UNITED STATES SECURITIES AND EXCHANGE COMMISSION washington, d.c. 20549

		washington, d.c. 20349		
		FORM 8-K		
	SEC	CURRENT REPORT ANT TO SECTION 13 OR 15(d) OF THE URITIES EXCHANGE ACT OF 1934 (Date of earliest event reported): April 28	3,2010	
		CRYOLIFE, INC. ame of registrant as specified in its charter)		
Florida (State or Other Jurisdiction of Incorporation)		1-13165 (Commission File Number)	59-2417093 (IRS Employer Identification No.)	
		Boulevard, N.W., Kennesaw, Georgia 30 s of principal executive office) (zip code)	0144	
	•	hone number, including area code: (770)	419-3355	
-	(Former name	e or former address, if changed since last rep	port)	
eck the appropriate box below if the ovisions (see General Instruction A.2.		ended to simultaneously satisfy the filing of	bligation of the registrant under any of the following	
Written communications pursuant t	o 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 communication	ns pursuant to Rule 13	e-4(c) under the Exchange Act (17 CFR 240	0.13e-4(c))	

Section 2 Financial Information

Item 2.02 Results of Operations and Financial Condition.

On April 28, 2010, CryoLife, Inc. ("CryoLife" or the "Company") issued a press release announcing its financial results for the quarter ended March 31, 2010. CryoLife hereby incorporates by reference herein the information set forth in its press release dated April 28, 2010, a copy of which is attached hereto as Exhibit 99.1. Except as otherwise provided in the press release, the press release speaks only as of the date of such press release and it shall not create any implication that the affairs of CryoLife have continued unchanged since such date.

The information provided pursuant to this Item 2.02 is to be considered "furnished" pursuant to Item 2.02 of Form 8-K and shall not be deemed to be "filed" for purposes of Section 18 of the Securities Exchange Act of 1934, as amended, or otherwise subject to the liabilities of that Section or Sections 11 and 12(a) (2) of the Securities Act of 1933, as amended, nor shall it be deemed incorporated by reference into any of CryoLife's reports or filings with the Securities and Exchange Commission ("SEC"), whether made before or after the date hereof, except as expressly set forth by specific reference in such report or filing.

Except for the historical information contained in this report, the statements made by CryoLife are forward-looking statements that involve risks and uncertainties. All such statements are subject to the safe harbor created by the Private Securities Litigation Reform Act of 1995. CryoLife's future financial performance could differ significantly from the expectations of management and from results expressed or implied in the press release. Please refer to the last paragraph of the press release for further discussion about forward-looking statements. For further information on risk factors, please refer to "Risk Factors" contained in CryoLife's Form 10-K for the year ended December 31, 2009, as filed with the SEC, and any subsequent SEC filings, as well as in the press release. CryoLife disclaims any obligation or duty to update or modify these forward-looking statements.

Section 9 Financial Statements and Exhibits. Item 9.01(d) Exhibits.

- (a) Financial Statements. Not applicable.
- (b) Pro Forma Financial Information. Not applicable.
- (c) Shell Company Transactions. Not applicable.
- (d) Exhibits.

Exhibit Number Description

99.1* Press release dated April 28, 2010

* This exhibit is furnished, not filed.

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: April 27, 2010 By: /s/ D.A. Lee

Name :D. Ashley Lee
Title: Executive Vice President, Chief
Operating Officer and Chief
Financial Officer



NEWS RELEASE

FOR IMMEDIATE RELEASE

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CryoLife Grows First Quarter Revenues by 11 percent to a Record \$29.7 Million

Posts fully diluted earnings per share of \$0.07 for first quarter of 2010

ATLANTA, GA...(April 28, 2010)...CryoLife, Inc. (NYSE: CRY), an implantable biological medical device and cardiovascular tissue processing company, announced today its results for the first quarter of 2010. Revenues for the first quarter increased 11 percent to a quarterly record of \$29.7 million compared to \$26.7 million for the first quarter of 2009. Net income for the first quarter of 2010 was \$1.9 million, or \$0.07 per basic and fully diluted common share, compared to \$1.9 million, or \$0.07 per basic and fully diluted common share, for the first quarter of 2009.

"We are very excited to start a new year by reporting record revenues and our 13th consecutive quarter of profitability. Cardiac and vascular preservation revenue growth of 16 percent and surgical sealant and hemostat growth of 9 percent for the first quarter clearly demonstrate the continuing acceptance of CryoLife's products and services by physicians throughout the world. The increase in our cash balances of \$2.6 million in the quarter to \$37.7 million is illustrative of management's ability to execute the Company's plans in a very difficult economy," stated Steven G. Anderson, president and chief executive officer.

The Company recorded pretax charges in the first quarter of 2010 of \$729,000 in connection with the write-off of capitalized legal expenses associated with BioGlue® Surgical Adhesive intellectual property rights in Germany, approximately \$380,000 in business development costs primarily associated with the proposal to acquire Medafor, Inc., and approximately \$415,000 in costs related to litigation with Medafor. Additionally, the Company recorded an \$817,000 gain on valuation of derivative related to the investment in Medafor common stock.

1655 Roberts Boulevard, NW • Kennesaw, Georgia 30144 (770) 419-3355 Phone • (770) 426-0031 Fax • e-mail: info@cryolife.com http://www.cryolife.com Preservation service revenues for the first quarter of 2010 increased 15 percent to \$15.6 million compared to \$13.5 million for the first quarter of 2009. The increase in preservation service revenues was primarily due to increased shipments of cardiac tissues for the first quarter of 2010 compared to the first quarter of 2009.

Product revenues, which consist primarily of sales of BioGlue and HemoStase®, were \$14.0 million for the first quarter of 2010 compared to \$12.9 million for the first quarter of 2009, an increase of 8 percent. The increase year over year primarily reflects the growing usage of HemoStase in cardiac and vascular surgical indications in the U.S., and cardiac, vascular, and general surgery indications in many markets outside of the U.S.

Total preservation services and product gross margins were 60 percent and 64 percent for the first quarters of 2010 and 2009, respectively. Preservation services gross margins were 40 percent and 45 percent for the first quarters of 2010 and 2009, respectively. Product gross margins were 82 percent and 85 percent for the first quarters of 2010 and 2009, respectively.

General, administrative, and marketing expenses for the first quarter of 2010 were \$13.8 million compared to \$12.7 million for the first quarter of 2009. General, administrative, and marketing expenses for the first quarter of 2010 included a charge of \$729,000 related to the write-off of capitalized legal expenses associated with BioGlue intellectual property rights in Germany, approximately \$380,000 in business development costs primarily associated with the proposal to acquire Medafor, and approximately \$415,000 in costs related to litigation with Medafor.

Research and development expenses were \$1.3 million and \$1.0 million for the first quarters of 2010 and 2009, respectively. Research and development spending in 2010 was primarily focused on the Company's BioGlue, BioFoamTM Surgical Matrix, and SynerGraft® tissues and products.

Other income of \$650,000 in the first quarter of 2010 consists primarily of an \$817,000 gain on valuation of derivative related to the investment in Medafor common stock.

As of March 31, 2010, the Company had \$37.7 million in cash, cash equivalents, and restricted securities, compared to \$35.1 million at December 31, 2009. Of this \$37.7 million, \$2.5 million was received from the U.S. Department of Defense as advance funding for the development of BioFoam protein hydrogel technology, and \$5.3 million was designated as restricted securities primarily due to a financial covenant requirement under the Company's credit agreement. The Company has net operating loss carryforwards that will reduce required cash payments for federal and state income taxes for the 2010 tax year.

2010 Financial Guidance

The Company is reiterating its guidance for the full year of 2010 subject to the potential impact of the ongoing litigation with Medafor, including the uncertainty of whether CryoLife will be able to continue to sell HemoStase throughout the rest of the year, as described below. The Company expects total revenues for the full year of 2010 to be between \$118.0 million and \$123.0 million, which includes between \$1.5 million and \$2.5 million related to funding received from the Department of Defense in connection with the development of BioFoam. The Company expects tissue processing revenues and BioGlue revenues to each increase between mid-single and low-double digits on a percentage basis in 2010 compared to 2009, with HemoStase revenues increasing significantly more than that on a percentage basis. The Company expects earnings per share of between \$0.36 and \$0.40 for 2010.

The assumptions upon which this guidance is based include the following: The earnings guidance contains general expenses associated with business development opportunities, but does not include significant expenses associated with specific targets, such as Medafor. The Company has withdrawn its proposal to acquire Medafor and does not currently anticipate a transaction with it occurring during 2010; however, should CryoLife renew its proposal or take other actions to acquire Medafor, such as a proxy contest or tender offer, it could incur expenses or changes in the value of the Medafor derivative that could materially affect this guidance. Medafor informed CryoLife on March 18, 2010 that the distribution agreement between the parties was terminated. CryoLife filed an emergency motion for preliminary injunction in federal court requesting that the court order the agreement to not be terminated. The court has set a hearing date for May 10, 2010. If Medafor is successful in its attempt to terminate the agreement and elects to discontinue shipping HemoStase to CryoLife, then the Company's full year 2010 guidance would be materially, adversely affected. The Company believes that Medafor does not have a basis for terminating the agreement, and the guidance above assumes that it will not be successful; however, litigation is inherently risky and there is no guarantee that the outcome will match our expectations. Additionally, the Company has budgeted for a certain level of expenses related to its ongoing litigation with Medafor. However, if actual future legal expenses exceed the amounts budgeted, then it could materially, adversely affect our expense and earnings guidance.

Webcast and Conference Call Information

The Company will hold a teleconference call and live webcast today at 10:00 a.m. Eastern Time to discuss the results followed by a question and answer session hosted by Mr. Anderson.

To listen to the live teleconference, please dial 201-689-8261 a few minutes prior to 10:00 a.m. A replay of the teleconference will be available from April 28 through May 5 and can be accessed by calling 877-660-6853 (toll free) or 201-612-7415. The account number for the replay is 244 and the conference number is 349352.

The live webcast and replay can be accessed by going to the Investor Relations section of the CryoLife Web site at www.cryolife.com and selecting the heading Webcasts & Presentations.

About CryoLife, Inc.

Founded in 1984, CryoLife, Inc. is a leader in the processing and distribution of implantable living human tissues for use in cardiac and vascular surgeries throughout the U.S. and Canada. The Company's CryoValve® SG pulmonary heart valve, processed using CryoLife's proprietary SynerGraft® technology, has FDA 510(k) clearance for the replacement of diseased, damaged, malformed, or malfunctioning native or prosthetic pulmonary valves. The Company's CryoPatch® SG pulmonary cardiac patch has FDA 510(k) clearance for the repair or reconstruction of the right ventricular outflow tract (RVOT), which is a surgery commonly performed in children with congenital heart defects, such as Tetralogy of Fallot, Truncus Arteriosus, and Pulmonary Atresia. CryoPatch SG is distributed in three anatomic configurations: pulmonary hemi-artery, pulmonary trunk, and pulmonary branch. The Company's BioGlue® Surgical Adhesive is FDA approved as an adjunct to sutures and staples for use in adult patients in open surgical repair of large vessels. BioGlue is also CE marked in the European Community and approved in Canada and Australia for use in soft tissue repair. The Company's BioFoam™ Surgical Matrix is CE marked in the European Community for use as an adjunct in the sealing of abdominal parenchymal tissues (liver and spleen) when cessation of bleeding by ligature or other conventional methods is ineffective or impractical. BIOGLUE Aesthetic® Medical Adhesive is CE marked in the European Community for periosteal fixation following endoscopic browplasty (brow lift) in reconstructive plastic surgery and is distributed by a third party for this indication. CryoLife currently distributes HemoStase®, a hemostatic agent, in much of the U.S. for use in cardiac and vascular surgery and in many international markets for cardiac, vascular, and general surgery, subject to certain exclusions.

Statements made in this press release that look forward in time or that express management's beliefs, expectations or hopes are forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. These statements include those regarding anticipated 2010 performance, statements regarding the expected impact of our net operating loss carryforwards on our cash outlays for tax obligations, our current expectation that a transaction to acquire Medafor will not occur in 2010, any impact on our 2010 performance or on the value of the Medafor derivative that would occur if we renew our proposal or take other actions to acquire Medafor, and any impact on our 2010 performance if Medafor is successful in terminating the distribution agreement and discontinues the shipment of product. These future events may not occur as and when expected, if at all, and, together with our business, are subject to various risks and uncertainties. These risks and uncertainties include that we are significantly dependent on our revenues from BioGlue and are subject to a variety of risks affecting this product, including that a German Patent Court has indicated it will nullify our main BioGlue patent in Germany, we are subject to stringent domestic and foreign regulation which may impede the approval process of our tissues and products, hinder our development activities and manufacturing processes and, in some cases, result in the recall or seizure of previously cleared or approved tissues and products, Medafor is attempting to terminate our distribution agreement with it and there is no guarantee that we can convince the court to grant our motion for an injunction to prevent the termination, or that Medafor will not otherwise succeed in its attempts to terminate the agreement, if Medafor's termination of the agreement is successful and Medafor ceases shipping HemoStase to us, it will materially adversely impact our revenues, our investment in Medafor could be impaired in the future, our investment in Medafor is illiquid and if we sell our investment we might not obtain appropriate value or may sell it for less cash than our original investment and/or less than the carrying value of those shares, healthcare policy changes, including pending proposals to reform the U.S. healthcare system, may have a material adverse effect on us, uncertainties related to patents and protection of proprietary technology may adversely affect the value of our intellectual property, uncertainties related to patents and protection of proprietary technology for products distributed by CryoLife may adversely affect our ability to distribute those products, the tissues we process and our products allegedly have caused and may in the future cause injury to patients, and we have been and may be exposed to product liability claims and additional regulatory scrutiny as a result, we are dependent on the availability of sufficient quantities of tissue from human donors, our CryoValve SGPV post-clearance study may not provide expected results, demand for our tissues and products could decrease in the future, which could have a material adverse effect on our business, the success of many of our tissues and products depends upon strong relationships with physicians, consolidation in the health care industry could lead to demands for price concessions or limits or eliminate our ability to sell to certain of our significant market segments, our existing insurance policies may not be sufficient to cover our actual claims liability, we may be unable to obtain adequate insurance at a reasonable cost, if at all, the loss of any of our solesource suppliers could have an adverse effect on our revenues, financial condition, profitability, and cash flows, intense competition may affect our ability to operate profitably, regulatory action outside of the U.S. has affected our business in the past and may affect our business in the future, rapid technological change could cause our services and products to become obsolete, continued fluctuation of foreign currencies relative to the U.S. dollar could materially and adversely impact our business, our credit facility limits our ability to pursue significant acquisitions, key growth strategies may not generate the anticipated benefits, there are limitations on the use of our net operating loss carryforwards, our ability to borrow under our credit facility may be limited, we may not be successful in obtaining necessary clinical results and regulatory approvals for services and products in development, and our new services and products may not achieve market acceptance, extensive government regulation may adversely affect our ability to develop and market services and products, investments in new technologies and acquisitions of products or distribution rights may not be successful, if we are not successful in expanding our business activities in international markets, we may be unable to increase our revenues, we are not insured against all potential losses, and natural disasters or other catastrophes could adversely affect our business, financial condition, and profitability, we are dependent on key personnel, and our CryoValve SG pulmonary heart valves have a one-year shelf life. These risks and uncertainties include the risk factors detailed in our Securities and Exchange Commission filings, including our Form 10-O to be filed for the quarter ended March 31, 2010 and our Form 10-K filing for the year ended December 31, 2009, and the Company's other SEC filings. The Company does not undertake to update its forward-looking statements.

CRYOLIFE, INC. AND SUBSIDIARIES Financial Highlights (In thousands, except per share data)

		Three Months Ended March 31,	
	2010	2009	
	(Unau	dited)	
Revenues:			
Preservation services	\$ 15,583	\$ 13,548	
Products	13,955	12,945	
Other	179	195	
Total revenues	29,717	26,688	
Cost of preservation services and products:			
Preservation services	9,398	7,491	
Products	2,527	1,962	
Total cost of preservation services			
and products	11,925	9,453	
Gross margin	17,792	17,235	
Operating expenses:			
General, administrative, and marketing	13,817	12,748	
Research and development	1,292	1,026	
Total operating expenses	15,109	13,774	
Operating income	2,683	3,461	
Interest expense	51	49	
Interest income	(4)	(43)	
Gain on valuation of derivative	(817)	(.5)	
Other expense, net	120	152	
Income before income taxes	3,333	3,303	
Income tax expense	1,399	1,354	
Net income	<u>\$ 1,934</u>	\$ 1,949	
Income per common share:			
Basic	\$ 0.07	\$ 0.07	
Diluted	\$ 0.07	\$ 0.07	
Weighted-average common shares outstanding:			
Basic	28,235	28,009	
Diluted	28,539	28,230	

CRYOLIFE, INC. AND SUBSIDIARIES Financial Highlights (In thousands)

Three Months Ended March 31.

	Mar	ch 31,
	2010	2009
	(Una	udited)
Preservation services:		
Cardiac tissue	\$ 6,903	\$ 5,592
Vascular tissue	8,680	7,871
Orthopaedic tissue		85
Total preservation services	15,583	13,548
Products:		
BioGlue and BioFoam	11,912	
HemoStase	2,105	1,110
Other medical devices	(62)	71
Total products	13,955	12,945
Other	179	195
Total revenues	<u>\$ 29,717</u>	\$ 26,688
Revenues:		
U.S.	\$ 24,929	\$ 22,744
International	4,788	3,944
Total revenues	\$ 29,717	\$ 26,688

	March 31, 2010 (Unaudited)		December 31, 2009	
Cash, cash equivalents, and restricted securities	\$	37,699	\$	35,121
Receivables, net		15,386		14,636
Deferred preservation costs		34,693		36,445
Inventories		6,265		6,446
Investment in equity securities		6,142		3,221
Total assets		137,342		133,859
Shareholders' equity		113,165		110,446

For additional information about the company, visit CryoLife's Web site: www.cryolife.com.