
EPSTEIN BECKER & GREEN, P.C.

ATTORNEYS AT LAW
150 North Michigan Avenue, Suite 420
Chicago, Illinois 60601-7630
312.499.1400
FAX: 312.845.1998
EBGLAW.COM

STEPHEN R. DRAKE
TEL: 312.499.1423
FAX: 312.845.1998
SDRAKE@EBGLAW.COM

February 1, 2006

VIA EDGAR
- -----

Ms. Keira Ino
United States Securities and Exchange Commission
450 Fifth Street, N.W.
Washington, D.C. 20549-0306

Re: Medical Discoveries, Inc.
Amendment No. 3 to Form SB-2 Registration Statement
File No. 333-121635

Dear Ms. Ino:

This letter responds to the questions you raised with me by telephone on January 30, 2006 concerning MDI's proposed responses to the most recent accounting comments to MDI's pending SB-2 registration statement.

You asked that MDI management reassess its disclosure controls in connection with restating its quarterly reports and report the findings of that reassessment in the amendments to those reports. Management has conducted that reassessment, has found no issues with respect to its controls, and will state as much in the amendments to be filed.

You also asked that we explain why the assumptions used to calculate fair value of MDI's warrants changed between the original 10-QSBs and the proposed amendments. We note that the risk-free interest rate as of March 11, 2005 that MDI used in the initial filings was 2.82%, whereas the amended documents utilize a rate of 3.94%. The correct rate is 3.94%. It was a mistake to have used 2.82%, but not a mistake that MDI deems material. In any event, that mistake will be corrected in connection with the amendments to the 10-QSBs. The other change in assumption we note is that volatility of the stock has been revised from 202% to 170%. Again, 170% is the correct figure, as it correctly represents the volatility over the prior three years as opposed to over the trading life of the stock (which was the genesis of the 202% figure). Again, even though the ultimate difference in fair value of the warrants does not change materially between the two volatility figures, MDI will utilize the correct assumption in the 10-QSB/As.

Keira Ino
February 1, 2006
Page 2

Finally, you asked MDI to share with you its analysis of whether its Series A Convertible Preferred Stock (the "Series A") is more akin to equity or debt pursuant to FAS 133, paragraph 61.1. The Series A is more akin to equity because it does not contain a fixed rate of return or dividend nor does it contain a mandatory redemption feature. Instead, the Series A is participating perpetual preferred which, per FAS 133, is properly characterized as equity.

I trust this will satisfy the remaining open issues on the SB-2 accounting comments, but should you have any additional questions, please let me know.

Very truly yours,

/s/ Stephen R. Drake

Stephen R. Drake

cc: Judy Robinett