Results of Thirteen Year Follow-Up Study on Aortic Heart Valve Replacement Therapy Reported at Thoracic Surgery Conference

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SAN DIEGO, June 21 /PRNewswire/ -- Results of aortic valve replacement surgery covering a 13 year follow-up review, January 1986 through December 1998, conducted at the University of Oklahoma, Health Science Center, and the Prince Charles Hospital, Brisbane, Australia, were presented at the Western Thoracic Surgical Association, 27th Annual Meeting, held at Rancho Bernardo Inn, San Diego, California, June 20-23, 2001.

The study reviewed the survival and morbidity rates of 705 aortic valve replacement patients, ages 17 through 50. The valve replacements included 347 mechanical prosthesis, 193 aortic allografts, and 165 pulmonary autografts performed using the Ross Procedure, a surgical technique introduced by the noted English cardiovascular surgeon, Donald N. Ross, D.Sc., F. R. C. S. The Ross surgical procedure uses the patient's own pulmonary valve (the autograft valve) and the surrounding pulmonary artery as a unit to replace the aortic valve and surrounding aortic artery. A cryopreserved donor pulmonary valve tissue is then placed in the pulmonary position as replacement for the patient's vacated pulmonary valve. The procedure is designed to provide a longer lasting and more effective aortic valve function.

The follow-up study reported a survival rate at 11 years post implant of 96% for the Ross autograft, 96% for the aortic allograft and 89% for the mechanical replacements. The conclusions presented indicated that although allograft and autograft valve patients required somewhat higher replacement frequency this did not affect the long-term survival as compared to the mechanical valve patients.

Results of the follow-up study were presented by Mark F. O'Brien, F.R.A.C.S., F.R.C.S., Senior Cardiac Surgeon, The Prince Charles Hospital, Brisbane, Queensland, Australia, and Ronald C. Elkins, M. D., Chief, Section of Thoracic and Cardiovascular Surgery, University of Oklahoma, Health Sciences Center, Oklahoma City, Oklahoma. Both Dr. O'Brien and Dr. Elkins are consultants to CryoLife, Inc. (NYSE: CRY), a life-science company involved in the development and commercialization of cryopreserved and tissue-engineered implantable heart valves, vascular and orthopaedic grafts, and surgical adhesives, and Dr. Elkins serves as a member of CryoLife's Board of Directors. The Ross Procedure was introduced to the world's cardiovascular community as an alternative surgical procedure for the active adult population that wishes to avoid anticoagulation drug therapy associated with mechanical heart valve implants. This surgical procedure has shown other benefits, especially in pediatric care and in treating women who are planning on having children, since it does not require the use of anticoagulant drugs.

Steven G. Anderson, President and Chief Executive Officer, CryoLife, Inc., noted, "We are currently strengthening the Ross Procedure by providing cryopreserved allograft pulmonary replacement valves processed with our SynerGraft(R) technology. The technology centers around the removal of antigens from animal and human tissue leaving a collagen matrix that has the potential to be repopulated with the recipient's own cells."

Founded in 1984, CryoLife, Inc. is the leader in the development and commercialization of implantable living human tissues for use in cardiovascular, vascular, and orthopaedic surgeries throughout the United States and Canada. The Company's BioGlue(R) surgical adhesive is approved as an adjunct for acute thoracic aortic dissections under HDE regulations in the United States and is CE Marked in the European community and approved in Canada and Australia for use in vascular and pulmonary sealing and repair. The Company also manufactures the SynerGraft(R) heart valve, the world's first tissue-engineered heart valve replacement and the CryoLife-O'Brien(R) and CryoLife-Ross(R) stentless porcine heart valves, which are CE Marked for distribution within the European Community. The human heart valves and vascular grafts processed by CryoLife using the SynerGraft technology are distributed in the U.S. under the trade names of CryoValve(R)SG and CryoVein(R)SG, respectively.

Statements made in this press release that look forward in time or that express management's beliefs, expectations or hopes regarding future occurrences are forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. These future events may not occur when expected, if at all, and are subject to various risks and uncertainties. Such risks and uncertainties include the possibility that further studies of the Ross Procedure will not confirm current results, that sufficient numbers of surgeons will not receive the training required to perform the Ross Procedure, that SynerGraft-treated tissues will not have the expected long- term functionality, repopulate with human recipient cells, reduce immune response, or remain infection free, that future clinical SynerGraft test results will prove less encouraging than current results, that SynerGraft regulatory submissions will not be ready when planned, that anticipated regulatory approvals will not be obtained on a timely basis, if at all, and that SynerGraft treated tissues may not be accepted or utilized by international cardiovascular surgeons, and other risk factors detailed in the Company's Securities and Exchange Commission filings, including the Company's Form 10-K for the year ended December 31, 2000.

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

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