



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

September 15, 2010

Mr. Robert S. Corrigan
Chief Executive Officer
AcuNetx, Inc.
2301 W. 205th Street
Suite 102
Torrance, CA 90501

Re: AcuNetx, Inc.
Form 10-K/A and 10-K for the fiscal year ended December 31, 2009
Filed September 9, 2010 and April 12, 2010
Form 10-Q for the quarter ended June 30, 2010
File No. 000-27857

Dear Mr. Corrigan:

We have reviewed your response dated September 9, 2010 and related filings and have the following comments. We have limited our review to only your financial statements and related disclosures and do not intend to expand our review to other portions of your documents. 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 amending your filing, 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 any amendment to your filing and the information you provide in response to these comments, we may have additional comments.

Form 10-K/A for the fiscal year ended December 31, 2009

Item 9A. Controls and Procedures, page 3

Management's Annual Report on Internal Control Over Financial Reporting, page 3

1. We acknowledge your response to prior question 4; however, with regard to the evaluation of internal control over financial reporting, please note that Exchange Act Rules 13a-15(c) and 15d-15 state that the evaluation should be performed by management, *with the participation of the principal executive and principal financial officers*, or persons performing similar functions.
 - Please tell us specifically who performed the evaluation of internal control over financial reporting as of December 31, 2009 and how the evaluation meets the requirements of Exchange Act Rules 13a-15(c) and 15d-15(c) and Rule 308(T) of Regulation S-K.
 - If the principal executive and financial officers participated in the evaluation, please revise your disclosure in future filings to clearly disclose that these officers or persons holding similar positions performed the evaluation of internal control over financial reporting required by Item 308(T) of Regulation S-K.
2. With regard to our prior question 5, we note that your internal controls over financial reporting were assessed effective. However, in light of your prior disclosure of areas that could be improved, including your small number of employees and the control and evaluation of finances for your partially owned subsidiary out of state, please tell us how you determined that ICOFR is effective. Refer to Rule 308(T)(a)(3).

Changes in Internal Control Over Financial Reporting, page 3

3. We note your disclosure that there were no significant changes in your internal control over financial reporting during the year ended December 31, 2009. To the extent that your disclosure was provided to address Item 308(c) of Regulation S-K, in future filings your disclosure should address any change that occurred during the *last* quarter (your fourth fiscal quarter in the case of an annual report) that materially affected, *or is reasonably likely to materially affect*, your internal control over financial reporting. Please correct the disclosure in future filings.

Form 10-K for the fiscal year ended December 31, 2009

Notes to Consolidated Financial Statements, page F-6

Note 6 – Borrowings, page F-15

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Page 3

4. We refer to your response to prior comment 10. With a view toward transparency, in future filings please include a brief summary of the current terms of the related party note similar to your response.

Note 14 – Commitments and Contingencies, page F-24

5. We refer to your response to prior comment 11. With a view toward transparency, in future filings please include a brief summary of the current terms of the consulting agreement similar to your response.

Form 10-Q for the quarter ended June 30, 2010

6. We see the disclosure that the Company's Form 10-Q for the period ended June 30, 2010 has not been reviewed by your independent accountant. Please tell us when you plan to engage new auditors and file an amendment to the Form 10-Q that complies with Rule 8-03 of Regulation S-X.
7. As a related matter, please refer to Rule 8-03 of Regulation S-X when you file the amended 10-Q that includes the reviewed financial statements. Under that rule, if you state that your interim financial statements have been reviewed by your independent accountant, you are required to include the report of the accountant with your interim financial statements.

Consolidated Statements of Operations, page 4

8. For the three and six month period ending June 30, 2009, we see you had interest and other income of \$193,298 and none in the corresponding periods for 2010. With a view toward providing enhanced disclosure in future filings, please tell us the reason for the significant variance in other income. Please also include the revised disclosure in future filings, including any amendments.

You may contact Leigh Ann Schultz at 202-551-3628 or Kristin Lochhead at 202-551-3664 if you have questions regarding comments on the financial statements and related matters. You may also contact me at (202) 551-3676.

Sincerely,

for

Brian Cascio
Accounting Branch Chief