

James & Esther King Biomedical Research Program

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*Geriatrics, Medicine
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*2009 Program
Technology Transfer/Commercialization Partnership
(1-year project)*

Project Title: A Novel Fully Integrated Mobile Management Solution Using Cell Phone Technology for Heart Failure

Project Summary: Disease management programs have shown that compliance with medications and diet improves longevity and decreases the need for hospitalization in patients with heart failure (HF). The effectiveness of disease management programs is often limited by manpower and budgetary issues. Mobile phone networks provide a unique opportunity to address these limitations by being ubiquitous, offering the capability for automated text and voice monitoring and reminders, and the potential for data gathering. GenerationOne (Gen1) working with UM investigators has developed a protocol for a unique automated mobile phone-based system that enables daily monitoring for improving self-care and care coordination for HF. The goal of our application is to develop, implement, and evaluate the usability and utility of this mobile-phone text-messaging technology among HF patients. In this grant, we will develop the mobile phone system, test its usability (reliability, acceptability, and feasibility), and conduct a randomized controlled trial to evaluate its utility with regard to patient self-care efficacy and satisfaction. This project will help gather pilot data to apply for a larger grant to develop an interactive voice-response Gen1 system using cell phones. This project will pave the way for more studies and efforts toward developing GenerationOne products and services for effective and efficient population-based chronic disease management.