



DIVISION OF
CORPORATION FINANCE

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

January 4, 2012

Via E-mail

Gary H. Rabin
Chief Executive Officer
Advanced Cell Technology, Inc.
33 Locke Drive
Marlborough, MA 01752

**Re: Advanced Cell Technology, Inc.
Preliminary Proxy Statement on Schedule 14A
Filed December 12, 2011
File No. 000-50295**

Dear Mr. Rabin:

As we informed you orally on December 20, 2011, we have completed our review of your filing. We remind you that our comments or changes to disclosure in response to our comments do not foreclose the Commission from taking any action with respect to the company or 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. 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 rules require.

Sincerely,

/s/ Jeffrey Riedler

Jeffrey Riedler
Assistant Director

cc: Jonathan Atzen, Esq.
Jeralin Cardoso, Esq.
Sheppard, Mullin, Richter & Hampton, LLP
12275 El Camino Real
Suite 200
San Diego, CA 92130