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

FORM 8-K

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

Date of report (Date of earliest event reported): **December 16, 2005**

Senesco Technologies, Inc.
(Exact Name of Registrant as Specified in Charter)

Delaware	**001-31326**	**84-1368850**
(State or Other Jurisdiction of Incorporation)	(Commission File Number)	(IRS Employer Identification No.)

303 George Street, Suite 420, New Brunswick, New Jersey	**08901**
(Address of Principal Executive Offices)	(Zip Code)

(732) 296-8400
(Registrant's telephone number, including area code)

Not applicable
(Former Name or Former Address, if Changed Since Last Report)

Check the appropriate box below if the Form 8-K is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions:

o Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425).

o Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12).

o Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b)).

o Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c)).

Item 7.01. Regulation FD Disclosure.

On December 16, 2005, Senesco Technologies, Inc., a Delaware corporation (the "Company"), issued a press release to report the results from the Company's funded research agreement with the Mayo Clinic with respect to the Company's proprietary Factor 5A gene technology.

The full text of the press release is attached to this current report on Form 8-K as Exhibit 99.1, and it is hereby incorporated by reference into this Form 8-K.

The information in this Form 8-K shall not be deemed "filed" for purposes of Section 18 of the Securities Exchange Act of 1934 (the "Exchange Act") or otherwise subject to the liabilities of that section, nor shall it be deemed incorporated by reference in any filing under the Securities Act of 1933 or the Exchange Act, except as expressly set forth by specific reference in such a filing.

Item 9.01. Financial Statements and Exhibits.

(c) Exhibits.

Exhibit No.	Description
99.1	Press Release of Senesco Technologies, Inc. dated December 16, 2005.

SIGNATURE

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, hereunto duly authorized.

SENESCO TECHNOLOGIES, INC.

Dated: December 16, 2005

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

Exhibit 99.1

PRESS RELEASE

S E N E S C O

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SENESCO TECHNOLOGIES ANNOUNCES RESULTS OF BONE MARROW CANCER CELL LINE STUDY CONDUCTED AT MAYO CLINIC

NEW BRUNSWICK, N.J. (December 16, 2005) – Senesco Technologies, Inc. ("Senesco" or the "Company") (AMEX: SNT) today announced results from the Company's funded research agreement at Mayo Clinic. Using human multiple myeloma cells grown *in vitro*, the data show that the Company's proprietary Factor 5A gene technology causes these cancer cells to die, thereby leaving fewer viable cancer cells in comparison to untreated samples.

Multiple myeloma is a type of bone marrow cancer that produces high levels of inflammatory cytokines which can lead to bone lesions and tumor progression. In this study, human multiple myeloma cells were grown in the presence of IL-6, a cytokine that acts as a growth factor for the myeloma cells. The aim of the study was to show that Senesco's technology could induce these dividing myeloma cells to die. Approximately 90% of the cancer cells treated with Factor 5A died, in comparison to approximately 25% of the untreated cells.

Richard Dondero, Vice President of Research and Development at Senesco commented "This early-stage study has shown that Factor 5A is not only able to kill myeloma cells, but also eliminate myeloma cells in the presence of IL-6. This latter finding is of interest in that it has proven to be very difficult to induce apoptosis in myeloma cells in the presence of IL-6 with standard therapies such as dexamethasone."

Senesco's Chief Scientific Officer, John Thompson, Ph. D., FRSC, added: "We are very pleased with the results of this study. They complement our findings to date for lung cancer and reinforce our belief that Factor 5A can induce apoptosis in cancer cells."

Based on these *in vitro* results, the Company and Mayo Clinic, plan to determine the efficacy of Factor 5A in a multiple myeloma animal model. The animal model is an important next step in determining Factor 5A's potential ability to affect this disease.

About Senesco Technologies, Inc.

Senesco has initiated preclinical research to trigger or delay cell death in mammals (apoptosis) to determine if the technology is applicable in human medicine. Accelerating apoptosis may have applications to development of cancer treatments. Delaying apoptosis may have applications to certain diseases such as, glaucoma, ischemia and arthritis, among others. Senesco takes its name from the scientific term for the aging of plant cells: senescence. The Company has developed technology that regulates the onset of cell death. Delaying cell breakdown in plants extends freshness after harvesting, while increasing crop yields, plant size and resistance to environmental stress for flowers, fruits and vegetables. In addition to its human health research programs, the Company believes that its technology can be used to develop superior strains of crops without any modification other than delaying natural plant senescence. Senesco has partnered with leading-edge companies engaged in agricultural biotechnology and earns research and development fees for applying its gene-regulating platform technology to enhance its partners' products. Senesco is headquartered in New Brunswick, New Jersey.

Certain statements included in this press release are forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. Actual results could differ materially from such statements expressed or implied herein as a result of a variety of factors, including, but not limited to: the development of the Company's gene technology; the approval of the Company's patent applications; the successful implementation of the Company's research and development programs and joint ventures; the success of the Company's license agreements; the acceptance by the market of the Company's products; success of the Company's preliminary studies and preclinical research; competition and the timing of projects and trends in future operating performance, as well as other factors expressed from time to time in the Company's periodic filings with the Securities and Exchange Commission (the "SEC"). As a result, this press release should be read in conjunction with the Company's periodic filings with the SEC. The forward-looking statements contained herein are made only as of the date of this press release, and the Company undertakes no obligation to publicly update such forward-looking statements to reflect subsequent events or circumstances.

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