

Mail Stop 6010

October 25, 2007

Bruce C. Galton
President and Chief Executive Officer
Senesco Technologies, Inc.
303 George Street, Suite 420
New Brunswick, New Jersey 08901

**Re: Senesco Technologies, Inc.
Revised Preliminary Proxy Statement on Schedule 14A
Filed October 24, 2007
File No. 1-31326**

Dear Mr. Galton:

We have limited our review of your filing to those issues we have addressed in our comments. Where indicated, we think you should revise your document in response to these comments. If you disagree, we will consider your explanation as to why our comment is inapplicable or a revision is unnecessary. Please be as detailed as necessary in your explanation. In some of our comments, we may ask you to provide us with information so we may better understand your disclosure. After reviewing this information, we may raise additional comments.

Please understand that the purpose of our review process is to assist you in your compliance with the applicable disclosure requirements and to enhance the overall disclosure in your filing. We look forward to working with you in these respects. We welcome any questions you may have about our comments or any other aspect of our review. Feel free to call us at the telephone numbers listed at the end of this letter.

Proposal One

1. We note your response and revisions pursuant to comment 1. Please disclose in the Notice, in either tabular or narrative form, YA Global Investments' and Stanford Venture Capital Holdings' current and potential ownership percentages.
2. We note the revisions pursuant to comment 2.

- We note you have not yet determined the “exact proportion of the proceeds” that you will use on each component of your plan. Please disclose your best estimate as to how much you will use to advance the cancer target to the IND stage.
- You now disclose that some of the proceeds will be used for “other human health and agricultural research and general corporate purposes.” Please identify with more specificity what you mean by “other human health and agricultural research” and “general corporate purposes.” State an approximate amount for each of these more specifically described uses. If you plan to use the proceeds on any products that are in clinical trials, you should identify the product and your plans for the product.

* * *

As appropriate, please amend your filing and respond to these comments within 10 business days or tell us when you will provide us with a response. You may wish to provide us with a marked copy of the amendment to expedite our review. Please furnish a cover letter with your amendment that keys your responses to our comments and provides any requested information. Detailed cover letters greatly facilitate our review. Please understand that we may have additional comments after reviewing your amendment and responses to our comments.

We urge all persons who are responsible for the accuracy and adequacy of the disclosure in the filing to be certain that the filing includes all information required under the Securities Exchange Act of 1934 and that they have provided all information investors require for an informed investment decision. Since the company and its management are in possession of all facts relating to a company’s disclosure, they are responsible for the accuracy and adequacy of the disclosures they have made.

In connection with responding to our comments, please provide, in writing, a statement from the company acknowledging that:

- the company is responsible for the adequacy and accuracy of the disclosure in the filing;
- staff comments or changes to disclosure in response to staff comments do not foreclose the Commission from taking any action with respect to the filing; and
- the company may not assert staff comments as a defense in any proceeding initiated by the Commission or any person under the federal securities laws of the United States.

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In addition, please be advised that the Division of Enforcement has access to all information you provide to the staff of the Division of Corporation Finance in our review of your filing or in response to our comments on your filing.

Please contact Greg Belliston at (202) 551-3861 or me at (202) 551-3715 with any questions.

Sincerely,

Jeffrey Riedler
Assistant Director

cc: Emilio Ragosa, Esq.
Morgan, Lewis & Bockius LLP
502 Carnegie Center
Princeton, New Jersey 08540