Mail Stop 4561
Via Fax (952) 829-2743

February 29, 2008

Philip D. Ankeny
Chief Financial Officer
Surmodics, Inc.
9924 West 74th Street
Eden Prairie, Minnesota 55344

Re: Surmodics, Inc.
Form 10-K for the Fiscal Year Ended September 30, 2007
Filed on December 14, 2007
File no. 000-23837

Dear Mr. Ankeny:

We have reviewed the above referenced filing and have the following comments. If 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 supplemental 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.

Form 10-K for the Year Ended September 30, 2007

Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations, Results of Operations, page 34

1. There are many instances where two or more sources of a material change in operating cost and expenses have been identified, but the quantitative and/or qualitative factors for each source that contributed to the change were not

disclosed (e.g. higher depreciation costs, impact of acquisitions, increased compensation expense due to added personnel, increased incentive and stock-based compensation expense, higher costs for internal development projects, etc.). In addition, it may be beneficial to provide comparative headcount data to assist in explaining significant fluctuations related to changes in personnel levels. Please tell us how you have considered quantifying and/or qualifying each source that contributed to a material change in your MD&A discussion pursuant to Section III. D of SEC Release 33-6835 and how you intend to comply with such guidance.

2. We also note on pages 36 and 37 that you reference the use of an "independent valuation consultant" in determining the fair value of in-process research and development recorded for the acquisition of Brookwood Pharmaceuticals, Inc. and the asset purchase of InnoRx, Inc. in fiscal 2007 and 2005, respectively. If you choose to rely on an independent third party, you should identify the independent firm and include the expert's consent when the reference is included in a filing in the 1933 Act environment. In this regard, it appears that this Form 10-K may be incorporated by reference into your Form S-3 and your Form S-8 filed March 23, 2005. Please tell us how you considered Rule 436(b) of Regulation C and how you intend to comply with this rule.

Item 9A.1. Controls and Procedures, page 42

3. We note your disclosure that your "Chief Executive Officer and Chief Financial Officer, concluded that the Company's disclosure controls and procedures are effective to ensure that information required to be disclosed by the Company in its report that it files under the Exchange Act is recorded, processed, summarized, and reported within the time period specified in the rules of the Securities Exchange Commission." This reference is significantly more limited than what is called for under Rule 13a-15(e) of the Exchange Act and does not include the complete definition of disclosure controls and procedures. The rule requires, among other matters, that the disclosure controls and procedures be designed "to ensure that information required to be disclosed by the issuer in the reports that it files or submits under the Act…is recorded, processed, summarized and reported within the time period specified in the Commission's rule and forms" and to ensure that "information required to be disclosed by an issuer…is accumulated and communicated to the issuer's management…as appropriate to allow timely decisions regarding required disclosure." Please confirm, if true, that (1) the scope of disclosure controls and procedures for the relevant periods correspond in all respects to the definition of disclosure controls and procedures in Rule 13a-15(e) and (2) that in future period reports you will either recite the entire definition or clearly indicate that the evaluation was made with respect to disclosure controls and procedures as defined in the rule.

Consolidated Statements of Operations, page F-3

4. We note from your disclosures on page F-11 that when the Company determines that a multiple element arrangement should be accounted for as a single unit of accounting, revenue is recognized on a "time-based accounting model". Tell us the amount of revenue recognized according to this model for each period presented and where such revenues are classified in your statements of operations. If these revenues are allocated among the different revenue line items, describe the allocation method used to determine this classification in your statement of operations. Also, tell us how you considered separately presenting these bundled license and service revenues, and their respective costs, pursuant to Rule 5-03(b)(1) and (2) of Regulation S-X. We remind you that, absent a compelling argument under GAAP and Rule 5-03(b)(1) of Regulation S-X, your presentation should include a separate revenue, and related cost of revenue, line item for bundled arrangements that are not separable because of the absence of fair value for the undelivered element.

Note 2. Summary of Significant Accounting Policies

Revenue Recognition

Royalties & License Fees, page F-10

5. We note in your disclosure that for stand-alone license agreements, up-front license fees are recognized over the term of the related licensing agreement. We also note in your disclosure related to multiple element arrangements that you recognize up-front license payments under multiple element arrangements as revenue upon delivery of the license if the license has stand-alone value and the fair value of the undelivered elements can be determined. Clarify the inconsistencies in your revenue recognition policy related to license fee revenue when sold under stand-alone agreements (i.e. ratably) and multiple element arrangements (i.e. up-front) and the accounting literature you are relying on.

Merck Agreement, page F-11

6. We noted that you entered into a collaborative license and research agreement with Merck on June 27, 2007, which includes (1) an up-front license fee of $20 million (2) additional milestone fees of up to $288 million (3) research and development fees (4) contract manufacturing fees and (5) future royalties on product sales. Please clarify the following information:
   - tell us in detail each party's obligations under the agreement;
   - the terms of the agreement including how the fees for each service is to be earned;

- the authoritative literature applied in accounting for this arrangement and how revenue will be recognized for each of the services rendered, and;
- whether the any funding contributed by Merck is refundable.

Additionally, tell us how you considered disclosing your revenue recognition policy for each of the elements in this arrangement, except for the up-front license fee (i.e. as we note you disclosure on page F-11 that it will be recognized over the economic life of the technology).

Note 3. Acquisitions, page F-12

7. We note that you recorded in-process research and development ("IPR&D") charges of $15.6 million and $30.3 million for the acquisition of Brookwood Pharmaceuticals, Inc. ("Brookwood") and the asset purchase of InnoRx, Inc. in fiscal 2007 and 2005, respectively. Tell us how you considered disclosing the following information in accordance with the AICPA Practice Aid, *Assets Acquired in a Business Combination to Be Used in Research and Development Activities: A Focus on Software, Electronic Devices, and Pharmaceutical Industries:*
   - provide an overview of the projects acquired;
   - describe the stage of completeness, complexity or uniqueness of the work completed at the acquisition date;
   - disclose by project the nature, timing and estimated costs of the remaining efforts to develop the acquired technology into a commercially viable product;
   - disclose management's expectation as to whether or not the projects will be successfully developed and when you expect to begin to benefit from the acquired R&D, and;
   - disclose the assumptions used to determine the value of the purchased in-process research and development, including but not limited to any growth in revenues, expected trends in profit margins and SG&A expenses and whether the assumptions assume any anticipated expense reductions/synergies as a result of each acquisition, disclose the discount rates you used and the underlying assumptions to support those rates.

Note 4. Stockholders' Equity, page F-13

8. We note that you adopted SFAS 123(R) on October 1, 2005 and that your current disclosures do not appear to provide all of the disclosures required by SFAS 123(R), including comparative data for disclosures required for each year an income statement is provided. Please tell us your consideration for the disclosure requirements of paragraphs 64-65, 84 and A240-242 of SFAS 123(R).

9. Additionally, we note that stock-based compensation expense represented 16% and 17% of total operating expenses for fiscal 2007 and 2006, respectively, and increased by 67% from fiscal 2006 to fiscal 2007. If reasonably likely changes

existed in your assumptions (e.g. expected volatility, risk-free interest rates, and expected life) that would have a material effect on your financial condition or operating performance, tell us how you considered disclosing this uncertainty and quantifying the sensitivity of your financial statements to reasonably likely changes in these assumptions pursuant to Section V of our Release 33-8350 by including a discussion of these estimates in your critical accounting policies section.

Certifications in Exhibits 31.1 and 31.2

10. We note that the identification of the certifying individual at the beginning of each of the certifications required by Exchange Act Rule 13a-14(a) also includes the title of the certifying individual. In future filings, the identification of the certifying individual at the beginning of the certifications should be revised so as not to include the individual's title.

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Please respond to these comments within 10 business days or tell us when you will provide us with a response. Please submit all correspondence and supplemental materials on EDGAR as required by Rule 101 of Regulation S-T. If you amend your filing(s), you may wish to provide us with marked copies of any amendment to expedite our review. Please furnish a cover letter that keys your response 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 any amendment and your response 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.

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.

You may contact Melissa Feider at (202) 551-3379 or Patrick Gilmore at (202) 551-3406 if you have questions regarding comments on the financial statements and related matters. Please address questions regarding all other comments to LaTonya Reynolds, Staff Attorney, at (202) 551-3535 or Mark P. Shuman, Legal Branch Chief, at (202) 551-3462. If you need further assistance, you may contact me at (202) 551-3499.

Sincerely,

Kathleen Collins
Accounting Branch Chief