



THE UNIVERSITY *of* TEXAS

HEALTH SCIENCE CENTER AT HOUSTON

Office of Technology Management

Method and Apparatus for Continuous Monitoring of Myocardial Function

Introduction: Those suffering a wide array of cardiac diseases face a number of complications. Different aspects of overall cardiac function can be measured effectively, but the search continues for improved ways to measure the overall function of the heart with a single system. Scientists at the University of Texas Health Science Center at Houston have made promising discoveries to this end.

Current Problems: While diagnostics for various cardiac dynamics are widely available, and improving all the time, most are dependent on the patient actually being in the hospital and having access to complicated monitoring technology and interventions. Consequently, methods to monitor the overall function of the myocardium in ambulatory patients are scarce. Clearly, an ideal solution to address the need for global monitoring of myocardial function would be continuous monitoring. Stated another way, a solution to observe patients suffering from cardiac diseases should monitor numerous aspects of myocardial function while allowing this monitoring to occur continuously, either in or outside the hospital setting.

The Technology: Through a patent pending method, researchers at the University of Texas Health Science Center at Houston have created a system for continuous monitoring of myocardial function. This relatively simple and inexpensive system can be used to: monitor global myocardial function in patients with congestive heart failure to indicate worsening condition, evaluate and monitor the occurrence of myocardial ischemia and infarction, measure ejection fraction, measure systolic and diastolic volumes, evaluate for cardiomyopathies, assess pulmonary congestion, and distinguish the various causes of heart failure. Obviously, more effective monitoring of these conditions has broad applications for therapeutics. This technology relies on simple principles and generates an important invention designed to assist practicing cardiologists and the patients alike.

NON-CONFIDENTIAL TECHNOLOGY DESCRIPTION

The preceding is intended to be a non-confidential summary of a novel technology created at the University of Texas Health Science center at Houston (UTHSCH), for which the University is seeking patent protection

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Patent Status: Pending United States Provisional Patent Application (available under a confidentiality agreement)

License Available: world-wide; exclusive or non-exclusive

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