

THE METHODIST HOSPITAL LAUNCHES RESEARCH INSTITUTE

New Institute enhances patient care by rapid translation of
basic research into more effective treatment for disease

This past year marked the launching of The Methodist Hospital Research Institute, a groundbreaking initiative dedicated to translating progress in the basic biomedical sciences into better human health. While biomedical research is traditionally performed



in academia, the pace of scientific progress and the urgency to transform scientific discovery into improved patient care suggest that hospital-based research is an essential component of the bench-to-bedside equation. The Research Institute represents a cornerstone of The Methodist Hospital's strategic vision and its future as a nationally recognized academic medical center.

Methodist is harnessing its excellent patient care programs, nine top-ranked specialties and strong financial resources to fuel the Research Institute initiatives. Current research activities focus on medical disciplines that build on Methodist's historic strengths in the fields of cardiovascular disease, neuroscience, cancer, organ transplant, cell and gene therapy and orthopedics. Because advances in technology drive innovation and discovery, the Institute will house state-of-the-art programs in molecular imaging, medical genomics, medical proteomics, stem cell research, bioinformatics, and the behavioral sciences of risk reduction to ensure that researchers have the latest biomedical research services and instrumentation. By 2010, Methodist aspires to be among the top ten hospitals for NIH funding by significantly increasing its sponsored research activities beyond its current baseline of 600 ongoing projects a year.

SHORT-TERM MILESTONES

In 2004, The Methodist Hospital Board of Directors approved a \$100 million endowment to launch the Research Institute. Michael W. Lieberman, MD, PhD was appointed the Institute's first director and named to the

Ernest Cockrell, Jr. Distinguished Endowed Chair, a position made possible by a \$3 million endowment from the Cockrell Foundation. In November 2004, the Methodist board committed an additional \$30 million to fund a Neurological Institute as part of the Research Institute. Methodist is now remodeling 60,000 square feet in existing buildings and is planning to erect a 300,000 square foot research building in the near future.

With 40 leading Methodist physicians actively engaged in ongoing hospital-based research projects, Institute activities are well underway. Future plans are to attract more physician-scientists with diverse specialties and backgrounds who are committed to sharing ideas and enhancing patient care. Researchers will collaborate not only within Methodist but also with its primary medical school affiliate, Weill Cornell Medical College, as well as the University of Houston, Texas A&M University and other Methodist-affiliated organizations. By fostering collaboration among top researchers and physicians, the Institute hopes to generate groundbreaking research that can yield effective new treatments and, in turn, improved health for patients both at Methodist and throughout the world.

HEART CENTER INVESTIGATOR INITIATED PROJECTS AWARDED FUNDING

On September 14, 2004, The Methodist Hospital Research Institute met to review grant applications from investigators and basic scientists from specialties across The Methodist Hospital, including the Methodist DeBakey Heart Center (MDHC). Craig Pratt, MD, MDHC director of research, represented the heart center and presented 12 research projects submitted to the committee in advance of this meeting. The projects spanned the MDHC's six areas of excellence: 1) ischemic heart disease, 2) vascular heart disease, 3) valvular heart disease, including hypertrophic cardiomyopathy, 4) advanced heart failure, 5) arrhythmia therapy, and 6) prevention/atherosclerosis/metabolic syndrome. The research committee focused on innovative, especially promising, early phase projects that can lead to further government, Heart Association, and/or pharmaceutical funding.

The following studies were selected and have been awarded funding.

- Catheter system for locating and ablating pulmonary vein triggers of atrial fibrillation
Principal Investigator: Dirar S. Khoury, PhD
- End-stage renal disease and lower extremity vascular calcification.
Principal Investigator: Alan Lumsden, MD
Co-Investigator: Eric Peden, MD
- Biventricular pacing in patients with mechanical dyssynchrony and normal ORS duration: A randomized controlled trial
Principal Investigator: Sherif F. Nagueh, MD
- The effect of plasma exchange on patients with chronic refractory heart failure
Principal Investigator: Guillermo Torre, MD, PhD
- Prognostic value of coronary artery calcification by electron beam computed tomography versus myocardial perfusion imaging with SPECT
Principal Investigator: John J. Mahrmarian, MD
- Reversal and attenuation of cardiac phenotypes in human patients with hypertrophic cardiomyopathy
Principal Investigator: A. J. Marian, MD
- The influence of extracellular matrix proteins on the differentiation of adult cardiac stem cells in vitro
Principal Investigator: JoAnn Trial, PhD
- Identification of novel biomarkers associated with the metabolic syndrome and prediabetic state in obese women using genomics and proteomics
Principal Investigator: Christie M. Ballantyne, MD



ONGOING CLINICAL TRIALS

The Methodist DeBakey Heart Center is dedicated to improving clinical outcomes through evidence-based medicine. Visit www.debakkey-heartcenter.com to access information regarding ongoing clinical trials related to cardiovascular disease.