
**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, d.c. 20549**

FORM 8-K

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

Date of Report (Date of earliest event reported): April 16, 2008

CRYOLIFE, INC.

(Exact name of registrant as specified in its charter)

Florida
(State or Other Jurisdiction
of Incorporation)

1-13165
(Commission File Number)

59-2417093
(IRS Employer
Identification No.)

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

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

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

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

- Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)
 - Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)
 - Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))
 - Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))
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Section 1 Registrant's Business and Operations

Item 1.01 Entry into a Material Definitive Agreement

On April 16, 2008, CryoLife, Inc. (the "Company" or "CryoLife") entered into an exclusive distribution agreement with Medafor, Inc. ("Medafor"). Pursuant to the agreement, CryoLife will distribute an absorbable blood clotting agent manufactured and developed by Medafor. A copy of the press release announcing the agreement is attached as Exhibit 99.1 hereto and incorporated by reference hereto.

It is anticipated that CryoLife will begin distribution of the absorbable blood clotting agent, marketed by CryoLife as Hemostase MPH, on May 1, 2008. The agreement has a three-year term with a three-year right of renewal by CryoLife if CryoLife meets the annual minimum purchase requirements. The agreement gives CryoLife the exclusive distribution rights for Hemostase MPH in specified territories for all applications in cardiac and vascular surgery, and with respect to countries other than the United States, China and Japan, for general surgery applications, excluding orthopedic and ear, nose, and throat surgeries.

Commencing May 1, 2008, CryoLife's distribution territory under the distribution agreement includes the United States (excluding approximately 41 hospitals where Medafor will retain distribution rights until no later than December 31, 2008 and Department of Defense facilities), the United Kingdom, Germany and Canada. Subject to the exceptions noted above, the territory will expand to include the entire world except Japan and China beginning in January 1, 2009. Department of Veterans Affairs hospitals are not considered Department of Defense facilities as part of the agreement.

If CryoLife fails to purchase certain specified annual amounts under the agreement, Medafor may terminate the distribution agreement, with no further obligation owed by CryoLife. If CryoLife terminates the distribution agreement, other than for certain breaches by Medafor, then CryoLife is required to reimburse Medafor for Medafor's cost of up to three months of Hemostase MPH inventory maintained by Medafor or purchase such inventory from Medafor.

Section 9 Financial Statements and Exhibits.

Item 9.01 Financial Statements and Exhibits.

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

99.1 Press Release dated April 17, 2008.

SIGNATURES

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

CRYOLIFE, INC.

Date: April 21, 2008

By: /s/ D.A. Lee

Name: D. Ashley Lee

Title: Executive Vice President, Chief

Operating Officer and Chief

Financial Officer



N E W S R E L E A S E

FOR IMMEDIATE RELEASE**Media Contacts:**

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CryoLife To Distribute FDA-approved Hemostatic Agent Under Private Label

ATLANTA, GA... (April 17, 2008)...CryoLife, Inc. (NYSE: CRY), a biomaterials, medical device and tissue processing company, announced today that it has signed an exclusive three-year agreement with Minneapolis-based Medafor, Inc. Under terms of the agreement, CryoLife will distribute Medafor's microporous polysaccharide hemostatic agent for use in cardiac and vascular surgery in the U. S., and for cardiac, vascular and general surgery, other than orthopaedic and ear, nose and throat surgery, outside the U.S. (excluding Japan and China).

CryoLife expects to begin distributing Hemostase MPH in the U. S. in the second quarter of 2008, except to approximately 41 hospitals for which Medafor will retain distribution rights until no later than December 31, 2008. Outside of the U. S., CryoLife expects to begin distributing Hemostase MPH in Canada, United Kingdom and Germany in the second quarter of 2008, with distribution in other markets beginning in 2009. Department of Defense hospitals are excluded from CryoLife's territory under the distribution agreement, but Veterans' Administration Hospitals are included.

The unique, absorbable powder hemostat, which received CE Mark approval in 2003 and FDA pre-market approval in September 2006, will be distributed by CryoLife under the private label name Hemostase MPH.

Hemostase MPH is developed using Medafor's exclusive, licensed Microporous Polysaccharide Hemospheres technology (MPH[®]), which yields a plant-based, flowable powder engineered to rapidly dehydrate blood, enhancing clotting on contact. When used as directed, this highly effective hemostatic agent facilitates the formation of a resilient, natural clot within just a few minutes.

- more -

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Available in a convenient ready-to-use applicator, Hemostase MPH, unlike many hemostatic agents, does not require additional preparation steps in the operating room or special storage conditions thereby saving valuable operating room time and resources. Pre-clinical evaluations have shown that Hemostase MPH does not promote infection and absorbs within 24-48 hours of application at the wound site, compared to other surgical hemostats which can take 3-8 weeks or more to fully break down.

“Hemostase MPH gives surgeons the ability to quickly control active surgical bleeding, making it the perfect complement to CryoLife’s BioGlue® product line, which is much stronger and provides both tissue reinforcement and sealant capabilities,” stated Steven G. Anderson, president and chief executive officer. “Hemostase MPH also allows us to compete in the surgical hemostat market, which we believe totaled approximately \$380 million in the U.S. in 2007.”

Gary Shope, Medafor’s chief executive, said, “We are pleased to be working with CryoLife as a major distribution partner. CryoLife is a world leader in its chosen areas, and its strength in sales, marketing and distribution in the cardio and vascular fields should provide great impetus to Medafor’s market penetration.”

The agreement allows for a three-year extension at the option of CryoLife if certain minimum purchases are met.

About CryoLife, Inc.

Founded in 1984, CryoLife, Inc. is a leader in the processing and distribution of implantable living human tissues for use in cardiac and vascular surgeries throughout the United States and Canada. The Company recently received FDA clearance for its CryoValve® SG pulmonary human heart valve, processed using CryoLife’s proprietary SynerGraft® Technology. The Company’s BioGlue® Surgical Adhesive is FDA approved as an adjunct to sutures and staples for use in adult patients in open surgical repair of large vessels. BioGlue is also CE marked in the European Community and approved in Canada and Australia for use in soft tissue repair. The Company also distributes the CryoLife-O’Brien® stentless porcine heart valve, which is CE marked for distribution within the European Community.

About Medafor Inc.

Medafor is a privately held Minneapolis based medical device company that has commercialized a naturally absorbent starch based hemostatic powder engineered to rapidly dehydrate blood and enhance clotting. This powder, which is Medafor’s microporous polysaccharide hemostatic agent, has been commercialized for use in both intra-operative surgical procedures as well as numerous topical applications worldwide. This agent has a number of cost and safety features important to both surgeons and patients. The Company received FDA approval for surgical use of this product in September 2006 and has had CE Mark approval since 2003.

Statements made in this press release that look forward in time or that express management's beliefs, expectations or hopes are forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. These statements include those regarding the ability of the Company to begin distributing the Hemostase MPH product when expected, the ability of the Company to compete in the surgical hemostat market, and expectations regarding the market penetration of Hemostase MPH. These future events may not occur as and when expected, if at all, and, together with the Company's business, are subject to various risks and uncertainties. These risks and uncertainties include that the Company may be unable to effectively leverage its existing sales force to sell a new product, that surgeons may not choose to utilize Hemostase MPH, and that Hemostase MPH may not perform as expected or provide all expected benefits. In addition, the Company's business is subject to the following risks: the Company's strategic directives may not generate anticipated revenue and earnings growth, that the Company is dependent on revenues from BioGlue, competitive pressures and tissue availability may adversely affect the Company's ability to grow revenues, the Company's efforts to develop and introduce new products outside the U.S. may be unsuccessful, the Company's efforts to improve procurement and tissue processing yields may not continue to prove effective, the possibility that the FDA or foreign regulatory bodies could impose restrictions on the Company's operations, require a recall, or prevent the Company from processing and distributing tissues or manufacturing and distributing other products, FDA and other approvals for products in development may not be obtained, and if obtained, may be costly and require lengthy review periods, products and services under development may not be commercially feasible, CryoValve SG may not perform as well as expected or provide all the benefits anticipated, demand for CryoValve SG may not reach anticipated levels, and accordingly, the Company may choose not to process the majority of its pulmonary valves with the Company's SynerGraft technology, the SynerGraft post-clearance study requested by the FDA may not provide the expected positive results, that the Company's products and the tissues the Company processes allegedly have caused and may in the future cause injury to patients and the Company has been and may be exposed to product liability claims and additional regulatory scrutiny as a result, that uncertainties related to patents and protection of proprietary technology may affect the availability, amount and timing of the Company's revenues, that pending or future litigation cannot be settled on terms acceptable to the Company, that the Company may not have sufficient resources to pay punitive damages (which are not covered by insurance) or other liabilities in excess of its available insurance, that the Company may not have sufficient borrowing or other capital availability to fund its business, that the Company may be unable to obtain sufficient financing to fully pursue its strategic plan and future healthcare policies, healthcare reimbursement methods and healthcare reimbursement policies may affect the availability, amount and timing of the Company's revenues. These risks and uncertainties include the risk factors detailed in CryoLife's Securities and Exchange Commission filings, including CryoLife's Form 10-K filing for the year ended December 31, 2007 and the Company's other SEC filings. The Company does not undertake to update its forward-looking statements.

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

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