



DIVISION OF  
CORPORATION FINANCE

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

August 2, 2012

Via E-mail

David Pernock  
Chief Executive Officer and President  
Fibrocell Science, Inc.  
405 Eagleview Blvd.  
Exton, PA 19341

**Re: Fibrocell Science, Inc.  
Preliminary Proxy Statement on Schedule 14A  
Filed July 26, 2012  
File No. 001-31564**

Dear Mr. Pernock:

We have limited our review of your filing to the issues addressed in the following comments.

Please respond to this letter by amending your filing 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 filing and the information you provide in response to these comments, we may have additional comments.

Proposal 2, page 17

Risks Associated with Increasing Our Authorized Shares of Common Stock, page 19

1. In the final paragraph of this section, please expand your disclosure to indicate that, except as disclosed in the proxy with respect to the Series E Warrants, the Notes and the June Note Warrants, you do not have any agreements, commitments or arrangements regarding the issuance of common stock in connection with a fund raising opportunity or any other purposes not specifically set forth in the proxy.

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:

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- 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 Karen Ubell at (202) 551-3873 or me at (202) 551-3715 with any questions.

Sincerely,

/s/ Daniel Greenspan for

Jeffrey Riedler  
Assistant Director