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): April 29, 2014

CRYOLIFE, INC.

(Exact name 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.)

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 April 29, 2014, CryoLife, Inc. ("CryoLife" or the "Company") issued a press release announcing its financial results for the quarter ended March 31, 2014. CryoLife hereby incorporates by reference herein the information set forth in its press release dated April 29, 2014, 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 the Company have continued unchanged since such date.

The press release includes earnings per share guidance that excludes expenses related to potential future business development and the impact of potential share repurchases. The Company has excluded expenses related to potential future business development from its earnings per share guidance because it maintains an active business development program that is subject to changes, and it is currently unable to predict the level of activity during the remainder of fiscal 2014, if any. CryoLife has excluded the impact of potential share repurchases on earnings per share since the decision to repurchase shares depends on the availability of cash and competing demands on it, as well as on the trading price of the Company's common stock, which cannot currently be estimated.

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, 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 text portion 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 filed for the year ended December 31, 2013 and its subsequent filings with the Securities and Exchange Commission, as well as in the press release attached hereto as Exhibit 99.1. 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 29, 2014

* 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 29, 2014 /s/ D.A. Lee By:

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

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FOR IMMEDIATE RELEASE

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CryoLife Posts Record First Quarter Revenues of \$35.7 Million

First Quarter Highlights:

- Grew HeRO® Graft revenues 26 percent year-over-year to \$1.6 million
- Received FDA approval to begin PerClot® clinical trial
- Received FDA 510(k) clearance for PerClot Topical
- · Secured distribution rights and purchase option for ProCol® Vascular Bioprosthesis
- Established new regional headquarters in Singapore to expand presence in rapidly growing Asia-Pacific medical device market

ATLANTA, GA – (April 29, 2014) – CryoLife, Inc. (NYSE: CRY), a leading medical device and tissue processing company focused on cardiac and vascular surgery, announced today its results for the first quarter of 2014. Revenues for the first quarter of 2014 increased to a first quarter record of \$35.7 million compared to \$35.5 million for the first quarter of 2013.

Steven G. Anderson, president and chief executive officer, said, "During the quarter we made significant progress in advancing our new product initiatives, enhancing our long-term growth potential. We received FDA approval to begin our pivotal clinical trial for PerClot in surgical settings, followed by 510(k) clearance for PerClot Topical. We are now positioned to launch PerClot Topical in the second quarter. We also secured the distribution rights to the ProCol Vascular Bioprosthesis, a vascular access graft that is complementary to the HeRO Graft. In Asia, we established a new regional headquarters in Singapore, which will allow us to more effectively bring our expanding portfolio of medical device products to the high-growth Asia-Pacific region."

Net income for the first quarter of 2014 was \$1.1 million, or \$0.04 per basic and fully diluted common share, compared to net income of \$2.2 million, or \$0.08 per basic and fully diluted common share, for the first quarter of 2013.

Preservation services revenues were \$16.3 million for the first quarter of 2014 compared to \$15.7 million for the first quarter of 2013, an increase of 4 percent. Cardiac preservation service revenues in the first quarter of 2014 increased 8 percent compared to the first quarter of 2013, due to an increase in shipments and average service fees. Vascular preservation services revenues increased 1 percent for the first quarter of 2014 compared to the first quarter of 2013 due to an increase in average service fees, partially offset by a decrease in unit shipments of vascular grafts.

Product revenues were \$19.5 million for the first quarter of 2014 compared to \$19.8 million in the first quarter of 2013. The decrease in product revenues was primarily due to a decrease in revascularization technologies and due to BioGlue® ordering patterns from certain international markets, primarily Japan, where first quarter 2013 revenues exceeded first quarter 2014 revenues by approximately \$800,000. Full year 2014 BioGlue revenues in Japan are expected to exceed BioGlue revenues in Japan for the full year 2013.

HeRO Graft revenues were \$1.6 million for the first quarter of 2014 compared to \$1.3 million in the first quarter of 2013, an increase of 26 percent, due to an increase in unit shipments.

Surgical sealant and hemostat revenues, which consisted primarily of sales of BioGlue and PerClot, were \$16.2 million for the first quarter of 2014 compared to \$16.3 million for the first quarter of 2013. The decrease in surgical sealant and hemostat revenues was primarily due to ordering patterns from certain international markets, primarily Japan.

Revascularization technologies revenues were \$1.7 million for the first quarter of 2014 compared to \$2.2 million for the first quarter of 2013. The decrease in revascularization technologies revenues for the first quarter was primarily due to a decrease in handpiece shipments.

Total gross margins were 63 percent in the first quarter of 2014 compared to 65 percent in the first quarter of 2013. Product gross margins were 80 percent and 82 percent for the first quarters of 2014 and 2013, respectively. Preservation services gross margins were 42 percent and 44 percent in the first quarters of 2014 and 2013, respectively.

General, administrative, and marketing expenses for the first quarters of 2014 and 2013 were \$18.3 million and \$18.0 million, respectively.

Research and development expenses were \$2.5 million and \$2.0 million for the first quarters of 2014 and 2013, respectively. Research and development spending in the first quarter of 2014 was focused on PerClot, tissue processing, and BioGlue and BioFoam.

As of March 31, 2014, the Company had \$38.4 million in cash, cash equivalents, and restricted cash and securities, compared to \$43.0 million at December 31, 2013. Of this \$38.4 million in cash, cash equivalents, and restricted cash and securities, \$5.7 million was designated as restricted cash and securities, primarily due to a financial covenant requirement under the Company's credit agreement. The Company's net cash flows used in operations were \$2.0 million for the first quarter of 2014 compared to \$1.2 million for the first quarter of 2013.

The Company's 2014 financial guidance is summarized below.

2014 Financial Guidance Summary

·	Initial	Revised
Total revenues	\$146 million - \$150 million	
	4% - 7% growth	Same
Tissue processing revenues	Low single-digit % growth	Same
Product revenues	Mid to high single-digit % growth	Same
R&D expenses	\$11.0 million - \$12.0 million	Same
Earnings per share	\$0.21 - \$0.24	\$0.17 - \$0.20, including litigation
Income tax rate	Mid-30% range	Same

The Company's earnings per share guidance includes estimated expenses related to the previously disclosed declaratory judgment action filed by the Company against C.R. Bard, Inc. and certain of its subsidiaries. Earnings per share guidance does not include expenses related to future business development activities and the effect of share repurchases, which cannot currently be estimated.

The Company's financial guidance for the full year of fiscal 2014 is subject to the risks described below in the last paragraph of this press release, prior to the financial tables.

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 April 29 through May 6 and can be accessed by calling (toll free) 877-660-6853 or 201-612-7415. The conference number for the replay is 13580312.

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

CryoLife, Inc. is a leader in medical device manufacturing and distribution and in the processing and distribution of implantable living human tissues for use in cardiac and vascular surgeries. It operates throughout the U.S. and internationally. CryoLife manufactures and distributes BioGlue® Surgical Adhesive, an FDA-approved adjunct to sutures and staples for use in adult patients in open surgical repair

of large vessels. BioGlue is also CE marked in Europe for use in soft tissue repair and has received additional marketing approvals in several other countries throughout the world. CryoLife's BioFoam® Surgical Matrix is CE marked in Europe 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. CryoLife distributes PerClot®, a powdered hemostat, in Europe and other select international countries. CryoLife has received FDA 510(k) clearance for a topical version of PerClot and is conducting a pivotal clinical trial in the U.S. for potential FDA approval of the surgical version of PerClot that is currently distributed outside of the U.S. CryoLife, through its subsidiary Cardiogenesis Corporation, specializes in the treatment of coronary artery disease for severe angina using a laser console system and single-use, fiber-optic handpieces to perform a surgical procedure known as Transmyocardial Revascularization (TMR). CryoLife and its subsidiary Hemosphere, Inc. market the HeRO® Graft, which is a solution for end-stage renal disease in certain hemodialysis patients. CryoLife'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. CryoLife'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.

Statements made in this press release and during the accompanying earnings webcast 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. Such forward-looking statements reflect the views of management at the time such statements are made and are subject to a number of risks, uncertainties, estimates, and assumptions that may cause actual results to differ materially from current expectations. These statements include those regarding: our anticipated performance, generally; our long-term growth potential; timing, plans, and expectations related to the commercialization and distribution of, and expanded indication opportunities for, PerClot Topical in the U.S.; estimates regarding the U.S. and European hemostatic market size; our expectations regarding the timing of the clinical testing for, and pre-market approval and commercialization of, PerClot; the potential effects of the change in the expiration dating of our BioGlue 5ml product and our temporary cessation of tissue shipments; our full-year revenue estimates for BioGlue; our plans for direct distribution in Switzerland; the potential growth opportunities for HeRO Graft; FDA approval of Hancock Jaffe Laboratories, Inc.'s PMA Supplement associated with its new manufacturing operations and our corresponding full commercial launch of ProCol, as well as the timing of such approval and launch; the anticipated outcome of our declaratory judgment action filed against C.R. Bard, Inc. and certain of its subsidiaries ("Bard"); expansion of our medical device product opportunities in the Asia-Pacific region, including expanded indications for BioGlue in Japan and approvals for PerClot in Japan and China; and our anticipated performance and expected effective income tax rate for fiscal 2014. The risks and uncertainties affecting these statements include that: the success of efforts related to any of our product lines is subject to factors beyond our control, including general economic conditions, physician and patient acceptance of our products, our potential inability to maintain reimbursement approvals and maintain and expand reimbursement rates, and regulatory approvals; competing products may be introduced into the market that may materially affect sales growth for our products; our expected fiscal 2014 effective tax rate assumes enactment and application of the federal research and development tax credit for 2014, however, our effective tax rate could be adversely affected if the tax credit is not enacted as expected or at all; our anticipated performance and expected effective income tax rate for fiscal 2014 are subject to the general risks associated with our business, which, in addition to those discussed above, include that we are significantly dependent on our revenues from BioGlue and are subject to a variety of risks affecting this product, including the risk that BioGlue may be the subject of adverse developments with regard to its safety, efficacy, or reimbursement practices; competitors have obtained FDA approval for indications in which BioGlue has been used off-label and for which we cannot market BioGlue; we may not receive expanded approvals for BioGlue in Japan or approval in China in the timeframe anticipated or not at all, which would materially adversely affect our ability to realize our marketing strategies to grow revenues in the Asia-Pacific region; our products and tissues are subject to many significant risks; we have taken certain corrective actions and have proposed to the FDA other corrective actions in response to Forms 483 and a Warning Letter received from the FDA related to the manufacture of medical devices and our processing, preservation, and distribution of human tissue; however, the FDA may determine that our corrective actions have not adequately addressed the issues raised in the Forms 483 or Warning Letter; if we have failed to adequately address the concerns raised by the FDA, we could be subject

to additional regulatory action by the FDA, including recalls, injunctions, or legal action, and further actions required to be taken in response to such inspections could adversely affect the availability of our products and tissues and our cost structure; there is no guarantee that we will complete our PerClot Topical commercialization and distribution efforts in accordance with our expected timeframes; even if we complete such commercialization and distribution efforts timely, we may be unsuccessful in our attempts to sell PerClot Topical in the U.S. or for specific markets or indications; there is also no guarantee that the FDA will approve PerClot for distribution in the U.S. in accordance with our expected timeframe, if at all; clinical trials are subject to a number of risks, including unanticipated reactions or results, delays, and cost overages, and we may ultimately be unsuccessful in our clinical trials and/or may be unable to obtain FDA approval to market PerClot in the U.S.; the estimated U.S. and European topical and total hemostatic markets may ultimately be smaller and/or more difficult, time-consuming, and/or expensive to penetrate than the Company anticipates; our declaratory judgment action against Bard will be expensive, it may continue for longer and be costlier than we anticipate, we may incur costs associated with the action earlier or later than we anticipate, and there is no guarantee that we will ultimately prevail; if we do not prevail in such action, or if Bard obtains an injunction, we may be prohibited from selling PerClot and PerClot Topical in the U.S., or we may have to pay substantial royalties or damages when we sell PerClot or PerClot Topical in the U.S.: our ability to fully realize our investment in Starch Medical. Inc. is dependent on our ability to sell PerClot and PerClot Topical in the U.S. at a reasonable rate of return, which may be materially negatively impacted by any royalty that we might be required to pay; we will not fully realize the potential benefits of the distribution agreement with Hancock Jaffe if it fails to obtain FDA approval of its PMA Supplement associated with its new manufacturing facilities; Hancock Jaffe may experience delays and/or difficulties in obtaining the FDA approval, or events could transpire that prevent Hancock Jaffe from making the manufacturing facilities operational at all; we may experience currently unforeseen difficulties related to our ability to successfully market and distribute ProCol; our beliefs regarding the market opportunity for ProCol may be incorrect, and even if correct, there is no guarantee that we will successfully grow ProCol sales or fully realize the potential benefits of any clinical advantages of the product; our controlled European launch of the HeRO device may not be successful; integration efforts with respect to newly acquired products may be more costly and take longer than expected; we may receive impaired materials or supplies that do not meet our standards; the recall of materials or supplies by our vendors or suppliers or our inability to obtain materials and supplies could have a material, adverse effect on our business; we continue to evaluate expansion through acquisitions, licenses, investments, and other distribution arrangements in other companies or technologies, which contain significant risks; our sales are affected by challenging domestic and international economic conditions and their constraining effect on hospital budgets; demand for our products and tissues could decrease in the future, which could have a material, adverse effect on our business; healthcare policy changes, including recent federal legislation to reform the U.S. healthcare system, may have a material, adverse effect on our business; key growth strategies may not generate the benefits we anticipate; we may not be successful in obtaining necessary clinical results and regulatory approvals for services and products in development; our new services and products may not achieve market acceptance; uncertainties related to patents and protection of proprietary technology may adversely affect the value of our intellectual property or may result in our payment of significant monetary damages and/or royalty payments, negatively affecting our ability to sell current or future products, or prohibiting us from enforcing our patent and other proprietary technology rights against others; intense competition may affect our ability to operate profitably; we are dependent on the availability of sufficient quantities of tissue from human donors; consolidation in the healthcare industry could continue to result in demands for price concessions, limits on the use of our products and tissues, and limitations on our ability to sell to certain of our significant market segments; the success of many of our products and tissues depends upon strong relationships with physicians; our existing insurance policies may not be sufficient, and we may be unable to obtain insurance in the future; our credit facility, which expires in October 2014, limits our ability to pursue significant acquisitions and also may limit our ability to borrow; continued fluctuation of foreign currencies relative to the U.S. dollar could materially, adversely affect our business; rapid technological change could cause our products and services to become obsolete; we are dependent on key personnel; our expectations regarding earnings per share for 2014 include anticipated 2014 expenses for research and development; if research and development expenses are higher than expected, our actual 2014 earnings per share would be lower than projected; to the extent that we engage in significant litigation or acquisition activities (including the declaratory judgment action against Bard) and/or if our litigation expenses associated with the action against Bard exceed the amount currently included in our guidance projections, our 2014 expenses and earnings per share could be significantly negatively affected; share repurchases are affected by the trading price of our common stock, and we typically purchase more shares when the stock price decreases than we would at higher prices, subject to availability of cash and competing uses for our cash; as a result, changes in the stock price may affect share repurchases, ultimately affecting shares outstanding and our earnings per share calculation. These risks and uncertainties include the risk factors detailed in our Securities and Exchange Commission filings, including our Form 10-K for the year ended December 31, 2013 and our subsequent filings with the SEC. CryoLife 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,	
	2014	2013
	(Unau	dited)
Revenues: Products	010.455	010.706
Products Preservation services	\$19,455 16,276	\$19,796 15,677
Other	10,270	63
Total revenues	35,731	35,536
	35,/31	35,530
Cost of products and preservation services: Products	3,801	2 165
Preservation services	9,457	3,465 8,795
Total cost of products and preservation services	13,258	12,260
Gross margin	22,473	23,276
Operating expenses:	10.55	1-0
General, administrative, and marketing	18,275	17,977
Research and development	2,502	1,988
Total operating expenses	20,777	19,965
Operating income	1,696	3,311
Interest expense	61	50
Interest income	(3)	(2)
Other (income) expense, net	(99)	219
Income before income taxes	1,737	3,044
Income tax expense	678	852
Net income	\$ 1,059	\$ 2,192
Income per common share:		
Basic	\$ 0.04	\$ 0.08
Diluted	\$ 0.04	\$ 0.08
Dividends declared per common share		\$0.0250
Weighted-average common shares outstanding:	\$0.0275	
Basic	27,376	26,861
Diluted	28,463	27,488

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

		Three Months Ended March 31,	
	2014	2013	
	(Una	udited)	
Products:			
BioGlue and BioFoam	\$15,240	\$15,464	
PerClot	916	864	
Revascularization technologies	1,684	2,191	
HeRO Graft	1,615	1,277	
Total products	19,455	19,796	
Preservation services:			
Cardiac tissue	7,190	6,645	
Vascular tissue	9,086	9,032	
Total preservation services	16,276	15,677	
Other	<u> </u>	63	
Total revenues		\$35,536	
Revenues:			
U.S.	\$27,432	\$26,577	
International	8,299	8,959	
Total revenues		\$35,536	

	March 31, 2014 (Unaudited)	December 31, 2013 (Audited)
Cash, cash equivalents, and restricted cash and securities	\$ 38,447	\$ 42,993
Total current assets	105,852	106,327
Total assets	173,517	174,683
Total current liabilities	18,363	20,722
Total liabilities	27,947	29,936
Shareholders' equity	145,570	144,747