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January 17, 2006

VIA FEDERAL EXPRESS AND EDGAR

Ms. Sasha Parikh
Staff Accountant
Division of Corporation Finance
100 F Street N.E.
Washington, D.C. 20549

RE: CRYOLIFE, INC.
FORM 10-K FOR THE YEAR ENDED DECEMBER 31, 2004
FILED MARCH 3, 2005
FILE NO. 001-13165

Dear Ms. Parikh:

We are writing in response to your telephone call of January 11, 2006, following up on our letter to Jim B. Rosenberg dated January 3, 2006. On that call, we discussed the possibility that CryoLife might add language to its financial statement footnotes at "Note 1. Summary of Significant Accounting Policies" to further describe the basis for deferring tissue preservation costs until revenue is recognized upon shipment.

CryoLife plans to include the following disclosure in Note 1 to its December 31, 2005 Form 10-K:

By federal law, human tissues cannot be bought or sold. Therefore, the tissues the Company preserves and further processes cannot be held as inventory. Tissue is procured from deceased human donors by organ and tissue procurement agencies, which consign the tissue to the Company for processing and preservation. Preservation costs consist primarily of direct labor and materials including laboratory expenses, tissue procurement fees, freight-in charges and fringe benefits, and indirect costs including allocations of costs from departments that support processing activities and facility allocations. Although the Company cannot own human tissue, the preservation process is a manufacturing process that is accounted for in accordance with Accounting Research Bulletin #43 ("ARB 43") Chapter 4, Inventory Pricing. Preservation costs are stated at the lower of cost or market on a first-in, first-out basis and are deferred until revenue is recognized upon shipment of the tissue to the implanting facilities.

If you have any questions, please do not hesitate to contact me at (404) 873-8622.

Very truly yours,

ARNALL GOLDEN GREGORY LLP

/s/ T. Clark Fitzgerald III
T. Clark Fitzgerald III

TCF/pat

cc: Jim B. Rosenberg, Senior Assistant and Chief Accountant
Mary Mast, Review Accountant
Steven G. Anderson