



DIVISION OF
CORPORATION FINANCE

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

November 8, 2010

Avi Barak
Chief Executive Officer and Director
BioCancell Therapeutics Inc.
Beck Science Center
8 Hartom St, Har Hotzvim
Jerusalem 97775
Israel 972-2-548-6555

**Re: BioCancell Therapeutics Inc.
Registration Statement on Form S-1, Amendment No. 8
Filed November 5, 2010
File No. 333-162088**

Dear Mr. Barak:

We have reviewed your registration statement 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 by amending your registration statement and providing the requested information. 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 registration statement and the information you provide in response to these comments, we may have additional comments.

1. Pursuant to our conversation on November 5, 2010, it appears that you have begun marketing efforts in Israel. Please provide us with an analysis indicating whether you are in compliance with Section 5 of the Securities and Exchange Act of 1933 as your registration statement does not include the minimum or maximum size of your offering, the price range or the exercise price of the warrants and therefore does not comply with Section 10. Your analysis should describe the distributor's activities to date and address the disclosure implications relating to the material risks and potential contingent liability.
2. We note that your bids will be accepted until 4:30 pm on the day of the auction and the bids will be revocable until 4:30pm. Please note that bids must remain revocable for a reasonable amount of time after the close of the market. We are willing to accept a minimum of 30 minutes following the close of the market. Please tell us when the market closes and, if necessary, revise your procedures to ensure that your bids will remain revocable for at least 30 minutes following the close of the market.

3. We note your response to our prior comment 6 that, “directors and officers may purchase securities in the offering.” Please revise your registration statement to specifically state that officers, directors and affiliates may purchase units in this offering and that such purchases will count towards the minimum offering. Please disclose the maximum amount of any such possible purchases and specifically state if the intention is that such purchases will be made in order to meet the minimum. Also, confirm that such purchases will be for investment purposes and not for resale. Please tell us how you will ensure that officers, directors and other affiliates purchasing in the offering will not have material information that is not available to other investors, such as the bid prices. If the purchases are made in a manner different from those made by the general public, please describe these differences. Please tell us how the purchases will comply with Regulation M.
4. We note your response to comment 5 and your revised disclosure that you will pay Chardan Capital Markets 10% of the gross fee otherwise payable to Clal. Please explain the “tail provision” and identify the agreement in which this provision appears.

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 Act of 1933 and all applicable Securities 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.

Notwithstanding our comments, in the event you request acceleration of the effective date of the pending registration statement please provide a written statement from the company acknowledging that:

- should the Commission or the staff, acting pursuant to delegated authority, declare the filing effective, it does not foreclose the Commission from taking any action with respect to the filing;
- the action of the Commission or the staff, acting pursuant to delegated authority, in declaring the filing effective, does not relieve the company from its full responsibility for the adequacy and accuracy of the disclosure in the filing; and
- the company may not assert staff comments and the declaration of effectiveness as a defense in any proceeding initiated by the Commission or any person under the federal securities laws of the United States.

Please refer to Rules 460 and 461 regarding requests for acceleration. We will consider a written request for acceleration of the effective date of the registration statement as confirmation of the fact that those requesting acceleration are aware of their respective responsibilities under the Securities Act of 1933 and the Securities Exchange Act of 1934 as they relate to the proposed

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public offering of the securities specified in the above registration statement. Please allow adequate time for us to review any amendment prior to the requested effective date of the registration statement.

Please contact Mike Rosenthal at (202) 551-3674 or myself at (202) 551-3715 with any other questions.

Sincerely,

Jeffrey P. Riedler
Assistant Director

cc: Dr. Shachar Hadar, Adv.
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