

Via Facsimile and U.S. Mail  
Mail Stop 6010

March 28, 2008

Mr. William Caldwell  
Chief Executive Officer  
Advanced Cell Technology, Inc.  
1201 Bay Harbor Parkway  
Alameda, CA 94502

**Re: Advanced Cell Technology, Inc.  
Item 4.02 Form 8-K  
Filed March 27, 2008  
File No. 000-50295**

Dear Mr. Caldwell:

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 comments are inapplicable or a revision is unnecessary. Please be as detailed as necessary in your explanations. After reviewing this information, we may 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 any other aspect of our review. Feel free to call us at the telephone number listed at the end of this letter.

Item 4.02

1. Please revise your disclosure to clarify when you plan to amend Forms 10-KSB and 10-QSB filed for the periods from September 30, 2007 through September 30, 2008. In addition, clarify the period, which the net positive financial impact of \$2.5 million relates to and ensure that you have provided the accumulated financial impact as of the most recent financial statement date filed.
2. Since your disclosure appears to imply that you rely heavily on a third-party in valuing your warrants, please revise your disclosure to name the expert. In addition, explain to us why you did not appear to mention your reliance on this third-party when explaining your valuation methodologies in your periodic reports. Confirm that you will disclose the name of the expert in your future periodic reports if you continue to place reliance on the work of a third party in

determining the warrant's fair value. Note that if you include or incorporate by reference such disclosure into a 1933 Securities Act filing, you will need to obtain the consent of the independent valuation firm.

3. Please tell us whether you have reconsidered, in accordance with Item 307 of Regulation S-B, the adequacy of your disclosures and assertions regarding your disclosure controls and procedures for each of the periods ended September 30, 2006, December 31, 2007, March 31, 2007, June 30, 2007, and September 30, 2007.

As appropriate, please respond to these comments within five business days or tell us when you will respond. Please furnish a letter that keys your responses to our comments and provide the requested information. Detailed letters greatly facilitate our review. Please furnish your letter on EDGAR under the form type label CORRESP.

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 all information required under the Securities Exchange Act of 1934 and that they have provided all information investors require for an informed investment decision. 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 connection with responding to our comments, please provide, in writing, a statement from the company acknowledging that:

- 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.

In addition, please be advised that the Division of Enforcement has access to all information you provide to the staff of the Division of Corporation Finance in our review of your filing or in response to our comments on your filing.

If you have any questions, please call me at (202) 551-3659.

Sincerely,

Kei Ino  
Staff Accountant