

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

December 6, 2010

**VIA EDGAR AND FACSIMILE (703) 813-6986**

Larry Spigel  
Assistant Director  
United States Securities and Exchange Commission  
Division of Corporation Finance  
100 F Street NE  
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 22, 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 7. Management's Discussion and Analysis of Financial Condition and Results of Operations, page 26**

- 1. We note your response to comment three in our letter dated November 3, 2010. Rather than revise your disclosure in future filings, we believe that you should amend your Annual Report on Form 10-K for the year-ended December 31, 2009 to reflect your proposed disclosure.**

*Response:*

*We believe that amending our 2009 Form 10-K to reflect our proposed disclosure would not alter in any material way the total mix of information already available as investors were already informed about the impact of poor economic conditions and competition set forth in the Risk Factors section of our 2009 Form 10-K which is also referenced at the beginning of the MD&A section. Additionally we just completed our 2010 fiscal year ended November 30, 2010 and will be filing our 2010 Form 10-K within 90 days after such November 30<sup>th</sup> fiscal year end. As such, we believe that amending our 2009 Form 10-K to provide the additional information would not equip investors with any additional new material information and we respectfully request that the Staff permit us to revise our disclosure in our future filing.*

**Item 11. Executive Compensation, page 66**

2. **We note your response to comment four in our letter dated November 3, 2010. Rather than revise your disclosure in future filings, we believe that you should amend your Annual Report on Form 10-K for the year-ended December 31, 2009 to reflect your proposed disclosure. In addition, please tell us how disclosure of the target number of new U-Cord and Celle units and results of the customer satisfaction surveys after the year-end could cause you competitive harm. It is not clear from your response how disclosure of this information would provide your competitors with valuable insight into your business.**

*Response:*

*We believe that amending the 2009 Form 10-K to reflect our proposed disclosure would not significantly alter the total mix of information already available as investors were already informed about the nature of the performance targets and the amount of bonuses paid out through our prior disclosures in Item 11. Additionally we just completed our 2010 fiscal year ended November 30, 2010 and will be filing our 2010 Form 10-K within 90 days after such November 30th fiscal year end. As such, we believe that amending our 2009 Form 10-K to provide the additional information would not be meaningful or informative to investors and we respectfully request that the Staff permit us to revise our disclosure in our future filing.*

*As to the Staff's comment regarding the competitive harm of disclosure of the target number of new U-Cord units and C'elle units after year end, public disclosure of such confidential information would put us at a competitive disadvantage since such information is highly sensitive information we do not publicly disclose and our competitors do not disclose similar information. For example, this information when combined with the financial information we report would enable our competitors to better estimate our pricing models and gain insight into our margins. Our competitors could also use this information as a marketing tool to better compete against us based on the price of our products whereas at the same time we would not have the benefit of knowing such information about our competitors. We believe that this would put us at a significant competitive disadvantage to our competitors when quoting prices to customers and substantially harm our business.*

*Furthermore, disclosure of the U-Cord unit targets and C'elle unit targets, even though historical, would also allow our competitors to, over time as such targets are disclosed each subsequent year, unfairly gain insight into our confidential internal projections which they could use to their competitive advantage. For example, if our competitor's saw that U-Cord units were trending significantly lower and C'elle units were trending significantly higher they could*

*wrongfully conclude that we are cutting back on our U-Cord business and give existing and potential customers the erroneous impression that we intend to exit the U-Cord business. We believe that this would put us at a significant competitive disadvantage to our competitors and substantially harm our business.*

*As to the Staff's comment regarding the competitive harm of disclosure of the results of customer satisfaction surveys after year end, public disclosure of such confidential information would put us at a significant competitive disadvantage since such information is highly sensitive information we do not publicly disclose and our competitors do not disclose similar information about the results of their customer satisfaction surveys. For example, we believe a competitor could use such information as a marketing tool casting us in an unfavorable light to prospective customers whereas at the same time we would not have the benefit of knowing the customer satisfaction results of the competitor. In addition, we believe that public disclosure of such results would cause significant harm to our competitive position by compromising our ability to use customer satisfaction as an incentive compensation component and allowing competitors to utilize easier to achieve performance targets intended to encourage our key employees to leave their employment.*

*In the event the Staff concludes that we may properly withhold such target levels, we will provide disclosure in the future regarding how difficult it would be to achieve the undisclosed target levels or other factors as required by Instruction 4 to the Instructions to Item 402(b) of Regulation S-K.*

We believe that these responses fairly address the comments raised by the Staff. 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,

Jill Taymans,  
Chief Financial Officer

cc: Darrell C. Smith, Esq.