

VICE PRESIDENT FOR RESEARCH

STRATEGIC PLAN 2007-2016

1. Introduction

UTSA has already begun its journey toward becoming a *Premier Research Institution*. The initial thrust has resulted from the unprecedented growth in enrollment, addition of new research faculty, and the administrative commitment to have a world-class research university in San Antonio. Research growth of approximately 300% over the past five years, increased collaborations with the Health Science Center (UTHSCSA); Southwest Research Institute (SwRI), Southwest Foundation for Biomedical Research (SFBR), the military and commercial partners are all indicative of the commitment to this research path. UTSA, in its strategic plan, has identified core strengths in *Security, Health, Alternate Energy, Sustainability, Human and Social Development*. Research growth is benefiting from major increases in physical infrastructure such as the recently completed Tobin Laboratories and Biotechnology, Science and Engineering (BSE) research building; the Science and Engineering Building II currently under construction; completion of the MEMS Center; and plans for Promenade Plaza and renovation of the West Campus laboratories. The research effort has also benefited from the development of a comprehensive Office of Research with experienced personnel and new policies, programs and interfacing with the new UT System Office of the Assistant Provost of Research and Technology Transfer. The establishment of a central Laboratory Animal Resource Center, a joint Office of Technology Transfer and Commercialization (with UTHSCSA), and a comprehensive evaluation of UTSA's Research Centers, Institutes and Core research support facilities all are indicative of the institutional commitment to making UTSA a *Premier Research Institution*.

While the above are positive indicators of the potential for UTSA, to become a premier research institution, in no way do they assure this. A well thought-out and accepted strategic plan with specific research goals and milestones is essential if the UTSA is to reach this goal by 2016. Although UTSA enjoys several strategic advantages such as significant research partnerships, there are still some potential barriers and strategic challenges that must be addressed. Moreover, it must be recognized that research, by its very nature, is highly variable and new discoveries constantly alter the path forward. More than any other area in academia, research changes the fastest, and the road to "premier research" is the least predictable. New opportunities will constantly arise because of new discoveries, external factors and organizational dynamics. UTSA must be postured to capitalize on every opportunity the future presents.

Thus, the purpose of this document is to lay out a roadmap to take UTSA to the level of a “*Premier Research Institution*” by 2016. The plan calls for specific changes with corresponding metrics. However, UTSA must remain flexible and agile in order to respond to new opportunities and challenges. It cannot afford to be risk-adverse in this pursuit. It must constantly be aware of new opportunities, new questions and how to best answer them-- but that is the very nature of research.

2. Research Mission Statement

The mission of the Office of Vice President for Research (VPR) at the University of Texas at San Antonio is to promote all aspects of research and other creative endeavors among all colleges, research units and collaborating partners. This includes strategic planning, developing and implementing focused research thrusts, building infrastructures to support research, creating policies to provide an environment conducive to collaborative scholarship, and promoting the importance and visibility of the institution's research activities. The office manages a variety of research programs, including seed funds for pilot projects, minority research grants, initiatives for commercialization of intellectual property, and assists in local and state economic development through interactions with public and private parties, the military community and industry.

➤ ***Vision Statement***

To be a premier public research university, providing access to educational excellence and preparing citizen leaders for the global environment

➤ ***Core Values***

We encourage an environment of dialogue and discovery, where integrity, excellence, inclusiveness, respect, collaboration and innovation are fostered.

UTSA’s core values reflect how we have pursued our plan as well as how we will fulfill our mission and realize our vision. Each value reflects rich, shared meaning:

- Integrity: adhering to a standard of core values at UTSA and ensuring that one acts in a fair and ethical fashion
- Excellence: commitment to delivering consistently high quality service, teaching and research through superior performance
- Inclusiveness: fostering diversity and providing access to educational and socioeconomic opportunities for all -- regardless of individual backgrounds and philosophies.
- Respect: treating others with civility and openness, recognizing the dignity inherent in each individual
- Collaboration: working with others toward common goals while valuing teamwork, participation, and commitment to public service.
- Innovation: encouraging ingenuity, creativity, and discovery

3. Research Strategic Advantages

The record-breaking growth at UTSA is a distinct advantage but poses disadvantages of growth pains and lagging infrastructure. Nonetheless, UTSA possesses a unique combination of strategic advantages for the development of nationally recognized research programs. Some of the advantages are inherent in the growth of the university (internal) but others arise because of specific research partnerships in the community (external). These include:

Internal

- Opportunity to hire large numbers of new research faculty
- Construction of new research facilities
- Growing research support infrastructure
- New and experienced senior leadership
- Minority Serving Institution
- Major educator of technology/research workforce for South Texas
- Established Research Centers of Excellence
 - South Texas Center for Emerging Infectious Diseases (STCEID)
 - Institute for Cyber Security (ICS)
 - Center for the Advancement of Life Sciences(CAS)
- Emerging Research Centers of Excellence
 - Bioengineering and Translational Research
 - Child and Adolescent Policy Research Institute (CAPRI)
 - Center for Archeological Research (CAR)
 - MEMS/Nano Technology Programs
 - Center for Advanced Manufacturing and Lean Systems (CAMLs)
 - International programs affiliation agreements with foreign universities

External

- Research Collaborators and Partners
 - University of Texas Health Science Center at San Antonio
 - San Antonio Life Sciences Institute (SALSI)
 - Southwest Research Institute (SwRI)
 - Southwest Foundation for Biomedical Research (SFBR)
 - Cancer Treatment and Research Center (CTRC)
 - Other academic institutions
 - Military
 - Designation of San Antonio as a Center for Military Medicine
 - Institute for Surgical Research

- Joint Directed Energy Research Center
- Burns Center
- Institute for Regenerative Medicine
- PolyTrauma Center
- 311th Human Systems Wing
- Texas BioAg Consortium (TBAC)
- Potential location of National Bio-Ag Research Laboratory (NBAF)
- BSL-4 facilities (SFBR)
- Primate Research Facility (SWFBR)

Intellectual Property Development, Technology Transfer and Commercialization

- Joint Venture with UTHSCSA and UT System for Technology Transfer and Commercialization
- Institute for Economic Development (IED)
- Center for Innovation and Technology Entrepreneurship (CITE)
- San Antonio Technology Accelerator Initiative (SATAI)
- Regional Center for Innovation and Commercialization (RCIC)
- BioMed San Antonio
- Texas Research Park

4. Strategic Challenges

- Old perceptions of students, faculty and the community of UTSA as a undergraduate, commuter, teaching institution
- Insufficient numbers of high profile researchers (e.g., National Academy, Nobel laureates)
- Size and quality of the Graduate Programs need to be increased
- Size and quality of Postdoctoral Programs need to be increased
- Number and quality of trained research Program Managers need to be increased
- Non Tenure Track Research Faculty needs to be increased
- Need to recruit senior tenure track faculty in strategic areas
- Need for additional Research Space
- Need for better research equipment, resources and policies

5. Strategic Initiative, Goals, Action Items and Metrics

Strategic Initiative: Serving Society through Creativity, Expanded Research and Innovations

Goal 1: Create a vibrant research culture by engaging undergraduate and graduate students, postdocs, faculty, and staff in research, and

providing the campus community with incentives and the infrastructure needed for success in this arena.

Student Focus

Action:

- Provide incentives to faculty to aggressively recruit and retain qualified graduate research assistants
- Work with the Honors College to develop a plan for support of undergraduates in research activities
- Work with Deans and Departments in the promotion and funding of student research poster sessions at university sponsored community events

Metric: Increased numbers and quality of undergraduate and graduate students actively involved in research projects.

Faculty Focus

Action:

- Develop and offer faculty development opportunities in proposal preparation, grant writing, funding identification, and funding opportunities.
- Publish research magazine, both in print and on-line and market the research enterprise
- Implement on-line Research Profiles database for national and international access to principal investigators, research centers and institutes and other research related data
- Create and maintain communication channels with faculty senate, faculty users groups, deans, associate deans center directors, and provost council
- Increase the size and quantity of post doctoral fellows in support of the research enterprise through training grants, award programs, annual raise pools, and implementation of more aggressive recruiting practices
- Seek institutional and federal funding for the advancement of women and minorities in research, especially in STEM

Metric: Increased numbers of faculty actively involved in research and other creative endeavors

Research Community Focus

- Develop and implement an interdisciplinary research award program
- Increase and better utilize research laboratory space for the growth of research at UTSA
- Establish a fund for matching large equipment purchases and supporting equipment maintenance contracts

Metric: Increased research productivity

Infrastructure Focus

- Develop and implement on-line electronic proposal routing, submission and management system
- Implement Community of Science on-line database for faculty receipt of electronically transmitted funding information
- Implement an electronic time and effort reporting system
- Provide faculty development in proposal writing, submission processes, and grants administration
- Provide faculty seminars and on-line faculty development services to meet the requirements for the responsible conduct of research

Metric: Increased efficiency in the conduct of research

Goal 2: Increase annual research expenditures on a consistent basis through the strategic hiring of quality faculty, supporting the five collaborative research areas, encouraging multidisciplinary work, and streamlining infrastructure.

Faculty Focus

- Work with Deans and Departments in the recruitment and hiring of faculty who bring successful research programs, including grants and contracts to UTSA
- Continue to work with Deans and Departments in the development of innovative start-up packages for the successful recruitment of tenured and tenure track research faculty.
- Continue to work with Deans and Departments in the hiring of faculty who support the five collaborative research areas.

Metric: Increased recruitment of quality faculty in the areas of collaborative research

Collaborative Focus

- Form strategic cross-cutting partnerships at the macro scale including multi-disciplinary, multi-campus, and regional centers of excellence
- Develop recharge centers for UTSA Core Facilities and LARC
- Develop incentive seed grant program for collaboration research

Metric: Number of research partnerships and collaborative efforts

Infrastructure Focus

- Implement electronic research information systems

- Develop IRB and IACUC cooperative relations with other UT institutions of higher education for coordination and approval of multi-campus protocols.

Metric: Decrease reliance on paper products and increased efficiency

Goal 3: Become a premier research university by developing and sustaining high-quality doctoral programs consistent with the five key research areas and the strategic expansion of the current programs.

Facilities Focus

- Assist in increasing the availability of laboratory space through federal, state and private funding
- Assist in the design and planning of construction or renovation of research facilities
- Assist in obtaining additional lease space for research
- Oversee an institutional plan for maximal submission of annual of major scientific equipment grant applications from federal agencies
- Seek IRB and AAALAC accreditation

Metric: Increased quantity and quality of research space

Doctoral Program Focus

- Increase number and competitiveness of scholarships
- Provide comprehensive health care for graduate students
- Increase minority graduate student supplements (e.g. NSF)

Metric: Increased numbers of students in graduate research programs

Goal 4: Generate knowledge and innovations for societal benefit through collaborations with both public- and private-sector partners at the local, national, and international levels.

Collaborative Activities

- Increase intra-institutional collaborative programs
- Strengthen collaborations with Universities
- Increase/expand collaborations with Federal partners
- Increase public partner collaborations

Metric: Increased numbers of collaborations and numbers of faculty involved in collaborations with partners in public agencies

Goal 5: Pursue research leading to intellectual property commercialization so that scientific breakthroughs and innovations can be transformed into useful technologies and made available to the global community.

South Texas Office of Technology Management (STTM)

- Refine internal procedures for the cultivation and disclosure of intellectual property
- Continue to promote and implement the Joint Venture with UTHSCSA and UT System for Technology Transfer and Commercialization
- Continue to promote and work with the Institute for Economic Development (IED)
- Encourage economic growth and development through the development of partnerships with the Center for Innovation and Technology Entrepreneurship (CITE), San Antonio Technology Accelerator Initiative (SATAI), the Regional Center for Innovation and Commercialization (RCIC), and BioMed San Antonio

Metric: Increased Intellectual Property disclosures, licenses, license income, patents, spin off companies, royalty and other IP derived income

6. Research Key Indicators

The following metrics will serve as indicators of the Office of Research's overall progress in achieving our vision and meeting our strategic goals. Each indicator will have associated targets and will be benchmarked against past performance as well as peer institution performance as applicable.

Research Strategic Initiative II: Serving Society through Creativity, Expanded Research and Innovation.

- Total Sponsored Program Expenditures
- Total Research Program Expenditures
- Research Expenditures as a % of Total Institutional Expenditures
- Number of Proposals submitted per 100 Faculty
- Number of Intellectual Property Disclosures submitted by faculty, staff or students for review
- Number of License Agreements executed

- Total Federal Research Expenditures per FTE

7. Call to Action and Accountability for the Office of Research

For our UTSA 2016 Strategic Plan to be successful, we must follow through to incorporate the Office of the Vice President for Research initiatives into our everyday management, operations, and decision making. The intent of UTSA is to operate as an integrated whole, with each element and component contributing to the University mission and vision, collaboratively and in a holistic fashion. This approach will transform the institution from our present reality toward realization of our future vision. Thus, we will become a catalyst and crucible for change, inviting and involving all stakeholders to the table as contributors as well as beneficiaries. This approach reflects the notion of citizenship imbedded in our statements of mission, vision, and core values. Citizenship in its truest sense involves a shared responsibility and contribution to the welfare of our entire community.

Implementation:

- An implementation process will ensure that the strategic plan is carried out effectively is critical to our success.
- The Office of the Vice President of Research with a Scope of Unit Strategic Directions works with a timeframe of 5-years with the lead responsibility resting with the VPR and a content of Long-term initiatives.
- We must integrate *UTSA 2016* into our operational planning and compacts.
- We must integrate *UTSA 2016* as the guide for the Office of Research budget process.
- We must participate in ongoing revision and modification of the Office of Research strategic plan.
- We must develop an organizational structure to support the Office of Research strategic plan and assign responsibilities.

Accountability:

In order for the plan to work, the Office of Research must ensure that an effective system involving both communication and assessment is established and maintained.

Communication:

The Office of Research must develop a communication system to inform our personnel of our fidelity to our mission and progress toward its initiatives, goals and action items.

Routine reporting of metrics on our goals will be a standard part of our meeting schedules. Every month there will be a report on one of the initiatives. The report will include progress (metric review) and issues. Twice a year, progress on all initiatives will be incorporated into a report reviewed by the CMO, Team 2016 and the Executive Leadership Council. UTSA's President will present an annual public "State of UTSA" address that reflects overall progress toward University initiatives and goals to which Office of Research contributes.

As a result of our internal system and the public Web site, the university community will be able to assess our progress, and senior leaders will have regular opportunities to discuss and adjust our initiatives as needed.

Marketing UTSA:

The Office of Research will contribute information to the CMO and Team 2016 to help UTSA tell its story and share our 2016 Vision, both of which are essential to attract top students, faculty, research sponsors, and resource contributors and to gain optimal buy-in from all UTSA's community and state stakeholders. Stories demonstrating UTSA's values-in-action work to positively reinforce integrity, excellence, inclusiveness, respect, collaboration, and innovation. The UTSA image, branding, reputation, and prestige will reflect all the aspirational goals outlined in this plan and inform key audiences about progress, constantly recognizing and celebrating accomplishments along this journey

Assessment:

The Office of Research must develop an assessment system to determine our fidelity to our announced mission and progress toward our vision. There will be clear lines of responsibility for managing and reporting the components of our strategic plan, to include collecting metric data, reporting progress, and resolving issues. Our assessment system will be integrated with the overall UTSA assessment process using TRACDAT.