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AtriCure Announces Conditional Approval of DEEP AF Feasibility Trial

WEST CHESTER, Ohio – May 10, 2010 – AtriCure, Inc. (Nasdaq: ATRC), a medical device company and a leader in cardiac surgical ablation systems, today announced that it has received conditional approval from the FDA to evaluate the safety and efficacy of a dual epicardial/ endocardial procedure (DEEP), or hybrid procedure, to treat patients with persistent and long-standing persistent atrial fibrillation (AF). The trial will be conducted at five prominent U.S. medical centers and provides for the enrollment of thirty patients. Initial enrollment is expected to begin during the second half of 2010.

The hybrid procedure combines the benefits of both surgical and catheter ablation along with endovascular mapping techniques, leveraging the expertise and skills of both the cardiac surgeon and the electrophysiologist to treat patients with persistent forms of AF. The trial will use AtriCure's minimally invasive surgical ablation product platform in conjunction with the Biosense Webster® THERMOCOOL® catheter ablation product platform.

"Patients with persistent and long-standing persistent AF represent a large and growing number of the AF population. These patients are often the most challenging and time consuming to effectively treat," said Andrea Natale, M.D., Executive Medical Director of the Texas Cardiac Arrhythmia Institute at St. David's Medical Center in Austin, Texas. "I am enthusiastic to participate in this important clinical trial that combines physician skills with leading technologies in order to investigate a promising hybrid treatment alternative."

"We believe that our DEEP AF hybrid ablation procedure strengthens the partnership between electrophysiologists and cardiac surgeons, facilitates a coordinated referral development process in the interest of patient care and, most importantly, provides patients with the most comprehensive mapping and ablation procedure. We believe the clinical science will demonstrate that our DEEP AF hybrid procedure is an important advancement and that standalone minimally invasive and hybrid procedures will become a standard of care for persistent AF patients and patients that have failed catheter ablation procedures," said David J. Drachman, President and Chief Executive Officer.

About AtriCure, Inc.

AtriCure, Inc. is a medical device company and a leader in developing, manufacturing and selling innovative cardiac surgical ablation systems designed to create precise lesions, or scars, in cardiac, or heart, tissue. Medical journals have described the adoption by leading cardiothoracic surgeons of the AtriCure Isolator® bipolar ablation system as a treatment alternative during open-heart surgical procedures to create lesions in cardiac tissue to block the abnormal electrical impulses that cause atrial fibrillation, or AF, a rapid, irregular quivering of the upper chambers of the heart. Additionally, medical journals and leading cardiothoracic surgeons have described the AtriCure Isolator system as a promising treatment alternative for patients who may be candidates for sole-therapy minimally invasive procedures. AF affects more than 5.5 million people worldwide and predisposes them to a five-fold increased risk of stroke. The FDA has cleared the AtriCure Isolator system and AtriCure's multifunctional pen and Coolrail™ linear ablation device, for the ablation, or destruction, of cardiac tissue during surgical procedures. Additionally, the FDA has cleared AtriCure's multifunctional pen for temporary pacing, sensing, stimulating and recording during the evaluation of cardiac arrhythmias and AtriCure's Cryo1™ system for the cryosurgical treatment of cardiac arrhythmias. To date, the FDA has not cleared or approved AtriCure's products for the treatment of AF.

Forward-Looking Statements

This press release contains "forward-looking statements" within the meaning of the Private Securities Litigation Reform Act of 1995. Forward-looking statements include statements that address activities, events or developments that AtriCure expects, believes or anticipates will or may occur in the future, such as earnings estimates, other predictions of financial performance, launches by AtriCure of new products and market acceptance of AtriCure's products. Forward-looking statements are based on AtriCure's experience and perception of current conditions, trends, expected future developments and other factors it believes are appropriate under the circumstances and are subject to numerous risks and uncertainties, many of which are beyond AtriCure's control. These risks and uncertainties include the rate and degree of market acceptance of AtriCure's products, AtriCure's ability to develop and market new and enhanced products, the timing of and ability to obtain and maintain regulatory clearances and approvals for its products, the timing of and ability to obtain reimbursement of procedures utilizing AtriCure's products, competition from existing and new products and procedures or AtriCure's ability to effectively react to other risks and uncertainties described from time to time in AtriCure's SEC filings, such as fluctuation of quarterly financial results, reliance on third party manufacturers and suppliers, litigation (including the purported class action lawsuits) or other proceedings, government regulation and stock price volatility. AtriCure does not guarantee any forward-looking statement, and actual results may differ materially from those projected. AtriCure undertakes no obligation to publicly update any forward-looking statement, whether as a result of new information, future events or otherwise.

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