

CRYO-CELL INTERNATIONAL, INC.
700 Brooker Creek Boulevard
Suite 1800
Oldsmar, Florida 34677

November 15, 2010

VIA EDGAR AND FEDERAL EXPRESS

Larry Spigel
Assistant Director
United States Securities and Exchange Commission,
Division of Corporation Finance
100 F Street
Mail Stop 4720
Washington, DC 20549

Re: Cryo-Cell International, Inc.
Form 10-K
Filed March 1, 2010
File No. 000-23386

Dear Mr. Spigel:

On behalf of Cryo-Cell International, Inc. (the "Company"), set forth below are responses to the Staff of the Division of Corporation Finance's comment letter dated November 3, 2010, with respect to Cryo-Cell International's Form 10-K (000-23386). For your convenience, the Staff's comments are set forth in bold and followed by the Company's responses.

Item 1. Business, page 4

- 1. Tell us about your Upromise plan. Tell us the company's role in promoting the savings plan, and how the company is compensated for its role.**

Response:

Cryo-Cell International, Inc. and UPromise have an industry exclusive agreement in which the Company pays an annual fee to UPromise. Under the agreement, parents who use their UPromise-registered credit card to pay for their cord blood banking enrollment and/or storage fees will be awarded with 2 percent college savings. The Company markets U-Promise as a way families can save for the baby's college education while safeguarding for their family's future. The Company does not receive any compensation from U-Promise.

2. **Provide us with support for your claims about the “potential benefits” of U-Cord stem cells. Also, provide us with support for your claims concerning the “strong potential value” of C lle menstrual stem cells.**

Response:

We believe that the potential benefits of U-Cord stem cells and strong potential value of C lle menstrual cells have been supported by research and supplemental with this response we are providing the Staff with a sampling of citations and reference materials we believe support our statements. Since such reference materials and research is highly technical we do not believe that including cites to such in our filings would be of benefit to investors.

Item 7. Management’s Discussion and Analysis of Financial Condition and Results of Operations, page 26

3. **We note that your revenues have been declining since 2008. Although your disclosure mentions the decline, there is no indication of why you are selling less plans and whether this is an indication of a negative trend for which management is taking affirmative steps to correct. Please expand your disclosure to explain why sales have continued to decline and what is being done to reverse this trend.**

Response:

We intend to expand our disclosure in future filings (underlined text represents additions):

Revenue. For the fiscal year ended November 30, 2009, the Company had revenue of \$16,326,684 compared to \$17,278,058 for the fiscal year ended November 30, 2008 representing a 6% decrease. The decrease is primarily attributable to a decrease in specimens processed of 8%. In addition to the decrease in specimens processed, there was an increase in sales discounts of 23%, partially offset by a 10% increase in recurring annual storage fee revenue for the year ended November 30, 2009 compared to the 2008 period. Sales discounts represent discounts to returning clients and promotions offered to newly enrolled clients. We believe that the decrease in specimens processed in 2008 and 2009 was due primarily to the continuing challenges associated with difficult general economic conditions, lower U.S. consumer confidence levels and reductions in discretionary household spending; coupled with increasing use by consumers of public cord blood banking which does not charge storage fees. While we have attempted to address these challenges by introducing sales discounts and cost savings incentives for new and returning customers, we anticipate that sales of our cord blood banking plans would continue to be adversely impacted if economic conditions and consumer confidence do not significantly improve and consumer discretionary spending remains low.

Item 11. Executive Compensation, page 66

4. **We note that all your named executive officers received bonus awards in 2009. It is not clear whether these payments were discretionary or tied to specific performance targets. If they were discretionary, they are properly reported under “Bonus” in the summary compensation table; however, if they are tied to a formula involving performance targets, the amounts should be reported under “Non-Equity Incentive Plan Compensation.” Please confirm. Also, expand your discussion under “Compensation Philosophy” to explain how your compensation committee used the performance targets to determine the awards.**

Response:

The bonus amounts paid to the named executive officers were tied to specific performance targets and we will report such amounts under “Non-Equity Incentive Plan Compensation” in our future filings. We also propose to add substantially the following expanded discussion of the specific performance targets under the “Compensation Philosophy” in future filings:

“A cash bonus pool along with Company performance targets and individual performance objectives are established at the beginning of each fiscal year by the compensation committee. At the end of the fiscal year each performance target is measured and bonuses are paid at the end of the fiscal year if the set performance targets established at the beginning of the fiscal year are attained. A percentage of the pre-determined cash bonus pool is paid to the named executive officer depending on the performance targets met by the Company and the individual. In fiscal year 2009, 75% of the amount of the potential bonus was based on the Company performance targets and 25% was based on the named executive officer’s individual performance objectives associated with corporate strategy. In fiscal 2009, the Company performance targets required to earn cash bonuses were based on the number of new U-Cord and C elle units; \$16.2 MIL in revenue; \$486,000 in earnings; and customer satisfaction survey results. Three of the four Company performance targets, as well as the individual performance objectives, were met in fiscal 2009 for which the named executive officers Ms. Walton, Ms. Taymans and Ms. Allickson earned \$105,930, \$37,399 and \$33,750 in cash bonuses, respectively.”

In accordance with Instruction 4 to Item 402(b) of Regulation S-K, the Company retains the right not to disclose “target levels with respect to specific quantitative or qualitative performance-related factors considered by the compensation committee or the board of directors, or any other factors or criteria involving confidential trade secrets or confidential commercial or financial information, the disclosure of which would result in competitive harm” for the

Company. In connection with our proposed language regarding unit and customer satisfaction performance targets, we believe that quantitative disclosure of such targets would result in competitive harm since such information is confidential information that has never been publicly disclosed by us and does not consist of the kind of information that the Company would ordinarily and customarily release to the public. Disclosure of such information would provide valuable insight to competitors regarding our business and adversely impact our competitive position while we would not be able to obtain similar information from our competitors. We respectfully submit that disclosure of such information is not essential to an investor's understanding of the material aspects of the incentive bonus plan.

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As requested, the Company acknowledges the following:

- The Company is responsible for the adequacy and accuracy of the disclosure in the filing;
- That 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.

We believe that these responses fairly address the comments raised by the Staff. Based upon the responses provided herein, we respectfully believe that no amendment to our previously filed Form 10-K should be required but we propose to provide such additional disclosures in future filings. Should you have any questions or clarifications of the matters raised in this letter please don't hesitate to contact me at (813) 749-2104 or Company counsel Darrell C. Smith, Esq. of Shumaker, Loop & Kendrick, LLP at (813) 227-2226.

Sincerely,
/s/ Jill Taymans
Jill Taymans,
Chief Financial Officer

cc: Darrell C. Smith, Esq.