April 28, 2006

VIA EDGAR

Mr. Larry Spirgel
Assistant Director
Securities and Exchange Commission
Division of Corporate Finance
450 Fifth Street, N.W.
Washington, D.C. 20549

RE: SurModics, Inc.
Form 10-K for fiscal year ended September 30, 2005
Form 10-Q for the quarter ended December 31, 2005
File No. 000-23837

Dear Mr. Spirgel:

This letter is being filed to respond on behalf of SurModics, Inc. (the "Company") to the comments raised by your letter dated April 7, 2006 regarding the above-referenced filings. For ease of reference, we have included each of your comments followed by the Company's responses.

Form 10-K for the fiscal year ended September 30, 2005

Item 7 management's Discussion and Analysis, Page 24

Results of Operations, page 27

1. **SEC COMMENT:** In your discussion of revenues on page 34, you attribute the change to several factors, without quantifying or indicating the relevant weight of each factor. For example, you mention significant growth in royalties and license fees for both Drug Delivery and Hydrophilic operating segments, but you do not quantify the increase or indicate the reasons for the increase. Therefore, if material, provide a discussion of the components of revenue growth (e.g. volume of licenses, royalty fees, acquisitions, etc.) by operating segment or business unit for all periods presented. Further, with respect to your

explanations amend to provide insight into the underlying business drivers or conditions that contributed to theses changes. Please refer to Item 303 of Regulation S-K and the Commission's interpretive Release on Management's Discussion and Analysis of Financial Condition and Results of Operation on our website at: http://www.sec.gov/rules/interp/33-8350.htm.

COMPANY RESPONSE: Beginning with the March 2006 Form 10-Q, the Company plans to more thoroughly discuss the material components of revenue growth and provide insight into the underlying business drivers or conditions that contributed to material changes.

2. **SEC COMMENT:** We refer to your January 18, 2005 purchase of assets and related technology of InnoRx, which you characterize as a development stage company. In accordance with Rule 11-01(d) of Regulation S-X, tell us how you determined whether or not there is sufficient continuity of operations, as the disclosure of prior financial information may well be material to an understanding of the future operations of your company.

COMPANY RESPONSE: As part of the Company's process of determining whether or not subsequent to our purchase of InnoRx, Inc. there was sufficient continuity of operations of InnoRx, we relied on much of the same analysis we completed in determining whether the purchase itself resulted in the receipt of productive assets or of a business. InnoRx was founded by a medical doctor with the intent of commercilizing his ideas for treating diseases of the back of the eye. The only employees of InnoRx were a general manager and his administrative assistant. The general manager worked toward forming financial and technical alliances to further the progress of the founder's ideas around treatments for eye disease. Both individuals worked out of an office in Alabama. The founder was an employee of the University of Southern California and worked out of the institute he headed there. The nature of the operating activities at this early stage was limited to proving the founder's concept, i.e., early engineering prototyping and simple animal studies. Upon reaching completion of these early stage engineering and animal studies efforts, the Company initiated discussions about purchasing InnoRx and advancing development to the next stage: pursuing U.S. Food and Drug Administration (FDA) approval of the ophthalmic implant through human clinical trials.

In our analysis of whether the purchase itself resulted in the receipt of productive assets or of a business, we relied on the guidance provided by EITF 98-3. In paragraph 6, a business is described as "a self-sustaining integrated set of activities

and assets conducted and managed for the purpose of providing a return to investors". Paragraph 6 further states that for a transferred set of activities and assets to be a business, it must contain all the inputs and processes necessary for it to continue to conduct normal operations after the transferred set (inputs, processes, and outputs) is separated from the transferor, which includes the ability to sustain a revenue stream. At the time of the Company's purchase of InnoRx, the inputs consisted of the two employees, neither of whom was working on development of the implant or the intellectual property created to that point. Processes and outputs, the second and third components of the necessary integrated set of activities were non-existent as there were no operations per se (activities revolved around developing the device, not manufacturing of the device), and no output as there were no customers and no FDA approved product to sell. The Company determined that the missing elements required a high degree of difficulty and level of investment such that the elements acquired in the purchase did not constitute a business. Hence the merger was treated as a purchase of assets.

Similarly, in making our assessment of continuity of operations with respect to Rule 11-01(d) of Regulation S-X, we analyzed the facts involved against the criteria in Rule 11-01(d) and determined that disclosure of financial information was neither material nor relevant to an understanding of future operations.

The operations of InnoRx to that point were limited to small scale prototype design, proof of concept, and raising capital. Following the Company's purchase of InnoRx, the next stage of development was to conduct human clinical trials. Clinical trials require specialized talent costing millions of dollars and are conducted over several years. Subsequent to the purchase of InnoRx, the Alabama office was closed, and neither of the two employees was offered employment. Since none of the activities being performed at the time of the Company's purchase of InnoRx and none of the operational costs at the time were indicative of the activities or investment required for the clinical trial phase, we determined that operations subsequent to our acquisition would be significantly different. While we plan to further develop the technology purchased, we do not believe the historical operations of InnoRx would be meaningful to users of our financial statements to understand our future operations.

Finally, the Company acknowledges that it is responsible for the adequacy and accuracy of the disclosure in its filings; staff comments or changes to disclosure in response to staff comments do not foreclose the Commission from taking any action with respect to the filings; 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.

If you have any questions regarding this letter, please contact me at (952) 829-2715 so that I may respond promptly.

Very truly yours,

Philip D. Ankeny
Chief Financial Officer