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 10, 2004

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

Florida (State or other jurisdiction of incorporation)

1-1316559-2417093(Commission File Number)(IRS Employer Identification No.)

1655 Roberts Boulevard N.W., Kennesaw, Georgia 30144 (Address of principal executive offices, including zip code)

(770) 419-3355 (Registrant's telephone number, including area code)

 $$\rm N/A$$ (Former name or former address, if changed since last report)

ITEM 7. FINANCIAL STATEMENTS AND EXHIBITS.

(a) Financial Statements.

Not applicable.

(b) Pro Forma Financial Information.

Not applicable.

(c) Exhibits.

Exhibit Number Description ------99.1 Press Release dated May 10, 2004

ITEM 12. RESULTS OF OPERATIONS AND FINANCIAL CONDITION

The information provided pursuant to this Item 12 is to be considered "filed" under the Securities Exchange Act of 1934 ("Exchange Act") and incorporated by reference into those filings of CryoLife, Inc. ("CryoLife") that provide for the incorporation of all reports and documents filed by CryoLife under the Exchange

On May 10, 2004, CryoLife issued a press release announcing its results for the quarter ended March 31, 2004. CryoLife hereby incorporates by reference herein the information set forth in its Press Release dated May 10, 2004, 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 such press release shall not create any implication that the affairs of CryoLife have continued unchanged since such date.

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 Releases. For further information on other risk factors, please refer to the "Risk Factors" contained in CryoLife's Form 10-K for the year ended December 31, 2003, CryoLife's Form S-3 (Registration No. 333-112673), as filed with the Securities and Exchange commission ("SEC") and any subsequent SEC filings. CryoLife disclaims any obligation or duty to update or modify these forward-looking statements.

2

SIGNATURES

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

CRYOLIFE, INC.

Date: May 10, 2004

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

3

EXHIBIT INDEX

Exhibit Number	Description	Page
99.1	Press Release dated May 10, 2004	5

Act.

[CRYOLIFE, INC. LOGO]

NEWS RELEASE

FOR IMMEDIATE RELEASE

CONTACT: JOSEPH T. SCHEPERS VICE PRESIDENT, CORPORATE COMMUNICATIONS (770) 419-3355

> CRYOLIFE FIRST QUARTER 2004 REVENUES UP 18% OVER FOURTH QUARTER 2003

CONTINUED STRONG GROWTH OF U.S. AND INTERNATIONAL BIOGLUE(R) SALES. POSITIVE TREND IN HUMAN TISSUE PROCESSING REVENUES.

ATLANTA...(May 10, 2004)...CryoLife, Inc. (NYSE: CRY), a bio-surgical device and human tissue processing company, today reported financial results for the first quarter of 2004.

Revenues for the first quarter of 2004 were \$15.1 million, an increase of 18% compared to the fourth quarter of 2003. Revenues for the first quarter of 2003 were \$15.9 million. Net loss for the first quarter of 2004 was \$7.0 million compared to a net loss of \$7.2 million in the fourth quarter of 2003 and a net loss of \$434,000 in the first quarter of 2003. On a fully diluted basis, the loss per common share for the first quarter of 2004 was \$0.32 compared to a net loss per share of \$0.37 in the fourth quarter of 2003 and a net loss per share of \$0.02 in the first quarter of 2003.

BioGlue sales in the first quarter of 2004 increased 11% to \$8.6 million compared to \$7.8 million in the fourth quarter of 2003 and increased 33% compared to \$6.5 million in the first quarter of 2003. BioGlue revenues are expected to increase by 19-26% to between \$33 and \$35 million in 2004 from \$27.8 million in 2003. Projected BioGlue revenue for the second quarter is \$8.5-\$9.0 million.

-More-

1655 Roberts Boulevard, NW o Kennesaw, Georgia 30144 (770)419-3355 Phone o (770)426-0031 Fax o e-mail: info@cryolife.com http://www.cryolife.com

Page 2 of 5

BioGlue can be distributed in 50 countries. Surgeons in the U.S. are utilizing it as an adjunct to standard methods, such as sutures and staples, to control bleeding in open surgical repair of large vessels. It is being used in the European community in the surgical repair of soft tissues, such as vascular, cardiac, lung, and gastrointestinal as well as dura sealing for use in brain and spinal surgery. "International BioGlue sales growth of 24% in the first quarter of 2004 compared to the first quarter of 2003 was driven by the U.K. direct sales representatives, strong distribution support throughout Europe, increased usage of BioGlue in the core applications of cardiac and large vascular surgery, G. Anderson, President and CEO.

"Recently, there have been several presentations and publications, both in the U.S. and abroad, describing the use of BioGlue for various surgical indications. This positive data has been an important factor driving BioGlue sales growth," said Mr. Anderson.

Tissue processing revenues including cardiac, vascular, and orthopaedic tissue, increased 26% to \$6.2 million in the first quarter of 2004 compared to \$4.9 million in the fourth quarter of 2003. Total tissue processing revenues are expected to increase by 4-10% to between \$32 and \$34 million in 2004 from \$30.8 million in 2003. Projected tissue processing revenue for the second quarter is \$6.7-\$7.5 million.

Cardiac tissue processing revenues were \$3.4 million in the first quarter of 2004, compared to \$2.8 million in the fourth quarter of 2003. Vascular tissue processing revenues were \$2.5 million in the first quarter of 2004 compared to \$2.0 million in the fourth quarter of 2003. Orthopaedic revenues were \$309,000 in the first quarter of 2004 compared to \$166,000 in the fourth quarter of 2003.

Total tissue processing and product revenues are projected to be between \$15.3 and \$16.6 million in the second quarter of 2004, up from \$15.1 million for the first quarter of 2004. Total tissue processing and product revenues are expected to increase 12-19% to \$66-\$70 million for the full year 2004.

General, administrative, and marketing expenses are expected to be approximately \$42-\$46 million in 2004, while research and development expenses are expected to be approximately \$4 million in 2004. For the second quarter of 2004, the Company expects general, administrative, and marketing expenses of approximately \$10-\$11 million, and expects research and development expenses to be approximately \$1 million.

Page 3 of 5

Separately, the Company noted that, in connection with its Form S-3 Filing, the Securities and Exchange Commission ("SEC") has conducted a review of the Company's 10-K and 10-Q's. As a result of this review, the Company is addressing with the SEC the accounting treatment for its product liability cases. The Company believes that the results of the review will not change its previously reported operating results. The Company's Form 10-Q will be delayed in order to allow the Company time to complete its communications with the SEC regarding its review.

Since the beginning of 2003 the Company has settled approximately 30 product liability claims, which has reduced the number of product liability cases pending against the Company to 10, four of which are covered by insurance. As of March 31, 2004, the Company had approximately \$25.4 million in aggregate cash, cash equivalents, and marketable securities. Additionally, the Company expects to receive tax refunds of approximately \$2.4 million in the second half of 2004.

The Company will hold a teleconference call and live web cast today at 11:15 a.m. Eastern Time, to discuss first quarter 2004 results, followed by a question and answer session hosted by Steven G. Anderson, CryoLife President and Chief Executive Officer.

To listen to the live teleconference, please dial 973-935-8505 a few minutes prior to 11:15 a.m. No identification number is required. A replay of the teleconference will be available May 10 through May 14 and can be accessed by calling (toll free) 877-519-4471 or 973-341-3080. The identification number for the replay is 4701009.

The live web cast can be accessed by going to the Investor Relations section of the CryoLife web site at www.cryolife.com.

Founded in 1984, CryoLife, Inc. is a leader in the processing and distribution of implantable living human tissues for use in cardiovascular and vascular surgeries throughout the United States and Canada. 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 and is CE marked in the European Community and approved in Canada for use in soft tissue repair and approved in Australia for use in vascular and pulmonary sealing and repair. The Company also manufactures the SynerGraft Vascular Graft, which is CE marked for distribution within the European Community.

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 future events may not occur as and when expected, if at all, and,

together with the Company's business, are subject to various risks and uncertainties. These risks and uncertainties include that the Company's 2004 revenues and expenses may not meet its expectations, that the Company's 2004 BioGlue revenues may not meet its expectations, that the demand for CryoLife preserved tissues may not return to prior levels, that the Company's 10-Q may be delayed, the possibility that the FDA could impose additional restrictions on the Company's operations, require a recall, or prevent the Company from processing and distributing tissues or manufacturing and distributing other products, that FDA regulations of the Company's CryoValve SG and CryoVein SG may require significant time and expense, that the protein hydrogel products under development may not be commercially feasible, that the Company may not have sufficient borrowing or other capital availability to fund its business, that pending litigation cannot be settled on terms acceptable to the Company, that the Company may not have sufficient resources to pay punitive damages (which are not covered by insurance) or other liabilities in excess of available insurance, the possibility of severe decreases in the Company's revenues and working capital, that to the extent the Company does not have sufficient resources to pay the claims against it, it may be forced to cease operations or seek protection under applicable bankruptcy laws, changes in laws and regulations applicable to CryoLife and other risk factors detailed in CryoLife's Securities and Exchange Commission filings, including CryoLife's Form 10-K filing for the year ended December 31, 2003, and the Company's other SEC filings. The Company does not undertake to update its forward-looking statements.

For additional information about the company, visit CryoLife's Web site: $\label{eq:http://www.cryolife.com} http://www.cryolife.com$

Page 5 of 5

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

		Three Months Ended March 31,	
	2004	2003	
Revenues: Human tissue preservation services Products Grant Total revenues	\$ 6,225 8,859 2	\$ 9,130 6,599 191 	
Costs and expenses: Human tissue preservation services Products General, administrative, and marketing Research and development Interest expense Interest income Other expense (income), net	10,148 921 43	1,641 11,592 917 132 (131)	
Total costs and expenses Loss before income taxes Income tax expense (benefit)	22,112 (7,026) 		
Net loss		\$ (434)	
Loss per share: Basic	\$ (0.32)	\$ (0.02)	

Diluted	\$ (0.32)	\$ (0.02)
Weighted average shares outstanding:		
Basic	22,241	19,634
Diluted		19,634
Revenues from:		
Cardiovascular	\$ 3,430	
Vascular	2,486	4,255
Orthopaedic	309	150
Total cryopreservation	6,225	9,130
BioGlue	8,643	6,494
Implantable medical devices	216	105
Grant	2	191
Total revenues	\$ 15,086	\$ 15,920
International revenues	\$ 2,092	
Domestic revenues	12,994	14,210
Total revenues	\$ 15,086	\$ 15,920