

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

FORM 10-Q

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

For the quarterly period ended **June 30, 2013**

OR

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

For the transition period from \_\_\_\_\_ to \_\_\_\_\_

Commission file number: 1-13165

**CRYOLIFE, INC.**

(Exact name of registrant as specified in its charter)

**Florida**  
(State or other jurisdiction of  
incorporation or organization)

**59-2417093**  
(I.R.S. Employer  
Identification No.)

**1655 Roberts Boulevard, NW, Kennesaw, Georgia**  
(Address of principal executive offices)

**30144**  
(Zip Code)

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

**Not Applicable**  
(Former name, former address and former fiscal year, if changed since last report)

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes  No

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). Yes  No

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer or a smaller reporting company. See the definitions of "large accelerated filer," "accelerated filer" and "smaller reporting company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer

Accelerated filer

Non-accelerated filer  (Do not check if a smaller reporting company)

Smaller reporting company

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act).

Yes

No

Indicate the number of shares outstanding of each of the issuer's classes of common stock, as of the latest practicable date.

**Class**

**Outstanding at July 22, 2013**

Common Stock, \$.01 par value per share

27,618,099 Shares

Part I – FINANCIAL INFORMATION

Item 1. Financial Statements.

**CRYOLIFE, INC. AND SUBSIDIARIES**  
**SUMMARY CONSOLIDATED STATEMENTS OF OPERATIONS AND COMPREHENSIVE INCOME**  
**(IN THOUSANDS, EXCEPT PER SHARE DATA)**

	Three Months Ended June 30,		Six Months Ended June 30,	
	2013	2012	2013	2012
	(Unaudited)		(Unaudited)	
<b>Revenues:</b>				
Products	\$ 18,195	\$ 16,696	\$ 37,991	\$ 33,150
Preservation services	15,317	16,313	30,994	31,972
Other	8	179	71	367
<b>Total revenues</b>	<b>33,520</b>	<b>33,188</b>	<b>69,056</b>	<b>65,489</b>
<b>Cost of products and preservation services:</b>				
Products	3,721	2,673	7,186	5,186
Preservation services	8,320	9,144	17,115	17,640
<b>Total cost of products and preservation services</b>	<b>12,041</b>	<b>11,817</b>	<b>24,301</b>	<b>22,826</b>
<b>Gross margin</b>	<b>21,479</b>	<b>21,371</b>	<b>44,755</b>	<b>42,663</b>
<b>Operating expenses:</b>				
General, administrative, and marketing	16,932	13,871	34,909	31,841
Research and development	1,736	1,670	3,724	3,363
<b>Total operating expenses</b>	<b>18,668</b>	<b>15,541</b>	<b>38,633</b>	<b>35,204</b>
<b>Operating income</b>	<b>2,811</b>	<b>5,830</b>	<b>6,122</b>	<b>7,459</b>
Interest expense	54	52	104	117
Interest income	—	(1)	(2)	(3)
Other expense, net	22	174	241	159
<b>Income before income taxes</b>	<b>2,735</b>	<b>5,605</b>	<b>5,779</b>	<b>7,186</b>
Income tax expense	950	2,271	1,802	2,861
<b>Net income</b>	<b>\$ 1,785</b>	<b>\$ 3,334</b>	<b>\$ 3,977</b>	<b>\$ 4,325</b>
<b>Income per common share:</b>				
<b>Basic</b>	<b>\$ 0.06</b>	<b>\$ 0.12</b>	<b>\$ 0.14</b>	<b>\$ 0.16</b>
<b>Diluted</b>	<b>\$ 0.06</b>	<b>\$ 0.12</b>	<b>\$ 0.14</b>	<b>\$ 0.15</b>
<b>Dividends declared per share</b>	<b>\$ 0.0275</b>	<b>\$ —</b>	<b>\$ 0.0525</b>	<b>\$ —</b>
<b>Weighted-average common shares outstanding:</b>				
Basic	26,856	26,864	26,858	27,022
Diluted	27,369	27,177	27,456	27,362
<b>Net income</b>	<b>\$ 1,785</b>	<b>\$ 3,334</b>	<b>\$ 3,977</b>	<b>\$ 4,325</b>
Other comprehensive income	54	6	21	8
<b>Comprehensive income</b>	<b>\$ 1,839</b>	<b>\$ 3,340</b>	<b>\$ 3,998</b>	<b>\$ 4,333</b>

See accompanying Notes to Summary Consolidated Financial Statements.

**CRYOLIFE, INC. AND SUBSIDIARIES**  
**SUMMARY CONSOLIDATED BALANCE SHEETS**  
**(IN THOUSANDS)**

	<b>June 30, 2013</b>	<b>December 31, 2012</b>
	(Unaudited)	
<b>ASSETS</b>		
<b>Current assets:</b>		
Cash and cash equivalents	\$ 11,732	\$ 13,009
Restricted securities	308	323
Receivables, net	18,799	16,520
Deferred preservation costs	27,329	27,954
Inventories	10,842	10,557
Deferred income taxes	5,251	6,100
Prepaid expenses and other	3,692	3,040
<b>Total current assets</b>	<b>77,953</b>	<b>77,503</b>
Property and equipment, net	11,958	11,667
Investment in equity securities	5,908	5,908
Restricted cash	5,000	5,000
Goodwill	11,365	11,365
Patents, net	2,028	2,114
Trademarks and other intangibles, net	21,116	21,968
Notes receivable	2,000	2,000
Deferred income taxes	16,939	16,564
Other	3,531	3,067
<b>Total assets</b>	<b>\$ 157,798</b>	<b>\$ 157,156</b>
<b>LIABILITIES AND SHAREHOLDERS' EQUITY</b>		
<b>Current liabilities:</b>		
Accounts payable	\$ 3,729	\$ 3,775
Accrued compensation	3,341	5,055
Accrued procurement fees	4,926	4,762
Accrued expenses and other	6,470	6,437
Deferred income	354	1,401
<b>Total current liabilities</b>	<b>18,820</b>	<b>21,430</b>
Contingent consideration liability	1,990	1,912
Other	6,193	5,702
<b>Total liabilities</b>	<b>27,003</b>	<b>29,044</b>
<b>Commitments and contingencies</b>		
<b>Shareholders' equity:</b>		
Preferred stock	—	—
Common stock (issued shares of 27,798 in 2013 and 27,486 in 2012)	278	275
Additional paid-in capital	124,188	122,414
Retained earnings	8,070	5,536
Accumulated other comprehensive loss	(18)	(39)
Treasury stock at cost (shares of 287 in 2013 and 14 in 2012)	(1,723)	(74)
<b>Total shareholders' equity</b>	<b>130,795</b>	<b>128,112</b>
<b>Total liabilities and shareholders' equity</b>	<b>\$ 157,798</b>	<b>\$ 157,156</b>

See accompanying Notes to Summary Consolidated Financial Statements.

**CRYOLIFE, INC. AND SUBSIDIARIES**  
**SUMMARY CONSOLIDATED STATEMENTS OF CASH FLOWS**  
**(IN THOUSANDS)**

	Six Months Ended June 30,	
	2013	2012
	(Unaudited)	
<b>Net cash flows from operating activities:</b>		
Net income	\$ 3,977	\$ 4,325
Adjustments to reconcile net income to net cash from operating activities:		
Depreciation and amortization	2,940	2,735
Non-cash compensation	1,558	1,496
Deferred income taxes	474	1,264
Other non-cash adjustments to income	791	457
Changes in operating assets and liabilities:		
Receivables	(2,279)	(6,711)
Deferred preservation costs and inventories	(259)	(1,293)
Prepaid expenses and other assets	(1,116)	(1,256)
Accounts payable, accrued expenses, and other liabilities	(2,051)	3,911
<b>Net cash flows provided by operating activities</b>	<b>4,035</b>	<b>4,928</b>
<b>Net cash flows from investing activities:</b>		
Acquisition of Hemosphere, net of cash acquired	—	(17,055)
Capital expenditures	(2,257)	(1,548)
Other	(115)	(723)
<b>Net cash flows used in investing activities</b>	<b>(2,372)</b>	<b>(19,326)</b>
<b>Net cash flows from financing activities:</b>		
Cash dividends paid	(1,443)	—
Proceeds from exercise of stock options and issuance of common stock	242	146
Repurchases of common stock	(1,378)	(3,389)
Other	(406)	(74)
<b>Net cash flows used in financing activities</b>	<b>(2,985)</b>	<b>(3,317)</b>
<b>Decrease in cash and cash equivalents</b>	<b>(1,322)</b>	<b>(17,715)</b>
Effect of exchange rate changes on cash	45	9
Cash and cash equivalents, beginning of period	13,009	21,705
<b>Cash and cash equivalents, end of period</b>	<b>\$ 11,732</b>	<b>\$ 3,999</b>

See accompanying Notes to Summary Consolidated Financial Statements.

**CRYOLIFE, INC. AND SUBSIDIARIES**  
**NOTES TO SUMMARY CONSOLIDATED FINANCIAL STATEMENTS**  
**(UNAUDITED)**

**1. Basis of Presentation**

The accompanying summary consolidated financial statements include the accounts of CryoLife, Inc. and its subsidiaries (“CryoLife,” the “Company,” “we,” or “us”). All significant intercompany accounts and transactions have been eliminated in consolidation. The accompanying Summary Consolidated Balance Sheet as of December 31, 2012 has been derived from audited financial statements. The accompanying unaudited summary consolidated financial statements as of and for the three and six months ended June 30, 2013 and 2012 have been prepared in accordance with (i) accounting principles generally accepted in the U.S. for interim financial information and (ii) the instructions to Form 10-Q and Rule 10-01 of Regulation S-X of the U.S. Securities and Exchange Commission (“SEC”). Accordingly, such statements do not include all of the information and disclosures required by accounting principles generally accepted in the U.S. for a complete presentation of financial statements. In the opinion of management, all adjustments (including those of a normal, recurring nature) considered necessary for a fair presentation have been included. Operating results for the three and six months ended June 30, 2013 are not necessarily indicative of the results that may be expected for the year ending December 31, 2013. These summary consolidated financial statements should be read in conjunction with the consolidated financial statements and notes thereto included in CryoLife’s Annual Report on Form 10-K for the year ended December 31, 2012.

**2. Financial Instruments**

The following is a summary of the Company’s financial instruments measured at fair value (in thousands):

<b>June 30, 2013</b>	<b>Level 1</b>	<b>Level 2</b>	<b>Level 3</b>	<b>Total</b>
<b>Cash equivalents:</b>				
Money market funds	\$ 722	\$ —	\$ —	\$ 722
<b>Restricted securities:</b>				
Money market funds	308	—	—	308
<b>Total assets</b>	<b>1,030</b>	<b>—</b>	<b>—</b>	<b>1,030</b>
<b>Long-term liabilities:</b>				
Contingent consideration	—	—	(1,990)	(1,990)
<b>Total liabilities</b>	<b>—</b>	<b>—</b>	<b>(1,990)</b>	<b>(1,990)</b>
<b>Net assets (liabilities)</b>	<b>\$ 1,030</b>	<b>\$ —</b>	<b>\$ (1,990)</b>	<b>\$ (960)</b>
<b>December 31, 2012</b>	<b>Level 1</b>	<b>Level 2</b>	<b>Level 3</b>	<b>Total</b>
<b>Cash equivalents:</b>				
Money market funds	\$ 1,319	\$ —	\$ —	\$ 1,319
<b>Restricted securities:</b>				
Money market funds	323	—	—	323
<b>Total assets</b>	<b>1,642</b>	<b>—</b>	<b>—</b>	<b>1,642</b>
<b>Long-term liabilities:</b>				
Contingent consideration	—	—	(1,912)	(1,912)
<b>Total liabilities</b>	<b>—</b>	<b>—</b>	<b>(1,912)</b>	<b>(1,912)</b>
<b>Net assets (liabilities)</b>	<b>\$ 1,642</b>	<b>\$ —</b>	<b>\$ (1,912)</b>	<b>\$ (270)</b>

The Company used prices quoted from its investment management companies to determine the Level 1 valuation of its investments in money market funds and securities. The Company has changed the presentation of its December 31, 2012 money market funds to Level 1 from Level 2, consistent with its current year presentation. The Company recorded a contingent consideration liability, classified as Level 3, as a result of its acquisition of Hemisphere, Inc. (“Hemisphere”) in May 2012. Refer to Note 4 for further discussion of the Level 3 contingent consideration liability.

Changes in fair value of Level 3 liabilities are listed below (in thousands):

	<b>Contingent Consideration</b>
Balance as of December 31, 2012	\$ 1,912
Loss on remeasurement of contingent consideration	78
Balance as of June 30, 2013	<u>\$ 1,990</u>

### 3. Cash Equivalents and Restricted Cash and Securities

The following is a summary of cash equivalents and restricted cash and securities (in thousands):

	<b>Cost Basis</b>	<b>Unrealized Holding Gains</b>	<b>Estimated Market Value</b>
<b>June 30, 2013</b>			
Cash equivalents:			
Money market funds	\$ 722	\$ —	\$ 722
Restricted cash and securities:			
Cash	5,000	—	5,000
Money market funds	308	—	308
<b>December 31, 2012</b>			
Cash equivalents:			
Money market funds	\$ 1,319	\$ —	\$ 1,319
Restricted cash and securities:			
Cash	5,000	—	5,000
Money market funds	323	—	323

As of June 30, 2013 and December 31, 2012 \$308,000 and \$323,000, respectively, of the Company's money market funds were designated as short-term restricted securities due to a contractual commitment to hold the securities as pledged collateral relating to international tax obligations. As of June 30, 2013 and December 31, 2012 \$5.0 million of the Company's cash was designated as long-term restricted cash due to a financial covenant requirement under the Company's credit agreement with General Electric Capital Corporation ("GE Capital"), as discussed in Note 11. This restriction lapses upon expiration of the credit agreement with GE Capital on October 28, 2014.

There were no gross realized gains or losses on cash equivalents in the three and six months ended June 30, 2013 and 2012. As of June 30, 2013 \$308,000 of restricted securities had a maturity date of between three months and one year. As of December 31, 2012 \$323,000 of restricted securities had a maturity date within three months. As of June 30, 2013 and December 31, 2012 \$5.0 million of the Company's restricted cash had no maturity date.

### 4. Hemisphere Acquisition

#### Overview

On May 16, 2012 CryoLife completed its acquisition of 100% of the outstanding equity of Hemisphere, a privately held company, for \$17.0 million in cash, an additional \$3.2 million to pay for cash acquired, and contingent consideration with a fair value estimated to be approximately \$1.8 million at acquisition, for a total purchase price of approximately \$22.0 million. CryoLife used cash on hand to fund the transaction and operates Hemisphere as a wholly owned subsidiary.

Hemisphere is the developer and marketer of the Hemodialysis Reliable Outflow Graft ("HeRO® Graft"), a proprietary graft-based solution for end-stage renal disease hemodialysis patients with limited access options and central venous obstruction.

#### Contingent Consideration

As of the acquisition date, CryoLife recorded a contingent consideration liability of \$1.8 million in long-term liabilities on its Summary Consolidated Balance Sheet, representing the estimated fair value of the contingent consideration expected to be paid to the

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former shareholders of Hemosphere upon the achievement of certain revenue-based milestones. The acquisition agreement provides for a maximum of \$4.5 million in future consideration payments through December 2015 based on specified sales targets.

The fair value of the contingent consideration liability was based on unobservable inputs, including management estimates and assumptions about future revenues, and is, therefore, classified as Level 3 within the fair value hierarchy presented in Note 2. The Company will remeasure this liability at each reporting date and will record changes in the fair value of the contingent consideration in other expense (income), net on the Company's Summary Consolidated Statement of Operations and Comprehensive Income. Increases or decreases in the fair value of the contingent consideration liability can result from changes in discount periods and rates, as well as changes in the timing and amount of Company revenue estimates.

The Company recorded losses of \$39,000 and \$25,000 in the three months ended June 30, 2013 and 2012, respectively, and \$78,000 and \$25,000 in the six months ended June 30, 2013 and 2012, respectively, on the remeasurement of the contingent consideration liability. The losses in the current and prior years are due to the effect of the passage of time on the fair value measurements. The balance of the contingent consideration liability was \$2.0 million as of June 30, 2013 and \$1.9 million as of December 31, 2012.

#### ***Accounting for the Transaction***

The Company recorded an allocation of the \$22.0 million purchase price to Hemosphere's tangible and identifiable intangible assets acquired and liabilities assumed based on their fair values as of May 16, 2012. Goodwill was recorded based on the amount by which the purchase price exceeded the fair value of the net assets acquired, and is not deductible for tax purposes. Goodwill from this transaction has been allocated to the Company's medical devices segment. The purchase price allocation was finalized as of December 31, 2012.

CryoLife incurred transaction and integration costs related to the acquisition of approximately \$2.4 million for the year ended December 31, 2012. These costs were expensed as incurred and were primarily recorded as general, administrative, and marketing expenses on the Company's Summary Consolidated Statement of Operations and Comprehensive Income. The Company incurred integration costs during the three and six months ended June 30, 2013 related to the transfer of manufacturing operations, which will continue into the third quarter of 2013. The Company does not expect to continue to incur significant transaction or integration costs in the fourth quarter of 2013.

#### **5. ValveXchange Investment**

In July 2011 the Company purchased shares of series A preferred stock of ValveXchange, Inc. ("ValveXchange") for approximately \$3.5 million. ValveXchange is a private medical device company that was spun off from Cleveland Clinic to develop a lifetime heart valve replacement technology platform featuring exchangeable bioprosthetic leaflets. The Company's carrying value of this investment includes the purchase price and certain transaction costs, and CryoLife's investment represents an approximate 19% equity ownership in ValveXchange based on ValveXchange's current capitalization. As ValveXchange's stock is not actively traded on any public stock exchange and as the Company's investment is in preferred stock, the Company accounts for this investment using the cost method. The Company recorded its investment as a long-term asset, investment in equity securities, on the Company's Summary Consolidated Balance Sheets.

During the quarter ended June 30, 2013 the Company determined that available information indicated that it should reevaluate its investment in ValveXchange preferred stock for impairment. Based on this updated analysis, the Company does not believe that its investment in ValveXchange was impaired in the second quarter of 2013. If the Company subsequently determines that the value of its ValveXchange stock has been impaired, or if the Company decides to sell its ValveXchange Preferred Stock for less than the carrying value, the resulting impairment charge or realized loss on sale of the investment in ValveXchange could be material.

The carrying value of the Company's 2.4 million shares of ValveXchange preferred stock was \$3.2 million as of June 30, 2013 and December 31, 2012.

#### ***Loan Agreement***

In July 2011 the Company entered into an agreement with ValveXchange, as amended, to make available up to \$2.0 million to ValveXchange in debt financing through a revolving credit facility ("Loan"). The Loan includes various affirmative and negative covenants, including financial covenant requirements, and expires on July 30, 2018, unless terminated earlier. Amounts loaned under the Loan will earn interest at an 8% annual rate and are secured by substantially all of the tangible and intangible assets of ValveXchange. The Company incurred loan origination costs, net of fees charged to ValveXchange, of approximately \$117,000, which are being expensed on a straight-line basis over the life of the loan facility. The Company advanced \$2.0 million to

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ValveXchange under this loan in 2012. The \$2.0 million advance is recorded as long-term notes receivable on the Company's Summary Consolidated Balance Sheets as of June 30, 2013 and December 31, 2012.

ValveXchange is currently attempting to raise additional funds to support its operations until it can obtain a larger financing. On July 22, 2013 CryoLife notified ValveXchange that ValveXchange was in default of certain loan covenants, due to factors including ValveXchange's failure to obtain CryoLife's consent for a certain convertible note financing that ValveXchange obtained in July 2013. ValveXchange has 15 days to cure the defaults and, if it fails to do so, an event of default will exist. CryoLife has been in negotiations with ValveXchange to obtain certain modifications to the Loan in light of this new convertible note. However, if ValveXchange is unable to secure sufficient financing to continue its business, CryoLife may need to foreclose on the related collateral to secure repayment of the Loan. Although CryoLife currently believes that the value of the collateral is adequate to repay the Loan, there is no guarantee that the security for the notes will be sufficient to repay the Loan. If CryoLife is forced to foreclose on the Loan, it may materially, adversely impact the value of CryoLife's preferred stock investment in ValveXchange. The Company may decide to allow ValveXchange to issue shares in payment of some or all of the outstanding debt balance in connection with a future round of financing.

#### ***Option Agreement***

Concurrently with the Loan described above, CryoLife entered into an option agreement with ValveXchange through which CryoLife obtained the right of first refusal to acquire ValveXchange during a period that extends through the completion of initial commercialization milestones and the right to negotiate with ValveXchange for European distribution rights. The Company's rights may be modified or reduced in connection with a future round of financing.

#### **6. CardioFocus Settlement**

On June 14, 2012 CryoLife's subsidiary, Cardiogenesis Corporation ("Cardiogenesis"), entered into a settlement agreement with respect to its litigation with CardioFocus, Inc. ("CardioFocus"). Pursuant to the terms of the settlement agreement, Cardiogenesis paid \$4.5 million in cash to CardioFocus. Cardiogenesis and CardioFocus agreed and acknowledged that each party would bear its own costs and expenses, including attorneys' fees, incurred in or as a result of the litigation. On June 14, 2012 the parties filed a stipulation of dismissal with prejudice in the U.S. District Court for the District of Massachusetts.

As a result of the settlement, the Company recorded an additional loss of \$3.6 million in general, administrative, and marketing expenses on its Summary Consolidated Statement of Operations and Comprehensive Income in the second quarter of 2012 for a total of \$4.1 million in legal settlement expenses for the six months ended June 30, 2012. The Company paid the \$4.5 million settlement payment to CardioFocus in July 2012 using cash on hand.

#### **7. Medafor Matters**

##### ***Investment in Medafor Common Stock***

In 2009 and 2010 CryoLife purchased shares of common stock in Medafor, Inc. ("Medafor"). As financial information for Medafor is not readily available and as the Company does not exert significant influence over the operations of Medafor, the Company accounted for its investment in Medafor common stock using the cost method. The Company recorded the stock as a long-term asset, investment in equity securities, on the Company's Summary Consolidated Balance Sheets.

During the quarter ended June 30, 2013 the Company reviewed available information and determined that no factors were present indicating that the Company should evaluate the carrying value of its cost method investment in Medafor common stock for impairment. The carrying value of the Company's 2.4 million shares of Medafor common stock was approximately \$2.6 million as of both June 30, 2013 and December 31, 2012.

The Company will continue to evaluate the carrying value of this investment if factors become known that indicate the Company should evaluate its investment in Medafor common stock for impairment. If the Company subsequently determines that the value of its Medafor common stock has been impaired, or if the Company decides to sell its Medafor common stock for more or less than the carrying value, the resulting impairment charge or realized gain or loss on sale of the investment in Medafor could be material.

In connection with its purchase of Medafor common stock, the Company entered into agreements with the sellers that could have required CryoLife to make additional payments to the sellers if CryoLife acquired or merged with Medafor within a specified time period. The Company accounted for these provisions as an embedded derivative. The last of these provisions expired in June 2013. As of June 30, 2013 and December 31, 2012 the value of the Medafor Derivative was zero.



### ***Distribution Agreement and Legal Action***

CryoLife distributed a powdered hemostat for Medafor from 2008 to 2010. CryoLife filed a lawsuit against Medafor in 2009 in the U.S. District Court for the Northern District of Georgia (“Georgia Court”). In 2010 Medafor filed counterclaims against CryoLife in the same case. The litigation related to an exclusive distribution agreement that the parties entered into in April 2008.

In June 2012 the parties entered into a settlement agreement. Per the settlement, Medafor paid \$3.5 million in cash to CryoLife in the third quarter of 2012. On June 29, 2012 the parties jointly filed stipulated dismissals with prejudice with the Georgia Court. As a result of the settlement, CryoLife recorded a gain of \$4.7 million as a reduction in general, administrative, and marketing expenses on its Summary Consolidated Statement of Operations and Comprehensive Income in the second quarter of 2012 and recorded a reduction in accounts payable of \$1.2 million to write off a payable for previous inventory purchases, which was discharged pursuant to the settlement agreement.

CryoLife received a letter from Medafor in September 2012 stating that PerClot®, when introduced in the U.S., will, when used in accordance with the method published in CryoLife’s literature and with the instructions for use, infringe Medafor’s U.S. patent. CryoLife does not believe that it will infringe Medafor’s patent. There have been no further communications between CryoLife and Medafor related to the September letter.

### **8. Deferred Preservation Costs and Inventories**

Deferred preservation costs at June 30, 2013 and December 31, 2012 are comprised of the following (in thousands):

	<b>June 30, 2013</b>	<b>December 31, 2012</b>
Cardiac tissues	\$ 12,486	\$ 11,950
Vascular tissues	14,843	16,004
Total deferred preservation costs	<u>\$ 27,329</u>	<u>\$ 27,954</u>

Inventories at June 30, 2013 and December 31, 2012 are comprised of the following (in thousands):

	<b>June 30, 2013</b>	<b>December 31, 2012</b>
Raw materials and supplies	\$ 6,883	\$ 5,836
Work-in-process	747	830
Finished goods	3,212	3,891
Total inventories	<u>\$ 10,842</u>	<u>\$ 10,557</u>

### **9. Goodwill and Other Intangible Assets**

#### ***Indefinite Lived Intangible Assets***

As of June 30, 2013 and December 31, 2012 the carrying values of the Company’s indefinite lived intangible assets are as follows (in thousands):

	<b>June 30, 2013</b>	<b>December 31, 2012</b>
Goodwill	\$ 11,365	\$ 11,365
Procurement contracts and agreements	2,013	2,013
Trademarks	878	870
Other	250	250

Based on its experience with similar agreements, the Company believes that its acquired contracts and procurement agreements have an indefinite useful life, as the Company expects to continue to renew these contracts for the foreseeable future. The Company believes that its trademarks and other acquired technology have an indefinite useful life as the Company currently anticipates that these trademarks and other acquired technology will contribute to cash flows of the Company indefinitely.

As of June 30, 2013 and December 31, 2012 the Company's entire goodwill balance is related to its Medical Devices segment, and there has been no change from the balance recorded as of December 31, 2012.

#### **Definite Lived Intangible Assets**

As of June 30, 2013 and December 31, 2012 the gross carrying values, accumulated amortization, and approximate amortization period of the Company's definite lived intangible assets are as follows (in thousands):

<b>June 30, 2013</b>	<b>Gross Carrying Value</b>	<b>Accumulated Amortization</b>	<b>Amortization Period</b>
Acquired technology	\$ 14,020	\$ 2,107	11 - 16 Years
Patents	4,660	2,632	17 Years
Distribution and manufacturing rights and know-how	3,559	594	15 Years
Customer lists and relationships	3,370	451	13 - 17 Years
Non-compete agreement	381	248	10 Years
Other	192	147	1 - 3 Years

<b>December 31, 2012</b>	<b>Gross Carrying Value</b>	<b>Accumulated Amortization</b>	<b>Amortization Period</b>
Acquired technology	\$ 14,020	\$ 1,538	11 - 16 Years
Patents	4,644	2,530	17 Years
Distribution and manufacturing rights and know-how	3,559	473	15 Years
Customer lists and relationships	3,370	330	13 - 17 Years
Non-compete agreement	381	229	10 Years
Other	198	123	1 - 3 Years

#### **Amortization Expense**

The following is a summary of amortization expense as recorded in general, administrative, and marketing expenses on the Company's Summary Consolidated Statement of Operations and Comprehensive Income (in thousands):

	<b>Three Months Ended June 30,</b>		<b>Six Months Ended June 30,</b>	
	<b>2013</b>	<b>2012</b>	<b>2013</b>	<b>2012</b>
Amortization expense	\$ 508	\$ 474	\$ 1,022	\$ 933

As of June 30, 2013 scheduled amortization of intangible assets for the next five years is as follows (in thousands):

	<b>Remainder of 2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>
Amortization expense	\$ 988	\$ 1,954	\$ 1,911	\$ 1,903	\$ 1,856	\$ 1,847

#### **10. Income Taxes**

The Company's effective income tax rate was approximately 35% and 31% for the three and six months ended June 30, 2013, respectively, as compared to 41% and 40% for the three and six months ended June 30, 2012, respectively. The Company's income tax rate for the six months ended June 30, 2013 was favorably impacted by the full year 2012 research and development tax credit, which was enacted in January 2013 and, therefore, reduced the Company's tax expense during the first quarter of 2013. The Company's income tax rate in 2012 was negatively impacted by the absence of a research and development tax credit, which was not enacted for the 2012 tax year during 2012.

Deferred income taxes reflect the net tax effect of temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and tax return purposes. The Company generates deferred tax assets primarily as a result of book write-downs, reserves, or impairments which are not immediately deductible for tax return purposes. The Company acquired significant deferred tax assets, primarily net operating loss carryforwards, from its acquisitions of Hemisphere and Cardiogenesis in the second quarters of 2012 and 2011, respectively. The Company currently estimates that a portion of its state net operating

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loss carryforwards will not be recoverable and has, therefore, recorded a valuation allowance against these state net operating loss carryforwards.

As of June 30, 2013 the Company maintained a total of \$2.3 million in valuation allowances against deferred tax assets, related to state net operating loss carryforwards, and a net deferred tax asset of \$22.2 million. As of December 31, 2012 the Company had a total of \$2.3 million in valuation allowances against deferred tax assets and a net deferred tax asset of \$22.7 million.

## **11. Debt**

### ***GE Credit Agreement***

CryoLife's amended and restated credit agreement with GE Capital (the "GE Credit Agreement") provides revolving credit for working capital, acquisitions, and other corporate purposes. The GE Credit Agreement has a borrowing capacity of \$20.0 million (including a letter of credit subfacility) and expires on October 28, 2014. The commitment may be reduced or increased from time to time pursuant to the terms of the GE Credit Agreement.

The GE Credit Agreement places limitations on the amount that the Company may borrow and includes various affirmative and negative covenants, including financial covenants such as a requirement that CryoLife (i) not exceed a defined leverage ratio, (ii) maintain a minimum adjusted earnings subject to defined adjustments as of specified dates, and (iii) not make or commit capital expenditures in excess of a defined limitation. The agreement also limits the payment of cash dividends, up to a maximum of \$3.5 million per year, subject to satisfaction of specified conditions. As required under the terms of the GE Credit Agreement, the Company is maintaining cash and cash equivalents of at least \$5.0 million in accounts in which GE Capital has a first priority perfected lien. These amounts are recorded as restricted cash as of June 30, 2013 and December 31, 2012 on the Company's Summary Consolidated Balance Sheets, as they are restricted for the term of the GE Credit Agreement. Also, the GE Credit Agreement requires that after giving effect to a stock repurchase the Company maintain liquidity, as defined within the agreement, of at least \$20.0 million. The GE Credit Agreement includes customary conditions on incurring new indebtedness. Commitment fees are paid based on the unused portion of the facility. As of June 30, 2013 the Company was in compliance with the covenants of the GE Credit Agreement.

Amounts borrowed under the GE Credit Agreement are secured by substantially all of the tangible and intangible assets of CryoLife and its subsidiaries and bear interest as determined by GE Capital at either LIBOR, with a minimum rate of 4.25%, or GE Capital's base rate, with a minimum rate of 3.25% each, plus the applicable margin. As of June 30, 2013 and December 31, 2012 the outstanding balance of the GE Credit Agreement was zero, the aggregate interest rate was 6.50%, and the remaining availability was \$20.0 million.

### ***Other***

Interest expense was \$54,000 and \$104,000 for the three and six months ended June 30, 2013, respectively, and \$52,000 and \$117,000 for the three and six months ended June 30, 2012, respectively, which included interest on debt and uncertain tax positions.

## 12. Commitments and Contingencies

### *Liability Claims*

The estimated unreported tissue processing and product loss liability and any related recoverable insurance amounts are as follows (in thousands):

	<b>June 30, 2013</b>	<b>December 31, 2012</b>
Short-term liability	\$ 850	\$ 895
Long-term liability	680	755
Total liability	1,530	1,650
Short-term recoverable	310	320
Long-term recoverable	270	300
Total recoverable	580	620
Total net unreported loss liability	<u>\$ 950</u>	<u>\$ 1,030</u>

Further analysis indicated that the liability as of June 30, 2013 could be estimated to be as high as \$2.9 million, after including a reasonable margin for statistical fluctuations calculated based on actuarial simulation techniques.

### *Employment Agreement*

The Company has an employment agreement with its Chief Executive Officer ("CEO") that confers benefits which become payable upon the occurrence of certain events, including the voluntary retirement of the CEO or termination of the CEO's employment in conjunction with certain change in control events. As of both June 30, 2013 and December 31, 2012 the Company had \$2.1 million in accrued expenses and other current liabilities on the Summary Consolidated Balance Sheets representing benefits payable upon the CEO's voluntary retirement, for which he is currently eligible. The CEO's current employment agreement took effect on January 1, 2013 and terminates on December 31, 2015. A payment of \$100,000 was made to the CEO in January 2013 in accordance with the terms of the new employment agreement.

## 13. Shareholders' Equity

### *Common Stock Repurchase*

On November 1, 2011 the Company announced that its Board of Directors had authorized the Company's purchase of \$15.0 million of its common stock; this program expired on December 31, 2012. In February 2013 the Company's Board of Directors authorized the purchase of up to \$15.0 million of its common stock through October 31, 2014.

For the six months ended June 30, 2013 the Company purchased approximately 229,000 shares for an aggregate purchase price of \$1.4 million and had \$13.6 million in remaining authorizations under the repurchase program. For the year ended December 31, 2012 the Company purchased approximately 639,000 shares for an aggregate purchase price of \$3.3 million. These shares were recorded, at cost, as part of treasury stock on the Company's Summary Consolidated Balance Sheets.

### *Treasury Stock*

On August 7, 2012 the Company retired 2.7 million shares of treasury stock with an aggregate value of \$15.1 million. The retirement was recorded as a reduction of \$15.1 million in treasury stock, \$27,000 in common stock, and approximately \$15.1 million in additional paid in capital. These shares remain available for issuance as authorized unissued shares.

### *Cash Dividends*

On August 21, 2012 the Company announced that its Board of Directors had approved the initiation of a quarterly cash dividend of \$0.025 per share of common stock outstanding. In May 2013 the Company announced that its Board of Directors approved a 10% increase in the quarterly cash dividend beginning in the second quarter of 2013 from \$0.025 to \$0.0275 per share of common stock outstanding. The Company paid dividend payments from cash on hand of \$756,000 and \$1.4 million for the

three and six months ended June 30, 2013, respectively, and zero for both the three and six months ended June 30, 2012. The dividend payments were recorded as a reduction to retained earnings on the Company's Summary Consolidated Balance Sheet.

#### 14. Stock Compensation

##### Overview

The Company has stock option and stock incentive plans for employees and non-employee Directors that provide for grants of restricted stock awards ("RSA"s), restricted stock units ("RSU"s), performance stock units ("PSU"s), and options to purchase shares of Company common stock at exercise prices generally equal to the fair values of such stock at the dates of grant. The Company also maintains a shareholder approved Employee Stock Purchase Plan (the "ESPP") for the benefit of its employees. The ESPP allows eligible employees the right to purchase common stock on a regular basis at the lower of 85% of the market price at the beginning or end of each offering period.

##### Equity Grants

The Compensation Committee of the Company's Board of Directors authorized awards from approved stock incentive plans of RSAs to non-employee directors, RSUs to certain employees, and RSAs and PSUs to certain Company officers, which, counting PSUs at target levels, together totaled 395,000 shares and had an aggregate market value of \$2.4 million during the six months ended June 30, 2013. The PSUs granted in 2013 represent the right to receive from 50% to 150% of the target numbers of shares of common stock. The performance component of PSU awards granted in 2013 is based on attaining specified levels of adjusted EBITDA, as defined in the grant, for the 2013 calendar year. The Company currently believes that achievement of the performance component is probable and will reevaluate this likelihood on a quarterly basis.

The Compensation Committee of the Company's Board of Directors authorized awards from approved stock incentive plans of RSAs to non-employee directors and RSAs and PSUs to certain Company officers which, counting PSUs at target levels, together totaled 387,000 shares of common stock and had an aggregate market value of \$2.1 million during the six months ended June 30, 2012. The PSU's granted in 2012 earned approximately 125% of the target number of shares.

The Compensation Committee of the Company's Board of Directors authorized grants of stock options from approved stock incentive plans to certain Company officers totaling 162,000 and 159,000 shares during the six months ended June 30, 2013 and 2012, respectively, with exercise prices equal to the stock prices on the respective grant dates.

Employees purchased common stock totaling 49,000 and 35,000 shares in the six months ended June 30, 2013 and 2012, respectively, through the Company's ESPP.

##### Stock Compensation Expense

The following weighted-average assumptions were used to determine the fair value of options:

	Three Months Ended June 30, 2013		Six Months Ended June 30, 2013	
	Stock Options	ESPP Options	Stock Options	ESPP Options
Expected life of options	N/A	0.50 Years	4.25 Years	0.50 Years
Expected stock price volatility	N/A	0.43	0.60	0.43
Dividends	N/A	1.61%	1.91%	1.61%
Risk-free interest rate	N/A	0.16%	0.70%	0.16%

  

	Three Months Ended June 30, 2012		Six Months Ended June 30, 2012	
	Stock Options	ESPP Options	Stock Options	ESPP Options
Expected life of options	N/A	0.50 Years	4.25 Years	0.50 Years
Expected stock price volatility	N/A	0.54	0.60	0.54
Risk-free interest rate	N/A	0.06%	0.71%	0.06%

The following table summarizes total stock compensation expenses prior to the capitalization of amounts into deferred preservation and inventory costs (in thousands):

	Three Months Ended		Six Months Ended	
	June 30,		June 30,	
	2013	2012	2013	2012
RSA, RSU, and PSU expense	\$ 628	\$ 529	\$ 1,263	\$ 1,020
Stock option and ESPP option expense	196	263	407	580
Total stock compensation expense	\$ 824	\$ 792	\$ 1,670	\$ 1,600

Included in the total stock compensation expense, as applicable in each period, were expenses related to RSAs, RSUs, PSUs, and stock options issued in each respective year, as well as those issued in prior periods that continue to vest during the period, and compensation related to the Company's ESPP. These amounts were recorded as stock compensation expense and were subject to the Company's normal allocation of expenses to deferred preservation costs and inventory costs. The Company capitalized \$48,000 and \$49,000 in the three months ended June 30, 2013 and 2012, respectively, and \$112,000 and \$104,000 in the six months ended June 30, 2013 and 2012, respectively, of the stock compensation expense into its deferred preservation costs and inventory costs.

As of June 30, 2013 the Company had total unrecognized compensation costs of \$934,000 related to unvested stock options and \$3.5 million related to RSAs, RSUs, and PSUs, before considering the effect of expected forfeitures. As of June 30, 2013 this expense is expected to be recognized over a weighted-average period of 1.61 years for stock options, 1.42 years for RSAs, 1.76 years for RSUs, and 1.31 years for PSUs.

## 15. Income Per Common Share

The following table sets forth the computation of basic and diluted income per common share (in thousands, except per share data):

	Three Months Ended		Six Months Ended	
	June 30,		June 30,	
	2013	2012	2013	2012
<b>Basic income per common share</b>				
Net income	\$ 1,785	\$ 3,334	\$ 3,977	\$ 4,325
Net income allocated to participating securities	(40)	(77)	(91)	(96)
Net income allocated to common shareholders	\$ 1,745	\$ 3,257	\$ 3,886	\$ 4,229
Basic weighted-average common shares outstanding	26,856	26,864	26,858	27,022
Basic income per common share	\$ 0.06	\$ 0.12	\$ 0.14	\$ 0.16
<b>Diluted income per common share</b>				
Net income	\$ 1,785	\$ 3,334	\$ 3,977	\$ 4,325
Net income allocated to participating securities	(40)	(76)	(90)	(95)
Net income allocated to common shareholders	\$ 1,745	\$ 3,258	\$ 3,887	\$ 4,230
Basic weighted-average common shares outstanding	26,856	26,864	26,858	27,022
Effect of dilutive stock options and awards <sup>a</sup>	513	313	598	340
Diluted weighted-average common shares outstanding	27,369	27,177	27,456	27,362
Diluted income per common share	\$ 0.06	\$ 0.12	\$ 0.14	\$ 0.15

<sup>a</sup> The Company excluded stock options from the calculation of diluted weighted-average common shares outstanding if the per share value, including the sum of (i) the exercise price of the options and (ii) the amount of the compensation cost attributed to future services and not yet recognized, was greater than the average market price of the shares because the inclusion of these stock options would be antidilutive to income per common share. Accordingly, stock options to purchase a weighted-average 1.3 million shares for the three months ended and 1.2 million shares for the six months ended June 30, 2013 and 1.8 million shares for both the three and six months ended June 30, 2012 were excluded from the calculation of diluted weighted-average common shares outstanding.

## 16. Segment Information

The Company has two reportable segments organized according to its products and services: Medical Devices and Preservation Services. The Medical Devices segment includes external revenues from product sales of BioGlue® Surgical Adhesive (“BioGlue”), BioFoam® Surgical Matrix (“BioFoam”), PerClot, revascularization technologies, and HeRO Graft. The Preservation Services segment includes external services revenues from the preservation of cardiac and vascular tissues. There are no intersegment revenues.

The primary measure of segment performance, as viewed by the Company’s management, is segment gross margin, or net external revenues less cost of products and preservation services. The Company does not segregate assets by segment; therefore, asset information is excluded from the segment disclosures below.

The following table summarizes revenues, cost of products and services, and gross margins for the Company’s operating segments (in thousands):

	Three Months Ended		Six Months Ended	
	June 30,		June 30,	
	2013	2012	2013	2012
<b>Revenues:</b>				
Medical devices	\$ 18,195	\$ 16,696	\$ 37,991	\$ 33,150
Preservation services	15,317	16,313	30,994	31,972
Other <sup>a</sup>	8	179	71	367
<b>Total revenues</b>	<b>33,520</b>	<b>33,188</b>	<b>69,056</b>	<b>65,489</b>
<b>Cost of products and preservation services:</b>				
Medical devices	3,721	2,673	7,186	5,186
Preservation services	8,320	9,144	17,115	17,640
<b>Total cost of products and preservation services</b>	<b>12,041</b>	<b>11,817</b>	<b>24,301</b>	<b>22,826</b>
<b>Gross margin:</b>				
Medical devices	14,474	14,023	30,805	27,964
Preservation services	6,997	7,169	13,879	14,332
Other <sup>a</sup>	8	179	71	367
<b>Total gross margin</b>	<b>\$ 21,479</b>	<b>\$ 21,371</b>	<b>\$ 44,755</b>	<b>\$ 42,663</b>

The following table summarizes net revenues by product and service (in thousands):

	Three Months Ended		Six Months Ended	
	June 30,		June 30,	
	2013	2012	2013	2012
<b>Products:</b>				
BioGlue and BioFoam	\$ 13,542	\$ 13,437	\$ 29,006	\$ 27,133
PerClot	940	691	1,804	1,335
Revascularization technologies	2,293	1,933	4,484	4,047
HeRO Graft	1,420	635	2,697	635
<b>Total products</b>	<b>18,195</b>	<b>16,696</b>	<b>37,991</b>	<b>33,150</b>
<b>Preservation services:</b>				
Cardiac tissue	6,818	7,343	13,463	14,423
Vascular tissue	8,499	8,970	17,531	17,549
<b>Total preservation services</b>	<b>15,317</b>	<b>16,313</b>	<b>30,994</b>	<b>31,972</b>
<b>Other<sup>a</sup></b>	<b>8</b>	<b>179</b>	<b>71</b>	<b>367</b>
<b>Total revenues</b>	<b>\$ 33,520</b>	<b>\$ 33,188</b>	<b>\$ 69,056</b>	<b>\$ 65,489</b>

<sup>a</sup> For the three and six months ended June 30, 2013 and 2012 the “Other” designation includes grant revenue.

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## PART I - FINANCIAL INFORMATION

### Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations.

#### Overview

CryoLife, Inc. ("CryoLife," the "Company," "we," or "us"), incorporated in 1984 in Florida, develops, manufactures, and commercializes medical devices for cardiac and vascular applications and preserves and distributes human tissues for transplantation. CryoLife's surgical sealants and hemostats include BioGlue® Surgical Adhesive ("BioGlue"), BioFoam® Surgical Matrix ("BioFoam"), and PerClot®, an absorbable powdered hemostat, which the Company distributes for Starch Medical, Inc. ("SMI") in the European Community and other select international markets. CryoLife's subsidiary, Cardiogenesis Corporation ("Cardiogenesis"), specializes in the treatment of coronary artery disease using a laser console system and single use, fiber-optic handpieces to treat patients with severe angina. CryoLife and its subsidiary, Hemosphere, Inc. ("Hemosphere"), market the Hemodialysis Reliable Outflow Graft ("HeRO® Graft"), which is a solution for end-stage renal disease in certain hemodialysis patients. The cardiac and vascular human tissues distributed by CryoLife include the CryoValve® SG pulmonary heart valve ("CryoValve SGPV") and the CryoPatch® SG pulmonary cardiac patch tissue ("CryoPatch SG"), both processed using CryoLife's proprietary SynerGraft® technology.

The quarter ended June 30, 2013 was marked by several new regulatory approvals, which the Company received in June. The Company was awarded a CE Mark for the HeRO Graft, and the first HeRO Graft clinical case in Europe was performed in July 2013. The surgeons performing this initial case will establish the first HeRO Graft training center in Europe, which will support the Company's controlled market introduction of the product during the second half of 2013, followed by a broader European launch in 2014. CryoLife also received conditional approval of its investigational device exemption ("IDE") for PerClot from the U.S. Food and Drug Administration ("FDA"). IDE approval would allow the Company to begin clinical trials for the purpose of obtaining Premarket Approval ("PMA") to distribute PerClot in the U.S. As part of the conditional approval for the PerClot IDE, the Company must make certain revisions to the investigational study protocol, clinical product labeling, and Patient Informed Consent forms. The Company anticipates refiling the IDE submission in the third quarter of 2013. Subject to satisfaction of the FDA's conditions, the Company plans to begin enrollment in the pivotal trial in the fourth quarter of 2013 or the first quarter of 2014. In June the Company also received PMA supplement approval from the FDA for its redesigned Sologrip® and PEARL minimally invasive laser fiber-optic handpieces. The Company began distributing this new handpiece design exclusively at the end of the second quarter of 2013.

In April the Company hosted its first Central Venous Pathology Summit focused on treatment strategies for durable hemodialysis access in cases of central venous pathology through an interactive, data-driven and clinically-focused didactic and hands-on wet lab practicum. The summit featured the HeRO Graft and included presentations from several private companies with emerging technologies.

For the quarter ended June 30, 2013 CryoLife reported quarterly revenues of \$33.5 million, driven in part by strong sales of the Company's HeRO Graft and revascularization technologies product lines. HeRO Graft revenues were \$1.4 million for the quarter, the best revenue quarter since the Company's acquisition of this product line in May 2012. Preservation services revenues during the quarter were negatively impacted by the suspension letter received from the Human Tissue Authority ("HTA") during the first quarter of 2013, as discussed further below. The Company generated \$5.2 million in operating cash during the quarter for a total of \$4.0 million in operating cash generated in the first half of 2013. During the second quarter of 2013 the Company also increased its quarterly cash dividend by 10% to \$0.0275 per share. See the "Results of Operations" section below for additional analysis of the six months ended June 30, 2013.

#### Recent Events

On January 30, 2013 CryoLife received a warning letter ("Warning Letter") dated January 29, 2013 from the FDA. The Warning Letter followed a Form 483, Notice of Inspectional Observations from the FDA ("Form 483") related to the Company's processing, preservation, and distribution of human tissue and the manufacture of medical devices. The Form 483 followed a routine quality system inspection of the Company's facilities by the FDA during the period September 17, 2012 to October 16, 2012. The Warning Letter relates to certain observations from the Form 483 that the FDA believes were either inadequately addressed by the Company's responses or for which the FDA required further information to fully assess the Company's corrective actions. The Company responded to the FDA's requests and implemented corrective actions. During the second quarter of 2013 the Company received verbal communication from the FDA indicating that these corrective actions appear satisfactory in addressing the issues raised in the Warning Letter, however, the FDA will need to conduct an inspection to verify these corrective actions. This inspection may occur later in 2013. The Company believes that these corrective actions will address the FDA's notice of violations contained in the Warning Letter; however, it is possible that the Company's actions may not be satisfactory to the FDA. The Company believes that the Warning Letter and its actions regarding the Warning Letter and Form 483 will not have a material



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impact on the Company. However, it is possible that further actions it may be required to take in response to the Form 483 and Warning Letter could materially, adversely impact the availability of the Company's tissues and products and cost structure, which could impact the Company's revenues, financial condition, profitability, or cash flows.

Following the receipt of the Warning Letter, CryoLife received a letter from the HTA in London, U.K., on March 28, 2013, which governs the distribution of tissues by the Company's subsidiary, CryoLife Europa, Ltd. ("Europa"), into markets in Europe. The letter temporarily suspended Europa's license to import human tissue, due to concerns the HTA had related to the FDA Warning Letter, and directed Europa to issue a recall for tissues previously distributed which have not been implanted. The HTA subsequently issued a variance to allow Europa to continue to import tissue into Europe under certain circumstances for critically ill patients. This suspension, which was extended to September 22, 2013, could continue to be extended or end earlier based on the Company's ability to address the HTA's concerns. The suspension has decreased and may continue to decrease European preservation services revenues, which totaled \$2.3 million in 2012, \$444,000 in the first quarter of 2013, and \$59,000 in the second quarter of 2013, and were primarily related to the shipment of cardiac tissues. However, due to the low fees and high costs of distributing tissues into Europe, CryoLife does not believe that this suspension, including the related recall expenses, will have a material, adverse impact on the Company's financial condition, profitability, or cash flows.

On May 23, 2013 CryoLife received a Form 483 related to the Company's subsidiary Cardiogenesis ("Cardiogenesis Form 483"). The Cardiogenesis Form 483 followed a quality system inspection of the Company's facilities by the FDA in May 2013. The Cardiogenesis Form 483 contains certain observations including observations concerning labeling, complaint handling, and field actions. The Company has responded to the FDA's requests and has implemented changes that it believes will address the FDA's observations; however, it is possible that the Company may not be able to do so in a manner satisfactory to the FDA. The Company believes that the Cardiogenesis Form 483 will not have a material impact on the Company. However, it is possible that actions it may be required to take in response to the Cardiogenesis Form 483 could materially, adversely impact the Company's revascularization technologies revenues, financial condition, profitability, or cash flows. Subsequent to receipt of the Cardiogenesis Form 483, as discussed above, the Company received PMA supplement approval from the FDA for its redesigned Sologrip and PEARL handpieces.

### **Critical Accounting Policies**

A summary of the Company's significant accounting policies is included in Note 1 of the "Notes to Consolidated Financial Statements," contained in the Company's Form 10-K for the year ended December 31, 2012. Management believes that the consistent application of these policies enables the Company to provide users of the financial statements with useful and reliable information about the Company's operating results and financial condition. The summary consolidated financial statements are prepared in accordance with accounting principles generally accepted in the U.S., which require the Company to make estimates and assumptions. The Company did not experience any significant changes during the quarter ended June 30, 2013 in any of its Critical Accounting Policies from those contained in the Company's Form 10-K for the year ended December 31, 2012.

### **New Accounting Pronouncements**

In January 2013 the Company adopted Accounting Standards Update ("ASU"), 2012-02, Intangibles-Goodwill and Other (Topic 350): *Testing Indefinite-Lived Intangible Assets for Impairment*, which gives entities testing indefinite-lived intangible assets for impairment the option of performing a qualitative assessment before performing the quantitative impairment test as well as the option to bypass the qualitative assessment in any period and proceed directly to performing the quantitative impairment test. The adoption of ASU 2012-02 did not have a material effect on the Company's financial condition, profitability, or cash flows.

In February 2013 the Company adopted ASU 2013-02, Comprehensive Income (Topic 220): *Reporting of Amounts Reclassified Out of Accumulated Other Comprehensive Income*, which requires separate presentation of the components that are reclassified out of accumulated other comprehensive income either on the face of the financial statements or in the notes to the financial statements. This update also requires companies to disclose the income statement line items impacted by any significant reclassifications. The adoption of ASU 2013-02 did not have a material effect on the Company's financial disclosures.

**Results of Operations**  
(Tables in thousands)

**Revenues**

	Revenues for the Three Months Ended June 30,		Revenues as a Percentage of Total Revenues for the Three Months Ended June 30,	
	2013	2012	2013	2012
<b>Products:</b>				
BioGlue and BioFoam	\$ 13,542	\$ 13,437	40%	40%
PerClot	940	691	3%	2%
Revascularization technologies	2,293	1,933	7%	6%
HeRO Graft	1,420	635	4%	2%
Total products	18,195	16,696	54%	50%
<b>Preservation services:</b>				
Cardiac tissue	6,818	7,343	20%	22%
Vascular tissue	8,499	8,970	26%	27%
Total preservation services	15,317	16,313	46%	49%
Other	8	179	—%	1%
Total	\$ 33,520	\$ 33,188	100%	100%

	Revenues for the Six Months Ended June 30,		Revenues as a Percentage of Total Revenues for the Six Months Ended June 30,	
	2013	2012	2013	2012
<b>Products:</b>				
BioGlue and BioFoam	\$ 29,006	\$ 27,133	42%	41%
PerClot	1,804	1,335	3%	2%
Revascularization technologies	4,484	4,047	6%	6%
HeRO Graft	2,697	635	4%	1%
Total products	37,991	33,150	55%	50%
<b>Preservation services:</b>				
Cardiac tissue	13,463	14,423	20%	22%
Vascular tissue	17,531	17,549	25%	27%
Total preservation services	30,994	31,972	45%	49%
Other	71	367	—%	1%
Total	\$ 69,056	\$ 65,489	100%	100%

Revenues increased 1% and 5% for the three and six months ended June 30, 2013, respectively, as compared to the three and six months ended June 30, 2012, respectively. A detailed discussion of the changes in product revenues and preservation services revenues for the three and six months ended June 30, 2013 is presented below.

**Products**

Revenues from products increased 9% for the three months ended June 30, 2013 as compared to the three months ended June 30, 2012. Revenues from products increased 15% for the six months ended June 30, 2013 as compared to the six months ended June 30, 2012. These increases were primarily due to the addition of HeRO Graft revenues as a result of the Company's acquisition of Hemosphere in the second quarter of 2012. The increase for the six months ended June 30, 2013 was also due to an increase in BioGlue revenues. A detailed discussion of the changes in product revenues for BioGlue and BioFoam; PerClot; revascularization technologies; and HeRO Graft are presented below.

The Company's sales of products through its direct sales force to U.K. hospitals are denominated in British Pounds, and its sales to German, Austrian, and Irish hospitals and certain distributors are denominated in Euros and are, therefore, subject to changes in foreign exchange rates. If the exchange rates between the U.S. Dollar and the British Pound or Euro decline materially in the future, this would have a material, adverse impact on the Company's revenues denominated in these currencies.

#### *BioGlue and BioFoam*

Revenues from the sale of surgical sealants, consisting of BioGlue and BioFoam, increased 1% for the three months ended June 30, 2013 as compared to the three months ended June 30, 2012. This increase was primarily due to an increase in average sales prices, which increased revenues by 3%, partially offset by a 1% decrease in the volume of milliliters sold, which decreased revenues by 2%.

Revenues from the sale of surgical sealants, consisting of BioGlue and BioFoam, increased 7% for the six months ended June 30, 2013 as compared to the six months ended June 30, 2012. This increase was primarily due to a 7% increase in the volume of milliliters sold, which increased revenues by 5%, and by an increase in average sales prices, which increased revenues by 2%.

The decrease in sales volume of surgical sealants for the three months ended June 30, 2013 was primarily due to a decrease in shipments of BioGlue in Japan and, to a lesser extent, due to a decrease in the Company's domestic markets, partially offset by increases in shipments in Europe and Brazil. The increase in sales volume of surgical sealants for the six months ended June 30, 2013 was due to an increase in shipments of BioGlue in certain international markets, including Europe, Japan, and Brazil, partially offset by volume decreases in the Company's domestic markets.

Revenues from shipments to Japan were \$491,000 and \$1.1 million for the three months ended June 30, 2013 and 2012, respectively, and \$2.9 million and \$2.3 million for the six months ended June 30, 2013 and 2012, respectively. The decrease in BioGlue shipments in Japan in the second quarter of 2013 was due to fluctuating order patterns as a result of anticipated seasonality in the Japanese market. Management believes that BioGlue sales will be positively impacted by increased shipments to Japan for the full year 2013 as compared to 2012, although this increase will be less than the increase experienced in 2012 over 2011.

Management believes that the decrease in BioGlue shipments in its domestic markets is a result of various factors, including: continued economic pressures on hospitals and the resulting attempts by hospitals to control costs by reducing spending on consumable items such as BioGlue, the efforts of some large competitors in imposing and enforcing contract purchasing requirements for competing non-CryoLife products, and the U.S. market introduction of sealant products with approved indications for use in clinical applications in which BioGlue has been used off-label previously.

Domestic revenues accounted for 59% and 55% of total BioGlue revenues for the three and six months ended June 30, 2013, respectively, and 58% and 59% of total BioGlue revenues for the three and six months ended June 30, 2012, respectively. BioFoam sales accounted for less than 1% of surgical sealant sales for each of the three and six months ended June 30, 2013 and 2012. BioFoam is currently approved for sale in certain international markets.

BioGlue is a mature product in the U.S. and Europe that has experienced competitive pressures. Management believes that BioGlue sales volume in domestic markets will continue to be impacted by the factors discussed above, which may likely cause a continued decrease in BioGlue sales volume. Economic conditions in Europe could negatively impact sales in future periods. Management is currently seeking expanded indications for BioGlue in Japan and regulatory approval for BioGlue in China and, if successful, believes this will provide additional international growth opportunities for BioGlue.

#### *PerClot*

Revenues from the sale of PerClot increased 36% for the three months ended June 30, 2013 as compared to the three months ended June 30, 2012. This increase was primarily due to a 44% increase in the volume of grams sold, which increased revenues by 37%. Revenues from the sale of PerClot increased 35% for the six months ended June 30, 2013 as compared to the six months ended June 30, 2012. This increase was primarily due to a 40% increase in the volume of grams sold, which increased revenues by 35%. Revenues during these three and six month periods were for sales in certain international markets, as PerClot is not yet approved for domestic distribution or widespread international distribution. This increase was primarily due to increased sales into the Company's markets in Europe, partially due to growth in both new geographies and new surgical indications.

In June 2013 CryoLife received conditional approval of its IDE for PerClot from the FDA. IDE approval would allow the Company to begin clinical trials for the purpose of obtaining PMA to distribute PerClot in the U.S. As part of the conditional approval for the PerClot IDE, the Company must make certain revisions to the investigational study protocol, clinical product labeling, and Patient Informed Consent forms. The Company anticipates refiling the IDE submission in the third quarter of 2013. Subject to satisfaction of the FDA's conditions, the Company plans to begin enrollment in the pivotal trial in the

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fourth quarter of 2013 or the first quarter of 2014. The Company will not be able to sell PerClot in the U.S. unless and until FDA approval is granted.

Management believes that PerClot revenues will increase for the remainder of 2013 as compared to the corresponding prior year periods. However, continued weak economic growth conditions and their constraining effect on hospital budgets are expected to drive continued pricing pressures, especially due to the many hemostatic agents currently competing for market share in Europe.

#### *Revascularization Technologies*

Revenues from revascularization technologies include revenues related primarily to the sale of handpieces and, in certain periods, revenues from the sale of laser consoles. Revenues from revascularization technologies increased 19% for the three months ended June 30, 2013 as compared to the three months ended June 30, 2012. Revenues from the sale of laser consoles were \$83,000 and \$144,000 for the three months ended June 30, 2013 and 2012, respectively. Revenues from the sale of handpieces increased 31% for the three months ended June 30, 2013 as compared to the three months ended June 30, 2012. This increase was primarily due to a 24% increase in unit shipments of handpieces, which increased revenues by 25%, and an increase in average sales prices, which increased revenues by 6%.

Revenues from revascularization technologies increased 11% for the six months ended June 30, 2013 as compared to six months ended June 30, 2012. Revenues from the sale of laser consoles were \$83,000 and \$279,000 for the six months ended June 30, 2013 and 2012, respectively. Revenues from the sale of handpieces increased 22% for the six months ended June 30, 2013 as compared to the six months ended June 30, 2012. This increase was primarily due to a 14% increase in unit shipments of handpieces, which increased revenues by 14%, and an increase in average sales prices, which increased revenues by 8%. The increase in handpiece revenues was primarily due to the Company's strategy to focus on increasing procedure volume.

Revascularization technologies revenues for the 2013 and 2012 periods discussed above consisted primarily of handpiece sales. The amount of revenues from console sales can vary significantly from quarter-to-quarter due to the long lead time required to generate sales of capital equipment. Revenues from laser consoles have been negatively impacted by the current economic environment, which makes hospitals reluctant to invest in large capital purchases.

#### *HeRO Graft*

Revenues from HeRO Grafts for the three and six months ended June 30, 2013 increased over the corresponding periods in 2012 as HeRO Grafts were not marketed by the Company for the full prior year periods. The Company began marketing HeRO Grafts following its acquisition of Hemosphere in May 2012. Revenues from HeRO Grafts include revenues related to the sale of vascular grafts, venous outflow components, and accessories, which are generally sold together as a kit. HeRO Grafts are primarily distributed in domestic markets.

HeRO Graft revenues for the three months ended June 30, 2013 increased 14% when compared to the combined pre- and post-acquisition revenues for the three months ended June 30, 2012. HeRO Graft revenues for the six months ended June 30, 2013 increased 2% when compared to the combined pre- and post-acquisition revenues for the six months ended June 30, 2012. The increase in HeRO Graft revenues compared to the combined pre- and post-acquisition prior year revenues was primarily due to an increase in the number of trained implanting doctors, primarily in areas of the U.S. where the HeRO Graft was not actively marketed prior to the Company's acquisition.

As the HeRO Graft implant is currently performed by a relatively small number of surgeons, HeRO Graft revenues are subject to more variability quarter-to-quarter due to the timing of surgical cases. As the population of implanting doctors increases, the Company expects this variability in revenues will decrease.

#### *Preservation Services*

Revenues from preservation services decreased 6% for the three months ended June 30, 2013 as compared to the three months ended June 30, 2012. Revenues from preservation services decreased 3% for the six months ended June 30, 2013 as compared to the six months ended June 30, 2012. These decreases were primarily due to a decrease in shipments of cardiac tissues during the current year periods. The decrease for the three months ended June 30, 2013 was also due to a decrease in shipments of vascular tissues. A detailed discussion of the changes in cardiac and vascular preservation services revenues is presented below.

Preservation services revenues, particularly revenues for certain high demand tissues, can vary from quarter-to-quarter and year-to-year due to a variety of factors including: quantity and type of incoming tissues, yields of tissue through the preservation process, timing of receipt of donor information, timing of the release of tissues to an implantable status, demand for certain tissue types due to the number and type of procedures being performed, and pressures from competing products or services. The

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Company currently believes that preservation services revenues for the full year of 2013 will be comparable to revenues for the full year of 2012; however, if CryoLife is unable to resolve the issues identified by the HTA, preservation services revenues could decrease slightly for the remainder of 2013 as compared to the corresponding periods in 2012. As only 4% of the Company's preservation services revenues in 2012 were from tissues shipped into Europe and due to the low fees and high costs of distributing tissues into Europe, CryoLife does not believe that the HTA suspension will have a material, adverse impact on the Company's financial condition, profitability, or cash flows. See further discussion of any specific items affecting cardiac and vascular preservation services revenues for the three and six months ended June 30, 2013 below.

#### *Cardiac Preservation Services*

Revenues from cardiac preservation services, consisting of revenues from the distribution of heart valves and cardiac patch tissues, decreased 7% for the three months ended June 30, 2013 as compared to the three months ended June 30, 2012. This decrease was primarily due to a 12% decrease in unit shipments of cardiac tissues, which decreased revenues by 9%, partially offset by an increase in average service fees, which increased revenues by 2%.

Revenues from cardiac preservation services decreased 7% for the six months ended June 30, 2013 as compared to the six months ended June 30, 2012. This decrease was primarily due to an 11% decrease in unit shipments of cardiac tissues, which decreased revenues 9%, partially offset by an increase in average service fees, which increased revenues by 2%.

The decrease in revenues from volume was primarily due to a decrease in volume of cardiac valve shipments. For the six months ended June 30, 2013 these decreases were partially offset by an increase in the volume of lower fee cardiac patch tissues. For both periods, the Company believes that the decrease in unit shipments of cardiac valves was primarily due to a decrease in cardiac valve shipments into Europe as a result of the HTA's letter suspending CryoLife's license to distribute tissue in Europe and the timing of tissue releases for shipments to domestic markets as compared to the prior year periods, which can vary as discussed above. The Company believes that the increase in unit shipments of cardiac patches for the six months ended June 30, 2013 was primarily due to timing of tissue releases in the first quarter of 2013. The Company's cardiac valves are primarily used in cardiac replacement and reconstruction surgeries, including the Ross procedure, for patients with endocarditis or congenital heart defects.

Revenues from SynerGraft processed tissues, including the CryoValve SGPV and CryoPatch SG, accounted for 52% and 51% of total cardiac preservation services revenues for the three and six months ended June 30, 2013, respectively, and 50% and 43% of total cardiac preservation services revenues for the three and six months ended June 30, 2012, respectively. Domestic revenues accounted for 97% and 94% of total cardiac preservation services revenues for the three and six months ended June 30, 2013, respectively, and 92% and 90% of total cardiac preservation services revenues for the three and six months ended June 30, 2012, respectively.

Cardiac preservation services revenues for the remainder of 2013, will likely be negatively impacted by the HTA's letter suspending CryoLife's license to distribute tissue in Europe, as discussed above.

#### *Vascular Preservation Services*

Revenues from vascular preservation services decreased 5% for the three months ended June 30, 2013 as compared to the three months ended June 30, 2012. This decrease was primarily due to a 9% decrease in unit shipments of vascular tissues, which decreased revenues by 7%, partially offset by an increase in average service fees, which increased revenues by 2%.

Revenues from vascular preservation services for the six months ended June 30, 2013 were comparable to revenues for the six months ended June 30, 2012. A 4% decrease in unit shipments of vascular tissues decreased revenues by 2%, which was offset by an increase in average service fees, which increased revenues by 2%.

The decrease in vascular volume for the three and six months ended June 30, 2013 was primarily due to decreases in shipments of saphenous and femoral veins. The Company believes that the decrease in unit shipments of veins was primarily due to the timing of tissue releases for shipments to domestic markets as compared to the prior year periods, which can vary as discussed above, and to a lesser extent due to a decrease in vein shipments into Europe as a result of the HTA's letter suspending CryoLife's license to distribute tissue in Europe. The majority of the Company's vascular preservation services revenues are related to shipments of saphenous veins, which are mainly used in peripheral vascular reconstruction surgeries to avoid limb amputations. These tissues are primarily distributed in domestic markets.

The increase in average service fees for the three and six months ended June 30, 2013 was due in part to a list fee increase for certain vascular tissues in 2013 and fee differences due to physical characteristics of vascular tissues, and due to the routine negotiation of pricing contracts with certain customers.

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## Cost of Products and Preservation Services

### Cost of Products

	Three Months Ended June 30,		Six Months Ended June 30,	
	2013	2012	2013	2012
Cost of products	\$ 3,721	\$ 2,673	\$ 7,186	\$ 5,186

Cost of products increased 39% for both the three and six months ended June 30, 2013 as compared to the three and six months ended June 30, 2012, respectively. Cost of products in 2013 and 2012 includes costs related to BioGlue, BioFoam, PerClot, revascularization technologies, and HeRO Grafts.

Cost of products for the three and six months ended June 30, 2013 includes \$434,000 in additional costs for revascularization technologies handpieces that were made obsolete by the Company's decision to exclusively distribute the new handpiece design, which was approved by the FDA in June 2013.

The increase in cost of products in the three and six months ended June 30, 2013 was primarily due to the write-down discussed above and the increase in sales volume of HeRO Grafts and PerClot.

### Cost of Preservation Services

	Three Months Ended June 30,		Six Months Ended June 30,	
	2013	2012	2013	2012
Cost of preservation services	\$ 8,320	\$ 9,144	\$ 17,115	\$ 17,640

Cost of preservation services decreased 9% and 3% for the three and six months ended June 30, 2013, respectively, as compared to the three and six months ended June 30, 2012, respectively. Cost of preservation services includes costs for cardiac and vascular tissue preservation services.

Cost of preservation services decreased in the three and six months ended June 30, 2013 due to a decrease in volume of tissues shipped during the period, partially offset by an increase in the per unit cost of processing tissues primarily as a result of a change in vascular tissue mix and a write-down of certain cardiac tissues distributed in international markets which are not expected to ship prior to the expiration date of their packaging.

### Gross Margin

	Three Months Ended June 30,		Six Months Ended June 30,	
	2013	2012	2013	2012
Gross margin	\$ 21,479	\$ 21,371	\$ 44,755	\$ 42,663
Gross margin as a percentage of total revenues	64%	64%	65%	65%

Gross margin increased 1% and 5% for the three and six months ended June 30, 2013, respectively, as compared to the three and six months ended June 30, 2012, respectively. Gross margin increased primarily due to an increase in product revenues during the 2013 periods. Gross margin as a percentage of total revenues in the three and six months ended June 30, 2013 was comparable to the three and six months ended June 30, 2012, respectively.

## Operating Expenses

### General, Administrative, and Marketing Expenses

	Three Months Ended June 30,		Six Months Ended June 30,	
	2013	2012	2013	2012
General, administrative, and marketing expenses	\$ 16,932	\$ 13,871	\$ 34,909	\$ 31,841
General, administrative, and marketing expenses as a percentage of total revenues	51%	42%	51%	49%

General, administrative, and marketing expenses increased 22% and 10% for the three and six months ended June 30, 2013, respectively, as compared to the three and six months ended June 30, 2012, respectively.

General, administrative, and marketing expenses for the three and six months ended June 30, 2013 included marketing expenses of the expanded sales staff and costs related to the transfer of HeRO Graft manufacturing operations, due to the acquisition of Hemosphere in May 2012, increased marketing costs to support revenue growth, increased general and administrative costs due to added personnel, and medical device excise taxes. Medical device excise taxes were \$254,000 and \$502,000 for the three and six months ended June 30, 2013, respectively, and zero for both the three and six months ended June 30, 2012.

General, administrative, and marketing expenses for both the three and six months ended June 30, 2012 were reduced by a \$4.7 million gain on the settlement of the Medafor lawsuit. General, administrative, and marketing expenses for the three and six months ended June 30, 2012 included losses of \$3.6 million and \$4.1 million, respectively, for the lawsuit with CardioFocus related to patent infringement by the Company's Cardiogenesis laser products, which was settled in the second quarter of 2012. Legal fees related to lawsuits, primarily the Medafor and CardioFocus lawsuits, were \$2.1 million and \$3.6 million for the three and six months ended June 30, 2012, respectively, and reductions to legal fees for insurance reimbursements to be received for certain litigation expenses were \$3.1 million and \$3.4 million for the three and six months ended June 30, 2012, respectively.

The Company expects that its general, administrative, and marketing expenses will increase for the full year 2013 as compared to 2012 primarily due to increased personnel, selling costs, and costs related to the transfer of HeRO Graft manufacturing operations, due to its acquisition of Hemosphere in May 2012, and due to the 2.3% excise tax on the sale of medical devices in the U.S. that went into effect on January 1, 2013 as part of the Patient Protection and Affordable Care Act passed in 2010. The Company expects that costs related to the transfer of HeRO Graft manufacturing operations will continue in the third quarter of 2013 and that significant costs will not continue into the fourth quarter of 2013. The Company believes that its SynerGraft processed tissues and the majority of its medical devices are subject to the medical device excise tax and that its traditionally processed tissues are not subject to the tax.

### Research and Development Expenses

	Three Months Ended June 30,		Six Months Ended June 30,	
	2013	2012	2013	2012
Research and development expenses	\$ 1,736	\$ 1,670	\$ 3,724	\$ 3,363
Research and development expenses as a percentage of total revenues	5%	5%	5%	5%

Research and development expenses increased 4% and 11% for the three and six months ended June 30, 2013, respectively, as compared to the three and six months ended June 30, 2012, respectively. Research and development spending in these periods was primarily focused on PerClot, the Company's tissue processing, revascularization technologies, and BioGlue and BioFoam. Due to expected increases in spending on clinical studies related to PerClot in the second half of 2013 and in 2014, the Company expects that research and development spending for the full year of 2013 and 2014 will increase materially compared to the full year of 2012.

## Earnings

	Three Months Ended June 30,		Six Months Ended June 30,	
	2013	2012	2013	2012
Income before income taxes	\$ 2,735	\$ 5,605	\$ 5,779	\$ 7,186
Income tax expense	950	2,271	1,802	2,861
Net income	\$ 1,785	\$ 3,334	\$ 3,977	\$ 4,325
Diluted income per common share	\$ 0.06	\$ 0.12	\$ 0.14	\$ 0.15
Diluted weighted-average common shares outstanding	27,369	27,177	27,456	27,362

Income before income taxes decreased 51% and 20% for the three and six months ended June 30, 2013, respectively, as compared to the three and six months ended June 30, 2012, respectively. The decrease in income before income taxes for the three and six months ended June 30, 2013 was primarily due to an increase in general, administrative, and marketing expenses, partially offset by an increase in product revenues, which increased margins, as discussed above.

The Company's effective income tax rate was approximately 35% and 31% for the three and six months ended June 30, 2013, respectively, as compared to 41% and 40% for the three and six months ended June 30, 2012, respectively. The Company's income tax rate for the six months ended June 30, 2013 was favorably impacted by the full year 2012 research and development tax credit, which was enacted in January 2013 and, therefore, reduced the Company's tax expense during the first quarter of 2013. The Company's income tax rate in 2012 was negatively impacted by the absence of a research and development tax credit, which was not enacted for the 2012 tax year during 2012.

Net income and diluted income per common share decreased for the three and six months ended June 30, 2013 as compared to the three and six months ended June 30, 2012, primarily due to the decrease in income before income taxes, as discussed above.

Diluted income per common share could be unfavorably impacted in future periods by the issuance of additional shares of common stock and favorably impacted by the Company's repurchase of its common stock. Stock repurchases are impacted by many factors, including: stock price, available funds, and competing demands for such funds, and as a result, may be suspended or discontinued at any time.

## Seasonality

The Company believes the demand for BioGlue is seasonal, with a decline in demand generally occurring in the third quarter followed by stronger demand in the fourth quarter. Management believes that this trend for BioGlue may be due to the summer holiday season in Europe and in the U.S. The Company's market for BioGlue in Japan is still in a growth phase, however, the Company believes that demand for BioGlue in Japan may continue to be lowest in the second quarter of each year due to the slower summer holiday season in Japan.

The Company is uncertain whether the demand for PerClot will be seasonal, as PerClot is a new product and the nature of any seasonal trends in PerClot sales may be obscured.

The Company is uncertain whether the demand for revascularization technologies will be seasonal, as the Company only recently acquired this product line in May 2011, and the historical data does not indicate a significant trend.

The Company is uncertain whether the demand for HeRO Grafts will be seasonal, as the Company only recently acquired this product line in May 2012, and the historical data does not indicate a significant trend.

The Company's demand for its cardiac preservation services has traditionally been seasonal, with peak demand generally occurring in the third quarter. Management believes this trend for cardiac preservation services is primarily due to the high number of surgeries scheduled during the summer months for school-aged patients. Based on experience in recent years, management believes that this trend is lessening as the Company is distributing a higher percentage of its tissues to adult populations.

The Company believes the demand for its vascular preservation services is seasonal, with lowest demand generally occurring in the fourth quarter. Management believes this trend for vascular preservation services is primarily due to fewer surgeries being scheduled during the winter holiday months.



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## Liquidity and Capital Resources

### *Net Working Capital*

At June 30, 2013 net working capital (current assets of \$77.9 million less current liabilities of \$18.8 million) was \$59.1 million, with a current ratio (current assets divided by current liabilities) of 4 to 1, compared to net working capital of \$56.1 million and a current ratio of 4 to 1 at December 31, 2012.

### *Overall Liquidity and Capital Resources*

The Company's largest cash requirement for the six months ended June 30, 2013 was cash for general working capital needs, as the Company's accounts receivable balance increased significantly and its accrual and payable balances decreased significantly from December 31, 2012. The accounts receivable increase was due to the Company's recent sales, which have not yet been converted to cash, along with the fact that accounts receivable as of December 31, 2012 was lower than normal due to timing of payments. The accrual and payable decrease was due to a large number of scheduled annual payments which were made in the first quarter that are not normally paid in the rest of the year. In addition, the Company's other cash requirements included capital expenditures, repurchases of the Company's common stock, and cash dividend payments. The Company funded its cash requirements through its existing cash reserves and its operating activities, which generated cash during the period.

CryoLife's credit agreement with GE Capital (the "GE Credit Agreement") provides revolving credit for working capital, acquisitions, and other corporate purposes. The borrowing capacity under the GE Credit Agreement is \$20.0 million (including a letter of credit subfacility), and the GE Credit Agreement expires October 28, 2014. The borrowing capacity may be reduced or increased from time to time pursuant to the terms of the GE Credit Agreement. As required under the terms of the GE Credit Agreement, the Company is maintaining cash and cash equivalents of at least \$5.0 million in accounts in which GE Capital has a first priority perfected lien. As a result, these funds will not be available to meet the Company's liquidity needs during the term of the GE Credit Agreement and, as such, have been recorded as restricted cash and securities on the Company's Summary Consolidated Balance Sheets. Also, the GE Credit Agreement requires that, after giving effect to a stock repurchase, the Company maintain liquidity, as defined in the agreement, of at least \$20.0 million. As of June 30, 2013 the outstanding balance under the GE Credit Agreement was zero, and \$20.0 million was available for borrowing.

In the six months ended June 30, 2013 the Company purchased approximately 229,000 shares of its common stock for an aggregate purchase price of \$1.4 million. As of June 30, 2013 the Company had \$13.6 million in remaining authorizations under common stock repurchase programs authorized by the Company's Board of Directors. The Company is entitled to repurchase approximately \$8.9 million in additional common stock without obtaining its lender's consent. The purchase of shares may be made from time to time in the open market or through privately negotiated transactions, on such terms as management deems appropriate, and will be dependent upon various factors, including: price, regulatory requirements, and other market conditions.

As of June 30, 2013 approximately 12% of the Company's cash and cash equivalents were held in foreign jurisdictions.

During 2012 the Company advanced a total of \$2.0 million in debt financing to ValveXchange, Inc. ("ValveXchange") through a revolving credit facility (the "Loan"). The Loan is secured by substantially all of the tangible and intangible assets of ValveXchange. ValveXchange is currently attempting to raise additional funds to support its operations until it can obtain a larger financing. On July 22, 2013 CryoLife notified ValveXchange that ValveXchange was in default of certain loan covenants, due to factors including ValveXchange's failure to obtain CryoLife's consent for a certain convertible note financing that ValveXchange obtained in July 2013. ValveXchange has 15 days to cure the defaults and, if it fails to do so, an event of default will exist. CryoLife has been in negotiations with ValveXchange to obtain certain modifications to the Loan in light of this new convertible note. However, if ValveXchange is unable to secure sufficient financing to continue its business, CryoLife may need to foreclose on the related collateral to secure repayment of the Loan. Although CryoLife currently believes that the value of the collateral is adequate to repay the Loan, there is no guarantee that the security for the notes will be sufficient to repay the Loan. If CryoLife is forced to foreclose on the Loan, it may materially, adversely impact the value of CryoLife's preferred stock investment in ValveXchange. The Company may decide to allow ValveXchange to issue shares in payment of some or all of the outstanding debt balance in connection with a future round of financing.

The Company believes that its anticipated cash from operations and existing cash and cash equivalents will enable the Company to meet its current operational liquidity needs for at least the next twelve months. The Company's future cash requirements are expected to include cash to fund the PerClot clinical trials, to repurchase the Company's common stock, and to fund the cash dividend to common shareholders, and may also include cash to fund research and development expenditures for revascularization technologies and the HeRO Graft, to fund business development activities, to purchase license agreements, for general working capital needs, for capital expenditures, and for other corporate purposes. These items may have a significant impact on its cash flows during the remainder of 2013. The Company may seek additional borrowing capacity or financing pursuant to its shelf registration statement, for general corporate purposes, or to fund other future cash requirements. If the

Company undertakes further significant business development activity in 2013, it will likely need to finance such activities by drawing down monies under the GE Credit Agreement, obtaining additional debt financing, or using its shelf registration statement to sell equities.

The Company acquired net operating loss carryforwards from its acquisitions of Hemosphere and Cardiogenesis that the Company believes will reduce required cash payments for federal income taxes by approximately \$1.5 million for the 2013 tax year.

#### ***Net Cash Flows from Operating Activities***

Net cash provided by operating activities was \$4.0 million for the six months ended June 30, 2013 as compared to \$4.9 million for the six months ended June 30, 2012. The decrease in cash provided in the current year period was primarily due to the decrease in net income and an increase in working capital needs compared to the prior year period.

The Company uses the indirect method to prepare its cash flow statement and, accordingly, the operating cash flows are based on the Company's net income, which is then adjusted to remove non-cash items and for changes in operating assets and liabilities from the prior year end. For the six months ended June 30, 2013 these non-cash items included a favorable \$2.9 million in depreciation and amortization expenses, \$1.6 million in non-cash compensation, and \$474,000 in deferred income taxes.

The Company's working capital needs, or changes in operating assets and liabilities, also affected cash from operations. For the six months ended June 30, 2013 these changes included unfavorable adjustments of \$2.3 million due to the timing differences between the recording of receivables and the receipt of cash, and \$2.1 million due to the timing differences between the recording of accounts payable, accrued expenses, and other liabilities and the actual payment of cash.

#### ***Net Cash Flows from Investing Activities***

Net cash used in investing activities was \$2.4 million for the six months ended June 30, 2013 as compared to \$19.3 million for the six months ended June 30, 2012. The current year cash used was primarily due to \$2.3 million in capital expenditures. The prior year cash used was primarily due to the acquisition of Hemosphere.

#### ***Net Cash Flows from Financing Activities***

Net cash used in financing activities was \$3.0 million for the six months ended June 30, 2013 as compared to \$3.3 million for the six months ended June 30, 2012. The current year cash used was primarily due to \$1.4 million in purchases of treasury stock related to the Company's publicly announced stock repurchase plan and \$1.4 million in cash dividends paid.

#### **Off-Balance Sheet Arrangements**

The Company has no off-balance sheet arrangements.

#### **Scheduled Contractual Obligations and Future Payments**

Scheduled contractual obligations and the related future payments as of June 30, 2013 are as follows (in thousands):

	Total	Remainder of					
		2013	2014	2015	2016	2017	Thereafter
Operating leases	\$ 25,317	\$ 1,228	\$ 2,975	\$ 2,944	\$ 2,861	\$ 2,895	\$ 12,414
Purchase commitments	4,502	2,682	1,820	—	—	—	—
Contingent payments	4,500	500	—	4,000	—	—	—
Compensation payments	1,985	—	—	—	1,985	—	—
Research obligations	2,151	730	1,318	103	—	—	—
Total contractual obligations	<u>\$ 38,455</u>	<u>\$ 5,140</u>	<u>\$ 6,113</u>	<u>\$ 7,047</u>	<u>\$ 4,846</u>	<u>\$ 2,895</u>	<u>\$ 12,414</u>

The Company's operating lease obligations result from the lease of land and buildings that comprise the Company's corporate headquarters and manufacturing facilities, leases related to additional office and warehouse space, leases on Company vehicles, and leases on a variety of office equipment.

The Company's purchase commitments include minimum purchase requirements for PerClot related to the Company's transaction with SMI. These minimum purchases are included through 2014, as the Company expects to receive FDA approval for PerClot in 2015. Upon FDA approval, the Company may terminate its minimum purchase requirements, per the terms of the

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agreements between the parties, which the Company expects to do. However, if the Company does not terminate this provision, it will have minimum purchase obligations of \$1.75 million per year through the end of the contract term in 2025. The Company's purchase commitments also include obligations from agreements with suppliers.

The contingent payment obligations include obligations related to the Company's acquisition of Hemosphere and transaction with SMI. The contingent payment obligation for Hemosphere represents the payments that the Company will make if certain revenue milestones are achieved. The schedule includes one contingent milestone payment for \$2.5 million that the Company believes it is likely to pay in 2015, although the timing of this payment may change. The schedule excludes one Hemosphere contingent milestone payment of up to \$2.0 million, as the Company cannot make a reasonably reliable estimate of when this future payment may be made, if at all. The contingent payment obligation for PerClot represents the payments that the Company will make if certain FDA regulatory approvals and other commercial milestones are achieved. The schedule excludes one PerClot contingent milestone payment of \$500,000, as the Company cannot make a reasonably reliable estimate of timing of this future payment.

The Company's compensation payment obligations represent estimated payments for post-employment benefits for the Company's Chief Executive Officer ("CEO"). The timing of the CEO's post-employment benefits is based on the December 2015 expiration date of the CEO's employment agreement; however, payment of this benefit may be accelerated upon the occurrence of certain events, including the voluntary retirement of the CEO or termination of the CEO's employment in conjunction with certain change in control events.

The Company's research obligations represent commitments for ongoing studies and payments to support research and development activities.

The schedule of contractual obligations above excludes (i) obligations for estimated liability claims unless they are due as a result of a settlement agreement or other contractual obligation and (ii) any estimated liability for uncertain tax positions and interest and penalties, currently estimated to be \$2.6 million, because the Company cannot make a reasonably reliable estimate of the amount and period of related future payments as no specific assessments have been made for specific litigation or by any taxing authorities.

### **Capital Expenditures**

Capital expenditures for the six months ended June 30, 2013 were \$2.3 million compared to \$1.5 million for the six months ended June 30, 2012. Capital expenditures in the six months ended June 30, 2013 were primarily related to the routine purchases of manufacturing, tissue processing, computer, and office equipment; computer software; and leasehold improvements needed to support the Company's business.

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## Forward-Looking Statements

This Form 10-Q includes “forward-looking statements” within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Exchange Act. Forward-looking statements give the Company’s current expectations or forecasts of future events. The words “could,” “may,” “might,” “will,” “would,” “shall,” “should,” “pro forma,” “potential,” “pending,” “intend,” “believe,” “expect,” “anticipate,” “estimate,” “plan,” “future,” and other similar expressions generally identify forward-looking statements. These forward-looking statements are made pursuant to the safe harbor provisions of the Private Securities Litigation Reform Act of 1995. Readers are cautioned not to place undue reliance on these forward-looking statements, which are made as of the date of this Form 10-Q. 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, including, without limitation, in addition to those identified in the text surrounding such statements, those identified under “Risks and Uncertainties” and elsewhere in this Form 10-Q.

All statements, other than statements of historical facts, included herein that address activities, events, or developments that the Company expects or anticipates will or may occur in the future, are forward-looking statements, including statements regarding:

- Expectations regarding the accounting treatment and costs of certain transactions;
- Expectations regarding transaction and integration costs related to the acquisition of Hemosphere;
- Expectations regarding the potential issuance of shares by ValveXchange in payment of some or all of its outstanding debt balance in future periods;
- The Company’s belief that PerClot will not, when introduced in the U.S. and used in accordance with the method published in the Company’s literature and with the instructions for use, infringe Medafor’s patent;
- Expectations regarding the renewal of certain contracts;
- Anticipated cash flow contributions of the Company’s trademarks and other acquired technology;
- Expectations regarding net operating loss carryforwards and the related impact on the Company’s taxes;
- Expectations regarding the attainment of the performance component of 2013 equity grants;
- Expectations regarding the recognition of expenses related to equity grants;
- Expectations regarding the establishment of the first HeRO Graft training center in Europe, and the HeRO Graft’s controlled market introduction and broader European launch;
- The Company’s belief that its corrective actions will address the FDA’s notice of violations in the Warning Letter, and the Company’s belief regarding the impact on the Company of the Warning Letter and the Company’s actions regarding the Warning Letter and Form 483;
- Expectations regarding the timing of the FDA inspection to verify the Company’s corrective actions;
- Expectations regarding the impact of the suspension imposed by the HTA on the Company’s European preservation services revenues and its cardiac preservation services revenues;
- The Company’s belief that the suspension imposed by the HTA will not have a material, adverse financial impact on the Company’s financial condition, profitability, or cash flows;
- The Company’s beliefs regarding its ability to address the FDA’s Observations in the Cardiogenesis Form 483, and the impact on the Company from the Cardiogenesis Form 483 and the Company’s actions regarding the Cardiogenesis Form 483;
- Management’s beliefs regarding BioGlue sales volume in domestic and international markets and the factors impacting such sales;
- Management’s plans for BioGlue in Japan and China and management’s beliefs regarding international growth opportunities for BioGlue;
- The Company’s belief that it will file a revised IDE submission for PerClot in the third quarter of 2013; and subject to satisfaction of conditions imposed by the FDA, the Company’s plans to begin enrollment in the pivotal clinical trial in the fourth quarter of 2013 or the first quarter of 2014;
- Management’s beliefs regarding PerClot sales in the remainder of 2013, and the factors expected to drive continued pricing pressures;
- The Company’s expectation that the variability in HeRO Graft revenues will decrease as the population of implanting doctors increases;
- The Company’s beliefs regarding preservation services revenues for 2013;
- The Company’s expectation that general, administrative, and marketing expenses will increase for the full year 2013 as compared to 2012, and the factors impacting such expenses;
- Expectations regarding costs related to the transfer of HeRO Graft manufacturing operations;
- The Company’s beliefs regarding which tissues and medical devices are subject to the 2.3% excise tax;

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- The Company's expectations that research and development expenses for the full years of 2013 and 2014 will increase materially compared to 2012, and the factors impacting such expenses, including expected increases in spending on clinical studies related to PerClot;
  - The Company's beliefs regarding the seasonal nature of the demand for BioGlue and its cardiac and vascular preservation services;
  - The Company's belief that demand for BioGlue in Japan may continue to be lowest in the second quarter of each year due to the slower summer holiday season in Japan;
  - The Company's belief that if it needs to foreclose on the ValveXchange Loan, the value of the related collateral is adequate to repay the Loan;
  - The Company's belief that it will have sufficient cash to meet its operational liquidity needs for at least the next twelve months;
  - The Company's future cash requirements and the impact of certain items on the Company's cash flows;
  - The Company's belief that further significant business development activity in 2013 would likely require the Company to draw down monies on its credit facility, obtain additional debt financing, or sell equity under its shelf registration statement;
  - The Company's belief that it may seek additional borrowing capacity or financing for general corporate purposes or to fund other future cash requirements;
  - The Company's expectation that it will receive FDA approval for PerClot in 2015;
  - The Company's expectation that it will terminate its minimum purchase requirements for PerClot after the product receives FDA approval;
  - Expectations regarding payments to former shareholders of Hemosphere upon the achievement of certain revenue-based milestones, and management's estimates and assumptions regarding the achievement of such milestones;
  - Expectations regarding obligations for certain contingent payments and purchase commitments related to asset purchases and acquisitions, and the timing of such payments and purchases;
  - Estimated liability for uncertain tax positions and interest and penalties;
  - Anticipated impact on the Company of changes in interest rates and foreign currency exchange rates; and
  - Other statements regarding future plans and strategies, anticipated events, or trends.

These statements are based on certain assumptions and analyses made by the Company in light of its experience and its perception of historical trends, current conditions, and expected future developments as well as other factors it believes are appropriate in the circumstances. However, whether actual results and developments will conform with the Company's expectations and predictions is subject to a number of risks and uncertainties which could cause actual results to differ materially from the Company's expectations, including, without limitation, in addition to those specified in the text surrounding such statements, the risk factors set forth below, the risk factors set forth under Part I, Item 1A of the Company's Form 10-K for the year ended December 31, 2012, and other factors, many of which are beyond the control of the Company. Consequently, all of the forward-looking statements made in this Form 10-Q are qualified by these cautionary statements, and there can be no assurance that the actual results or developments anticipated by the Company will be realized or, even if substantially realized, that they will have the expected consequences to or effects on the Company or its business or operations. The Company assumes no obligation to update publicly any such forward-looking statements, whether as a result of new information, future events, or otherwise.

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## Risks and Uncertainties

Along with the risks identified in Part II, Item 1 A of this Form 10-Q, the risks and uncertainties which might impact the forward-looking statements and the Company, its ability to continue as a going concern, and the trading value of its common stock include concerns that:

- We are significantly dependent on our revenues from BioGlue and are subject to a variety of risks affecting this product;
- Our BioGlue patent has expired in the U.S. and most of the rest of the world. Competitors may utilize the inventions disclosed in the expired patents in competing products, although the competing product will have to be approved by the appropriate regulatory authority;
- Competitors have obtained FDA approval for indications in which BioGlue has been used off-label and for which we cannot market BioGlue, which has reduced, and could continue to reduce, the addressable procedures for BioGlue;
- Our products and tissues are subject to many significant risks, including being recalled or placed on hold by us, the FDA or other regulatory bodies, and adverse publicity, which could lead to decreased use, additional regulatory scrutiny, or product liability lawsuits;
- Regulatory agencies could require us to change or modify our processes, procedures, and manufacturing operations, and such agencies could reclassify or reevaluate our clearances and approvals to sell our medical devices and tissue services;
- Our tissues, which are not sterile when processed, and our medical devices allegedly have caused, and may in the future cause, injury to patients, which has exposed, and could in the future expose, us to tissue processing and product liability claims and additional regulatory scrutiny and inspections as a result;
- If we fail to respond to the notice of violations in the Warning Letter to the FDA's satisfaction, we may be subject to additional regulatory action by the FDA, including recalls, injunctions and/or civil money penalties, and the demand for our products and services could be negatively impacted by adverse publicity with respect to the Warning Letter. In addition, further actions required to be taken in response to the Warning Letter could impact the availability of our products and tissues and our cost structure;
- If we are unable to address the concerns raised by the HTA and if the suspension of the import license granted by the HTA is not lifted, our preservation services revenues could be adversely impacted;
- We may fail to address the FDA Observations in the Cardiogenesis Form 483 to the FDA's satisfaction, and as a result, we may be subject to additional regulatory action by the FDA. In addition actions required to be taken in response to the Cardiogenesis Form 483 could adversely impact our revascularization technologies revenues, financial condition, profitability, and cash flows;
- Our plans, and the expected timing of such plans, regarding physician training and the introduction and distribution of the HeRO Graft in Europe may be impeded or delayed by factors beyond our control, including general economic conditions, or changed based on management's assessment of the Company's overall business needs at the time;
- We will not fully realize the benefit of our investment in our distribution and license and manufacturing agreements with Starch Medical, Inc. unless we are able to obtain FDA approval to distribute PerClot in the U.S., which will require an additional commitment of funds;
- We may be unable, in the FDA's judgment, to satisfy the conditions imposed by the FDA as part of the conditional approval for the PerClot IDE. In addition we may ultimately be unsuccessful in our clinical trials and/or may be unable to obtain FDA approval to market and distribute PerClot in the U.S. Even if we receive FDA approval, we may be unsuccessful in our efforts to sell PerClot in the U.S. as other competing products may have penetrated the market by that time;
- If we sell PerClot in the U.S., we will likely end up in a patent infringement lawsuit, which will be expensive, and if we lose, we may be prohibited from selling PerClot or may have to pay substantial royalties or damages when we sell PerClot;
- We have inherited risks and uncertainties related to Cardiogenesis' and Hemosphere's businesses;
- The receipt of 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 impact on our revenues, financial condition, profitability, and cash flows;
- As a result of the funding issues that have been affecting ValveXchange, our investment in ValveXchange may be further impaired, or our Loan to ValveXchange may become uncollectible, which could have a material, adverse impact on our business. If ValveXchange is unable to secure sufficient financing to continue its business, we may need to foreclose on the Loan, and there is no guarantee that the security for the notes will be sufficient to repay the Loan. If we foreclose on the Loan, it may adversely impact the value of our investment in ValveXchange;
- We continue to evaluate expansion through acquisitions, licenses, investments, and other distribution arrangements in other companies or technologies, and such actions involve the risk of unknown liabilities, and could result in the dilution

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of our stockholders' value, the consumption of resources that may be necessary to operate our business, the incurrence of debt on unfavorable terms, and unfavorable tax consequences;

- We may not realize the anticipated benefits from acquisitions, and we may be unable to integrate, upgrade or replace systems acquired in acquisitions, secure the services of key employees, or succeed in the marketplace with the acquisition;
- Our sales are impacted by challenging domestic and international economic conditions and their constraining effect on hospital budgets and demand for our products and tissues could decrease in the future, which could have a material, adverse impact on our business;
- Healthcare policy changes, including recent federal legislation to reform the U.S. healthcare system, may have a material, adverse impact on us;
- Key growth strategies may not generate the anticipated benefits;
- We may not be successful in obtaining necessary clinical results and regulatory approvals for products and services in development, and our new products and services may not achieve market acceptance;
- Extensive government regulation may adversely impact our ability to develop and market products and services, and restrictive laws, regulations, and rules could have a material, adverse impact on our revenues, financial condition, profitability, and cash flows;
- Uncertainties related to patents and protection of proprietary technology may adversely impact the value of our intellectual property or may result in our payment of significant monetary damages and/or royalty payments, negatively impacting our ability to sell current or future products, or prohibit us from enforcing our patent and other proprietary technology rights against others;
- Our investment in Medafor has been impaired, and our investment could be further impaired by risks associated with Medafor's business or by Medafor's actions, which could have a material, adverse impact on our financial condition and profitability;
- Intense competition may impact our ability to operate profitably;
- If we are not successful in expanding our business activities in international markets, it could have a material, adverse impact on our revenues, financial condition, profitability, and cash flows;
- 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 to cover our actual claims liability, and we may be unable to obtain future insurance policies in an amount sufficient to cover our anticipated claims at a reasonable cost or at all;
- We are not insured against all potential losses. Natural disasters or other catastrophes could adversely impact our business;
- Our current plans and ability to continue to pay a quarterly cash dividend may change;
- 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 impact our business;
- Rapid technological change could cause our products and services to become obsolete; and
- We are dependent on our key personnel.

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### **Item 3. Quantitative and Qualitative Disclosures About Market Risk.**

#### **Interest Rate Risk**

The Company's interest income and interest expense are sensitive to changes in the general level of U.S. interest rates. In this regard, changes in U.S. interest rates affect the interest earned on the Company's cash and cash equivalents of \$11.7 million and restricted cash of \$5.0 million and interest paid on the Company's variable rate line of credit as of June 30, 2013. A 10% adverse change in interest rates as compared to the rates experienced by the Company in the six months ended June 30, 2013, affecting the Company's cash and cash equivalents, restricted cash and securities, and line of credit would not have a material impact on the Company's financial position, profitability, or cash flows.

#### **Foreign Currency Exchange Rate Risk**

The Company has balances, such as cash, accounts receivable, accounts payable, and accruals that are denominated in foreign currencies. These foreign currency denominated balances are sensitive to changes in exchange rates. In this regard, changes in exchange rates could cause a change in the U.S. Dollar equivalent of cash or funds that the Company will receive in payment for assets or that the Company would have to pay to settle liabilities. As a result, the Company could be required to record these changes as gains or losses on foreign currency translation.

The Company has revenues and expenses that are denominated in foreign currencies. Specifically, a significant portion of the Company's international BioGlue revenues are denominated in British Pounds and Euros, and a portion of the Company's general, administrative, and marketing expenses are denominated in British Pounds and Euros. These foreign currency transactions are sensitive to changes in exchange rates. In this regard, changes in exchange rates could cause a change in the U.S. Dollar equivalent of net income from transactions conducted in other currencies. As a result, the Company could recognize a reduction in revenues or an increase in expenses related to a change in exchange rates.

An additional 10% adverse change in exchange rates from the exchange rates in effect on June 30, 2013 affecting the Company's balances denominated in foreign currencies would not have had a material impact on the Company's financial position or cash flows. An additional 10% adverse change in exchange rates from the weighted-average exchange rates experienced by the Company for the six months ended June 30, 2013 affecting the Company's revenue and expense transactions denominated in foreign currencies, would not have had a material impact on the Company's financial position, profitability, or cash flows.

### **Item 4. Controls and Procedures.**

The Company maintains disclosure controls and procedures ("Disclosure Controls") as such term is defined under Rule 13a-15(e) promulgated under the Securities Exchange Act of 1934 (the "Exchange Act"). These Disclosure Controls are designed to ensure that information required to be disclosed in our Exchange Act reports is recorded, processed, summarized, and reported within the time periods specified in the Commission's rules and forms, and that such information is accumulated and communicated to management, including the Chief Executive Officer ("CEO") and Chief Financial Officer ("CFO"), as appropriate, to allow timely decisions regarding required disclosures.

The Company's management, including the Company's President and CEO and the Company's Executive Vice President of Finance, Chief Operating Officer, and CFO, does not expect that its Disclosure Controls will prevent all error and all fraud. A control system, no matter how well conceived and operated, can provide only reasonable, not absolute, assurance that the objectives of the control system are met. The design of any system of controls is based in part upon certain assumptions about the likelihood of future events, and there can be no assurance that any design will succeed in achieving its stated goals under all potential future conditions. Further, the design of a control system must reflect the fact that there are resource constraints, and the benefits of controls must be considered relative to their costs. Due to the inherent limitations in all control systems, no evaluation of controls can provide absolute assurance that all control issues and instances of fraud, if any, within the Company have been detected. These inherent limitations include the realities that judgments in decision-making can be faulty, and that breakdown can occur because of simple error or mistake. The Company's Disclosure Controls have been designed to provide reasonable assurance of achieving their objectives.

Based upon the most recent Disclosure Controls evaluation conducted by management with the participation of the CEO and CFO, as of June 30, 2013 the CEO and CFO have concluded that the Company's Disclosure Controls were effective at the reasonable assurance level to satisfy their objectives and to ensure that the information required to be disclosed by the Company in its periodic reports is accumulated and communicated to management, including the CEO and CFO, as appropriate to allow timely decisions regarding disclosure and is recorded, processed, summarized, and reported within the time periods specified in the U.S. Securities and Exchange Commission's rules and forms.



During the quarter ended June 30, 2013 there were no other changes in the Company's internal control over financial reporting that materially affected or that are reasonably likely to materially affect the Company's internal control over financial reporting.

## Part II - OTHER INFORMATION

### Item 1. Legal Proceedings.

None.

### Item 1A. Risk Factors.

There have been no material changes to the Risk Factors as previously disclosed in Part I, Item 1A, "Risk Factors" in our 10-K for the year ended December 31, 2012.

### Item 2. Unregistered Sales of Equity Securities and Use of Proceeds.

- (c) The following table provides information about purchases by the Company during the quarter ended June 30, 2013 of equity securities that are registered by the Company pursuant to Section 12 of the Securities Exchange Act of 1934:

#### Issuer Purchases of Equity Securities Common Stock and Common Stock Units

<u>Period</u>	<u>Total Number of Common Shares and Common Stock Units Purchased</u>	<u>Average Price Paid per Common Share</u>	<u>Total Number of Common Shares Purchased as Part of Publicly Announced Plans or Programs</u>	<u>Dollar Value of Common Shares That May Yet Be Purchased Under the Plans or Programs</u>
04/01/13 - 04/30/13	24,525	\$ 5.72	24,525	\$ 13,657,139
05/01/13 - 05/31/13	6,023	5.78	6,023	13,622,333
06/01/13 - 06/30/13	—	—	—	13,622,333
Total	30,548	5.73	30,548	13,622,333

In February 2013 the Company announced that its Board of Directors had authorized the purchase of up to \$15.0 million of its common stock through October 31, 2014. The purchase of shares may be made from time to time in the open market or through privately negotiated transactions, on such terms as management deems appropriate, and will be dependent upon various factors, including: price, regulatory requirements, and other market conditions. For the quarter ended June 30, 2013, the Company purchased 31,000 shares of its common stock for an aggregate purchase price of approximately \$175,000.

Under the Company's credit agreement with GE Capital, the Company is required, after giving effect to stock repurchases, to maintain liquidity, as defined within the agreement, of at least \$20.0 million. The Company is entitled to repurchase up to approximately \$8.9 million of common stock under the February 2013 authorization without obtaining its lender's consent.

### Item 3. Defaults Upon Senior Securities.

None.

### Item 4. Mine Safety Disclosures.

Not applicable.

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**Item 5. Other Information.**

None.

**Item 6. Exhibits.**

The exhibit index can be found below.

<b>Exhibit Number</b>	<b>Description</b>
3.1	Amended and Restated Articles of Incorporation of the Company. (Incorporated herein by reference to Exhibit 3.1 to the Registrant's Form S-3 filed February 22, 2012.)
3.2	Amended and Restated By-Laws. (Incorporated herein by reference to Exhibit 3.1 to the Registrant's Current Report on Form 8-K filed July 27, 2011.)
4.1	Form of Certificate for the Company's Common Stock. (Incorporated herein by reference to Exhibit 4.2 to the Registrant's Annual Report on Form 10-K for the fiscal year ended December 31, 1997.)
4.2	First Amended and Restated Rights Agreement, dated as of November 2, 2005, between CryoLife, Inc. and American Stock Transfer & Trust Company. (Incorporated herein by reference to Exhibit 4.1 to Registrant's Current Report on Form 8-K filed November 3, 2005.)
10.1*	Indemnification Agreement between the Company and Starch Medical, Inc., dated May 21, 2013.
10.2*	Second Amendment, dated May 23, 2013, to the Amended and Restated Credit Agreement, dated October 28, 2011, by and among CryoLife, Inc. and certain of its subsidiaries, as borrowers, General Electric Capital Corporation, as lender, swingline lender, as letter of credit issuer, and as the agent for all lenders, and GE Capital Markets, Inc., as sole lead arranger and bookrunner
31.1*	Certification by Steven G. Anderson pursuant to section 302 of the Sarbanes-Oxley Act of 2002.
31.2*	Certification by D. Ashley Lee pursuant to section 302 of the Sarbanes-Oxley Act of 2002.
32*	Certification pursuant to 18 U.S.C. Section 1350, as adopted pursuant to section 906 of the Sarbanes-Oxley Act of 2002.
101.INS**	XBRL Instance Document
101.SCH**	XBRL Taxonomy Extension Schema Document
101.CAL**	XBRL Taxonomy Extension Calculation Linkbase Document
101.DEF**	XBRL Taxonomy Extension Definition Linkbase
101.LAB**	XBRL Taxonomy Extension Label Linkbase Document
101.PRE**	XBRL Taxonomy Extension Presentation Linkbase Document

\* Filed herewith.

\*\* Furnished herewith. Pursuant to applicable securities laws and regulations, the Company is deemed to have complied with the reporting obligation relating to the submission of interactive data files in such exhibits and is not subject to liability under any anti-fraud provisions of the federal securities laws as long as the Company has made a good faith attempt to comply with the submission requirements and promptly amends the interactive data files after becoming aware that the interactive data files fail to comply with the submission requirements. Users of this data are advised that, pursuant to Rule 406T, these interactive data files are deemed not filed and otherwise are not subject to liability.

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**SIGNATURES**

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

CRYOLIFE, INC.  
(Registrant)

/s/ STEVEN G. ANDERSON

/s/ D. ASHLEY LEE

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STEVEN G. ANDERSON  
Chairman, President, and  
Chief Executive Officer  
(Principal Executive Officer)

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D. ASHLEY LEE  
Executive Vice President,  
Chief Operating Officer, and  
Chief Financial Officer  
(Principal Financial and  
Accounting Officer)

July 25, 2013

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DATE

## INDEMNIFICATION AGREEMENT

This INDEMNIFICATION AGREEMENT (this "Agreement") is entered into as of May 21, 2013, by and between STARCH MEDICAL, INC., a Delaware corporation having a principal place of business at 2150 Ringwood Avenue, San Jose, California 95131 ("SMI") and CRYOLIFE, INC., a Florida corporation, having a principal place of business at 1655 Roberts Blvd. NW, Kennesaw, Georgia 30144 ("CryoLife"). This Indemnification Agreement amends that certain Distribution Agreement, dated September 28, 2010, by and between SMI and CryoLife, as amended (the "Distribution Agreement") and that certain License Agreement, dated September 28, 2010 (the "License Agreement"; collectively with the Distribution Agreement, the "PerClot Agreements"). To the extent any provision of this Indemnification Agreement conflicts with a term of the PerClot Agreements, the provisions of this Indemnification Agreement shall prevail.

Background

**WHEREAS**, SMI and CryoLife have been threatened with a patent infringement lawsuit by Medafor, Inc., a Minnesota corporation, related to U.S. Patent No. 6,060,461 (the "Drake Patent") (this threatened claim and any resulting lawsuit related to this threat, the "Potential Litigation"); and

**WHEREAS**, in order to efficiently resolve the issues relating to the Potential Litigation, the parties mutually agree to joint representation with CryoLife primarily controlling the Potential Litigation and the costs shared between the parties as set forth herein.

**NOW, THEREFORE**, in consideration of the premises and the mutual covenants contained herein, and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, SMI and CryoLife hereby agree as follows:

**1.**

1.1 Notwithstanding the terms of the PerClot Agreements, SMI shall have no obligation to indemnify CryoLife for the legal costs and expenses incurred by CryoLife related to or arising from the Potential Litigation.

1.2 CryoLife shall primarily control the Potential Litigation and will be responsible for the selection of legal counsel(s) that will represent CryoLife and SMI as set forth in any such representation agreements and the payment of all legal fees and related costs and expenses (including, but not limited to, expert witness fees, 3<sup>rd</sup> party travel fees and costs and court costs) related to or arising from the Potential Litigation (the "Legal Fees"). CryoLife's good faith management and control of the Potential Litigation shall not be used as a basis for SMI to question or dispute the amount of Legal Fees incurred.

1.3 In exchange for the agreements set forth in Sections 1.1 and 1.2, and notwithstanding the provisions of Section 3.2 of the License Agreement when CryoLife has its first commercial sale of Products in the United States after receipt of United States Regulatory Approval, CryoLife will only be required to pay \$500,000 to SMI, with the remaining balance of \$500,000 to be applied to offset Legal Fees that have been or in the future are incurred by CryoLife ("Offset to Milestone").

1.4 For the years 2015 through 2017, CryoLife's royalty obligation set forth under Section 3.1 of the License Agreement shall be reduced by 50%. In the year 2018 and 2019, CryoLife's royalty obligation set forth under Section 3.1 of the License Agreement shall be reduced by 40%. Thereafter, the

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royalty obligation under the License Agreement shall return to the rate set forth therein. The Prepaid Royalty Payment shall not be adjusted. Notwithstanding anything to the contrary, the aggregate reduction to royalty obligation shall be no greater than \$3.305 million (such amount shall be deemed the “Offset to Royalty”). To the extent that the aggregate reduction to royalty obligation is less than \$3.305 million by December 31, 2019, the parties shall meet and negotiate in good faith an appropriate mechanism so that the difference shall be obtained by CryoLife.

1.5 If, and only if, after the final non-appealable decision in the Potential Litigation (or a settlement of all causes of action arising therefrom or the expiration of any applicable appeal periods), the Legal Fees incurred by CryoLife plus any damages (or settlement payment amounts) (“Legal Fees Plus Damages”) to be paid are less than the sum of the Offset to Milestone and the Offset to Royalty, then CryoLife shall reimburse SMI for the difference between the Legal Fees Plus Damages and the sum of the Offset to Milestone and Offset to Royalty within 60 days after such final non-appealable decision (or entry of such settlement into court or expiration of the applicable appeal period). CryoLife also agrees to allow SMI to review Legal Fees invoices in summary form, provided that such review shall be done in such a manner as to preserve and not waive CryoLife’s attorney-client privilege or work product protections

2.

2.1 Neither SMI nor CryoLife believe that the PerClot product to be manufactured by CryoLife and sold in the United States infringes the Drake Patent. In the event that CryoLife is required or agrees to pay monetary damages or royalties to Medafor as a result of the Potential Litigation (whether by settlement or a decision by a court of competent jurisdiction) for future sales after the settlement or decision by the court, CryoLife shall be able to offset any royalty or license payments due to SMI under the PerClot Agreements to the extent of such damages in addition to Section 1.4. Any settlement with Medafor where money is to be paid to Medafor would require SMI’s consent, not to be unreasonably withheld, conditioned or delayed.

2.2 To the extent that any lump sum monetary payment is due as part of any award to or settlement arising out of the Potential Litigation (either in addition to or in lieu of required monetary damages or royalty payments), one-half of such amounts shall be paid by SMI (with no more than \$1.25 million paid by SMI) to CryoLife. In the event that CryoLife is enjoined from selling the Product due to the Potential Litigation and monetary damages, other than as it relates to future sales as set forth in Section 2.1, are awarded arising out of the Potential Litigation, SMI shall have no additional indemnification obligations (other than the provisions set forth herein) except to pay on CryoLife’s behalf one-half of such monetary damages (with payment of no more than \$1.25 million). Any such payment by SMI to CryoLife shall be paid to CryoLife in a combination of cash and royalty discounts as to be negotiated by CryoLife and SMI.

3 . SMI and CryoLife acknowledge that in order to satisfy their respective obligations under this Agreement, it will be necessary for the parties to exchange Confidential Information, as that term is defined in the License Agreement. The obligations set forth in Section 7 of the License Agreement (with the same clarifications and exceptions) shall apply to Confidential Information disclosed pursuant to this Agreement, with the obligations under this Section 3 continuing through third anniversary date of the expiration or termination of this Agreement.

4. SMI represents and warrants that:

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4.1 SMI is duly and validly organized and is a corporation in good standing under the laws of the state of Delaware, and that it is legally qualified to do business in each jurisdiction in which this Agreement may be performed and where its activities hereunder require such qualification;

4.2 the performance of this Agreement and the consummation of the transactions contemplated herein will not result in any breach, conflict, or violation of any terms or provisions of, or constitute a default under, the Certificate of Incorporation or By-Laws (if any), or other organizational documents, or any material agreement or instrument to which SMI is a party, by which SMI is bound, or to which any property of SMI is subject;

4.3 all requisite corporate action has been taken for the due authorization, execution, delivery, and performance of this Agreement by SMI and this Agreement constitutes a legally binding obligation, enforceable against SMI in accordance with its terms, except insofar as enforceability may be limited by bankruptcy, insolvency, reorganization, or similar laws affecting the rights of creditors generally; and

5. CryoLife hereby represents and warrants that:

5.1 CryoLife is a duly and validly organized and is a corporation in good standing under the laws of the state of Florida, and that it is legally qualified to do business in each jurisdiction in which this Agreement may be performed and where its activities hereunder require such qualification;

5.2 the performance of this Agreement and the consummation of the transactions contemplated herein will not result in any breach or violation of any terms or provisions of, or constitute a default under, its Certificate of Incorporation or By-Laws, or other organizational documents; and

5.3 all requisite corporate action has been taken for the due authorization, execution, delivery, and performance of this Agreement by it, and this Agreement constitutes a legally binding obligation, enforceable against such party, in accordance with its terms, except insofar as enforceability may be limited by bankruptcy, insolvency, reorganization, or similar laws affecting the rights of creditors generally.

6.

6.1 Any notice or other communication required or permitted by this Agreement must be given in writing and must be delivered by personal delivery (including personal delivery by overnight courier such as Federal Express, DHL, or similar overnight courier), first class mail (registered or certified), telecopy (with a copy sent by personal delivery or first class mail), or email (with a copy sent by personal delivery or first class mail) at the address of the party as set forth herein or such other changed address of the party as to which notice has been given, and will be deemed as having been given when received or delivered.

6.2 This Agreement shall be binding on CryoLife and SMI and their respective successors and assigns. No party may assign its obligations under this Agreement or in any way transfer its rights or obligations under this Agreement, directly or indirectly, without the prior written consent of the other party, which consent shall not be unreasonably withheld, except that either party may, without such consent, assign this Agreement in connection with any sale of substantially all of its assets or stock or pursuant to any merger, reclassification, or reorganization.

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6.3 This Agreement together with the PerClot Agreements contains the entire agreement between the parties with respect to the subject matter of this Agreement and shall supersede and terminate all prior agreements, commitments, or understandings, whether oral or written, related to the subject matter of this Agreement.

6.4 No waiver or modification of any of the provisions of this Agreement shall be binding unless it is in writing and signed by CryoLife and SMI. Any waiver of any condition on any one occasion shall not constitute a waiver on any subsequent occasion. A failure to exercise or a delay in exercising a right or remedy provided by this Agreement or by law shall not constitute a waiver of that right or remedy.

6.5 The parties agree that any dispute concerning, relating to, or arising out of this Agreement shall be resolved by final and binding arbitration in accordance with the procedures set forth in the PerClot Agreements. Provided, however that, notwithstanding any other provision herein, either SMI or CryoLife, in its sole and exclusive discretion, may apply to any court with jurisdiction over the parties for a temporary restraining order, preliminary or permanent injunction, without submission of such claim for equitable relief to arbitration.

6.6 This Agreement has been written, and all discussions leading up to this Agreement have been conducted, in the English language which the parties thoroughly understand. Each party represents that it has read and fully understands this Agreement.

6.7 Nothing contained in this Agreement shall be deemed or construed to recreate an employer/employee, principal/agent, joint venture, partnership, or fiduciary relationship between the parties.

6.8 If any provision of this Agreement is held by a court of competent jurisdiction to be invalid or unenforceable, such provision will be severed from this Agreement without affecting the validity or enforceability of any of the remaining provisions, and this Agreement will be deemed amended to the extent feasible to give effect to the essential purposes and intent of this Agreement.

6.9 Defined terms used herein but not defined herein shall have the meaning set forth in the License Agreement.

6.10 This Agreement may be executed in multiple counterparts, each of which shall be an original, and all of which together shall constitute one and the same instrument.

6.11 This Agreement shall remain in force until the final conclusion of the Potential Litigation, including any applicable appeal or period within which to appeal. The obligations of CryoLife and SMI under this Agreement shall survive in accordance with their terms.

6.12 Each party covenants and agrees that, subsequent to the execution and delivery of this Agreement and without any additional consideration, it will execute and deliver any further legal instruments and perform any acts that are or may become reasonably necessary to effectuate the purposes of this Agreement.

6.13 Each party acknowledges that it will be impossible to measure in money the damage to the other party if a party fails to comply with the confidentiality obligations imposed by this Agreement, and that, in the event of any such failure, the other party will not have an adequate remedy at law or in damages. Accordingly, each party agrees that injunctive relief or other equitable remedy, in addition to

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remedies at law or damages, is an appropriate remedy for any such failure and will not oppose the granting of such relief on the basis that the other party has an adequate remedy at law. Each party agrees that it will not seek, and agrees to waive any requirement for the securing or posting of a bond in connection with any other party's seeking or obtaining such equitable relief.

**IN WITNESS WHEREOF**, the parties have caused this Agreement to be executed by their respective duly authorized officers, and have duly delivered and executed this Agreement as of the date first hereinabove set forth.

**CRYOLIFE, INC.**

**STARCH MEDICAL, INC.**

By: /s/ Steven G. Anderson  
Name: Steven G. Anderson  
Title: Chief Executive Officer

By: /s/ Jane Chen  
Name: Jane Chen  
Title: Chief Executive Officer



**SECOND AMENDMENT TO AMENDED AND RESTATED CREDIT AGREEMENT**

THIS SECOND AMENDMENT TO AMENDED AND RESTATED CREDIT AGREEMENT (“Amendment”) is entered into as of May 23, 2013, by and among CryoLife, Inc., a Florida corporation (“CryoLife”), AuraZyme Pharmaceuticals, Inc., a Florida corporation (“AuraZyme”), CryoLife International, Inc., a Florida corporation (“International”), Cardiogenesis Corporation, a Florida corporation (“Cardiogenesis”) (CryoLife, AuraZyme, International and Cardiogenesis are sometimes referred to herein together as the “Borrowers” and individually as a “Borrower”), CryoLife, as Borrower Representative, the other Credit Parties party hereto, General Electric Capital Corporation, a Delaware corporation (the “Agent”), as administrative agent for the lenders from time to time party to the Credit Agreement described below (collectively, the “Lenders” and individually each a “Lender”) and for itself as a Lender and L/C Issuer, and such Lenders.

**RECITALS**

A. The Borrowers, the other Credit Parties signatory thereto, the Lenders signatory thereto from time to time and Agent are parties to that certain Amended and Restated Credit Agreement, dated as of October 28, 2011, as amended by that certain First Amendment to Amended and Restated Credit Agreement, dated as of August 20, 2012 (as so amended and as may be further amended, supplemented, revised, restated, replaced or otherwise modified, the “Credit Agreement”). Capitalized terms used in this Amendment without definition shall have the meanings ascribed to such terms in the Credit Agreement, as applicable.

B. The Borrowers have requested that Lenders amend the Credit Agreement in certain respects and Lenders have agreed to so amend the Credit Agreement, subject to the terms and conditions hereof.

NOW, THEREFORE, in consideration of the premises and the mutual covenants hereinafter contained, and intending to be legally bound, the parties hereto agree as follows:

**A. AMENDMENTS**

1. Amendment to Section 5.11(e) Section 5.11(e) of the Credit Agreement is hereby amended by replacing such subsection in its entirety with the following:

(e) CryoLife may declare and make dividend payments with respect to its common stock in an aggregate amount not to exceed \$3,500,000 in any fiscal year; provided, that, both before and after giving pro forma effect to each such dividend payment and any Loan made on the date such dividend payment is made, (i) the Credit Parties shall be in compliance on a pro forma basis with the covenants set forth in Article VI as of the most recently ended fiscal quarter for which financial statements have been delivered under Section 4.1(a) or (c), (ii) the Leverage Ratio calculated as of the date of such dividend payment (except with respect to Adjusted EBITDA which shall be calculated as of the most recently

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ended twelve month period for which financial statements have been delivered under Section 4.1(b) shall be less than 1.00:1.00, and (iii) no Default or Event of Default shall have occurred and be continuing.

2 . Amendment to Section 6.1 Section 6.1 of the Credit Agreement is hereby amended by replacing such section in its entirety as follows:

Section 6.1 Capital Expenditures. The Borrowers and their Subsidiaries shall not make or commit to make Capital Expenditures for fiscal year ended December 31, 2013 (or shorter period) in excess of \$5,000,000, and for any fiscal year thereafter (or shorter period) in excess of \$3,500,000 (the "Capital Expenditure Limitation"); provided, however, in the event the Borrowers and their Subsidiaries do not expend the entire Capital Expenditure Limitation in any fiscal year, the Borrowers and their Subsidiaries may carry forward to the immediately succeeding fiscal year 50% of the unutilized portion. All Capital Expenditures shall first be applied to reduce the applicable Capital Expenditure Limitation and then to reduce the carry-forward from the previous fiscal year, if any. "Capital Expenditures" shall be calculated in the manner set forth in Exhibit 4.2(b).

#### B. CONDITIONS TO EFFECTIVENESS

Notwithstanding any other provision of this Amendment and without affecting in any manner the rights of the Lenders hereunder, it is understood and agreed that this Amendment shall not become effective, and the Borrower shall have no rights under this Amendment, until Agent shall have received (a) duly executed signature pages to this Amendment from the Lenders, Borrowers, L/C Issuer, Agent and each Credit Party, and (b) an amendment fee in the amount of \$15,000.

#### C. REPRESENTATIONS

Each Credit Party hereby represents and warrants to Lenders, L/C Issuer and Agent that:

1. The execution, delivery and performance by such Credit Party of this Amendment (a) are within such Credit Party's power; (b) have been duly authorized by all necessary corporate, limited liability company or limited partnership action; (c) are not in contravention of any provision of such Credit Party's certificate of incorporation or bylaws or other organizational documents; (d) do not violate any law or regulation, or any order or decree of any Governmental Authority; (e) do not conflict with or result in the breach or termination of, constitute a default under or accelerate any performance required by, any indenture, mortgage, deed of trust, lease, agreement or other instrument to which such Credit Party or any of its Subsidiaries is a party or by which such Credit Party or any such Subsidiary or any of their respective property is bound; (f) do not result in the creation or imposition of any Lien upon any of the property of such Credit Party or any of its Subsidiaries other than those in favor of Agent, on behalf of itself and the Lenders, pursuant to the Loan Documents; and (g) do not require the consent or approval of any Governmental Authority or any other Person.

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2. This Amendment has been duly executed and delivered for the benefit of or on behalf of each Credit Party and constitutes a legal, valid and binding obligation of each Credit Party, enforceable against such Credit Party in accordance with its terms except as the enforceability hereof may be limited by bankruptcy, insolvency, reorganization, moratorium and other laws affecting creditors' rights and remedies in general.

3. Except as disclosed in writing to the Agent on the date hereof, both before and after giving effect to this Amendment, the representations and warranties contained in the Credit Agreement and the other Loan Documents are true and correct in all material respects and no Default or Event of Default has occurred and is continuing as of the date hereof.

#### D. OTHER AGREEMENTS

1. Continuing Effectiveness of Loan Documents. As amended hereby, all terms of the Credit Agreement and the other Loan Documents shall be and remain in full force and effect and shall constitute the legal, valid, binding and enforceable obligations of the Credit Parties party thereto. To the extent any terms and conditions in any of the other Loan Documents shall contradict or be in conflict with any terms or conditions of the Credit Agreement, after giving effect to this Amendment, such terms and conditions are hereby deemed modified and amended accordingly to reflect the terms and conditions of the Credit Agreement as modified and amended hereby. Upon the effectiveness of this Amendment such terms and conditions are hereby deemed modified and amended accordingly to reflect the terms and conditions of the Credit Agreement as modified and amended hereby.

2. Reaffirmation of Loan Documents. Each Credit Party consents to the execution and delivery of this Amendment by all parties hereto and the consummation of the transactions described herein, and ratifies and confirms the terms of the Credit Agreement, that certain Guaranty and Security Agreement, dated as of March 27, 2008 and reaffirmed by that certain Omnibus Reaffirmation Agreement, dated as of October 28, 2011 (as amended, supplemented, modified, the "Guaranty and Security Agreement") and each other Loan Document to which such Credit Party is a party with respect to the indebtedness now or hereafter outstanding under the Credit Agreement as amended hereby and all promissory notes issued thereunder. Each Credit Party acknowledges that, notwithstanding anything to the contrary contained herein or in any other document evidencing any indebtedness of any Borrower to the Lenders or any other obligation of Borrowers, or any actions now or hereafter taken by the Lenders with respect to any obligation of Borrowers, the Guaranty and Security Agreement (i) is and shall continue to be a primary obligation of such Credit Party, (ii) is and shall continue to be an absolute, unconditional, continuing and irrevocable guaranty of payment, and (iii) is and shall continue to be in full force and effect in accordance with its terms. Nothing contained herein to the contrary shall release, discharge, modify, change or affect the original liability of any Credit Party under the Guaranty and Security Agreement.

3. Acknowledgment of Perfection of Security Interest. Each Credit Party hereby acknowledges that, as of the date hereof, the security interests and liens granted to Agent, the L/C Issuer and the Lenders under the Credit Agreement and the other Loan Documents are in

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full force and effect, are properly perfected and are enforceable in accordance with the terms of the Credit Agreement and the other Loan Documents.

4. Effect of Agreement. Except as set forth expressly herein, all terms of the Credit Agreement, as amended hereby, and the other Loan Documents shall be and remain in full force and effect and shall constitute the legal, valid, binding and enforceable obligations of the Borrowers to the Lenders, the L/C Issuer and Agent. The execution, delivery and effectiveness of this Amendment shall not, except as expressly provided herein, operate as a waiver of any right, power or remedy of the Lenders under the Credit Agreement, nor constitute a waiver of any provision of the Credit Agreement. This Amendment shall constitute a Loan Document for all purposes of the Credit Agreement.

5. Governing Law. This Amendment shall be governed by, and construed in accordance with, the internal laws of the State of New York and all applicable federal laws of the United States of America.

6. No Novation. This Amendment is not intended by the parties to be, and shall not be construed to be, a novation of the Credit Agreement and the other Loan Documents or an accord and satisfaction in regard thereto.

7. Costs and Expenses. The Borrowers agree to pay on demand all costs and expenses of Agent in connection with the preparation, execution and delivery of this Amendment, including, without limitation, the reasonable fees and out-of-pocket expenses of outside counsel for Agent with respect thereto.

8. Counterparts. This Amendment may be executed by one or more of the parties hereto in any number of separate counterparts, each of which shall be deemed an original and all of which, taken together, shall be deemed to constitute one and the same instrument. Delivery of an executed counterpart of this Amendment by facsimile transmission, Electronic Transmission or containing an E-Signature shall be as effective as delivery of a manually executed counterpart hereof.

9. Binding Nature. This Amendment shall be binding upon and inure to the benefit of the parties hereto, their respective successors, successors-in-titles, and assigns.

10. Entire Understanding. This Amendment sets forth the entire understanding of the parties with respect to the matters set forth herein, and shall supersede any prior negotiations or agreements, whether written or oral, with respect thereto.

[signature pages to follow]

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IN WITNESS WHEREOF, this Amendment has been duly executed as of the date first written above.

**BORROWERS:**

CRYOLIFE, INC.

By: /s/ Steven G. Anderson  
Title: Chairman, CEO and President

AURAZYME PHARMACEUTICALS, INC.

By: /s/ Steven G. Anderson  
Title: Chairman, CEO and President

CRYOLIFE INTERNATIONAL, INC.

By: /s/ Steven G. Anderson  
Title: Chairman, President and CEO

CARDIOGENESIS CORPORATION

By: /s/ Steven G. Anderson  
Title: Chairman, President and CEO

HEMOSPHERE, INC.

By: /s/ Steven G. Anderson  
Title: Chairman, CEO and President

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**AGENT, L/C ISSUER AND LENDERS:**

GENERAL ELECTRIC CAPITAL  
CORPORATION, as Agent, L/C Issuer and sole Lender

By: /s/ Andrew Moore  
Its Duly Authorized Signatory

[Signature Page to Second Amendment to Amended and Restated Credit Agreement]

CERTIFICATIONS

I, Steven G. Anderson, certify that:

1. I have reviewed this quarterly report on Form 10-Q of CryoLife, Inc.;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
  - a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
  - b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
  - c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
  - d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
  - a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
  - b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: July 25, 2013

/s/ STEVEN G. ANDERSON  
Chairman, President, and  
Chief Executive Officer

I, David Ashley Lee, certify that:

1. I have reviewed this quarterly report on Form 10-Q of CryoLife, Inc.;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
  - a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
  - b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
  - c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
  - d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
  - a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
  - b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: July 25, 2013

/s/ D. ASHLEY LEE  
Executive Vice President,  
Chief Operating Officer, and  
Chief Financial Officer



**CERTIFICATION PURSUANT TO  
18 U.S.C. SECTION 1350,  
AS ADOPTED PURSUANT TO  
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002**

In connection with the Quarterly Report of CryoLife, Inc. (the "Company") on Form 10-Q for the quarter ending June 30, 2013, as filed with the Securities and Exchange Commission on the date hereof (the "Report"), each of Steven G. Anderson, the Chairman, President, and Chief Executive Officer of the Company, and David Ashley Lee, the Executive Vice President, Chief Operating Officer, and Chief Financial Officer of the Company, hereby certifies, pursuant to and for purposes of 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that, to his knowledge:

- (1) The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and
- (2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

/s/ STEVEN G. ANDERSON

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STEVEN G. ANDERSON  
Chairman, President, and  
Chief Executive Officer  
July 25, 2013

/s/ D. ASHLEY LEE

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D. ASHLEY LEE  
Executive Vice President,  
Chief Operating Officer, and  
Chief Financial Officer  
July 25, 2013

