



DIVISION OF
CORPORATION FINANCE

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

April 16, 2013

Via E-mail

Mr. Sean Moran
InVivo Therapeutics Holdings Corp.
One Kendall Square, Suite B14402
Cambridge, Massachusetts 02139

**Re: InVivo Therapeutics Holdings Corp.
Schedule TO-I
Filed April 8, 2013
File No. 005-85686**

Dear Mr. Moran:

We have limited our review of the filing to those issues we have addressed in our comments. In some of our comments, we may ask you to provide us with information so we may better understand the disclosure.

Please respond to this letter by amending the 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 the facts and circumstances or do not believe an amendment is appropriate, please tell us why in your response.

After reviewing any amendment to the filing and the information you provide in response to these comments, we may have additional comments. All defined terms used here have the same meaning as in the Offer to Exchange.

Offer to Exchange, dated April 8, 2013

1. Refer to the following sentence on page 6: "We are not making, and will not make, the Offer to holders of Eligible Warrants in any state or other jurisdiction in which the Offer would not be in compliance with the laws of such state or other jurisdiction." Similar disclosure appears on page 11. Please explain to us how limiting participation in this manner is consistent with Exchange Act Rule 13e-4(f)(8)(i). If you are attempting to rely on Rule 13e-4(f)(9)(ii), we note that Rule 13e-4(f)(9)(ii) is restricted to state law. See also the Commission's guidance in SEC Release No. 34-58597, Part II.G.1 (September 19, 2008).

6. Extension of the Offer; Termination; Amendment page 13

2. Please describe how the offeror could “increase or decrease the number of Eligible Warrants eligible to participate in this Offer.” In this regard, please tell us if any other warrants are outstanding, and whether those warrants have anti-dilution provisions. Please confirm that any decrease in the number of Eligible Warrants would be done in a manner consistent with Rule 13e-4(f)(8)(i), and advise us as to how this would be accomplished. We also note that, if this disclosure is intended to address circumstances covered by Rule 14e-1(b), that rule addresses the percentage of the class of securities being sought, rather than the number of securities of the class of securities being sought.

8. Conditions of the Offer, page 14

3. We note the disclosure on page 16 that you may terminate or amend the offer with respect to the Investor Warrants if at any time before the expiration of the offer the closing bid price of the company’s common stock equals or exceeds \$2.80 per share for 20 consecutive trading days. Please revise your disclosure to address any implications under Rule 13e-4(f)(1)(ii) and Rule 14e-1(b).

12. Interests of Directors and Executive Officers; Transactions and Arrangements, page 21

4. Refer to the following sentence on page 22: “To the best of our knowledge, none of our directors or executive officers has engaged in transactions involving the Eligible Warrants during the past 60 days. Please tell us why you need to qualify your disclosure as “to the best of [your] knowledge.” Explain what prevents you from knowing and disclosing this information. Alternatively, please remove the qualification. See the Instructions to Item 1008(b) of Regulation M-A.

Financial Information, page 20

5. Please disclose the ratio of earnings to fixed charges. See Item 1010(c)(4) of Regulation M-A. Please similarly address the pro forma effect of the transaction on this ratio. See Item 1010(c)(6) and Item 1010(b)(2) of Regulation M-A.

Election to Participate

6. We note that the offer is limited to warrant holders who “have such knowledge and experience in financial and business matters that [they are] capable of evaluating the merits and risks of investment in the new warrant(s).” Please provide an analysis as to how this limitation is consistent with Rule 13e-4(f)(8)(i), which requires that the offer be open to all warrant holders.

7. It is inappropriate to require representations that operate as disclaimers or waivers of rights. Please delete the language in the Election to Participate requiring the warrant holder to represent and warrant that the person has “had the opportunity to review the current business prospects, financial condition and operating history of the Company,” has “had the opportunity to ask questions and receive answers from the Company” and has “all the information I consider necessary or appropriate for deciding whether to accept the offer.”

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.

Please contact David L. Orlic, Special Counsel, at (202) 551-3503 or me at (202) 551-3317 if you have any questions regarding our comments.

Sincerely,

/s/ Alexandra M. Ledbetter

Alexandra M. Ledbetter
Attorney-Advisor
Office of Mergers and Acquisitions

cc: Via E-mail
Bradley Jacobson, Esq.
Greenberg Traurig, LLP