UNITED STATES SECURITIES AND EXCHANGE COMMISSION Washington, D.C. 20549

FORM 8-K

CURRENT REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE **SECURITIES EXCHANGE ACT OF 1934**

Date of Report (Date of earliest event reported): May 31, 2007

CRYOLIFE, INC. (Exact name of registrant as specified in its charter)

Florida	1-13165	59-2417093			
(State or Other Jurisdiction	(Commission File Number)	(IRS Employer			
of Incorporation)		Identification No.)			
	1655 Roberts Boulevard, N.W., Kennesaw, Georgia 30144 (Address of principal executive office) (zip code)				
	Registrant's telephone number, including area code: (770) 419-33	55			
-	(Former name or former address, if changed since last report)				
the appropriate box below if the I ons (see General Instruction A.2.)	Form 8-K filing is intended to simultaneously satisfy the filing obligation below):	on of the registrant under any of the following			
Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)					
Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)					
Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))					
Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))					

Section 3 - Securities and Trading Markets

Item 3.02 Unregistered Sales of Equity Securities.

On May 31, 2007, certain holders of CryoLife, Inc. (the "Company") 6% Convertible Preferred Stock ("Preferred Stock") gave notice of conversion of 20,000 shares of Preferred Stock into 124,378 shares of the Company's common stock. The 20,000 shares of Preferred Stock were retired upon completion of the conversion. Each share of the Company's Preferred Stock is convertible into 6.2189 shares of the Company's common stock. The terms of the Preferred Stock also provide that if a conversion occurs before April 1, 2008, the Company will make a payment equal to the full amount of dividends that would have accrued and become payable up through and including April 1, 2008 (the "Make-Whole Dividend"). Because the Preferred Stock accrues dividends at a rate of 6% per annum on the \$50 per share liquidation preference of the Preferred Stock, and four quarterly payments remain until April 1, 2008, the Make-Whole Dividend is equal to \$3.00 per share of Preferred Stock. The Company was entitled to pay the Make-Whole Dividend in shares of Company common stock, which were valued at \$13.50 per share. Accordingly, the Company issued 4,444 shares of common stock as a Make-Whole Dividend in connection with the conversion of the 20,000 shares of Preferred Stock.

Upon the conversion of the 20,000 shares of Preferred Stock, in excess of one percent of the outstanding shares of the Company's common stock have been issued pursuant to conversions of Preferred Stock since the date of the Company's last Form 10-Q. This conversion and the other conversions of the Preferred Stock that have occurred since the Company's last Form 10-Q are set forth below:

Date of Conversion	Preferred Stock Converted	Common Stock Issued Upon Conversion	Make-Whole Dividend Issued in Common Stock	Price per Share used to Determine Make-Whole Dividend Payment
5/10/2007	24,900 shares	154,850 shares	8,285 shares	\$9.02
5/16/2007	2,000 shares	12,437 shares	493 shares	\$12.16
5/31/2007	20,000 shares	124,378 shares	4,444 shares	\$13.50
Total	46,900 shares	291,665 shares	13,222 shares	

The Preferred Stock submitted for conversion was immediately retired.

All shares of common stock were issued pursuant to the exemption contained in Section 3(a)(9) of the Securities Act of 1933, as amended, in that they were exchanged by the Company with its existing security holders exclusively where no commission or other remuneration was paid or given directly for soliciting the exchange.

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, CryoLife, Inc. has duly caused this report to be signed on its behalf by the undersigned hereunto duly authorized.

CRYOLIFE, INC.

Date: June 4, 2007 By: /s/ D. A. Lee

Name: D. Ashley Lee

Title: Executive Vice President, Chief Operating Officer and Chief Financial Officer