



September 28, 2005

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,

Thank you very much for the helpful discussion we had on September 20th explaining the points that you feel should be further clarified in our disclosure concerning the Company's Wind-down and Exit Costs. We understand that the assumptions underlying substantial changes in the reserve should be made more explicit, and have amended the sample discussion we propose for future filings to take this into account.

As we discussed, the Reserve consists of the present value of the projected costs to the Company of maintaining the Rhode Island facility over the leasehold, including actual rent and estimated operating expenses and net of projected sublease income — that is, anticipated sublease rent per square foot times the occupancy rate. The major factor affecting the adjustments to the size of the Reserve is the projected occupancy for the remaining lease term. This factor is evaluated on a year-by-year basis, based on actual occupancy for the length of existing subleases and discussions with our real estate consultant taking into account market conditions in Rhode Island and the projected demand and price for space with the different configurations present in our facility - i.e., laboratory space, vivarium, and office space. We revise our estimate at the end of each quarter, each time in consultation with and in reliance on the advice of our expert consultant.

In our letter of August 9<sup>th</sup> (received by you via Edgar on August 17<sup>th</sup>), in response to the comment in the letter from Jim B. Rosenberg faxed to Judi Lum on July 29<sup>th</sup>, we provided draft text that we proposed to include in future filings. We now propose instead to include the revised text below, which we hope is more responsive Mr. Rosenberg's letter as further explained by you in our call:

In connection with the wind-down of our former encapsulated cell technology operations, our research and manufacturing operations in Lincoln, Rhode Island, and the

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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 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 inherently 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 because changes in this assumption have the greatest effect on estimated sublease income. In addition, the vacancy rate estimate is the variable most subject to change, while at the same time it involves the greatest judgment and uncertainty due to 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. The average vacancy rate of the facility for years 2001 through 2005 was approximately 64%, varying from 49% to 80%. The actual rate in 2005 is 62%. As of June 30, 2005, the rate was estimated to remain the same through 2006, to increase to 76% in 2007 and to be approximately 70% from 2008 through the end of the lease, based on actual occupancy in 2005, expiration of subleases in 2007 and 2008, predicted lead time for acquiring new subtenants, historical vacancy rates for the area and assessments by our broker/realtor of future real estate market conditions. If the assumed vacancy rate for 2008 to the end of the Lease had been five percentage points higher at June 30, 2005, then the Reserve would have been increased by approximately \$200,000; conversely, if the assumed vacancy rate for that period were five percentage points lower, then the Reserve would have been decreased by approximately \$200,000. Similarly, a 5% increase or decrease in the estimated operating expenses for the facility would have

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increased or decreased the reserve by approximately \$137,000, and a 5% increase or decrease in the assumed average rental charge per square foot would have increased or decreased the reserve by approximately \$69,000. Management does not wait for specific events to change its estimate, but instead 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 deduction of costs actually realized during the period and <\*>.

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

I am enclosing another copy of the draft text, showing which portions are responsive to each sub-part of the original comment. I shall also send a color-coded copy by mail.

Let me repeat what we said in our earlier letter: 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. The wind-down is also covered extensively under note 7 to the financial statements. In view of the fact that detailed information was contained in the Form 10-K, we hope that you will 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 nine months after the end of the year to which it applies.

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/ Rodney K.B. Young  
Rodney K. B. Young  
Chief Financial Officer

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[STEMCELLS LOGO]

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 re. Introductory paragraph of Comment, judgments and uncertainties.)]

[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 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. (In re. Subpart a of Comment, key factors and assumptions.)] [The process is inherently 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. (In re. Introductory paragraph of Comment, judgments and uncertainties.)]

[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 because changes in this assumption have the greatest effect on estimated sublease income. In addition, the vacancy rate estimate is the variable most subject to change, while at the same time it involves the greatest judgment and uncertainty due to 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. The average vacancy rate of the facility for years 2001 through 2005 was approximately 64%, varying from 49% to 80%. The actual rate in 2005 is 62%. As of June 30, 2005, the rate was estimated to remain the same through 2006, to increase to 76% in 2007 and to be approximately 70% from 2008 through the end of the lease, based on actual occupancy in 2005, expiration of subleases in 2007 and 2008, predicted lead time for acquiring new subtenants, historical vacancy rates for the area and assessments

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by our broker/realtor of future real estate market conditions. (In re. both Introductory paragraph and Subpart a of Comment.)) [If the assumed vacancy rate for 2008 to the end of the Lease had been five percentage points higher at June 30, 2005, then the Reserve would have been increased by approximately \$200,000; conversely, if the assumed vacancy rate for that period were five percentage points lower, then the Reserve would have been decreased by approximately \$200,000. Similarly, a 5% increase or decrease in the estimated operating expenses for the facility would have increased or decreased the reserve by approximately \$137,000, and a 5% increase or decrease in the assumed average rental charge per square foot would have increased or decreased the reserve by approximately \$69,000. (In re. Subpart c of Comment, quantified and narrative disclosure of impact.)] [Management does not wait for specific events to change its estimate, but instead uses its best efforts to anticipate them on a quarterly basis. (In re. Introductory paragraph.)]

[During the <third quarter of 2005; the fiscal year ending in 2005>, the change in the reserve resulted from the deduction of costs actually realized during the period and <\*>. (In re. Subpart b of Comment, specific changes made to assumptions.)]

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