

July 2, 2010

VIA FACSIMILE & EDGAR
(202) 772-9348

Jay Webb
Reviewing Accountant
Division of Corporation Finance
United States Securities and Exchange Commission
100 F Street NE
Washington, DC 20549

Re: Responses to Comments on
Neoprobe Corporation
Form 10-K for the fiscal year ended December 31, 2009
Filed March 31, 2010
File No. 0-26520

Dear Mr. Webb:

The purpose of this letter is to respond to the comments set forth in your letter of June 24, 2010 specifically as they relate to comments on the Form 10-K for the fiscal year ended December 31, 2009. For ease of review, we have reproduced your comments below, followed by our response.

Form 10-K for the Fiscal Year Ended December 31, 2009

Cautionary Note Regarding Forward-Looking Statements, page 2

1. **Comment:** *We note your statement that your report contains forward-looking statements within the meaning of Section 27A of the Securities Act and Section 21E of the Exchange Act. In your future filings, as applicable, please reference this statute only to the extent that you meet the eligibility requirements of these sections. In this regard, we note your disclosure on page 29 that you are a "penny stock" issuer.*

Response: The Company will delete references to Section 27A of the Securities Act and Section 21E of the Exchange Act under the heading "Cautionary Note Regarding Forward-Looking Statements" in future filings, until such time as the Company meets the eligibility requirements of those sections.

Results of Operations, page 37

2. **Comment:** *We note your disclosure on page 37 that FY2009 revenue increased from \$7.6 million to \$9.5 million primarily due to increased unit prices. Please provide us with a narrative discussion of the extent to which this revenue increase was attributable to increases in prices or to increases in the volume or amount of goods. If your price increases were due to selling upgraded products such as those that include wireless functionality, please include that in your explanation. Please also confirm that in future filings, as applicable, you will provide the disclosure required by Item 303(a)(3)(iii) of Regulation S-K.*

Response: 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. As we have disclosed, in January 2009, Neoprobe began receiving an increased percentage of ASP for certain products under the terms of our amended distribution agreement with EES. This increased percentage of ASP was the primary reason for the price increases realized during 2009.

Of the \$1.8 million increase in gamma detection device sales in 2009 as compared to 2008, approximately \$1.2 million was attributable to increased prices as discussed above, \$457,000 was attributable to increases in sales volumes and \$191,000 was due to the introduction of our new high energy probe product.

In future filings the Company will provide disclosure regarding the extent to which increases in net sales or revenues are attributable to increases in prices or to increases in the amount or volume of goods or services being sold or to the introduction of new products and services, as required by Item 303(a)(3)(iii) of Regulation S-K.

Directors, page 49

3. **Comment:** *Please confirm that in future filings, as applicable, you will revise to discuss briefly the specific experience, qualifications, attributes or skills that led to the conclusion that each director should serve on your board given your business and structure. Please refer to Item 401(e) to Regulation S-K.*

Response: We recognize that regulations regarding Item 401(e) of regulation S-K have changed from prior years and that practice in complying with such regulations is evolving. The additional disclosures we included in the beginning of our Item 10 of Part III of Form 10-K regarding our directors were intended to address our understanding of the new regulations and were based on a review of filings from a sample of accelerated filers that were filed prior to our required filing date. In Item 10 of Part III, we added a comment that the experience and qualifications described in each listed director's biography has led the Compensation, Nominating and Governance (CNG) Committee of our Board of Directors to conclude that each director is qualified to serve as a member of the Board. We believe the biographical information provided in Item 10 of Part III for each director goes beyond the previously required description of each director's business experience during the past five years, and includes information about each director's particular area of expertise and other relevant qualifications and skills that led the CNG Committee and/or the Board to their conclusions that each listed person is qualified, in light of the Company's strategic business objectives and structure, to serve as a director of the Company. We believe our current disclosures satisfy the requirements of Item 401(e) of Regulation S-K and that including additional disclosures on this point in our Form 10-K would duplicate the information provided in each director's respective biography. We will continue to monitor disclosure practice in this area and will be happy to consider further modifications in our disclosures in future filings.

Notes to the Consolidated Financial Statements, page F-8

Note 8. Convertible Securities, page F-24

4. **Comment:** *We note that associated with a change in fiscal 2009 in the terms of the Montaur Notes, the Preferred Stock and the Montaur Warrants, the company recorded a \$16.2 million non-cash loss on extinguishment of debt and reclassified \$27.0 million in derivative liabilities to additional paid-in capital. To this regard, please address the following:*

- *For each instrument tell us the terms that changed and the amounts and assumptions used to determine the changes qualified as a debt extinguishment. Please reference the authoritative accounting literature you believe supports your conclusions.*

Response: On July 24, 2009, Neoprobe and Montaur agreed to change certain terms of the outstanding notes, preferred stock and warrants as follows:

- Montaur agreed to eliminate the price reset features in the existing Neoprobe Corporation Series A Note, Series B Note, Series A Preferred Stock, Series W Warrant and Series X Warrant which had previously resulted in liability treatment under Accounting Standards Codification (ASC) 815-40-15, formerly EITF 07-5, leaving only standard anti-dilution provisions.
- Montaur also agreed to exercise its Series Y Warrant to purchase 6 million shares of Neoprobe common stock at \$0.575 per share. The first 2.8 million shares were exercised on July 24, 2009, resulting in \$1.6 million in gross proceeds to Neoprobe. A new Series Y Warrant for the remaining 3.2 million shares was issued without the price reset feature which had previously resulted in liability treatment under ASC 815-40-15, leaving only standard anti-dilution provisions in the new Warrant. Montaur agreed to exercise the new Series Y Warrant for 3,155,681 shares no later than September 30, 2009.
- Neoprobe agreed to amend the Series A Note to permit conversion of the \$3.5 million portion of the Series A Note not previously convertible. The conversion price was set at \$0.9722, which would have resulted in the issuance of 3.6 million shares of Neoprobe common stock upon conversion.
- As additional consideration for eliminating the price reset features in the Montaur instruments, Neoprobe agreed to issue Montaur a five-year Series AA Warrant to purchase 2.4 million shares of Neoprobe common stock with an exercise price of \$0.97.

Per ASC 470-50-40-10, formerly EITF 96-19, in a non-troubled debt situation, a debt instrument is *substantially different* if (1) the present value of the cash flows of the new instrument is at least 10% different from the present value of the remaining cash flows of the original instrument, (2) the fair value of the embedded conversion option changes at least 10%, or (3) a substantive conversion option is added or eliminated. Per ASC 470-60-15, formerly FAS 15, the change in terms of the Montaur instruments did not qualify as a troubled debt restructuring.

We considered the addition of a conversion feature on the \$3.5 million of the Series A Note that was not previously convertible to be a substantive conversion option in accordance with condition (3) above. Therefore, the change in terms of the Series A Note was accounted for as an extinguishment.

The Series B Note was evaluated to determine whether the present value of the cash flows of the new instrument were at least 10% different from the present value of the remaining cash flows of the original instrument. In accordance with ASC 470-50-40-12, formerly EITF 96-19, the effective interest rate on the original Series B Note was used to calculate the net present value of the remaining payments on the original debt. Using the same effective interest rate, we also calculated the net present value of the new debt, including that portion of the Series AA Warrant (issued to Montaur as consideration for the transaction) allocated to Note B. The change in net present value between the original instrument and the new instrument, including the value of the Series AA Warrant allocated to Note B, was greater than 10%. Therefore, the change in terms of the Series B Note was accounted for as an extinguishment.

Per ASC 260-10-S99-2, formerly EITF Topic D-42, if convertible preferred stock is converted to other securities pursuant to an inducement offer, the excess of (1) the fair value of all securities and other consideration transferred in the transaction over (2) the fair value of securities issuable under the original conversion terms should be subtracted from net earnings to arrive at net earnings available to common stockholders. The Series A Preferred Stock was accounted for as a "conversion" to new Preferred Stock.

Prior to the changes in terms, the Series W Warrant, Series X Warrant, and Series Y Warrant were treated as liabilities under ASC 815-40-15. The elimination of the price reset features in these instruments resulted in the extinguishment of the related liabilities and subsequent equity treatment. Therefore, the change in terms of the Montaur Warrants was accounted for as an extinguishment. The Series AA Warrant was issued on July 24, 2009 as consideration for eliminating the price reset features in the Montaur instruments. The fair value of the Series AA Warrant was recorded at the time of issuance and was not included in the extinguishment entries.

On June 25, 2010, the Series A Note, Series B Note, and Series A Preferred Stock were exchanged for Series B Preferred Stock. The new instrument is being accounted for as equity.

· *Provide us with the components of the \$16.2 million in non-cash loss on the extinguishment as it relates to the notes, stock and warrants individually.*

Response: We calculated a total loss on the extinguishment of \$16.2 million by applying the requirements of ASC 470-50-40-10 and ASC 260-10-S99-2. The components of the \$16.2 million in non-cash loss on the extinguishment as related to the Montaur Notes, Preferred Stock and Warrants are as follows:

Notes payable	\$ 13,483,197
Preferred stock	1,132,739
Warrants	<u>1,624,656</u>
Total loss on extinguishment	<u>\$ 16,240,592</u>

· Provide us with the components of the \$27.0 million in derivative liabilities reclassified to additional paid-in capital and reconcile that amount to the \$38.0 million as presented in your Consolidated Statement of Stockholders' Deficit under the caption "Effect of change in terms of notes payable, preferred stock and warrants."

Response: The components of the \$27.0 million in derivative liabilities reclassified to additional paid-in capital are as follows:

Notes payable	\$ 10,201,386
Preferred stock	2,587,261
Warrants	<u>14,212,400</u>
Total derivative liabilities reclassified to additional paid-in capital	<u>\$27,001,047</u>

The \$38.0 million "Effect of change in terms of notes payable, preferred stock and warrants" presented in our Consolidated Statement of Stockholders' Deficit reflects the fair value of the new notes payable and warrants in accordance with ASC 815-15-35-4, formerly EITF 06-7, and the original value of the preferred stock plus the excess of the fair value of all securities and other consideration transferred in the transaction over the fair value of securities issuable under the original conversion terms in accordance with ASC 260-10-S99-2. A reconciliation of that amount to the \$27.0 million in derivative liabilities reclassified to additional paid-in capital follows:

Effect of change in terms of notes payable, preferred stock and warrants	\$ 37,999,312
Incremental value of securities transferred (loss on extinguishment)	(16,240,592)
Discount on notes payable	4,718,484
Deferred debt issuance costs	<u>523,843</u>
Total derivative liabilities reclassified to additional paid-in capital	<u>\$ 27,001,047</u>

Signatures page

5. **Comment:** *In your future filings, please include the introductory sentence before the signatures of the officers and directors. Refer to Form 10-K. Also, please indicate parenthetically who has signed your filing in their capacity as principal accounting officer or controller.*

Response: In future filings the Company will: (1) include the following introductory sentence before the signatures of officers and directors: "Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the registrant and in the capacities and on the dates indicated;" and (2) indicate parenthetically who has signed the filing in their capacity as principal accounting officer or controller of the Company, as required by Form 10-K. We included the referenced introductory sentence in past years' Forms 10-K, but inadvertently omitted it from the Form 10-K for the fiscal year ended December 31, 2009.

Exhibits, page 63

6. **Comment:** *Please file the following agreements as material contracts or tell us why you believe they are not required filings pursuant to Item 601(b) of Regulation S-K:*

- *your agreement with Cardinal Health conferring exclusive distribution rights of Lymphoseek in the United States, which you reference on page 13;*

Response: The Company has filed this agreement as a material contract. Please see Exhibit 10.20 to the Form 10-K, which includes the Supply and Distribution Agreement, dated November 15, 2007, by and between the Company and Cardinal Health 414, LLC (the "Distribution Agreement"), as an exhibit to the Form 10-K by reference to the copy of the Distribution Agreement filed as Exhibit 10.1 to the Company's Current Report on Form 8-K filed November 21, 2007.

- *your Manufacture and Supply Agreement with Reliable for producing the active pharmaceutical ingredient in Lymphoseek, which you reference on page 14; and*

Response: At the time of its execution, the Company did not consider the Manufacture and Supply Agreement with Reliable to be a material agreement. Due to recent changes related to the regulatory status of the compound under development by the Company (i.e., Lymphoseek), the manufacture of the underlying active pharmaceutical ingredient to which this contract relates, the Company will file a Current Report on Form 8-K filing this agreement as a material contract.

- *your Biopharmaceutical Development and Supply Agreement with Laureate Pharma, Inc., which you reference on pages 10, 14 and 35.*

Response: The Company has not produced the CC49 biologic compound in over 15 years, during which time there have been changes in the technology by which this compound would be manufactured. The Biopharmaceutical Development and Supply Agreement between the Company and Laureate Pharma, Inc. (the "Laureate Agreement") supports the initial steps in the re-evaluation of the viability of the CC49 master working cell bank and the initial steps in re-validating the commercial production process for the biologic agent used in RIGScan CR. The Company's obligations under this agreement are limited to development activities which do not involve material, long-term commitments on the part of the Company. Should the activities covered by this agreement validate the viability of the CC49 master working cell bank and the commercial production processes, the Company intends to negotiate a manufacturing and supply agreement. To the extent that such agreement involves material commitments or obligations on the part of the Company that are expected to occur based on the developmental and regulatory status of RIGScan CR, the Company will file the agreement as a material contract at that time.

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

- it 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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SEC
July 2, 2010
Page 7

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 614-822-2330.

Very truly yours,

/s/ Brent L. Larson

Brent L. Larson
Vice President, Finance and
Chief Financial Officer

Cc: Dennis Hult
Joseph McCann
Tim Buchmiller
