

Mail Stop 0309

November 23, 2005

Judy M. Robinett
President and Chief Executive Officer
Medical Discoveries, Inc.
1338 S. Foothill Drive - #266
Salt Lake City, Utah 84108

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

Dear Ms. Robinette:

We have reviewed your filing and have the following comments. Where indicated, we think you should revise your document in response to these comments. If you disagree, we will consider your explanation as to why our comment is inapplicable or a revision is unnecessary. Please be as detailed as necessary in your explanation. In some of our comments, we may ask you to provide us with supplemental information so we may better understand your disclosure. After reviewing this information, we may or may not raise additional comments.

Please understand that the purpose of our review process is to assist you in your compliance with the applicable disclosure requirements and to enhance the overall disclosure in your filing. We look forward to working with you in these respects. We welcome any questions you may have about our comments or on any other aspect of our review. Feel free to call us at the telephone numbers listed at the end of this letter.

Prospectus Summary - page 1

1. We note the revisions you made in response to comments 4 and 16 in our last letter, but the status of your IND application for MDI-P is still unclear. Under the law, the FDA has 30 days to review an IND application. We note, however, that more than six months have passed since you first indicated that the submission had been made. Please disclose the date the application was submitted and clearly disclose the date and decision reached by the FDA. If the FDA determined that the IND, as submitted, was not approvable, clearly say so. It is inappropriate to suggest that the IND is "awaiting approval" if the FDA determined that additional preclinical research is required. Also, your revised disclosure should be more specific as to what you are applying to use MDP-P to treat.

2. We have considered your response to comment 5. However, there are no footnotes under "Our Company." There is a footnote 1 under "The Offering," but it does not contain the "express disclosure that there is no minimum conversion price per share for the preferred stock issued on March 14, 2005." There is another footnote 1 under "Selling Security Holders" which says that "theoretically" the preferred stock could be converted into an "infinitely large number of shares of common stock." It goes on to suggest that

"practically," the conversion ratio is "limited" by the number of shares authorized and the limitation in the Series A financing documents that prohibits the Series A shareholders from beneficially owning more than 9.99% of the issued and outstanding common stock at any one time. Please revise the information under "The Offering" as we previously requested. Also, please delete the footnote under "Selling Security Holders" as it inappropriately minimizes the nature of the legal risk.

Risk Factors - page 2

3. We have considered your response to comment 9. We think you should include a new risk factor addressing the risk to the market price of your securities and the risk to your ability to obtain the additional funding you need to develop your proposed products, resulting from the potentially large number of shares that may continue to be offered for sale by the selling shareholders.

We are a development-stage company that has not yet commercialized a product. - page 2

4. Please refer to the second sentence of the risk factor. It states that "While we believe MDI-P and SaveCream may have very broad commercial applications, we do not have any other products under anecdotal clinical data for development..." Please revise to clarify what you mean.

5. We have considered your response to comment 10 in our last letter. Please delete the third sentence of the risk factor as we previously requested.

We may not be able to raise sufficient capital to meet present and future obligations. - page 3

6. Please update the disclosure to the most recent practicable date.

7. Please quantify the amount of additional capital you need in order to satisfy current liabilities. Please also clarify how much you anticipate it will cost you to conduct the additional preclinical testing requested by the FDA before it will approve your IND. Please also clarify whether that testing is being conducted now, or whether it will be conducted in the future. It is unclear from your current disclosure whether the \$2,424,197 in cash referenced in the risk factor is the amount the additional preclinical testing will cost. If so, you should clearly indicate that you do not have the funds to conduct a Phase I clinical trial. In this regard, the last sentence of the first paragraph suggests that this is the amount the additional preclinical testing will cost, while the first sentence of the second paragraph suggests that this sum includes the cost of a Phase I clinical trial.

Obtaining additional capital through the sale of common stock will result in dilution of stockholder interests. - page 4

8. Please quantify the disclosure in this risk factor so that potential investors can evaluate the extent of the dilution you refer to.

We face intense competition and competing products. - page 6

9. We have considered the revisions you made in response to comment

17. It is still unclear what need(s) would be met by your proposed products that are not being met by the currently available products,

and why you believe there is a market for them. It is also still unclear how you propose to compete with these competitors and products given your limited resources. Please revise the risk factor accordingly.

Description of Business - page 22

10. We have considered your responses to comments 32 and 33 in our previous letter. Please delete the third paragraph under this heading on page 22. We note that the same study is discussed again, on the next page, with more appropriate caveats about its significance. In addition, please expand the discussion on page 23 to describe what the term "Stage 4 breast cancer" refers to, and to disclose whether any of the women treated with your proposed product experienced any lasting effects from the treatment.

11. Under "Potential Benefits of SaveCream in Treating ER-Positive Breast Cancers" on page 30, you refer to "registration with a paper NDA, thereby making the product easier to license." Please explain, in reasonable detail, what you are referring to and how this process would possibly apply to this product. We may have further comment after reviewing your response.

Executive Compensation - page 42

12. Please disclose the material terms of your employment agreement with Ms. Robinett.

Experts, page 43

13. Please include Tanner + Co.

Financial Statements - December 31, 2004

Notes to Financial Statements, page F-10

Note F - Stockholders' Equity, page F-14

14. As it appears that your warrants and preferred stocks require a settlement in the registered shares, these warrants and the conversion feature of the preferred stocks should be classified as a liability and marked to market, until such registration right lapses. Refer to EITF 00-19. Accordingly, please reclassify these warrants and the conversion feature of the preferred stocks outstanding as of December 31, 2004 to liability. The change in the fair value of the instruments from the date of the issuance to the period presented should be reflected in your statements of operations.

Notes to the Unaudited Condensed Consolidated Financial Statements, page F-23

Note 3 - Issuance of Common Stock, Preferred Stock, and Warrants, page F-24

Preferred Stock and Warrants, page F-24

15. Since the preferred stocks issued on March 14, 2005 has no minimum conversion price, the conversion feature and warrants related to this instrument as well as all other instruments such as the one in the preceding comment above and other warrants listed in the table on page F-17 with features that are exercisable or convertible into common stocks should be classified as a liability and marked to market until there no longer is a conversion feature with an unlimited ratio (thorough exercise, amendment or retirement). Refer

to EITF 00-19. Accordingly, please reclassify warrants and the embedded conversion features of the securities outstanding as of June 30, 2005. The change in the fair value of the instruments from the date of the issuance to the period presented should be reflected in your statements of operations.

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As appropriate, please amend your registration statement in response to these comments. You may wish to provide us with marked copies of the amendment to expedite our review. Please furnish a cover letter with your amendment that keys your responses to our comments and provides any requested supplemental information. Detailed cover letters greatly facilitate our review. We may have additional comments after reviewing your amendment and responses to our comments.

You may contact Keira Ino at 202-551-3659 or James Rosenberg at 202-551-3679 if you have questions regarding comments on the financial statements and related matters. Please contact Mary K. Fraser at 202-551-3609 or me at 202-551-3710 with any other questions.

Regards,

Jeffrey P. Riedler
Assistant Director

Cc: Stephen R. Drake, Esq.
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Judy M. Robinett
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