SENESCO TECHNOLOGIES INC
Form 8-K
May 01, 2012

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): May 1, 2012

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.)

721 Route 202-206, Suite 130, Bridgewater, NJ 08807
(Address of Principal Executive Offices) (Zip Code)

(908) 864-4444
(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:

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

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

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

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

Item 8.01 Other Events.

On May 1, 2012, Senesco Technologies, Inc. ("Senesco") issued a press release announcing that a high level of tumor eradication in a mouse model of human multiple myeloma was achieved with a combination of SNS01-T and lenalidomide.

The Company recently reported that SNS01-T significantly inhibits the growth of both human mantle cell and diffuse large B-cell lymphomas in mouse xenograft models and that the combination of lenalidomide and SNS01-T performs better than either treatment alone in a mouse xenograft model of human mantle cell lymphoma.

Summary of Multiple Myeloma Model Results

The purpose of the study was to determine whether SNS01-T treatment increases the effectiveness of lenalidomide in a murine xenograft model of multiple myeloma. SNS01-T (0.375 mg/kg i.v.) was combined with either a sub-optimal dose (15 mg/kg i.p.) or an optimal dose of lenalidomide (50 mg/kg i.p.). Mice received SNS01-T twice weekly and 5 doses/week of lenalidomide for 6 weeks.

Tumors were initiated by implanting human myeloma RPMI 8226 cells into the flank of SCID mice. The mice were randomized into 6 groups of 5 or 6 animals when the subcutaneous tumors were approximately 40 mm^3 in size.

At the end of 6 weeks of dosing, tumor growth was inhibited compared to control nanoparticles by 96 % ($p = 0.0001$), 94 % ($p = 0.0002$), and 99 % ($p = 0.00003$) in animals treated with SNS01-T, SNS01-T plus 15 mg/kg lenalidomide and SNS01-T plus 50 mg/kg of lenalidomide, respectively. By comparison, tumor inhibition in mice treated with 5 doses/week of lenalidomide for 6 weeks at 15 mg/kg i.p. or 50 mg/kg i.p. was 51 % ($p = 0.03$) and 78 % ($p = 0.0008$), respectively.

No surviving animals treated with control nanoparticles or lenalidomide alone had undetectable tumors at the end of 6 weeks. In the SNS01-T and SNS01-T plus 15 mg/kg of lenalidomide groups, 2 of 5 animals in each group had no detectable tumor. In the SNS01-T plus 50 mg/kg treatment group, 5 of 6 animals (83 %) had no detectable tumor, and remained undetectable even after 3 weeks without further treatment.

The median survival of mice treated with control nanoparticles or 15 mg/kg lenalidomide was 48 days and 53 days, respectively. Mice treated with SNS01-T or SNS01-T in combination with lenalidomide had 100 % survival following 6 weeks of dosing and 11 days of observation after cessation of treatment.

In conclusion, SNS01-T alone and in combination with sub-optimal and optimal (15 and 50 mg/kg respectively) doses of lenalidomide demonstrated significantly improved efficacy compared to lenalidomide alone. However the most significant finding was that SNS01-T plus 50 mg/kg of lenalidomide completely eliminated tumor burden in 83% of treated animals compared to 40% in animals treated with SNS01-T alone or SNS01-T plus 15 mg/kg lenalidomide. The eradication of tumor has lasted for at least 3 weeks.

About Multiple Myeloma

Multiple myeloma is an incurable cancer of plasma cells, a type of white blood cell derived from B-lymphocytes, normally responsible for the production of antibodies, in which abnormal cells accumulate in the bone marrow leading to bone lesions and interfering with the production of normal blood cells. Senesco was previously granted orphan drug status for SNS01-T, the Company's lead drug candidate for treatment of multiple myeloma.

A copy of this press release is filed as Exhibit 99.1 hereto and incorporated herein by reference.

Item 9.01. Financial Statements and Exhibits.

(d) Exhibits.

Exhibit No.	Description
99.1	Press Release of Senesco Technologies, Inc. dated May 1, 2012.

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: May 1, 2012 By: /s/ Leslie J. Browne, Ph.D.
Name: Leslie J. Browne, Ph.D.
Title: President and Chief Executive Officer