



DIVISION OF
CORPORATION FINANCE

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

August 25, 2011

Via E-mail

Christopher P. Schnittker
Chief Financial Officer
Echo Therapeutics, Inc.
8 Penn Center
1628 JFK Blvd, Suite 300
Philadelphia, PA 19103

**Re: Echo Therapeutics, Inc.
Form 10-K for the fiscal year ended December 31, 2010
Filed March 18, 2011
Form 10-Q for the quarterly period ended March 31, 2011
Filed May 13, 2011
File No. 000-23017**

Dear Mr. Schnittker:

We have reviewed your filing and have the following comments. 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 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, please tell us why in your response.

After reviewing the information you provide in response to these comments, we may have additional comments.

Form 10-K for the fiscal year ended December 31, 2010

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

Operating Plan, page 20

1. You disclose that you require substantial additional funding to ultimately bring your products to market. In future filings please provide an indication of the magnitude and timing of your future cash requirements. Please refer to Section IV.A of Securities Act Release 33-8350.

Results of Operations, page 23

Gain (Loss) on Extinguishment of Debt, page 24

2. We see on page 25 that BHP waived its placement agent fees and you recorded a gain on extinguishment of financing fee payable. Please tell us where you previously recorded the \$200,000 payable.

Item 8. Financial Statements

Consolidated Statements of Operations, page F-3

3. We see you have recorded engineering services provided to your licensees as other revenue. Please tell us how you considered recording the related costs of this revenue as cost of service rather than as research and development as described on page 23 and F-27.

Note 2. Summary of Significant Accounting Policies, page F-7

Accounts Receivable, page F-7

4. We see you have recorded a receivable related to an insurance claim. Please tell us the nature of the claim, amount and when you anticipate receiving the reimbursement.

Intangible Assets and Other Long-Lived Assets, page F-7

5. We refer to your disclosure that there was no impairment loss recorded in 2010 and 2009 related to the intangible assets acquired in 2007. In this regard, tell us how you considered the following events or changes in circumstances in evaluating the recoverability of the assets:
 - none of the company's product candidates has received regulatory approval;

- cash flows from the assets do not appear to have occurred as originally estimated when the intangible assets were acquired;
- the company continues to have significant losses from operations; and
- revenues declined from 2009 to 2010.

Refer to FASB ASC 350-30-35.

6. Please tell us how you are able to reasonably estimate the amounts and timing of future cash flows for purposes of evaluating your intangible assets for impairment. In that regard, please explain:

- How you determined the period that the intangible assets will directly or indirectly contribute to future cash flows, including management's basis for the determination. For instance, we see in your 2007 10-K that you expected to "receive material net cash inflows from the commercialization of significant projects during the year ending December 31, 2010," which you now indicate on page F-13 to occur during 2013.
- The underlying reasons for the delay in commercialization of your products from the timing anticipated at acquisition.
- How your modeling considers the probability of achieving those future cash flows. For instance, on page F-23 you indicate you have not recorded stock compensation expense related to grants of restricted stock, in part, because you are unable to estimate the timing of FDA approval.
- Tell us the reasons for the change in the expected useful lives of intangible assets from six years as of December 31, 2010 to eight years as of June 30, 2011, as disclosed on page 8 of the Form 10-Q as of June 30, 2011.

7. In light of your recurring losses, cash flow deficits and apparent delay in commercialization of the technology acquired in 2007, please provide us the amount by which the fair value of your intangible assets exceeded the carrying value as of December 31, 2010, describe to us how fair value was determined and describe to us the primary assumptions that were the key drivers of fair value. Refer to FASB ASC 360-10-35-17 to 35-35.

Licensing and Other Revenue Recognition, page F-10

8. With respect to the upfront fees from the two license agreements entered into in 2009, please tell us the arrangement specific factors you considered in determining the periods for revenue recognition. For guidance on upfront payments, please refer to SAB Topic 13A.3.f.

Note 7. Fair Values of Assets and Liabilities, page F-13

9. Please tell us how you determined that the derivative liability for warrants is level 2 as opposed to level 3 in the FASB fair value hierarchy. Refer to FASB ASC 820-10-55-22b.

Note 8. Preferred Stock, page F-14

10. In future filings please briefly describe the certain circumstances when the Series B stock is redeemable. Refer to FASB ASC 505-10-50.

Note 9. Common Stock, page F-17

11. We refer to your disclosures beginning on page F-19 related to the placement agent engagement letters. We see you recorded the fair value of warrants issued to Burnham Hill Partners and Boenning & Scattergood as “both a debit and credit to additional paid-in capital as a stock issuance cost” and the LifeTech and Monarch Capital warrants as a “non-cash stock issuance cost.” Please explain why the accounting treatment disclosure is not consistent between the issuances.

Note 10. Stock Option Plans, page F-21

12. We see that you have not recognized stock compensation expense on certain options and restricted stock because you cannot estimate the timing of completion of performance conditions related to FDA approval of one of your proposed products or the sale of your business. Please tell us how your determination regarding probability of achievement of the performance conditions, specifically related to FDA clearance, for stock compensation purposes is consistent with your conclusions regarding probability of future cash flows for purposes of valuing your intangible assets.

Note 11. Warrants, page F-24

13. In future filings please expand the tabular data to clarify which warrants are accounted for as derivatives in liabilities and which warrants are accounted for as equity.
14. Please tell us how you considered whether the warrants containing a net settlement cashless exercise provision should be accounted for as derivatives. Refer to FASB ASC 815-10-15-102 and 815-10-15-74(a).

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Form 10-Q for the quarterly period ended March 31, 2011

Consolidated Statements of Cash Flows, page 3

15. Please tell us why proceeds from a stock subscription are presented as an operating cash receipt in the statement of cash flows. Refer to FASB ASC 230-10.

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 the information the Securities Exchange Act of 1934 and all applicable Exchange Act rules require. 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 responding to our comments, please provide a written 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.

You may contact Leigh Ann Schultz at (202) 551-3628 or Gary Todd at (202) 551-3605 if you have questions regarding these comments. You may also contact me at (202) 551-3676 with any other questions.

Sincerely,

/s/Gary Todd for

Brian Cascio
Accounting Branch Chief