

Via Facsimile and U.S. Mail
Mail Stop 6010

July 29, 2005

Ms. Judi Lum
Chief Financial Officer
StemCells, Inc.
3155 Porter Drive
Palo Alto, CA 94304

Re: StemCells, Inc.
Form 10-K for Fiscal Year Ended December 31, 2004
Filed March 15, 2005
File No. 000-19871

Dear Ms. Lum:

We have limited our review of your filing to those issues we have addressed in our comment. Where indicated, we think you should revise your document in response to this comment. If you disagree, we will consider your explanation as to why our comment is inapplicable or a revision is unnecessary. Please be as detailed as necessary in your explanation.

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 on any other aspect of our review. Feel free to call us at the telephone numbers listed at the end of this letter.

Form 10-K for Fiscal Year Ended December 31, 2004

Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations

Critical Accounting Policies

Wind-down and Exit Costs, page 31

1. We believe your disclosure regarding the wind-down and exit costs could be improved to better explain the judgments and uncertainties surrounding this estimate and the potential impact on your financial statements. Accordingly, please revise MD&A to include the following information.

- a. Discuss the key factors and assumptions used to arrive at management's best estimate of the exit cost reserve including the lease obligations, the sublease income (contractual and projected), the period of time used for each location, and other significant items.
- b. Discuss the specific changes made to your assumptions in the fiscal years presented that resulted in the re-evaluation to the reserve and corresponding wind-down expense.
- c. In addition include quantified and narrative disclosure of the impact that reasonably likely changes in one or more of the

variables
would have on reported results, financial position and liquidity.

* * * *

Please amend your filing within 10 business days or tell us when you will provide us with a response. You may wish to provide us with marked copies of the amendment to expedite our review. Please furnish a cover letter with your amendment that keys your response to our comment. Detailed cover letters greatly facilitate our review. Please file your letter on EDGAR under the form type label CORRSEP. Please understand that we may have additional comments after reviewing your amendment and response to our comment.

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 comment on your filing.

You may contact Dana Hartz, Staff Accountant, at (202) 551-3648 or Joel Parker, Accounting Branch Chief, at (202) 551-3651 if you have questions regarding the comments. In this regard, do not hesitate to contact me, at (202) 551-3679.

Sincerely,

Jim B. Rosenberg
Senior Assistant Chief

Accountant
??

??

??

??

Ms. Judi Lum
StemCells, Inc.
Page 3

