



**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): September 27, 2010

CRYOLIFE, INC.

(Exact name of registrant as specified in its charter)

Florida
(State or Other Jurisdiction
of Incorporation)

1-13165
(Commission File Number)

59-2417093
(IRS Employer
Identification No.)

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

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

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

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

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

Section 1 Registrant's Business and Operations

Item 1.02 Termination of a Material Definitive Agreement.

CryoLife, Inc. ("CryoLife") and Medafor, Inc. ("Medafor") have been parties to an exclusive distribution agreement (the "Agreement") whereby CryoLife distributes HemoStase®, an absorbable blood clotting agent manufactured by Medafor, in certain markets and certain fields. Medafor had previously alleged that it had reasonable grounds to demand, pursuant to Georgia law, that CryoLife provide adequate assurances that it would perform under the Agreement, and that CryoLife had repudiated the Agreement by not providing adequate assurances. On March 18, 2010, Medafor announced that it was therefore treating the Agreement as terminated. CryoLife thereafter moved the United States District Court for the Northern District of Georgia, Atlanta Division (the "Court") to preliminarily enjoin Medafor from proceeding with its termination. As previously disclosed, on September 20, 2010, the Court issued an order denying CryoLife's request for the preliminary injunction. On September 27, 2010, Medafor informed CryoLife that it had, effective immediately, terminated the Agreement based upon CryoLife's alleged repudiation. This is the 6th time that Medafor has notified CryoLife that it either had terminated the Agreement or was going to terminate the Agreement.

CryoLife believes that Medafor's alleged request that CryoLife give adequate assurances of due performance under the Agreement was not clear, permissible, reasonable or made in good faith, and that Medafor's position that it could terminate the Agreement was not valid. CryoLife is currently evaluating all of its options related to this most recent termination by Medafor, and it intends to challenge the validity of Medafor's termination of the Agreement and pursue its rights and remedies in court.

CryoLife does not anticipate that the actions taken by Medafor will affect its previously announced guidance for HemoStase revenues of between \$4 and \$4.5 million dollars for the last two quarters of 2010. CryoLife plans to give its initial 2011 financial guidance in its 3rd quarter financial conference call.

The Agreement had a three-year term from its effective date of May 1, 2008, and would have automatically renewed, at CryoLife's option, for an additional three-year period if CryoLife continued making minimum purchases as designated under the Agreement and notified Medafor of its intent to renew. There was, however, no contractual obligation for CryoLife to make minimum purchases. The Agreement allows CryoLife (other than for an uncured breach of the Agreement) to continue selling HemoStase for a period of six months after the termination of the Agreement and to continue selling HemoStase pursuant to tenders or sales contracts outstanding at the time of such termination. CryoLife believes that Medafor's termination does not relate to an uncured breach. In addition, pursuant to the Agreement, CryoLife may choose to require Medafor to purchase all of CryoLife's inventory of HemoStase within one month of termination other than for a material breach. The Agreement made CryoLife the exclusive distributor of HemoStase in the U.S. for all applications in cardiac and vascular surgery (excluding Department of Defense hospitals) and the exclusive distributor internationally (excluding China and Japan) for cardiac, vascular, and general surgery, explicitly excluding orthopedic, ear, nose and throat surgery, neurosurgery and topical applications. A copy of the Agreement is filed as Exhibit 10.1 to CryoLife's Form 10-Q for the quarter ended June 30, 2008 and is incorporated herein by reference.

As previously discussed in CryoLife's Form 10-K for the year ended December 31, 2009 and its Forms 10-Q for the quarters ended March 31, 2010 and June 30, 2010, CryoLife and Medafor have both filed lawsuits against each other and are currently involved in litigation related to the Agreement. The litigation is described further in the above-referenced SEC filings, which are incorporated herein by reference. Also, based on information currently available to it, CryoLife owns approximately 10.4% of Medafor's outstanding common stock and is Medafor's largest shareholder. CryoLife has previously offered to engage in negotiations with the Medafor board to purchase Medafor's remaining outstanding shares, but has since withdrawn that offer.

Except for the historical information contained in this report, the statements made by CryoLife are forward-looking statements that involve risks and uncertainties. All such statements are subject to the safe harbor created by the Private Securities Litigation Reform Act of 1995. These statements include CryoLife's belief that termination of the Agreement will not have a material affect on previously announced HemoStase revenue financial guidance. These statements are subject to a number of risks that are outside CryoLife's control, including the risk that Medafor's termination of the Agreement may exacerbate any confusion in the market regarding our ability to distribute HemoStase and our customers and distributors may lose confidence in our ability to effectively distribute HemoStase and cease purchasing from us; and Medafor is likely to increase its efforts to sell product directly into our exclusive territory and field, which may have a material, adverse impact on our HemoStase sales in the remainder of 2010 and thereafter. In addition, Medafor could attempt to take legal action to inhibit or prevent our sales of HemoStase or otherwise fail to comply with the termination provisions of the Agreement. CryoLife does not undertake to update its forward-looking statements. The calculation of the estimated percentage of Medafor's outstanding shares owned by CryoLife is based on 23,023,754 shares outstanding, the number of outstanding shares shown on Medafor's shareholder list as updated on September 15, 2010. This calculation does not take into account any shares that may have been repurchased or issued by Medafor since that date. As a result, CryoLife's actual percentage ownership of Medafor's outstanding common stock may be greater or less than 10.4%.
