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): July 29, 2010

CRYOLIFE, INC.

(Exact name of registrant as specified in its charter)

Florida	**1-13165**	**59-2417093**
(State or Other Jurisdiction of Incorporation)	(Commission File Number)	(IRS Employer 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) 419-3355

(Former name or former address, if changed since last report)

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions (see General Instruction A.2. below):

☐ 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 2 Financial Information

Item 2.02 Results of Operations and Financial Condition.

On July 29, 2010, CryoLife, Inc. ("CryoLife" or the "Company") issued a press release announcing its financial results for the quarter ended June 30, 2010. CryoLife hereby incorporates by reference herein the information set forth in its press release dated July 29, 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 and Form 10-Q for the period ended March 31, 2010, 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 July 29, 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: July 29, 2010

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

EXHIBIT 99.1

CryoLife®
Life Restoring Technologies℠

N E W S R E L E A S E

FOR IMMEDIATE RELEASE

Media Contacts:

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Chief Operating Officer
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CryoLife Posts Record Second Quarter Revenues and Operating Income

Reports fully diluted earnings per share of $0.10 for second quarter of 2010

Grows six month revenues by 8 percent to a six month record $59.0 million

ATLANTA, GA…(July 29, 2010)…CryoLife, Inc. (NYSE: CRY), an implantable biological medical device and cardiovascular tissue processing company, announced today its results for the second quarter of 2010. Revenues for the second quarter increased 4 percent to a second quarter record of $29.3 million compared to $28.2 million for the second quarter of 2009. Net income for the second quarter of 2010 was $2.9 million, or $0.10 per basic and fully diluted common share, compared to $2.5 million, or $0.09 per basic and fully diluted common share, for the second quarter of 2009.

"We are very pleased to be reporting record second quarter revenues and our 14th consecutive quarter of profitability. CryoLife continues to execute effectively on its business plan despite a challenging economy, as evidenced by the $3.7 million increase in our cash, cash equivalents, and restricted securities in the quarter to $41.4 million. We believe that our continuing strong operating performance, coupled with our ongoing stock repurchase plan and business development initiatives, will lead to enhanced shareholder value over the near- and long-term," stated Steven G. Anderson, president and chief executive officer.

The Company recorded pretax charges in the second quarter of 2010 of approximately $420,000 in costs related to litigation with Medafor and recorded a $385,000 gain on valuation of the derivative related to the investment in Medafor common stock.

Revenues for the first six months of 2010 increased 8 percent to a first six month record of $59.0 million compared to $54.9 million for the first six months of 2009. Net income for the first six months of 2010 was $4.9 million, or $0.17 per basic and fully diluted common share, compared to $4.5 million, or $0.16 per basic and fully diluted common share for the first six months of 2009.

The Company recorded pretax charges in the first six months 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 and approximately $834,000 in costs related to litigation with Medafor. Additionally, the Company recorded a $1.2 million gain on valuation of the derivative related to the investment in Medafor common stock.

Preservation service revenues for the second quarter of 2010 increased 6 percent to $15.0 million compared to $14.1 million for the second quarter of 2009. Preservation service revenues for the first six months of 2010 increased 11 percent to $30.6 million compared to $27.6 million for the first six months of 2009. The increase in preservation service revenues for the second quarter of 2010 was primarily due to increased shipments of vascular tissues. The increase in preservation service revenues for the first six months of 2010 was primarily due to increased shipments of both cardiac and vascular tissues.

Product revenues, which consist primarily of sales of BioGlue and HemoStase®, were $14.1 million for the second quarter of 2010 compared to $13.9 million for the second quarter of 2009, an increase of 2 percent. Product revenues were $28.1 million for the first six months of 2010 compared to $26.9 million for the first six months of 2009, an increase of 5 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 61 percent for the second quarter of 2010 and 63 percent for the second quarter of 2009. Total preservation services and product gross margins were 60 percent and 64 percent for the first six months of 2010 and 2009, respectively.

Preservation services gross margins were 40 percent for the second quarter of 2010 and 43 percent for the second quarter of 2009. Preservation services gross margins were 40 percent and 44 percent for the first six months of 2010 and 2009, respectively.

Product gross margins were 82 percent for the second quarter of 2010 and 84 percent for the second quarter of 2009. Product gross margins were 82 percent and 84 percent for the first six months of 2010 and 2009, respectively.

General, administrative, and marketing expenses for the second quarter of 2010 were $11.7 million compared to $12.3 million for the second quarter of 2009. General, administrative, and marketing expenses for the second quarter of 2010 included approximately $420,000 in costs related to litigation with Medafor.

General, administrative, and marketing expenses for the first six months of 2010 were $25.5 million compared to $25.1 million for the first six months of 2009. General, administrative, and marketing expenses for the first six months 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 and approximately $834,000 in costs related to litigation with Medafor.

Research and development expenses were $1.2 million and $1.4 million for the second quarters of 2010 and 2009, respectively. Research and development expenses were $2.5 million and $2.4 million for the first six months of 2010 and 2009, respectively. Research and development spending in the first six months of 2010 was primarily focused on the Company's BioGlue, BioFoam™ Surgical Matrix, and SynerGraft® tissues and products.

Other income of $215,000 and $865,000 in the second quarter and the first six months of 2010, respectively, consisted primarily of a $385,000 and $1.2 million gain on valuation of the derivative related to the investment in Medafor common stock.

As of June 30, 2010, the Company had $41.4 million in cash, cash equivalents, and restricted securities, compared to $35.1 million at December 31, 2009. Of this $41.4 million, $2.4 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.

Medafor Update

As previously disclosed, on March 18, 2010, Medafor informed the Company that Medafor was terminating the exclusive distribution agreement (EDA) between the parties. CryoLife filed a motion for a preliminary injunction against Medafor's termination of the EDA in the U.S. District Court for the Northern District of Georgia. The court held hearings on the motion on May 10 and June 28, 2010, but has not yet ruled on CryoLife's motion.

During the time period between Medafor's announcement on March 18, 2010 and late June, Medafor rejected three of the Company's purchase orders for HemoStase totaling approximately $1.8 million. Due to these rejections, the Company did not have sufficient inventories of all sizes of HemoStase to fulfill all orders, specifically the 1 gram international product. In addition, management believes that the Company lost additional sales of HemoStase due to uncertainty in the market as to whether the Company had the authority to market HemoStase and whether it would be able to continue to supply the product in the future, as well as due to continued sales by Medafor of its product into the Company's exclusive territory in violation of the EDA.

Beginning June 29, 2010, Medafor began shipments of HemoStase to CryoLife pursuant to a $2.5 million purchase order that CryoLife submitted on June 25, 2010. By mid-July CryoLife received the 1 gram international product ordered on June 25. On July 9, 2010, the Company submitted an additional purchase order for approximately $1.35 million of HemoStase. Medafor has begun shipments under this purchase order. As of July 27, 2010 Medafor has filled approximately $2.5 million of the $3.8 million aggregate in June and July purchase orders.

If the EDA with Medafor remains in effect and Medafor fills purchase orders in compliance with the EDA, the Company believes that HemoStase revenues will increase for the full year 2010 as compared to 2009. HemoStase is still in a growth phase and has significant room to further penetrate CryoLife's existing customer base. However, on July 27, 2010 the Company received notice from Medafor alleging that CryoLife had materially breached the EDA and stating that Medafor will terminate the EDA if the breach is not cured in 30 days. CryoLife does not believe that Medafor will be able to terminate the EDA per the terms of the notice without breaching the EDA. CryoLife's ongoing litigation with Medafor and recent Medafor actions, including this new notice, may negatively affect the Company's ability to distribute HemoStase. Based on the Company's existing inventory levels of HemoStase as of June 30, 2010 and additional receipts of HemoStase through July 27, 2010, CryoLife expects that it can generate between $6.0 and $7.0 million in future sales of HemoStase unless the EDA is ultimately terminated. The guidance below includes a range of $4.0 to $4.5 million in HemoStase revenues for the second half of 2010.

2010 Financial Guidance

This guidance is given subject to the assumptions and qualifications discussed below. The Company expects total revenues for the full year of 2010 to be between $118.0 million and $122.0 million, which includes between $1.0 million and $2.0 million related to funding received from the Department of Defense in connection with the development of BioFoam. The Company expects tissue processing revenues to increase between mid-single and low-double digits on a percentage basis in 2010 compared to 2009, BioGlue revenues to increase by low single digits on a percentage basis, and HemoStase revenues to increase more than tissue or BioGlue revenues on a percentage basis. The Company expects earnings per share of between $0.34 and $0.38 for 2010.

The assumptions upon which this guidance is based include HemoStase revenues of between $4.0 million and $4.5 million in the second half of the year, levels of Medafor related litigation expenses in the second half of the year consistent with the first half of the year, and that the EDA will not be terminated. The earnings guidance contains general expenses associated with business development opportunities, but does not include significant expenses associated with specific targets. The Company has withdrawn its proposal to acquire Medafor and does not currently anticipate a transaction 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.

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 July 29, 2010 through August 6, 2010 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 353429.

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, our expectation that, unless the EDA is ultimately terminated, we can generate between $6.0 million and $7.0 million in future sales of HemoStase based on current inventory and additional receipts of HemoStase through July 23, 2010, our expectation that our continuing strong operating performance, coupled with our ongoing stock repurchase plan and business development initiatives, will lead to enhanced shareholder value over the near- and long-term, 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, any impact on our 2010 performance if Medafor is successful in terminating the EDA and discontinues the shipment of product, our belief that Medafor will not be able to terminate the EDA per the terms of the notice without breaching the EDA, and any impact on our 2010 financial guidance if actual litigation expenses in the second half of the year exceed litigation expenses in the first half of the year, the EDA is terminated, or HemoStase revenues for the second half of the year are less than expected. 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 nullified our main BioGlue patent in Germany, and if the ruling is upheld on appeal, we would be prevented from suing to prevent third parties from infringing the 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, if Medafor is successful in its attempts to terminate our distribution agreement with it, we will be unable to continue to distribute HemoStase, which will have a material, adverse impact on our revenues and profitability, Medafor could refuse to comply with the EDA or continue to not perform under the EDA, which could have a material, adverse impact on our revenues and profitability, Medafor has sold product directly into our exclusive territory and field, and has delayed and refused to timely fill all purchase orders, and such actions may negatively impact our ability to distribute HemoStase by creating uncertainty with our customers and distributors as to whether we will continue to have the right to sell HemoStase; our investment in Medafor has been diluted as a result of Medafor's issuance of 1.8 million shares to Magle Life Sciences, and we could in the future determine that an impairment in the value of our investment in Medafor common stock has occurred, which could have a material, adverse impact on our financial condition and profitability, we may not be able to readily liquidate our investment in Medafor, and if we are able to liquidate our investment, we may receive less cash than our original investment and we may receive less than the carrying value of our investment, healthcare policy changes, including recent federal legislation 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 sole-source 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, and we are dependent on key personnel. These risks and uncertainties include the risk factors detailed in our Securities and Exchange Commission filings, including our Form 10-Q to be filed for the quarter ended June 30, 2010, our Form 10-Q filing 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 June 30,		Six Months Ended June 30,	
	2010	**2009**	**2010**	**2009**
	(Unaudited)		(Unaudited)	
Revenues:				
Preservation services	$ 15,005	$ 14,091	$ 30,588	$ 27,639
Products	14,146	13,918	28,101	26,863
Other	112	154	291	349
Total revenues	**29,263**	**28,163**	**58,980**	**54,851**
Cost of preservation services and products:				
Preservation services	9,013	8,027	18,411	15,518
Products	2,481	2,241	5,008	4,203
Total cost of preservation services and products	**11,494**	**10,268**	**23,419**	**19,721**
Gross margin	**17,769**	**17,895**	**35,561**	**35,130**
Operating expenses:				
General, administrative, and marketing	11,670	12,306	25,487	25,054
Research and development	1,240	1,367	2,532	2,393
Total operating expenses	**12,910**	**13,673**	**28,019**	**27,447**
Operating income	**4,859**	**4,222**	**7,542**	**7,683**
Interest expense	65	61	116	110
Interest income	(6)	(20)	(10)	(63)
Gain on valuation of derivative	(385)	--	(1,202)	--
Other expense (income), net	111	(60)	231	92
Income before income taxes	**5,074**	**4,241**	**8,407**	**7,544**
Income tax expense	2,148	1,739	3,547	3,093
Net income	$ **2,926**	$ **2,502**	$ **4,860**	$ **4,451**
Income per common share:				
Basic	**$ 0.10**	**$ 0.09**	**$ 0.17**	**$ 0.16**
Diluted	**$ 0.10**	**$ 0.09**	**$ 0.17**	**$ 0.16**
Weighted-average common shares outstanding:				
Basic	28,246	28,067	28,240	28,038
Diluted	28,483	28,174	28,513	28,204

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

	Three Months Ended June 30,		Six Months Ended June 30,	
	2010	**2009**	**2010**	**2009**
	(Unaudited)		(Unaudited)	
Preservation Services:				
Cardiac tissue	$ 6,861	$ 6,470	$ 13,764	$ 12,062
Vascular tissue	8,144	7,577	16,824	15,448
Orthopaedic tissue	--	44	--	129
Total preservation services	**15,005**	**14,091**	**30,588**	**27,639**
Products:				
BioGlue and BioFoam	12,261	12,379	24,173	24,143
HemoStase	1,893	1,467	3,998	2,577
Other medical devices	(8)	72	(70)	143
Total products	**14,146**	**13,918**	**28,101**	**26,863**
Other	112	154	291	349
Total revenues	$ **29,263**	$ **28,163**	$ **58,980**	$ **54,851**
Revenues:				
U.S.	$ 24,418	$ 23,579	$ 49,347	$ 46,323
International	4,845	4,584	9,633	8,528
Total revenues	$ **29,263**	$ **28,163**	$ **58,980**	$ **54,851**

	June 30, 2010	**December 31, 2009**
	(Unaudited)	
Cash, cash equivalents, and restricted securities	$ 41,442	$ 35,121
Receivables, net	15,110	14,636
Deferred preservation costs	33,642	36,445
Inventories	7,645	6,446
Investment in equity securities	6,245	3,221
Total assets	140,207	133,859
Shareholders' equity	116,046	110,446

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