November 7, 2007

Angela Crane
Branch Chief
Division of Corporation Finance
United States Securities and Exchange Commission
100 F Street N.E.
Washington, DC 20549

Dear Ms. Crane:

Re: Responses to Comments on
Neoprobe Corporation
Form 10-KSB for the year ended December 31, 2006
Filed March 16, 2007
Neoprobe Corporation
Form 10-QSB for the quarter ended June 30, 2007
Filed August 9, 2007
File No. 000-26520

The purpose of this letter is to respond to the comments set forth in your letter of October 30, 2007 specifically as they relate to comments on the Form 10-KSB for the year ended December 31, 2006. For ease of review, we have reproduced your comments below, followed by our response.

Form 10-KSB for the year ended December 31, 2006

Item 8A. Controls and Procedures, page 46

1. **Comment:** *We note your statement that your Chief Executive Officer and Chief Financial Officer have "concluded that [your] disclosure controls and procedures are adequately designed to ensure that information required to be disclosed by [you] in the reports that you file or submit under the Securities Exchange Act of 1934 ." It does not appear that your certifying officers have reached a conclusion that your disclosure controls and procedures are effective. Please confirm to us that your controls and procedures are effective and that you will revise future filings including interim filings to address your officers' conclusions regarding the effectiveness of your disclosure controls and procedures.*

   Response: We have concluded that our disclosure controls and procedures, in addition to being adequately designed, are effective to provide reasonable assurance that the stated objectives are met. We will revise our disclosure related to Item 8A in future filings, starting with our upcoming Form 10-QSB for the quarter ended September 30, 2007, to include a statement regarding our conclusion as such.

Note 1. Organization and Summary of Significant Accounting Policies, page F-8

e. Inventory, page F-9

2. **Comment:** *We note that you capitalized certain inventory costs associated with your Lymphoseek product prior to regulatory approval and product launch, based on management's judgment of probable future commercial use and net realizable value. Please explain to us how the capitalization of certain costs associated with the Lymphoseek product is appropriate. Tell us the amount capitalized in fiscal year 2005. Cite the accounting literature upon which you relied upon. Refer to the definition of inventory in ARB 43, chapter 4 in your response.*

Response: Manufacturing radiopharmaceuticals such as Lymphoseek is difficult and complex, and requires facilities specifically designed and validated to perform sterile pharmaceutical production processes. The manufacture of radiopharmaceuticals also requires developing and maintaining a process to reliably manufacture and formulate the product at an appropriate scale, obtaining regulatory approval to manufacture the product, and is subject to changes in regulatory requirements or standards that may require modifications to the manufacturing process. As such, the process of developing and maintaining commercial radiopharmaceutical production capacity is often lengthy and very costly.

The manufacture of Lymphoseek involves two primary stages. First, a production lot of the basic chemical compound that makes the drug "work" (i.e., the active pharmaceutical ingredient or API) is manufactured in a bulk powder form. Second, the API is "mixed" into a liquid form and filled into vials which are then lyophilized (i.e., freeze dried) in batch sizes of several thousand vials per batch. The vials are then ready to be packaged and shipped to specialized nuclear pharmacy distribution locations where the drug can be reconstituted (i.e., made into liquid form), made radioactive and prepared for individual patient dose administration. We will be required to complete three production lots of the bulk API and process three batches of commercial-grade lyophilized finished vials prior to filing for regulatory approval with FDA. A single production lot of API will support multiple vialing and lyophilization batches. In completing the three API production lots and three vialing batches required to obtain regulatory approval, we anticipate incurring significant costs and producing several thousands of vials of finished drug product more than will be required to obtain regulatory approval. We believe these vials will ultimately be saleable based on current production validation activities and shelf-life stability studies completed to-date.

Thus far, we have manufactured all three of the required lots of API and completed two of the three vialing and filling production runs. We have expensed those portions of the production costs for lots of API and finished vials that we estimate will be used in the clinical development, product validation and stability processes. The Lymphoseek production costs that have been capitalized as inventory include only the direct out-of-pocket costs paid to contract manufacturers to produce API and vial finished lyophilized product that we estimate will ultimately be recoverable from the sale of Lymphoseek. As of December 31, 2005, we had capitalized no inventory costs related to our Lymphoseek product.

We have recently completed a Phase 2 clinical trial for Lymphoseek in 80 patients with positive efficacy results and have met with the FDA and reached consensus on the design of two pivotal Phase 3 clinical trials necessary to obtain approval to market the drug. We believe the positive efficacy of Lymphoseek as evidenced by the successful completion of the Phase 2 clinical trial, coupled with the product manufacturing validation and stability results achieved thus far, support the management's assertion that the API and finished

product costs that we have capitalized to-date will be recoverable through future sales of the product, once approved. We also recently completed negotiations and executed a term sheet with Cardinal Health, Inc. covering the distribution of Lymphoseek in the United States thereby supporting management's assertion that the product will ultimately be successfully commercialized.

Statement 1 of Chapter 4 of ARB 43 defines "inventory" as the aggregate of those items of tangible personal property which (1) are held for sale in the ordinary course of business, (2) are in process of production for such sale, or (3) are to be currently consumed in the production of goods or services to be available for sale. Statement 2 of Chapter 4 of ARB 43 also points out that a major objective of accounting for inventories is the proper determination of income through the process of matching appropriate costs against revenues.

We believe that capitalization of the direct out-of-pocket manufacturing costs for Lymphoseek represents an appropriate aggregation of the sum of the applicable expenditures and charges paid for those items that constitute tangible personal property in the process of production for sale and, without which, the costs of Lymphoseek would not be appropriately matched with revenue following product approval by FDA. Without the appropriate matching of costs and revenue, our reported profit margins could be misleading to the reader. We also believe that capitalization of pre-approval pharmaceutical inventory is consistent with industry accounting practice as evidenced by the disclosure in the critical accounting policies of the most recent Form 10-K's for Genentech, Medimmune and Encysive Pharmaceuticals, Inc. We will continue to evaluate our estimates of the useful life and recoverability of the capitalized inventory costs based on our ongoing product stability and regulatory approval activities. In the event of a delay or denial of regulatory approval, we may have to expense some or all of the pre-approval inventory costs currently capitalized as indicated by Statement 5 of Chapter 4 of ARB 43.

i. Revenue Recognition, page F-11

3. **Comment:** *We note that you have a distribution arrangement with Ethicon Endo-Surgery, Inc. (EES). Please explain and expand future filings to describe this arrangement in greater detail. For example, please describe any discounts; return policies; post shipment obligations; customer acceptance; warranties; price protection or similar privileges and how these impact your revenue recognition. Also, tell us more about the "retroactive annual adjustments" and your accounting. Demonstrate that your policies are SAB 104 and SFAS 48 compliant.*

Response: Neoprobe's distribution agreement with EES does not include any discount provisions, other than reduced pricing on sales of demonstration units (see response to Comment 4 below). No early payment discounts or other discounts are available in the ordinary course of business. Also, as we discuss in Note 1.i.(1), paragraph 1, "Our customers generally have no right to return products purchased in the ordinary course of business." This policy applies to all of our customers, including EES (who accounted for 84% and 92% of our sales in 2006 and 2005, respectively). No customer acceptance provisions are included in the distribution arrangement with EES. As such, we believe that SFAS 48 is generally not applicable to our business. In the unlikely event that we would grant return privileges to a customer related to a specific sale, we would defer the revenue from the sale until we have determined that the revenue has been earned in accordance with SFAS 48 and SAB 104. As to post-shipment obligations, we believe we are obligated only with respect to the original warranty obligation associated with the sale of our device unless extended service is purchased under a separate agreement that is recognized ratably over the life of the agreement. We believe that such activities are inconsequential and perfunctory according to the guidance set forth in SAB 104 (a definitive arrangement exists, delivery has occurred, the seller's price is determinable based on the contractual terms and collectability is reasonably assured).

Sales prices on gamma detection products sold to EES during any given calendar year are based on a contractually pre-determined percentage of the actual average sales prices (ASP) achieved by EES on sales of that model of product to end customers during the same calendar year. When products are shipped to EES, we record revenue at a "provisional price" that is agreed upon at the beginning of each year. Following the end of each quarter of each calendar year, we receive sales reports from EES listing the actual ASP they achieved on sales to end customers in most major markets during the quarter. Within 90 days of the end of each year, we review the sales data with EES and reach agreement with EES on the amount of adjustment, if any, that may be due to the other party as compared to the provisional prices invoiced for product shipped during the given year. This adjustment has been referred to as a "retroactive annual adjustment" in the notes to our financial statements. However, as we receive sales data at least quarterly from EES in the same form and of the same quality that is used in the year-end adjustment calculation, we use the data to record an estimate, on a quarterly basis, of the amount that would be due based on product shipped through the end of that quarter. As such, the term "retroactive annual adjustment" may not appropriately describe the substance of our accounting for the EES agreement. We will modify our disclosures related to revenue recognition in future filings as appropriate to better explain our specific arrangements with EES.

4. **Comment:** *Please explain in greater detail your policy with respect to the demonstration equipment. Explain the contractual terms under which it has been loaned; and provide the amount of demonstration equipment sold in each period presented in the most recent 10-KSB and 10-QSB. We assume that these were sold at lower margins than other equipment. If so, please revise future MD&A to discuss if they have any material impact on gross margins.*

Response: Neoprobe has entered into agreements with several third-party distributors related to the distribution of our gamma detection and blood flow measurement medical devices. Under some of these arrangements, we have agreed to sell products to be used as demonstration equipment by the distributors' sales associates at a discounted price. The discounted price is generally calculated as our fully-burdened cost plus a fixed percentage as stated in each agreement. Note 1.i.(1), paragraph 3, currently states, "We recognize revenue related to the sales of products to be used for demonstration units when products are shipped and the earnings process has been completed. Our distribution agreements do not permit return of purchased demonstration units in the ordinary course of business nor do we have any performance obligations other than normal product warranty obligations." Revenue related to sales of demonstration equipment is recognized in the same manner as described in our response to Comment 3 above.

Under other distribution agreements, related only to our developing blood flow measurement device line of business, we have retained ownership of demonstration units placed with distributors' representatives on a temporary basis. In such cases, we have transferred the units' cost to fixed assets and are depreciating the costs related to these units over the expected useful life of the asset as a demonstration device.

In 2006 and 2005, sales of demonstration units represented 0.7% ($43,000) and 0.0% ($0) of our total sales and had no material impact on our gross margins in either period. During the three-month and six-month periods ended June 30, 2007, sales of demonstration units represented 7.5% ($114,000) and 6.5% ($212,000) of our sales,

respectively. In Management's Discussion and Analysis in our Form 10-QSB for the second quarter of 2007, we disclosed that the "sales of lower margin Bluetooth probe demonstration units" was a primary reason for the 4% declines in gross margins for the three and six-month periods ended June 30, 2007 as compared to the same periods in 2006. To the extent that the sale of demonstration units increases materially in the future, we will so note in our future disclosures as appropriate.

Note 6. Notes Payable, page F-17

5. **Comment:** *We note the disclosure on page F-18 that warrants issued to investors were valued using a third-party valuation firm. While in future filings management may elect to take full responsibility for valuing the equity instruments, if you choose to continue to refer to the expert in any capacity, please revise future filings, beginning with your next 10-QSB, to name the independent valuation firm. In addition, please note that if you intend to incorporate your Form 10-KSB by reference into any registration statement you will be required to include the consent of the independent valuation firm as an exhibit to the registration statement.*

   Response: Management will revise our disclosure in our upcoming 10-QSB for the period ended September 30, 2007 to take full responsibility for valuing the equity instruments.

6. **Comment:** *We note that in November 2006 you amended and modified key terms of your notes, whereby cancelling and replacing the notes that were previously issued. It appears that the note was modified and amended, but not cancelled. Please confirm that the debt was modified in November 2006 and revise the disclosure in your future filings. Otherwise, please explain to us how the remainder of the debt discounts in connection with the conversion feature and the warrants was accounted upon the cancellation of the debt. Please refer the accounting literature which you relied upon.*

   Response: The disclosure in paragraph 5 of Note 6 currently reads: "In November 2006, we amended the Agreement and modified several of the key terms in the related notes. The original notes were thereby cancelled and replacement notes were issued to the noteholders which bear interest . . .". While our disclosure uses the term "cancelled", our intent was to indicate that the original physical note documents themselves were cancelled and replaced with new physical documents embodying the new terms rather than implying the underlying debt obligation itself was cancelled.

   In reviewing our accounting treatment for the transaction in question, we had determined that the net present value of the cash flows resulting from the new terms of the convertible debt instruments were less than 10% different from the net present values of the cash flows resulting from the original transaction and therefore the terms of the new obligation were not "substantially different" than the terms of the original obligation, as defined by EITF 96-19. We will revise our terminology in the Form 10-KSB to be filed for the year ending December 31, 2007 to more clearly describe the substance of our accounting treatment for this transaction.

Note 8 Equity, page F-20

a. Stock Warrants, page F-20

7. **Comment:** *We note that you issued various warrants under Series Q, R and S. Please tell us and revise future filings to disclose the major terms of each series in greater detail, and how you valued and accounted for them. We also note herein and elsewhere in the filing that you reclassified the liability related to the warrants to equity in fiscal year 2005. Please explain how the reclassification as equity is appropriate. Cite accounting literature upon which you relied.*

   Response: The Q, R, and S warrants about which you are inquiring were issued in 2003 and 2004. The major terms and valuation methods of warrants issued were disclosed in filings that included the periods in which the warrants were issued and affected operating results. In subsequent filings that do not reflect the issuance of or include operating results for the periods affected by the warrants, we have disclosed, as required, the balance of the warrants outstanding, exercise price, etc. We do not believe that continuing to disclose valuation details of each series of warrants subsequent to periods in which they were issued or affected operating results is required, nor do we believe it would it be useful to the readers of our financial statements and could possibly be confusing.

   We have valued all warrants we have issued using the Black-Scholes valuation model as permitted and/or recommended by the relevant accounting guidance governing such issuances as of the date of those issuances. All of the warrants in Series Q, R or S were classified as equity upon issuance as they are indexed to the company's own stock and therefore classified as equity under EITF 00-19.

   Warrants in Series T and U were issued in connection with our December 2004 placement of convertible promissory notes. In accordance with SFAS 133, the value of these warrants was initially classified as a liability due to penalty provisions contained in the purchase agreement under which the notes and warrants were issued dealing with the investors' registration rights for the shares issuable on conversion of the notes or exercise of the warrants. As a result, the warrants were considered a derivative instrument that were required to be periodically "marked to market" on our consolidated balance sheet. In February 2005, Neoprobe and the investors confirmed in writing their intention that the penalty provisions which led to this accounting treatment were intended to apply only to the shares issuable on conversion of the notes and not to shares issuable on exercise of the warrants. Since this clarification removed the issue of whether there was a penalty associated with the warrants, which had originally led to their classification as a liability, the estimated fair value of the warrant liability was therefore reclassified to additional paid-in capital during the first quarter of 2005.

c. Common Stock Purchase Agreement, page F-20

8. **Comment:** *We note that you entered into a common stock purchase agreement with Fusion Capital Fund II, LLC and issued 720,000 shares of common stock as an initial commitment fee in December 2006. We also note that you issued additional 6,000 shares of your common stock as additional commitment fees during 2006. Please explain to us how you valued and accounted for the common stocks issued as commitment fees citing accounting literature you relied upon.*

   Response: The initial commitment fee of 720,000 shares of our common stock that was issued in December 2006 was valued at the market price for our stock on the date of issuance ($0.25 per share). In accordance with SAB Topic 5A, $180,000 related to this issuance of our common stock as the initial commitment fee was recorded as a current asset (i.e., deferred stock offering costs) to be netted against future proceeds from sales of common stock under the Fusion agreement. All deferred stock offering costs related to the Fusion agreement were netted against proceeds from sales under the agreement by the end of April 2007.

The additional commitment fee of 6,000 shares of our common stock that was issued in December 2006 was valued at the same price as the common stock sold to Fusion on that date. The price of common stock sold to Fusion is generally based on market prices for purchases that are not subject to the floor price. In accordance with SAB Topic 5A, the additional commitment fee was treated as a cost of issuing the stock and was charged against the proceeds from the related sale.

Note 11. Agreements — Research and Development Agreements, page F-23

9. **Comment:** *We note that you are obligated to pay royalties to the Government of Israel on the sale of products up to 300% of the total grant received from the Office of Chief Scientist. Please explain what you mean when you state that "if the Israeli content of your blood flow device products decrease below 10%", your total royalty payments could increase to $2.3 million. Explain your accounting in greater detail and demonstrate whether and how it complies with SFAS 5.*

Response: Our understanding is that current Israeli law with respect to research and development funded by the Office of the Chief Scientist (OCS) requires that a royalty be paid to the OCS with respect to sales of products developed using funding received from the OCS. The royalty is based on a percentage of revenue derived from products developed using such funding. The percentage rate of the royalty varies depending on the amount of the "Israeli content" of the product manufactured in Israel and is described in the following table:

If the "Israeli content" of a product is between:	The royalty percentage to be paid on revenue derived is:	The total amount to be repaid to the OCS
50% and 100%	3%	120% of the amount of the grant (~$930,000)
>10% but less than 50%	4%	150% of the amount of the grant (~$1.2 million)
<10%	5%	300% of the granted amount (~$2.3 million)

All of the sales to-date of our blood flow measurement devices covered by our obligation to the OCS have been made from inventory produced with product containing 100% Israeli content or with product containing at least 10% Israeli content. As such, we have paid or accrued the royalty based on the 3% and 4% levels as sales have occurred. It should be noted that the royalty is payable only as future revenue is realized from the sale of products developed using the aforementioned research grant monies. There are no requirements to repay the grant if future sales of the affected devices are not realized.

SFAS 5 defines a contingency as an existing condition, situation, or set of circumstances involving uncertainty as to possible gain (hereinafter a "gain contingency") or loss (hereinafter a "loss contingency") to an enterprise that will ultimately be resolved when one or more future events occur or fail to occur.

To-date, we have paid the OCS approximately $47,000 related to sales in 2006 and prior years. We have accrued an additional $10,700 related to sales through June 30, 2007. We have disclosed the potential range of possible royalties due under the worst case scenario that could occur if the Israeli content of our product falls below 10%. However, as the ultimate amount of the royalty due is based on the occurrence of future events (i.e., sales of covered products) and the timing of such sales is uncertain, we believe that accrual of the liability prior to the occurrence is not appropriate and would not result in the appropriate matching of expenses with revenues in accordance with CON 6.

Finally, as requested in your letter, Neoprobe acknowledges that:

- it is responsible for the adequacy and accuracy of the disclosure in the 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.

We trust that the foregoing response fully addresses the comments contained in your letter. However, in the event your review of our response prompts additional questions or comments, please contact me at (614) 793 — 7500 (ext. 133).

Very truly yours,

/s/ Brent L. Larson

Brent L. Larson
Vice President, Finance & CFO

Cc: Martin James
Andri Boerman