



DIVISION OF  
CORPORATION FINANCE

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

July 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. 3  
Filed June 11, 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.

General

1. We note your response to our comment 2 of our letter dated November 25, 2009. Your response indicates that "all invitations submitted throughout the auction process will be guaranteed by members of the Tel Aviv Stock Exchange." Are "invitations" the same as bids? If not, please explain what invitations are. Additionally, please explain how the invitations are guaranteed by the members of the Tel Aviv Stock Exchange. If it is a matter of law, please identify the law and explain how it applies to your offering. If successful bidders fail to make payment, explain how you enforce the guarantees of the members of the Tel Aviv Stock Exchange and how long this process will take.
2. We note that institutional investors may submit early bids. As these bids are used to determine the exercise price of the warrants, it appears that the information institutional investors will receive prior to making their bids is different from the information other

potential investors will have prior to making their bids. It is not appropriate to have different classes of investors making their bids with different information about the offering.

3. We note your statement on page 21 that the early bids submitted by institutional investors will be used to determine the minimum price in the offering and the exercise price of the warrants. Your registration statement must include a price range prior to effectiveness. Please confirm that you will include the price range, the number of units being offered, the number of shares underlying each unit, the number of Series 3 warrants underlying each unit and the number of Series 4 warrants underlying each unit prior to effectiveness.
4. Your statement on page 21 indicates that the minimum price will be announced at least five hours before the auction. This statement implies that you will be circulating a prospectus that does not include a bona fide range, which we would require under the circumstances of your offering. Given this, please confirm that you plan to circulate a prospectus that includes a bona fide range.
5. We may have additional comments once you have included a price range. In order to expedite review of your filing, please provide an estimate of your anticipated range.
6. Due to the structure of your offering, please note that you must reconfirm all bids once the price is established.
7. Tell us if there are any suitability protections for customers purchasing the units akin to NASD Rule 2310.

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8. Since this is a best efforts offering and there is no minimum amount of shares that must be sold, either:
  - remove the pricing and proceeds table and simply state that, since there is no minimum amount of shares that must be sold, the proceeds of the offering may be \$0 to \$5,300,000, or
  - revise the table to show the aggregate price and proceeds to the company assuming that 25%, 50% and 100% of the shares are sold.

In either event, clearly disclose that, since there is no minimum amount of shares that must be sold, you may receive no proceeds or very minimal proceeds from the offering.

9. Revise to clearly state that the offering will price at the minimum bid price unless the offering is oversubscribed.

Risks Related to the Auction Process for Our Offering, page 19

10. Include a risk factor discussing the risks to investors in a best efforts offering with no minimum amount of proceeds. For example, state that investors who submit bids will be committed to purchase units before they actually learn the amount of proceeds the registrant will receive in the offering, state that you may only sell a small number of units in the offering and that a trading market may not develop as a result of the offering.

Use of Proceeds, page 20

11. Please revise to indicate that this is a best efforts offering with no minimum dollar amount of proceeds and therefore you might raise substantially less than the proceeds indicated in the table under the heading “If 25% of Units are Sold.” Additionally, please state whether or not the proceeds will be used to pay the amounts in the order listed.

The Auction Process, page 73

12. Please explain the responsibilities and obligations of the TASE member administering the offering, for example: whether this person is representing your company in the offering or whether they are acting as an independent third party; and whether they receive any proceeds from the offering.
13. Please expand your disclosure regarding the early bids you may obtain from Israeli institutional investors to clarify if you intend to solicit such bids prior to effectiveness of this registration statement. Clarify who is qualified to submit an early bid and whether it is an indication of interest or conditional offer.
14. We note from your disclosure that the final offering price per unit cannot be below the minimum price of your range, but that the final offering price per unit can be above the maximum of the pricing range you will include in your registration statement. Please explain how you will resolve a situation where the aggregate offering results in a material change to the maximum aggregate offering you disclose in your registration statement, as such a change cannot be made through filing of a Rule 424(b) prospectus.
15. Please explain the term “authorized entity” and explain their role in the process.
16. Please explain how Israeli Securities Authority regulations guarantee the auction bids submitted through an authorized entity.
17. We believe the use of irrevocable bids is inappropriate.

18. The reference to “summary date” in the third paragraph is confusing. Please revise. To the extent you will disclose summary data, specify the nature of the information you will disclose.
19. You state that each bidder may submit up to three bids. Revise to state if such bids are cumulative.
20. We note that the auction will be conducted with paper bids. Discuss any timing constraints you anticipate given the short time frame of the offering.

Acceptance of Bids, page 74

21. Please revise your disclosure in this section to clarify:
  - When bidders will be notified if their bids were successful;
  - How long successful bidders have to transfer consideration to the offering coordinator; and
  - What happens if a successful bidder does not transfer their consideration by the deadline.

\* \* \*

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.

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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 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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