

**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549
SCHEDULE 14A**

Proxy Statement Pursuant to Section 14(a) of the Securities
Exchange Act of 1934 (Amendment No.)

Filed by the Registrant

Filed by a Party other than the Registrant

Check the appropriate box:

- Preliminary Proxy Statement
 Confidential, for Use of the Commission Only (as permitted by Rule 14a-6(e)(2))
 Definitive Proxy Statement
 Definitive Additional Materials
 Soliciting Material Pursuant to §240.14a-12

CRYOLIFE, INC.

(Name of Registrant as Specified In Its Charter)

(Name of Person(s) Filing Proxy Statement, if other than the Registrant)

Payment of Filing Fee (Check the appropriate box):

- No fee required.
 Fee computed on table below per Exchange Act Rules 14a-6(i)(4) and 0-11.

(1) Title of each class of securities to which transaction applies:

(2) Aggregate number of securities to which transaction applies:

(3) Per unit price or other underlying value of transaction computed pursuant to Exchange Act Rule 0-11 (set forth the amount on which the filing fee is calculated and state how it was determined):

(4) Proposed maximum aggregate value of transaction:

(5) Total fee paid:

Fee paid previously with preliminary materials.

Check box if any part of the fee is offset as provided by Exchange Act Rule 0-11(a)(2) and identify the filing for which the offsetting fee was paid previously. Identify the previous filing by registration statement number, or the Form or Schedule and the date of its filing.

(1) Amount Previously Paid:

(2) Form, Schedule or Registration Statement No.:

(3) Filing Party:

(4) Date Filed:



The following material may be provided to CryoLife shareholders in connection with solicitations regarding the proposals to be presented at its May 16, 2012 annual meeting of shareholders:

- Management has successfully executed on business development opportunities, most recently with the expansion of BioGlue in Japan, the acquisition and integration of Cardiogenesis, the investment in ValveXchange, and the rollout of PerClot in new international markets
- CryoLife has increased R&D spending over the last three years

2012 Executive Compensation Program Changes

While the Compensation Committee (the "Committee") appreciated the shareholder support received in last years' say on pay vote, the Committee takes all negative votes seriously, and therefore initiated a fresh review of CryoLife's executive compensation programs and made changes to the pay program in 2012. The Committee believes that these changes will further enhance the ability of the executive pay program to accomplish its objectives of aligning pay and performance and retaining a high-performing executive leadership team:

- No salary increases for the named executive officers, other than the CEO, who is being provided a 3% salary increase per the terms of his employment contract
- Returned the equity grant level to 2010 levels and modified the long-term incentive mix to add performance shares, resulting in a 2012 grant mix that is 1/3 options, 1/3 restricted stock and, using target levels, 1/3 performance shares
- Adopted the measure of adjusted EBITDA for the new performance shares; the committee believes that adjusted EBITDA is a reasonable proxy for a measure of cash flow, but allows for adjustments to eliminate items that might provide improper incentives and items over which management has no control
- Increased the required stock ownership levels for each of the named executive officers except Mr. Lee, in order to achieve a required ownership level equal to approximately 3x salary for the CEO and 1x salary for each other named executive officers, assuming a \$5.00 per share or higher stock price; (Mr. Lee's ownership requirement already met this standard), and
- Adopted an executive stock holding requirement requiring executives to hold 50% of the net after tax shares received from option exercises and stock vesting until the executive is in compliance with the required minimum stock ownership level.

Realizable Value of Equity Grants versus the Black-Scholes Grant Value Method

As required, CryoLife reports grant values of its options in accordance with the Black-Scholes method required by law. However, as the price of the Company's stock has decreased, the Committee recognized that the actual realizable value to company executives over recent years is much less than the accounting costs associated with the grants. As reported in CryoLife's proxy, for CryoLife's CEO, the realizable grant value has averaged only 44% of each year's grant value and the current realizable value of all grants over the period reviewed has averaged only 40% of the grant value as of February 29, 2012. The significantly lower realizable value is what should and does align with our long-term performance, whereby relatively lower shareholder returns have resulted in relatively lower value for executives.

2011 FINANCIAL HIGHLIGHTS

The following are a few highlights regarding CryoLife's 2011 operating and financial performance and other accomplishments:

- Record revenues of \$119.6 million, reflecting 3% growth over 2010
- Fifth consecutive year of solid profitability
- \$16.8 million of cash flow from operations
- Executed on growth strategies and repurchased \$2.9 million of CryoLife common stock, with no material increase in debt or shares outstanding
- Continued to position CryoLife for higher growth in larger addressable markets, as evidenced by the successful launch of BioGlue in Japan, the acquisition and integration of Cardiogenesis, the investment in ValveXchange, and the rollout of PerClot in international markets, and
- Retained a strong balance sheet to enable the continued pursuit of business development opportunities to accelerate growth.

2011 Named Executive Officer Compensation

The performance results summarized above were reflected in our named executive officer compensation for 2011 in the following primary ways:

- Short-term incentive awards were earned at 86% of the target, based on achieving 96% of the adjusted revenue goal, 97% of the adjusted net income goal, and 100% of the individual performance goals
- Equity awards granted in February 2011 had a higher grant value than the prior year, but were only worth 47% of their grant value by the end of the year, because the stock price decline reduced the value of the restricted stock awards and resulted in the stock options being underwater at year end, and
- The value of equity owned and held by the named executive officers declined during the year, which was impactful to all executive officers, who are required to maintain a minimum level of stock ownership in accordance with CryoLife's stock ownership policy.

The committee believes that these pay results were aligned with CryoLife's performance results for 2011, and reflect the strong performance orientation of CryoLife's pay programs and policies, as evidenced by the following highlights:

- Over 50% of named executive officer target compensation is in the form of variable pay opportunities tied to individual or company performance or to shareholder value creation
 - The annual bonus targets are set at challenging levels that are designed to encourage business growth, as evidenced by the fact that although we came close to meeting the target levels of adjusted revenues and adjusted net income contained in our annual bonus plan, the plan only paid out at 86% of target
 - Short-term incentive opportunities are tied significantly to adjusted revenue and adjusted net income performance, both of which emphasize factors over which management is expected to have control and are key to incentivizing management to achieve company performance that will further our strategic business plan and ultimately deliver value to our shareholders
 - Long-term incentive opportunities are equity-based and include stock options, which only provide value to executives if the stock price increases beyond the grant date, and
 - Named executive officers have minimum stock ownership requirements to ensure a strong alignment between executives and shareholders and to encourage a long-term view of performance.
-

