Dana Hartz Staff Accountant United States Securities and Exchange Commission Division of Corporation Finance Washington, D.C. 20549

Re: StemCells Inc.

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

Dear Dana,

This is in response to the letter from Jim B. Rosenberg faxed to me on July 29th, concerning the SEC's review of StemCells Inc.'s Annual Report on Form 10-K for Fiscal Year Ended December 31, 2004 (the "10-K"). We very much appreciate your assistance in discussing the letter with me, and have attempted to take that discussion into account in formulating this response.

The letter contains one comment, with three sub-parts. The comment concerns the section on Wind-down and Exit Costs on page 31 of the 10-K. In the initial paragraph of the comment, Mr. Rosenberg states that the SEC believes our disclosure in that section could be improved to better explain the judgments and uncertainties involved. We are always interested in improving the clarity and usefulness of our reports, and shall take this suggestion to heart. In particular, we are proposing to include the following text in future 10-Q and 10-K filings:

In connection with the wind-down of our former encapsulated cell technology operations, our research and manufacturing operations in Lincoln, Rhode Island, and the relocation of our remaining research and development activities and corporate headquarters to California, in October 1999, we provided a reserve for our estimate of the exit cost obligation in accordance with EITF 94-3, "Other Cost to Exit an Activity." The reserve reflects estimates of the ongoing costs of our former research and administrative facility in Lincoln, which we hold on a lease that terminates on June 30, 2013. We are seeking to sublease, assign, sell or otherwise divest ourselves of our interest in the facility at the earliest possible time, but we cannot determine with certainty a fixed date by which such events will occur, if at all.

In determining the facility exit cost reserve amount, we are required to consider the Company's lease payments through to the end of the lease terms and estimate other relevant factors such as facility operating expenses, real estate market conditions in

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Rhode Island for similar facilities, occupancy rates and sublease rental rates projected over the course of the leasehold. We re-evaluate the estimate each quarter, taking account of changes, if any, in each underlying factor. The process is necessarily subjective because it involves projections over time — from the date of the estimate through the end of the lease — and it is not possible to determine any of the factors except the lease payments with certainty over that period.

Management forms its best estimate on a quarterly basis, after considering actual sublease activity, reports from our broker/realtor about current and predicted real estate market conditions in Rhode Island, the likelihood or not of new subleases in the foreseeable future for the specific facility and significant changes in the actual or projected operating expenses of the property. The Company discounts the projected net outflow over the term of the leasehold to arrive at the present value, and adjusts the reserve to that figure. The estimated vacancy rate for the facility is an important assumption in determining the reserve estimate; it is also the one involving the greatest judgment and uncertainty, because of the absence of highly predictive information concerning the future of the local economy and future demand for specialized laboratory and office space in that area. An actual sublease for 20,000 square feet of the 62,500 square foot building entered for the 7-year period from July 1, 2006 through the remainder of the lease at \$20 per square foot NNN per year, that had not been built into the Company's prior estimate would reduce the predicted costs to the Company by approximately \$2.8 million, which would then be discounted to present value and subtracted from the reserve amount, decreasing it significantly. Similarly, if the Company's then-current estimate assumed a certain vacancy rate for the building but an anticipated sublease failed to materialize, the predicted costs would be increased by the same amount, again discounted for present value. Management does not wait for such events to change its estimate, however, but uses its best efforts to anticipate them on a quarterly basis.

During the [third quarter of 2005; the fiscal year ending in 2005], the change in the reserve resulted from [*].

* The specific reason for change will be supplied in the applicable report.

I am enclosing another copy of the draft text, color-coded to your comments as shown in the legend.

While we believe that the proposed text will improve the managements' discussion portion of the Company's reports, we wish to point out that detailed information relating to the reserve and the process for its estimation were contained in the Company's 2004 Form 10-K. In fact, the discussion of the wind-down and exit costs contained in the managements' discussion was followed just one page later by a more extended and quantitative discussion of the reserve. In view of the fact that detailed information was contained in the Form 10-K, we hope that you will

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agree that it is not necessary to amend the 10-K. While the managements' discussion portion of the 2004 Form 10-K does not include the material we have added above, other portions, including portions in extremely close proximity to the managements' discussion, do provide a substantial degree of detail about the history of the reserve. Accordingly, we do not believe that it is necessary or appropriate to amend the 2004 Form 10-K, more than seven months after the end of the year to which it applies.

We should very much value any comments the staff may have on the text we are considering.

Let me also acknowledge the following on behalf of the Company:

- The Company is responsible for the adequacy and accuracy of the disclosures in the 10-K, and for all of its other filings on Forms 10-Q and 10-K;
- Staff comments or changes the Company makes to its disclosures 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.

I look forward to hearing from you.

Sincerely,

/s/ Judi Lum Chief Financial Officer