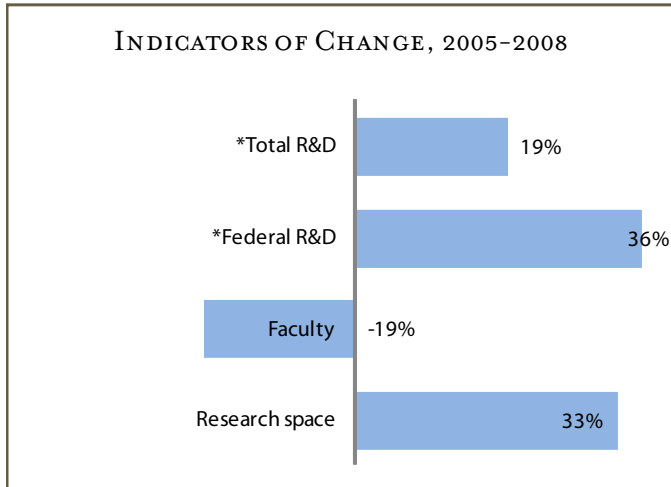


THE UNIVERSITY OF TEXAS HEALTH SCIENCE CENTER AT TYLER

The UT System has responded to the challenge set forth by the *Rising Above the Gathering Storm (RAGS)* report and has committed more than \$42 million to strengthen competitiveness at UT HSC-Tyler (including direct support and authorization for the institution to commit and use funds). The initial impact of these investments is presented here, organized according to the critical elements described by RAGS: research and technology development, competitive capacity, and incentives.



* % Change, 2005-2007. Source: NSF.

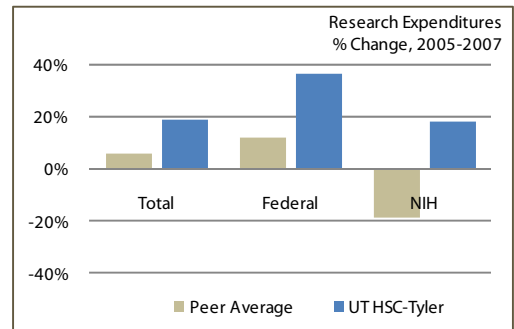
UT HSC-TYLER AT A GLANCE

Physical space (square footage)	
Teaching (clinical training)	8,500
Research	52,800
Clinical	4,700
Increase in total sq. ft. through initiative	51%
New STEM-related endowments (2005-2008)	\$972,000
Research expenditures, 2008	\$13.7 million
Federal research expenditures, 2008	\$6.4 million
Intellectual property revenue, 2005-2008	\$24 thousand
U.S. patents issued, 2005-2008	1
New invention disclosures, 2005-2008	4

STEMM = science, technology, engineering, math, and medical/health

Research & Technology Development

Investments in UT Health Science Center at Tyler contribute to enhanced resources for faculty research projects, often tracked by the money spent to conduct the scientific investigations. Research expenditures at UT HSC-Tyler have increased at a significantly faster rate than peer institutions, totaling almost 19 percent between 2005 and 2007, while peers averaged an almost 6 percent increase. Research expenditures from federal sources increased 36 percent during the same time period while peers averaged a 12 percent increase. Research expenditures from grants funded by the National Institutes of Health also were substantially different between UTHSCT and its peers: UTHSCT increased almost 18 percent while peers averaged an 18 percent decrease.



Source: NSF, NIH.

Research conducted by faculty at UT HSC-Tyler leads to significant discoveries and applications for use in clinical settings. For example, Drs. Rakesh Srivastava and Sharmila Shankar, UTHSCT cancer biologists, have discovered specific compounds that attach to the "death receptors" on the surface of cancer cells and force them to die. The molecules kill tumor cells but spare normal cells that do not have the same kind of receptors. For this reason, the novel compound is better than chemotherapy in the treatment of cancer. The National Institutes of Health Rapid Access to Interventional Development has tested the full scope of the responsive tumors and clinical trials are expected to begin soon. A patent is pending for this discovery.

Another example is the discovery of a molecule, named scuPA, which is a nonsurgical alternative treatment for clearing scarring and adhesions between the lung and chest wall. Other drugs currently used for this purpose do not always work and have the side effect of bleeding, which leads physicians to choose surgery over drug treatment. UTHSCT's discovery can improve treatment outcomes for over 40,000 U.S. patients annually. A patent has been issued for scuPA

and clinical trials are expected to begin soon. The discovery is a product of work conducted by the UTHSCT Texas Lung Injury Institute and Dr. Steve Idell's research project funded by the National Institutes of Health.

Competitive Capacity

Competitive capacity, or the resources necessary to advance academic and research goals, is a fundamental building block for institutional activities. Resources include innovative buildings with advanced research laboratories and academic spaces, world-class faculty, recognition programs to support faculty efforts, and interest from external donors.

RESEARCH AND CLINICAL FACULTY

UT HSC-Tyler is committed to enhancing the prestige of its research program, which requires ongoing growth of research and clinical faculty in strategic areas of expertise. To build on existing research and clinical strengths, new faculty will be recruited in lung injury, infectious lung diseases, and cancer.

INFRASTRUCTURE

New construction and renovation of state-of-the-art buildings create educational and research possibilities that drive the competitiveness initiative. UTHSCT increased research space by 33 percent since 2005, adding over 13,000 square feet. In addition, the UT System Competitiveness Initiative supports one new facility, the Academic Center. Phase I of the \$42 million new construction will add a three-floor building with over 78,500 gross square feet with a two level lobby pavilion that connects to the existing main hospital complex. The first floor will be designated for use as a Cancer Research and Treatment Area. The second and third floors will be shell space for future Residency Program Clinic and Academic and Conference Center. The project includes over \$21 million in tuition revenue bonds, \$10 million in Permanent University Fund bonds, almost \$5.9 million in revenue financing system bonds, and \$5 million in designated funds.



PHILANTHROPY TO SUPPORT STEMM INITIATIVES

A compelling indicator of competitiveness is the institution's appeal to philanthropists who join the institution's commitment to excellence. UTHSCT raised almost \$1 million in endowments since FY 2005 that could be used to support research and clinical initiatives at the institution. Over \$26,000 is distributed on an annual basis.

Incentives

Various programs provide additional incentives to excel in science, technology, mathematics, and health. The UT System Texas Ignition Fund has funded one invention at UT HSC-Tyler to complete clinical trials of scuPA, the molecule that is a nonsurgical alternative treatment for lung scarring (described above).

