

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

February 8, 2011

Brett Reynolds Chief Financial Officer Synovis Life Technologies, Inc. 2575 University Avenue W., St. Paul, Minnesota 55114-1024

> Re: Synovis Life Technologies, Inc. Form 10-K for fiscal year ended October 31, 2010 Filed January 5, 2011 File No. 0-13907

Dear Mr. Reynolds:

We have reviewed your filing and have the following comments. In some of our comments, we may ask you to provide us with information so we may better understand your disclosure.

Please respond to this letter within ten business days by providing the requested information, or by advising us when you will provide the requested response. If you do not believe our comments apply to your facts and circumstances or do not believe an amendment is appropriate, please tell us why in your response.

After reviewing the information you provide in response to these comments, we may have additional comments.

Form 10-K for fiscal year ended October 31, 2010

Note 5 – Supplemental Net Revenue Information, page 40

1. We note from your disclosures on page 2 that you operate in three segments but based on the similar economic characteristics of those segments you aggregate them into one reportable segment. Please describe to us the nature of each of your operating segments and provide us with details to support your conclusion that you meet the aggregation criteria listed in paragraph 280-10-50-11 of the FASB Accounting Standards Codification.

Item 9A. Controls and Procedures, page 50

2. We note your disclosure that "the principal executive officer and principal financial officer have concluded that [your] disclosure controls and procedures are effective...to

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ensure that information required to be disclosed by [you] in reports [you] files or submits under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in Securities and Exchange Commission rules and forms." The language that is currently included after the word "effective" in your disclosure appears to be superfluous, since the meaning of "disclosure controls and procedures" is established by Rule 13a-15(e) of the Exchange Act. Please remove the language in your future filings or revise the disclosure so that the language that appears after the word "effective" is substantially similar in all material respects to the language that appears in the entire two-sentence definition of "disclosure controls and procedures" set forth in Rule 13a-15(e).

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 the information the Securities Exchange Act of 1934 and all applicable Exchange Act rules require. 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 responding to our comments, please provide a written 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.

You may contact Eric Atallah, Staff Accountant at (202) 551-3663 or me at (202) 551-3643 if you have questions regarding comments on the financial statements and related matters. In this regard, do not hesitate to contact Martin James, Senior Assistant Chief Accountant at (202) 551-3643 with any questions.

Sincerely,

Kevin L. Vaughn Accounting Branch Chief