ph.D. (Executive Vice-President and Chief Scientific Officer) | 2011 | \$ 65,000 | - | - | \$ 90,525 | - | - | - | \$ 155,525 |
| | 2010 | \$ 65,000 | - | - | - | - | - | - | \$ 65,000 |
| | 2009 | \$ 65,000 | - | - | \$ 22,080 | - | - | - | \$ 87,080 |

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

(2) Such amount represents actual salary paid, including such amounts deferred in connection with our 401K plan.

(3) The bonus earned for the fiscal year ended June 30, 2010 was declared and paid in October 2010. There were no bonuses earned or paid during the fiscal years ended June 30, 2011 and 2009.

(4) The amounts shown are the grant date fair value of RSU's awarded to each named executive officer in each year. The fair values of the RSU's 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. In accordance with the recently adopted SEC rules, the amounts previously reported in the "Stock Awards" column for 2009 have been revised to reflect the grant date fair values of the awards granted in such year, as determined in accordance with FASB ASC Topic 718, excluding the effect of forfeitures.

(5) The amounts shown are the grant date fair value of stock options granted to each named executive officer, in accordance with FASB ASC Topic 718 pursuant to the Black Scholes pricing model. For a discussion of valuation assumptions used in the calculations, see Notes 2 and 11 of Notes to Consolidated Financial Statements included in Part II, Item 8 of our 2011 Form 10-K. The grant date fair values used to calculate such compensation costs were not adjusted to take into account any estimated forfeitures. In accordance with the recently adopted SEC rules, the amounts previously reported in the "Option Awards" column for 2009 have been revised to reflect the grant date fair values of the awards granted in such years, as determined in accordance with FASB ASC Topic 718, excluding the effect of forfeitures.

(6) 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, 2011.

| Name (a) | Grant Date (b) | 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 Under- lying Options | Exercise or Base Price of Option Awards | Grant Date Fair Value of Equity Awards |
|-------------------------------|----------------------|---|-----------------------|------------------------|--|----------------------|-----------------------|--|--|--|--|
| | | Threshold (\$) (c) | Target (\$) (d) | Maximum (\$) (e) | Threshold (#) (f) | Target (#) (g) | Maximum (#) (h) | (#) (i) | (#) (j) | (\$/Sh) (k) | (\$)(1) |
| Leslie J. Browne, Ph.D. | 11/17/2010 | - | - | - | - | - | - | - | 725,000 | \$ 0.26 | \$ 154,425 |
| John E. Thompson, Ph.D. | 11/17/2010 | - | - | - | - | - | - | - | 425,000 | \$ 0.26 | \$ 90,525 |
| Joel P. Brooks | 11/17/2010 | - | - | - | - | - | - | - | 425,000 | \$ 0.26 | \$ 90,525 |
| Richard Dondero | 11/17/2010 | - | - | - | - | - | - | - | 425,000 | \$ 0.26 | \$ 90,525 |

(1) The amounts shown are the grant date fair value of stock options granted to each named executive officer, in accordance with FASB ASC Topic 718 pursuant to the Black Scholes pricing model. For a discussion of valuation assumptions used in the calculations, see Notes 2 and 11 of Notes to Consolidated Financial Statements included in Part II, Item 8 of our 2011 Form 10-K. The grant date fair values used to calculate such compensation costs were not adjusted to take into account any estimated forfeitures.

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, 2011.

| Name | Option Awards | | | | | Stock Awards | | | |
|-------------------------|---|---|---|--|---|---|---|--|--|
| | Number of Securities Underlying Unexercised Options (#) Exercisable | Number of Securities Underlying Unexercised Options (#) Unexercisable | Equity Incentive Plan Awards: Number of Securities Underlying Unexercised Options (#) | Option Exercise Price (\$) | Option Expiration Date | Number of Shares or Units of Stock That Have Not Vested | Market Value of Shares or Units of Stock That Have Not Vested | Equity Incentive Plan Awards: Number of Shares, Units or Other Rights That Have Not Vested | Equity Incentive Plan Awards: Market Payout Value of Unearned Shares, Units or Other Rights That Have Not Vested |
| (a) | (b) | (c) | (d) | (e) | (f) | (g) | (h) | (i) | (j) |
| Leslie J. Browne, Ph.D. | - 270,833 | - | 725,000 (1) 729,167 (2) | \$ 0.26 \$ 0.55 | 11/17/2020 5/25/2020 | - - | - - | - - | - - |
| Joel P. Brooks | - 180,000(3) 25,000 (4) 15,000 (4) 12,500 (4) 20,000 (4) 15,000 (4) 20,000 (4) 25,000 (4) 25,000 (4) | - | 425,000 (1) 120,000 (3) | \$ 0.26 \$ 0.29 \$ 2.25 \$ 2.15 \$ 1.65 \$ 2.16 \$ 3.15 \$ 3.45 \$ 1.40 \$ 1.08 | 11/17/2020 2/19/2020 12/01/2010 11/01/2011 10/09/2012 06/19/2013 12/16/2013 12/16/2014 12/14/2015 12/14/2016 | - - - - - - - - - - | - - - - - - - - - - | - - - - - - - - - - | - - - - - - - - - - |
| Richard Dondero | - 180,000(3) 10,000 (4) 25,000 (4) 25,000 (4) 71,924 (5) 60,000 (5) 76,000 (5) | - | 425,000 (1) 120,000 (3) | \$ 0.26 \$ 0.29 \$ 3.45 \$ 1.40 \$ 1.08 \$ 0.99 \$ 0.99 \$ 0.60 | 11/17/2020 2/19/2020 12/16/2014 12/14/2015 12/14/2016 12/13/2017 12/13/2017 11/19/2018 | - - - - - - - - | - - - - - - - - | - - - - - - - - | - - - - - - - - |

| | | | | | | | | | |
|----------|------------|---|-------------|---------|------------|---|---|---|---|
| John E. | - | - | 425,000 (1) | \$ 0.26 | 11/17/2020 | - | - | - | - |
| Thompson | 80,000 (4) | - | - | \$ 2.05 | 12/01/2011 | - | - | - | - |
| Ph.D. | 20,000 (4) | - | - | \$ 2.35 | 01/07/2013 | - | - | - | - |
| | 20,000 (4) | - | - | \$ 3.15 | 12/16/2013 | - | - | - | - |
| | 55,000 (4) | - | - | \$ 3.45 | 12/16/2014 | - | - | - | - |
| | 20,000 (4) | - | - | \$ 1.40 | 12/14/2015 | - | - | - | - |
| | 25,000 (4) | - | - | \$ 1.08 | 12/14/2016 | - | - | - | - |
| | 52,676 (5) | - | - | \$ 0.99 | 12/13/2017 | - | - | - | - |
| | 50,000 (5) | - | - | \$ 0.99 | 12/13/2017 | - | - | - | - |
| | 48,000 (5) | - | - | \$ 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) One-quarter of such options vested on the first anniversary of the date of grant with one-thirty-sixth of the balance vesting each month thereafter.
- (3) 60,000 of such options vested on the date of grant and an additional 60,000 of such options vested on each of June 30, 2010 and June 30, 2011. An additional 60,000 of such options will vest on each of June 30, 2012 and June 30, 2013.
- (4) One-third of such options vested on the date of grant and an additional one-third of such options vested on each of the first and second anniversary of the date of grant.
- (5) Such amounts consist of performance based options which vested upon the achievement of certain milestones under our long-term incentive plan.

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, 2011.

| Name (a) | Option Awards | | Stock Awards | |
|-------------------------|---|--|--|--|
| | Number of Shares Acquired on Exercise (#) (b) | Value Realized on Exercise (\$) (c) | Number of Shares Acquired on Vesting (#) (d) | Value Realized on Vesting (\$)(1) (e) |
| Leslie J. Browne, Ph.D. | — | — | 270,833 | \$ 73,125 |
| Joel P. Brooks | — | — | 60,000 | \$ 16,800 |
| Richard Dondero | — | — | 60,000 | \$ 16,800 |
| John E. Thompson, Ph.D. | — | — | — | — |

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

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

None of our named executive officers have a current employment agreement or any termination or change of control arrangements with us.

Executive Severance. None of our named executive officer's have employment agreements or any agreements which contain severance provisions.

Equity Compensation Plans

The following table reflects information relating to equity compensation plans as of June 30, 2011.

| | 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 | 11,348,314 | (1) \$ 0.78 | 14,643,289 (2) |
| Equity compensation plans not approved by security holders | — | — | — |
| Total | 11,348,314 | (1) \$ 0.78 | 14,643,289 (2) |

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

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

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 [295] holders of record of our common stock, and we had outstanding [80,777,097] 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.

| Name and Address of Beneficial Owner (1) | Amount and Nature of Beneficial Ownership(2) | | Percent of Class(3) | |
|--|---|-------------|---------------------------|----------|
| (i) Certain Beneficial Owners: | | | | |
| Partlet Holdings Ltd. International House, 1st Floor 41, The Parade St. Helier, JERSEY, Channel Islands | 7,961,309 | (4) | 9.6 | % |
| Defiance Fund, Ltd. 488 Madison Avenue 12th Floor New York, NY 10022 | 5,368,195 | (5) | 6.5 | % |
| (ii) Directors (which includes all nominees), Named Executive Officers and Chief Executive Officer: | | | | |
| Harlan W. Waksal, M.D. | 3,794,696 | (6) | 4.5 | % |
| John N. Braca | 1,038,012 | (7) | 1.3 | % |
| Jack Van Hulst | 788,357 | (8) | 1.0 | % |
| Christopher Forbes | 19,678,133 | (9) | 21.3 | % |
| Warren J. Isabelle | 371,823 | (10) | * | |
| Thomas C. Quick | 1,896,208 | (11) | 2.3 | % |
| David Rector | 1,215,408 | (12) | 1.5 | % |
| Rudolf Stalder | 2,882,287 | (13) | 3.5 | % |
| John E. Thompson, Ph.D. | 1,057,780 | (14) | 1.3 | % |
| Joel P. Brooks | 478,479 | (15) | * | |
| Richard Dondero | 563,028 | (16) | * | |
| Leslie J. Browne, Ph.D. | 580,354 | (17) | * | |
| (iii) All Directors and current executive officers as a group (12 persons) | 34,344,565 | (18) | 33.3 | % |

* 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 [80,777,097] shares of our common stock outstanding as of the Record Date, 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 the Record Date.
- (4) Includes 3,618,056 shares of common stock issuable pursuant to presently exercisable warrants.
- (5) Includes 1,562,500 shares of common stock issuable pursuant to presently exercisable warrants. Per Form 13G filed on May 20, 2011.
- (6) Includes 2,112,904 shares of common stock issuable pursuant to presently exercisable warrants and options or options which will become exercisable within sixty (60) days after the Record Date. Also includes 740,740 shares of common stock issuable pursuant to the conversion of convertible preferred stock at a conversion rate of \$0.27. Excludes 517,083 shares of common stock issuable pursuant to options which become exercisable after sixty (60) days from the Record Date.
- (7) Includes 900,048 shares of common stock issuable pursuant to presently exercisable warrants and options or options which will become exercisable within sixty (60) days after the Record Date. Excludes 115,000 shares of common stock issuable pursuant to options which become exercisable after sixty (60) days from the Record Date.
- (8) Includes 748,289 shares of common stock issuable pursuant to presently exercisable warrants and options or options which will become exercisable within sixty (60) days after the Record Date. Excludes 113,958 shares of common stock issuable pursuant to options which become exercisable after sixty (60) days from the Record Date.
- (9) Includes 7,927,716 shares of common stock issuable pursuant to presently exercisable warrants and options or options which will become exercisable within sixty (60) days after the Record Date. Also includes 3,703,704 shares of common stock issuable pursuant to the conversion of convertible preferred stock at a conversion rate of \$0.27. Excludes 95,000 shares of common stock issuable pursuant to options which become exercisable after sixty (60) days from the Record Date.
- (10) Includes 270,059 shares of common stock issuable pursuant to presently exercisable warrants and options or options which will become exercisable within sixty (60) days after the Record Date. Excludes 77,500 shares of common stock issuable pursuant to options which become exercisable after sixty (60) days from the Record Date.
- (11) Represents 675,173 shares of common stock and 403,428 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 677,873 shares of common stock issuable pursuant to presently exercisable options or options which will become exercisable within sixty (60) days after the Record Date issued to Thomas C. Quick. Excludes 77,500 shares of common stock issuable pursuant to options issued to Thomas C. Quick which become exercisable after sixty (60) days from the Record Date.
- (12) Includes 944,662 shares of common stock issuable pursuant to presently exercisable warrants and options or options which will become exercisable within sixty (60) days after the Record Date. Excludes 115,000 shares of common stock issuable pursuant to options which become exercisable after sixty (60) days from the Record Date.
- (13) Includes 1,828,349 shares of common stock issuable pursuant to presently exercisable warrants and options or options which will become exercisable within sixty (60) days after the Record Date. Excludes 377,500 shares of common stock issuable pursuant to options which become exercisable after sixty (60) days from the Record

Date.

(14) Represents 572,000 shares of common stock held by 2091794 Ontario Ltd., of which Dr. Thompson is the sole owner, and 485,780 shares of common stock issuable pursuant to presently exercisable options or options which will become exercisable within sixty (60) days after the Record Date issued to John E. Thompson, Ph.D. Excludes 777,896 shares of common issuable pursuant to options which will become exercisable after sixty (60) days from the Record Date.

30

- (15) Includes 427,604 shares of common stock issuable pursuant to presently exercisable options or options which will become exercisable within sixty (60) days after the Record Date. Excludes 897,896 shares of common stock issuable pursuant to options which will become exercisable after sixty (60) days from the Record Date.
- (16) Includes 563,028 shares of common stock issuable pursuant to presently exercisable options or options which will become exercisable within sixty (60) days after the Record Date. Excludes 897,896 shares of common stock issuable pursuant to options which will become exercisable after sixty (60) days from the Record Date.
- (17) Includes 571,354 shares of common stock issuable pursuant to presently exercisable options or options which will become exercisable within sixty (60) days after the Record Date. Excludes 1,972,646 shares of common stock issuable pursuant to options which will become exercisable after sixty (60) days from the Record Date.

(18)

See Notes 6 through 17.

CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS

Contractual Relationships

Service Agreements

Christopher Forbes, our director, is also Vice Chairman of Forbes, Inc., which owns Forbes Media, LLC and Forbes Management Company, 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 2010, we granted to Forbes, Inc. a warrant to purchase shares of our common stock and during Fiscal 2011, we granted to Forbes Management Company, an option to purchase shares of our common stock. The awards to the Forbes entities are described in the table below:

| Date of Grant | # of Warrant / Option Shares | Exercise Price | Value of Services on Date of Grant | # of Warrant Shares Vested |
|--------------------|---------------------------------------|-------------------|---|----------------------------------|
| November 17, 2010 | 5,000 | \$ 0.26 | \$ 1,300 | 1,667 |
| September 30, 2011 | 10,000 | \$ 0.23 | \$ 1,780 | 3,333 |

The exercise price of the warrants granted to Forbes, Inc. and options 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, 2012, 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 1.3% 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, 2011 and 2010 aggregated US \$622,872 and US \$672,693, respectively. Effective September 1, 2011, we, Dr. Thompson and the University extended the agreement for an additional one-year period through August 31, 2012 in the amount of CAN \$555,900. As of October 24, 2011, such amount represented approximately US \$577,000.

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.

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 250,000,000 to 350,000,000. On September 22, 2011, 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 250,000,000 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 4,845 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 250,000,000 shares of common stock currently authorized, as of the close of business on the Record Date, there were [80,777,097] shares of common stock issued and outstanding. Furthermore, we have reserved for future issuance:

- a. [2,781,600] shares of common stock upon the exercise of outstanding options and restricted stock units granted under the 1998 Stock Plan;
- b. [23,005,003] shares of common stock upon the exercise of options, of which [12,264,714] have been granted and [10,740,289] may be granted in the future, under the 2008 Incentive Compensation Plan;
- c. [54,169,032] shares of common stock upon the exercise of warrants issued and outstanding;
- d. [17,944,444] shares of common stock upon conversion, at the current conversion price of \$0.27, of the convertible preferred stock issued pursuant to a previously disclosed financing;

e. [17,818,965] 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 [3,362,820] 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 [80,777,097] 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, regulatory agencies or the NYSE Amex rules. 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) |
|---------------------------------|------------------------------|--|---|--------------------------------|--|
| 250,000,000 | [80,777,097] | [119,081,864] | [50,141,039] | 350,000,000 | [150,141,039] |

-
- (1) As of October 24, 2011.
 (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

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 & Pullen, LLP as our independent registered public accounting firm for the fiscal year ending June 30, 2012. 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 & Pullen, 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 & Pullen, LLP.

OUR BOARD OF DIRECTORS RECOMMENDS A VOTE “FOR” THE RATIFICATION OF THE APPOINTMENT OF MCGLADREY & PULLEN, LLP AS OUR INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM FOR THE FISCAL YEAR ENDING JUNE 30, 2012.

Principal Accountant Fees and Services

The aggregate fees billed by McGladrey & Pullen, LLP and RSM McGladrey, Inc. for services performed for the years ended June 30, 2011 and 2010 are as follows:

| | 2011 | 2010 |
|--------------------|------------|-----------|
| Audit Fees | \$ 98,500 | \$ 91,000 |
| Audit Related Fees | 38,500 | 8,500 |
| Tax Fees | - | - |
| All Other Fees | - | - |
| Total Fees | \$ 137,000 | \$ 99,500 |

AUDIT FEES

The aggregate audit fees for the years ended June 30, 2011 and 2010 were primarily related to the audit of 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, 2011 and 2010 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.

A representative of McGladrey & Pullen, LLP is expected to be present at the annual meeting. The representative will have an opportunity to make a statement and will be available to respond to appropriate questions.

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 Amex.

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 2011.

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, 2011. 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, 2011.

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 July 6, 2012. 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, 2012.

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, 2011, which has been mailed to you along with this proxy statement. This proxy statement and our June 30, 2011 Annual Report are also available on our website at www.senesco.com.

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, 2011, INCLUDING FINANCIAL STATEMENTS AND SCHEDULES THERETO, BUT NOT INCLUDING EXHIBITS, TO EACH OF OUR STOCKHOLDERS OF RECORD ON OCTOBER 24, 2011 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. 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
November [4], 2011

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 and May 25, 2010 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 section of Article FOURTH of the Charter is hereby deleted in its entirety and replaced by the following new paragraph:

“The total number of shares of all classes of stock which the Corporation shall have authority to issue is Three Hundred Fifty-Five Million (355,000,000) 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 Three Hundred Fifty Million (350,000,000), 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.”

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 [___], 20[___].

SENESCO TECHNOLOGIES, INC.

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

ANNUAL MEETING OF STOCKHOLDERS OF

SENESCO TECHNOLOGIES, INC.

December 16, 2011

IMPORTANT NOTICE OF INTERNET AVAILABILITY OF PROXY MATERIAL FOR THE ANNUAL MEETING:

The Notice of Meeting, proxy statement and proxy card are available at www.senesco.com

Please date, sign and mail your proxy card in the envelope provided as soon as possible.

Please detach along perforated line and mail in the envelope provided.

PLEASE SIGN, DATE AND RETURN PROMPTLY IN THE ENCLOSED ENVELOPE. PLEASE MARK YOUR VOTE IN BLUE OR BLACK INK AS SHOWN HERE x

| | | |
|---|---|--|
| | | FOR AGAINST ABSTAIN |
| 1. Election for Directors: | | £ £ £ |
| " FOR ALL NOMINEES " WITHHOLD AUTHORITY FOR ALL NOMINEES " FOR ALL EXCEPT (see instructions below) | NOMINEES: " Harlan W. Waksal, M.D. " John N. Braca " Jack Van Hulst " Christopher Forbes " Warren J. Isabelle " Thomas C. Quick " David Rector " Rudolf Stalder " Leslie J. Browne, Ph.D. " John E. Thompson, Ph.D. | 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 250,000,000 to 350,000,000. 3. To ratify the appointment of McGladrey & Pullen, LLP as the Company's independent registered public accounting firm for the fiscal year ending June 30, 2012. 4. In his discretion, the proxy is authorized to vote upon other matters as may properly come before the Meeting. |
| INSTRUCTION: | To withhold authority to vote for any individual nominee(s), mark "FOR ALL EXCEPT" and fill in the box next to each nominee you wish to withhold, as shown here: x | FOR AGAINST ABSTAIN £ £ £ |
| | | The undersigned acknowledges receipt from the Company before the execution of this proxy of the Notice of Annual Meeting of Shareholders, a Proxy Statement for the Annual Meeting of Shareholders and the 2011 Annual Report to Shareholders. |

MARK "X" HERE IF YOU PLAN TO ATTEND THE MEETING "

To change the address on your account, please check the box at right and indicate your new address in the address space above. Please note that changes to the registered name(s) on the account may not be submitted via this method.

Signature of Shareholder Date:

Signature of Shareholder Date:

Note: Please sign exactly as your name or names appear on this Proxy. When shares are held jointly, each holder should sign. When signing as executor, administrator, attorney, trustee or guardian, please give full title as such. If the signer is a corporation, please sign full corporate name by duly authorized officer.