



DIVISION OF  
CORPORATION FINANCE

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

October 22, 2014

Via E-mail

Dr. Paul K. Wotton  
President and Chief Executive Officer  
Advanced Cell Technology, Inc.  
33 Locke Drive  
Marlborough, Massachusetts 01752

**Re: Advanced Cell Technology, Inc.  
Registration Statement on Form S-3  
Filed October 14, 2014  
File No. 333-199311**

Dear Dr. Wotton:

We have limited our review of your registration statement to those issues we have addressed in our comment.

Please respond to this letter by amending your registration statement and providing the requested information. Where you do not believe our comment applies 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 this comment, we may have additional comments.

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1. Please disclose that you entered into a settlement with the Commission on September 10, 2014 and explain the material terms of this settlement. Additionally, please consider filing an Item 8.01 8-K disclosing this information for the purpose of maintaining current disclosure. In that regard, we note that you disclosed the existence of an ongoing investigation by the Division of Enforcement concerning the matters addressed in the settlement in your Annual Report on Form 10-K filed on April 1, 2014.

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 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 Matthew Jones at (202) 551-3786, Dan Greenspan at (202) 551-3623, or me at (202) 551-3715 with any other questions.

Sincerely,

/s/ Jeffrey P. Riedler

Jeffrey P. Riedler  
Assistant Director

cc: Mitchell S. Bloom, Esq.  
William D. Collins, Esq.  
Goodwin Procter LLP  
Exchange Place  
53 State Street  
Boston, MA 02109