MemorialCare Innovation Fund Invests in TYRX for Novel Technology to Reduce Surgical Site Infections

Technology Offers Hospitals Compelling Economic and Clinical Outcomes

Monmouth Junction, NJ (June 4, 2013): TYRX, Inc., the leader in the commercialization of implantable medical devices designed to help reduce surgical-site infections associated with implantable devices including pacemakers and defibrillators, announced today it has received a private investment from the California-based MemorialCare Innovation Fund (MCIF). MCIF is a strategic investment company wholly owned by MemorialCare Health System.

"MemorialCare is a leading healthcare system and its investment is a strong validation of TYRX's products and our ability to improve outcomes for hospitals, physicians and patients," stated Robert White, TYRX's President and CEO. TYRX has already achieved a number of key milestones in 2013 including:

- Successfully implanted the AIGIS$_{Rx®}$ device in over 35,000 patients.
- The *Journal of Pacing and Clinical Electrophysiology (PACE)* published the results of a large study conducted by Vanderbilt Heart and Vascular on patients at high risk for pacemaker and implantable cardioverter defibrillator (ICD) infection with = 2 pre-identified risk factors. After a minimum of 90-days of follow-up, the incidence of CIED infection was 87% lower in the group that received a TYRX AIGIS$_{Rx}$ Antibacterial Envelope (0.4% vs. 3.0%, p=0.04).
- Dr. Charles Henrikson, the Chief of Electrophysiology at the Oregon Health Sciences University, presented an interim analysis on 1,000 patients from the CITADEL / CENTURION studies during the *Heart Rhythm 2013 Late Breaking Clinical Trials* session showing 95% fewer major infections after 3 months in patients undergoing pacemaker and ICD replacement procedures using the AIGIS$_{Rx}$ compared to similar published high-risk cohorts who did not receive the envelope (0.1% vs. 1.88%, p<0.001).
- Dr. Suneet Mittal and his colleagues from the Arrhythmia Institute, Valley Health System, and Columbia University College of Physicians & Surgeons presented the results of their study at *Heart Rhythm 2013* showing that AIGIS$_{Rx}$ significantly reduced cardiac device infection rates. In propensity score matched cohorts there were 70% fewer infections in the cohort with the AIGIS$_{Rx}$ (1.1% vs. 3.6%; p=0.048).
- Approval received for the next generation AIGIS$_{Rx}$ R Fully Resorbable Antibacterial Envelope from Health Canada.

TYRX's portfolio of AIGIS$_{Rx}$ Antibacterial Products is specifically designed to aid in the stabilization of pacemakers and ICD's, as well as to help reduce surgical-site infections. Patients who contract surgical-site infections, following cardiac device procedures, spend an average of two extra weeks in the hospital, undergo repeat surgical procedures to treat the infection, and cost the facility an average of $72,485. Additionally, such patients experience significant increases in

morbidity and mortality, with 1-year mortality rates of up to 35%, and 3-year mortality rates of up to 50%, depending on device type. Based on the clinical and economic evidence developed to date, hospitals are able to save over $1,000 per patient when using the AIGISRx Antibacterial Envelope on high risk patients.*

"We are looking forward to our partnership with Clarus Ventures, Pappas Ventures and HLM Venture Partners to assist TYRX in pursuing technology that is critical to improving clinical and economic outcomes for hospitals." said Brant Heise, Managing Director, MemorialCare Innovation Fund. "Preventing surgical site infections helps ensure better patient outcomes while reducing the cost of care. All hospitals understand the importance of reducing the incidence of infection, and we are supportive of the role TYRX's technology will play in this endeavor."

MemorialCare Innovation Fund

MemorialCare Innovation Fund is a strategic investment company wholly owned by the MemorialCare Health System. MemorialCare Innovation Fund makes private equity investments in companies interested in developing a synergistic relationship with the system's five medical centers and affiliated physicians. Investments typically include early to mid-stage companies focused on medical devices, healthcare information technology or healthcare services. For more information, visit www.MemorialCareInnovationFund.com

About Memorial Care

MemorialCare Health System, a not-for-profit integrated delivery system with more than 11,000 employees and 2,500 physicians, includes 200 clinical care sites, six top hospitals—Long Beach Memorial Medical Center, Miller Children 's Hospital Long Beach, Community Hospital Long Beach, Orange Coast Memorial Medical Center and Saddleback Memorial Medical Center in Laguna Hills and San Clemente; a medical group—MemorialCare Medical Group; an Independent Practice Association (IPA)—Greater Newport Physicians; MemorialCare HealthExpress retail clinics; ambulatory surgery centers and numerous outpatient health facilities throughout the Southland. An innovator in health care delivery, MemorialCare focuses on evidence-based, best practice medicine where physicians and health professionals study best clinical practices and implement them at MemorialCare's sites with outcomes frequently exceeding state and national averages. For more information, visit memorialcare.org.

About TYRX, Inc.

TYRX, Inc. commercializes innovative, implantable combination drug+device products focused on infection control, including the AIGISRx® Antibacterial Envelope, designed to reduce surgical site infections associated with Cardiac Implantable Electronic Devices (CIEDs). AIGISRx products contain the antimicrobial agents, rifampin and minocycline, which have been shown to reduce infection by pathogens responsible for the majority of CIED infections, including "superbugs" such as methicillin-resistant *S. aureus* (MRSA).**

For more information, please visit www.TYRX.com or www.HeartDeviceInfection.com.

*Data on file at TYRX.

**Data on file at TYRX and published Hansen *et al. Pacing Clin Electrophysiol*. 2009; 32(7):898-907.