



FOR THE POSITION OF

Director, Perry and Ruby Stevens Parkinson's Disease **Center of Excellence**

The University of Texas Health Science Center at San Antonio



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**** DIVERSIFIEDSEARCH**GROUP











POSITION Director, Perry and Ruby Stevens Parkinson's Disease Center of Excellence

ORGANIZATION The University of Texas Health Science Center at San Antonio

DEPARTMENT Cellular and Integrative Physiology (non-physician), or relevant clinical

department (physician-scientist)

LOCATION San Antonio, TX

ROLE SUMMARY

UT Health San Antonio is seeking highly accomplished candidates with exemplary academic and administrative leadership experience. They should have a renowned reputation in the study of Parkinson's Disease, and an established, funded research program. We are seeking visionary builders that will propel the Perry and Ruby Stevens Parkinson's Disease Center of Excellence to further prominence by leveraging the combined strengths of their team, existing UT Health San Antonio resources, and strategic new recruitments.

The ideal candidate is a visionary scholar, capable of leading the Center and bringing in their own research portfolio. The successful candidate will be a recognized scholar and forward-thinking leader, one with a distinguished record of achievement in research, mentorship, and team science. Successful applicants will have the skills, knowledge, and resources necessary to lead the Center and position it among the top centers in the country and the world.

The successful candidate will receive a highly competitive start-up package, salary, and state-of-the-art laboratory space. The candidate will be encouraged to establish an outstanding externally funded research program in Parkinson's Disease and Related Disorders, engage in productive scientific collaborations, and provide exemplary mentorship for graduate students, postdoctoral fellows, and residents.

Eligibility:

- ▲ Earned a PhD, MD, or an MD/PhD (or equivalent) and be eligible for appointment as an associate or full professor.
- ▲ Demonstrated a record of scholarly productivity, significant history of independent NIH funding related to Parkinson's Disease, and involvement in academic societies at a national level in relevant fields of study.
- ▲ Demonstrated leadership experience.
- ▲ Proven track-record of supporting high quality multidisciplinary science and fostering innovation in research.
- A Proven ability to work in a collaborative environment with other units. Commitment to diversity, equity, and inclusion with a track record of promoting an inclusive culture.

UT Health San Antonio

Director, Perry and Ruby Stevens Parkinson's Disease Center of Excellence



Compensation

Compensation is competitive and commensurate with the responsibilities of this position as well as the experience and achievement of the candidate.

UT Health San Antonio is an Equal Employment Opportunity/Affirmative Action Employer including protected veterans and persons with disabilities.

All faculty appointments are designated as security sensitive positions.

ABOUT THE PERRY & RUBY STEVENS PARKINSON'S DISEASE CENTER OF EXCELLENCE

The overarching goal of the Perry and Ruby Stevens Parkinson's Disease Center of Excellence is to accelerate Parkinson's disease (PD) research in South Texas, build a community of PD scholars, and serve as a lightning rod to stimulate further growth in this area of science and medicine for our city and region. The financial support for the PD Center of Excellence provided by The Perry and Ruby Stevens Charitable Foundation (Kerrville, Texas) is leveraged by three organizational units of UT Health San Antonio – the Institute for Integration of Medicine and Science, the Barshop Institute for Longevity and Aging Studies, and the Office of the Vice President for Research.

The Stevens Center is led by **Robert A. Clark, MD** (Edward B. LeWinn Memorial Chair and Professor of Medicine), as well as Co-Directors **Andrea Giuffrida**, **PhD** (Professor of Pharmacology & Vice President for Research) and **Randy Strong**, **PhD** (Dielman Distinguished Chair in Aging, Professor of Pharmacology, & Director, Nathan Shock Center of Excellence in the Biology of Aging).

The programmatic components of the PD Center of Excellence are threefold:

- ▲ Competitive pilot research program that aims to accelerate PD-focused research by funding innovative projects directed at slowing, stopping, or reversing the progression of PD and developing improved therapies for those living with PD. A key objective is to enable downstream competitive grant funding for PD research from both government agencies and private sources.
- ▲ Mentored career development program that will build the pipeline of PD researchers across the continuum from basic to translational to clinical science. Young investigators will be mentored by experienced scientists and clinicians so as to optimize their career success as independent researchers focusing on PD.
- ▲ Outreach, educational, and community engagement activities, including a monthly seminar series, an annual research symposium, and community activities that bring together a wide range of PD stakeholders across our region and the nation.

Through these activities, the Center strives to achieve the following overarching goals:



- ▲ Develop a critical mass of PD investigators working as collaborative teams across the spectrum of clinical, translational, and basic science;
- ▲ Collaborate with academic departments (Neurology, Neurosurgery, Physiology, Pharmacology) and research institutes (Biggs Institute for Alzheimer's and Neurodegenerative Disorders, Barshop Institute for Longevity and Aging Research, Center for Biological Neuroscience) to recruit a nationally prominent senior Parkinson's disease researcher.
- ▲ Build a strong portfolio of research in timely and opportunistic areas likely to advance our understanding of PD pathogenesis and lead to innovations in diagnostic and therapeutic approaches to the disease;
- ▲ Provide an impactful PD resource for the community, region, and nation; and
- Achieve competitive status for a Udall Center of Excellence for Parkinson's Disease or equivalent from the National Institutes of Health

Pilot projects currently being supported by the Steven's Center:

- ▲ **Yidong Bai, PhD** Dysregulation of Mitochondrial Chaperon and Supercomplex Assembly in Neurodegeneration.
- ▲ Swati Banerjee, PhD Tubulin Polymerization-Promoting Protein in Parkinson's Disease.
- ▲ **Biju Chandu, PhD** Analysis of the Relationship between Alpha-Synuclein Overexpression and the Dysregulation of Energy Homeostasis in Parkinson's Disease-related Olfactory Dysfunction.
- ▲ Maria Gaczynska, PhD Development of Novel Proteasome Activators Targeting Parkinson's Disease Pathology.
- ▲ Mitzi Gonzales, PhD A Pilot Investigation of Wearable Devices to Detect REM Sleep Behavior Disorder.
- ▲ Sarah Hopp, PhD The Role of Microglial L-type Calcium Channels in Development of Parkinson's Disease Pathology.
- ▲ Madesh Muniswamy, PhD Miro1: A New Molecular Target for Parkinson's Disease.
- ▲ Ramesh Neelamegam, PhD Alpha-Synuclein Imaging: A Tool for Parkinson's Disease Research and Clinical Management.
- ▲ Karl Rodriguez, PhD Increased HSP25 Reduces Stress Sensitivity and Loss of Dopaminergic Neuron Activity through the NRF2 pathway in an LRRK2-model of Parkinson's Disease.



RELATED INSTITUTIONAL ASSETS

DEPARTMENT OF CELLULAR & INTEGRATIVE PHYSIOLOGY

The Department of Cellular and Integrative Physiology is a basic science department in the Long School of Medicine at the University of Texas Health San Antonio. The Department was founded in 1972 and is renowned for its seminal contributions in many scientific areas, including cardiovascular physiology, neurophysiology and the physiological basis of aging. We use state-of-the-art genetic and molecular methodologies in combination with optical tools to understand the mechanisms that underlie neural circuitry, tissue and cellular physiology in normal health, and how they go awry in injuries or diseases. Several cutting-edge research areas being actively pursued include ion channel physiology and modulation, neuromodulatory behavioral mechanisms, glial biology and role of glia in disease, traumatic brain injury, neurovascular mechanisms of cardiac function, cardioprotection pathways, renal salt homeostasis, and age-related neurological pathologies.



Our mission is to carry out high impact scholarly investigations that open new frontiers in our quest to uncover fundamental principles of biological processes. As part of that mission, we provide classroom education and hands-on laboratory training to the next generation of physicians and scientists. Our trainees include medical, undergraduate and graduate students, and postdoctoral fellows. The graduate students are admitted through a highly competitive process under the Integrated Biomedical Sciences Program.

The Department of Cellular and Integrative Physiology recently led the charge to establish the **Mouse Genome Engineering and Transgenic Facility**, as part of building institutional infrastructure for investigators at UT Health San Antonio. This facility now provides genetically modified mouse models as unique tools for investigators to delineate the functions of genes and pathways in a vertebrate system that is highly relevant to human health and disease.



SAM AND ANN BARSHOP INSTITUTE FOR LONGEVITY AND AGING STUDIES

Born in 2001 thanks to a generous donation from Mr. and Mrs. Sam Barshop, prominent San Antonio philanthropists, the mission of the Barshop Institute is to understand the basic biology of aging, discover therapies that will treat and cure the diseases of aging by fostering dynamic, collaborative research, education, and training of our future scientists and clinicians, as well as promoting public awareness of age-related issues.

Led by Director Dr. Nicolas Musi since 2013, research at the Barshop Institute aims to bring fundamental discoveries in the basic biology of aging into clinical practice. Researchers at the Barshop Institute sustain their scientific endeavors by successfully competing for funding at the national level. The Barshop Institute supports their research through a wide range of core services and clinical facilities by sponsoring cuttingedge programs that employ advanced technologies such as genomics and proteomics, transgenic animal models, and pathological assessments.

Over the past two decades, the aging program in San Antonio has prospered, with the awarding of various robust programs/centers to the UTHSCSA and the South Texas Veterans Health Care System, institutions

that are physically connected and tightly integrated. The UTHSA has consistently ranked as the #1 or 2 top center in the U.S. for basic aging research. Barshop UTHSA and The Institute also hold an NIAfunded T32 training grant in the Biology of Aging, focused on basic and translational geroscience. The program funds predoctoral and four postdoctoral positions.



San Antonio Older Americans Independence Center

Launched in 2015, the **San Antonio Older Americans Independence Center** (San Antonio OAIC) represents the next step in UTHSCSA's evolution as a leader in aging research and healthcare for older people. The San Antonio OAIC is housed in the School of Medicine and the San **Antonio Geriatric Research**, **Education and Clinical Center (GRECC)** at the South Texas Veterans Health Care System.

As a recipient of the Claude D. Pepper Older Americans Independence Center (OAIC) grant from the National Institute of Aging (NIA), the Barshop Institute is furthering research efforts towards the clinical aspect. The Pepper Center designation enables the translation of research into practical applications in the lives of older Americans. The Barshop Institute is one of the few places in the country that can both investigate the aging process and move the findings into the clinic.

Director, Perry and Ruby Stevens Parkinson's Disease Center of Excellence



Specifically, the goals of the San Antonio OAIC are: (1) to integrate and combine University and VA research and resources to address the health care needs of older citizens, and (2) to be one of the leading sites in the nation for clinical and translational aging research. The Center for Healthy Aging is responsible for coordinating the following integrated activities linked to the missions of the San Antonio GRECC and UTHSA:

- Patient-oriented clinical research in aging;
- ▲ Translational research, taking the discoveries in biological research to the patient;
- ▲ Training of physicians and health-care specialists in geriatrics; and
- ▲ The delivery of multi-disciplinary care and services to older adults.

The Center for Healthy Aging, also directed by Dr. Musi, is the Clinical Research Branch of the Barshop Institute, and was established in 2010 with the goal of promoting local translational and clinical research, as well as educational activities, in geriatrics and gerontology.

San Antonio Nathan Shock Center

With its evolving Cores, enrichment and training programs, and supported research projects, the San Antonio Nathan Shock Center has, for nearly 25 years, provided critical support to investigators locally, nationally, and abroad. With its existing and growing intellectual capital, the San Antonio Nathan Shock Center is poised to provide (1) an enhanced platform to conduct horizontally integrated (lifespan, healthspan, pathology) transformative research in the biology of aging, and (2) a springboard for advanced educational and training activities.

The goals of the San Antonio Nathan Shock Center are:

- To be a leader in research that advances our understanding of the biology of aging;
- ▲ To provide a 'one-stop-shop' venue to accelerate transformative research in the biology of aging;
- ▲ To foster and promote career development of early-stage investigators in aging biology;
- To serve as a resource and partner to investigators from other Shock Centers, institutions, and the public, for dissemination of scientific knowledge and enhancing awareness about aging research

The aging process plays an important role in the development of chronic disease and disability. The mission of the San Antonio Nathan Shock Center is to discover the molecular and cellular mechanisms that control the aging process, in order to develop strategies to promote healthy aging.

* UT Health San Antonio announced September 2020 that the Sam and Ann Barshop Institute for Longevity and Aging Studies gained renewal of both the Pepper Center and Shock Center grants, which total \$11 million over the next five years.

Glenn Biggs Institute for Alzheimer's & Neurodegenerative Diseases

Led by Founding Director Sudha Seshadri, MD, the Biggs Institute is a comprehensive institute with a mission to help prevent, care and cure dementia and Alzheimer Disease and Related Disorders (ADRD) in South Texas and beyond. With core values of caring, creativity, collaboration and humility it provides a compassionate and comprehensive network of clinical care for patients and their families, grounded in the innovative medical research and proven best practices. The clinical core provides care ranging from



determination of risk and preservation of cognition, through differential diagnosis, multidisciplinary care through all stages of disease for persons with a wide range of diagnoses impairing cognition. The Biggs is engaged in over 25 clinical trials and observational studies, has published over 170 papers and obtained over \$30M in external funding in the past 3 years. The Biggs Institute facilitates basic and translational research efforts, with teams engaged in basic, imaging, genetic and multiomic, epidemiological studies.

Our researchers are dedicated to finding tomorrow's treatments today through innovative research and clinical trials. We work closely with the Sam & Ann Barshop Institute for Longevity & Aging Studies at UT Health San Antonio and have currently taken 3 potential drugs from animal to Phase I and II clinical trials with external funding. Identification of blood and CSF biomarkers is another key focus. The institute has a worldwide network of partnerships.



The Glenn Biggs Institute for Alzheimer's & Neurodegenerative Diseases Biorepository focuses on normal controls of Hispanic ancestry and on samples from persons with various diseases that affect the central nervous system, including dementia, movement disorders, cerebrovascular disorders and neuromuscular disorders as well as care partners. It includes biospecimens along the brain aging and degenerative spectrum.

Neuropathology Core, Brain Bank

The Neuropathology Core (NPC), led by Co-Directors Kevin Bieniek, PhD and Jamie Walker, MD, supports qualitative and quantitative assessment of all central nervous system pathologies in each brain studied, for diagnostic as well as basic and translational research purposes. As a state-of-the-art repository of iPSCs and central nervous system tissue (fixed and frozen brain and spinal cord) samples, the NPC aims to foster collaborative experimental studies among researchers within the Biggs Institute and at external academic institutions nationwide, to be a foundational resource for multidisciplinary neuroscience research. NPC resources from the South Texas Alzheimer's Center (a collaboration between the Biggs and UT Rio Grande Valley) will further scientific understanding of clinicopathologic correlates, genetic and environmental disease modifiers, multimorbidities and polyproteinopathies, and pathogenesis and natural history of ADRD, especially in Mexican-American Hispanics. Currently the bank has brain tissue from 95 persons. The Brain Bank is funded to collect and process (using latest digital pathology, spatial transcriptomics) tissue from all 10 Texas Alzheimer Research and Care Consortium (TARCC) sites. A 24/7 phone line and philanthropic support has permitted rapid growth of this resource. Post-mortem brain MRI imaging is obtained. In addition to routine histological stains (hematoxylin and eosin, thioflavin-S, etc.), our Brain Bank routinely performs immunohistochemical stains in numerous defined brain regions targeting protein markers of neurodegenerative (i.e., tau, Aβ, α-synuclein, TDP-43, etc.), cerebrovascular (i.e., GFAP, IBA1, etc.), and traumatic (i.e., tau, neurofilament, GFAP, etc.) pathologies. The core subsequently scans, digitizes, analyzes, and archives these slides using Leica's Aperio system to compare quantitative traits in defined neuroanatomic regions of interest in different clinical and demographic groups. The Brain Bank analyzes DNA and RNA isolated from frozen autopsy tissue for gene expression (via NanoString nCounter® molecular barcoding system) and genetic variation (via whole-exome sequencing) to elucidate the role of

UT Health San Antonio

Director, Perry and Ruby Stevens Parkinson's Disease Center of Excellence



genetic polymorphisms and differential mRNA transcript expression in specific clinical and neuropathologic outcomes. Fibroblasts are stored for conversion to iPSCs and organoids.

Biobank

The Biggs biobank collects and stores a range of biofluids (blood, plasma, serum, PBMCs, DNA, RNA, saliva, urine, CSF) from persons living with dementia and their care partners who are enrolled in various studies or who wish to donate to the Biobank; consent can be obtained and samples collected at the time of blood draw or LP for clinical care. Currently it has samples from over 170 persons, predominantly of Mexican-American ancestry. An additional 3000+ samples from studies such as markVCID, the San Antonio Heart Study and the San Antonio Family Heart Study have been used in ongoing studies. A Quanterix HD-X machine is available and amyloid, atu, NFL, GFAP assays have been run regularly in-house.

South Texas Alzheimer's Conference

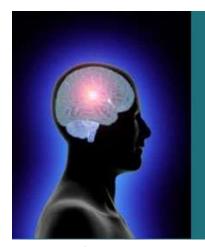
The Biggs Institute, in partnership with the Alzheimer's Association, presents the South Texas Alzheimer's Conference with events for the general public, as well as health care professionals and students, to hear the latest discoveries in Alzheimer's disease from world-renowned experts. The Inaugural conference was held in February, 2019 with the 2nd annual conference held February 2020.

IDEAS platform

Clinical, imaging, biobank and brain bank data are linked through a data management system.



Center for Biomedical Neuroscience



CENTER FOR
BIOMEDICAL
NEUROSCIENCE

The Center for Biomedical Neuroscience was formed in 2001 to serve as an umbrella organization for all neuroscientists and neuroscience-related activities on our campus. The mission of the CBN was clear - to enhance and promote all teaching, research, service, and outreach activities related to neuroscience at UTHSA. Today, the CBN has over 120 members from 6 basic science and 11 clinical departments in the Medical School, Dental School, School of Nursing, School of Health Professions, Research Imaging Institute, Barshop Institute for Longevity and Aging Studies, Biggs Institute for Alzheimer's and Neurodegenerative Diseases, Mays Cancer Center, and the Military Health Institute. The CBN promotes the rational development and growth of neuroscience on our campus, recruits high-caliber graduate and post-graduate students, develops programs for education and professional development of trainees at all levels, increases public awareness of issues and research in neuroscience, and provides a focus at UTHSA for private and industrial donors interested in supporting this discipline.

The members of the CBN have been successful in obtaining funding from competitive sources, including the National Institutes of Health, the Department of Defense, the Veterans Health Administration, private foundations, and industry. CBN members bring in a disproportionate amount of research funding to the UT Health Sciences Center. Specifically, 52 CBN members who received NIH funding in FY20 represent 28% of all NIH-funded investigators at the HSC, but brought in 44% of total NIH funding to the HSC. Overall, there are 69 CBN investigators funded from any source, representing 18% of the funded investigators at the HSC. These CBN investigators brought in 33% of total research funding. In addition to R01-type individual grants, CBN members effectively obtain funding for Center Grants, Program Project Grants, Training Grants, K-awards, and our students and post docs have been very successful in obtaining individual NRSA Fellowships (F-awards).

UT Health San Antonio Director, Perry and Ruby Stevens Parkinson's Disease Center of Excellence



RESEARCH IMAGING INSTITUTE

The Research Imaging Institute (RII) is an Organized Research Unit (ORU) of UT Health San Antonio that was launched in 1991. The RII is a research resource that maintains its own grant portfolio, while promoting collaborative projects that cross departmental and institutional boundaries. The RII is independently administered as departmental equivalent, reporting to the School of Medicine at the Health Science Center. The RII is operated as an "open door" laboratory, allowing ready access to investigators from other departments and institutions. Through this "open door" policy, the RII has developed an outstanding portfolio of inter-disciplinary, collaborative grants and a large and growing network of collaborators on a world-wide basis.

Mission: The mission of the RII is to perform basic, clinical, and translational research using noninvasive, biomedical imaging methods for measuring the structure and function of living organisms. Neuroscience research is given highest priority.

Facilities

The Research Imaging Institute (RII) has a total of 28,000 sq ft of space that houses the laboratories, computing facilities, and offices.

- ▲ Laboratory: Human imaging suites (MRI, PET and TMS) are located on the first floor of the RII in a 10,000 sq ft area. Five MRI scanner suites (2 human and 3 animal − 2 scheduled for installation in 2008) are located on the first floor of the RII. The TMS laboratory (1 room), the PET area including rodent microPET (five rooms), one cyclotron (2 rooms), and the radiochemistry area (2 rooms) are also located on the first floor. The Biomedical Image Analysis Division (BIAD) (ten rooms), speech motor lab with sound booth (2 rooms), and ERP lab with sound booth (2 rooms) are on the second floor of the RII. A 5,000 sq ft addition that will house a 2nd cyclotron and additional radiochemistry laboratories was recently completed.
- ▲ Clinical: Electromyography (EMG) and nerve conduction studies are carried out in the TMS laboratory on the 1st floor. Neurocognitive assessments are carried out in 3 dedicated rooms on the 1st floor. Speech and motor assessments are carried out in a 800 sq ft laboratory on the 2nd floor.
- Animal: A 10,000 sq ft laboratory animal facility is located on the first floor of the RII. This facility includes two MRI imaging suites, three large primate rooms, five preparation and recovery rooms, seven small animal rooms and two complete surgical suites.
- ▲ Computer: The RII's Biomedical Image Analysis Division (BIAD) provides computational support to all research projects and faculty. This division employs a technical director for computing systems, one faculty level programmer, two senior level programmers, one junior lever programmer, two consultants, and 3 system administrators. Three common-use rooms are available for researchers to analyze data, a server and HPC support area, and offices for staff and faculty. Each lab is equipped with computers appropriate with their applications.

Director, Perry and Ruby Stevens Parkinson's Disease Center of Excellence



INSTITUTE FOR INTEGRATION OF MEDICINE & SCIENCE

The IIMS is the institutional home for the Clinical and Translational Science Award (CTSA) granted to the University of Texas Health Science Center at San Antonio (UTHSCSA) and its partner organizations. The CTSA grant was initially awarded by the National Institutes of Health (NIH) in 2008, and subsequently renewed in 2013 and 2018. Our mission is to integrate clinical and translational research and career development across the South Texas area. We are reducing barriers to research and stimulating the transformation of knowledge into improved health care for Texas residents.

IIMS provides the foundation for our growing translational science initiatives, training the translational science workforce, formalizing key strategic partnerships, and creating a community of scholars within a learning healthcare system. We expanded clinical research programs, extending to the Texas-Mexico border, dramatically increasing participant access to clinical trials. We increased, from 2 to 6, the Practice-Based Research Networks (PBRNs) that focus on diverse ambulatory populations. We created 6 countywide Translational Advisory Boards (TABs) that support engagement through priority setting, matching with academic investigators, and identifying opportunities for team-based research and training. IIMS supports the nation's largest investigation of battle-related mental health problems (Consortium to Alleviate PTSD [CAP]). We pioneered IRB process harmonization, resulting in rapid review times and streamlined pathways to multisite study initiation. We have developed a robust translational pilot grant program, leveraged among our partners, with a remarkable return on investment (~13:1). Our programs addressing translational science workforce needs have graduated 140 masters degree students, supported 39 successful KL2 Scholars and 24 TL1 Scholars, and established de novo a Translational Science PhD program that has enrolled 45 students and graduated 21. The matriculants reflect our diverse population. Finally, our IIMS informatics team has been leading electronic health record data warehouse development through our hospital partners and PBRNs, fostering matches between IIMS investigators and practice-relevant research priorities.

Within the IIMS we have strong, stable, highly effective partnerships that include a wide range of organizations, such as higher education institutions, public and private hospital systems, military health care and research facilities, private research foundations, and public health departments. We have brought together major talent and a broad array of resources to create a unique, synergistic system that adds substantial value to all participating organizations, residents of our region and other institutions in Texas and throughout the United States. Some of the most important of these include:

- San Antonio is home to the largest **military** health care and biomedical research operations in the United States, providing unique collaborative opportunities for studies in military and veteran populations.
- The **Southwest National Primate Research Center** housed at the Texas Biomedical Research Institute contains unique resources through their large pedigreed primate colonies. These primates enable long-standing collaborations among many IIMS partners and represent an outstanding resource for translational research activities.
- The IIMS serves a 46,000 square mile area including the Lower Rio Grande Valley populated by predominantly Hispanic residents comprising some of the poorest people plagued by the highest rate of health disparities in the US, providing an opportunity, challenge, and obligation for us to make a significant impact on human health.



Because of the population we serve, IIMS focuses on development, validation, and implementation of cross-cultural and community-based research methods, an area of major faculty expertise.

CENTER FOR INNOVATIVE DRUG DISCOVERY

The Center for Innovative Drug Discovery (CIDD) is a joint venture between UT Health San Antonio and University of Texas at San Antonio (UTSA) and co-directed by <u>Dr. Daohong Zhou</u> and <u>Dr. Stanton McHardy</u>. It provides a diverse array of core facilities and expertise to facilitate the translation of basic scientific discoveries into pre-clinical drug candidates that can be further developed into therapeutics for human diseases.

The center will accomplish this mission by bolstering multidisciplinary collaboration among investigators, creating infrastructure support, enhancing trainee development, and assisting in the recruitment of new faculty members in the fields of aging and cancer biology, structural biology, computer-aided drug discovery, medicinal chemistry, and pharmacology. The work done in the CIDD will focus on target identification & validation, assay development, virtual & high-throughput screening, and optimization of hits/leads aided by artificial intelligence-based drug discovery and medicinal chemistry. Our primary aim is to develop a unique drug discovery platform and generate a robust pipeline of drug candidates for IND enabling and IND filing in age-related diseases, pediatric and adult cancers, and other areas.

The overreaching goal of CIDD is to support the advancement of drug discovery research and education at UTHSA and UTSA to facilitate the translation of basic discoveries into novel therapeutics that alleviate pain and suffering, improve quality of life of patients, and save lives. The center accomplishes the goal by:

- 1. Bolstering multidisciplinary collaborations among investigators in the fields of structure biology, computer-aided drug discovery, medicinal chemistry, and pharmacology.
- 2. Providing cutting-edge scientific facilities and equipment.

The CIDD has the capability of target identification & validation, assay development, virtual & high-throughput screening, and optimization of hits/leads aided by computational modeling, structural biology and medicinal chemistry in close collaboration with the Biomolecular NMR, X-ray Crystallography, Cryo-Electron Microscopy and Protein Structure Biology Cores at the UTHSA. A brief description of the CIDD facilities and resources is HERE.

UT HEALTH SAN ANTONIO

UT Health San Antonio, part of The University of Texas System, is the major source of health professions education and life sciences research in South Texas and is a major center for patient care in South Texas. The Health Science Center is composed of eight campuses across San Antonio and South Texas. It has 4.5 million square feet of owned and leased facilities for education, research, treatment, and administration. The University employs approximately 5,400 full-time faculty and staff and has a budget of approximately \$806 million.



UT Health San Antonio is composed of five schools: Dentistry, Graduate School of Biomedical Sciences, Health Professions, Medicine and Nursing. The University offers over degree programs 55 programs. More than 3,200 students a year train in an environment that involves



more than 100 affiliated hospitals, clinics, and health care facilities in South Texas.

UT Health San Antonio has over 50 accredited ACGME Residency and fellowship programs with over 700 residents who learn and work in San Antonio and Lower Rio Grande Valley campuses in teaching hospitals.

Facts

- FY20 revenue operating budget: \$993 million (27% from state appropriations)
- Among the top-ranked institutions in Texas for aging research funding from the National Institute on Aging
- Endowments: \$633 million (as of Nov. 30, 2019)
- Annual research awards and sponsored program activity: \$286.4 million
- \$87.9M in NIH funding (2019)
- Chief catalyst for the \$40.2 billion biosciences and health care industry in San Antonio
- National Academy of Medicine members: 8
- Supports 2 million patient visits each year through 800 providers in 100 medical specialties and subspecialties

UT Health San Antonio



THE JOE R. & TERESA LOZANO LONG SCHOOL OF MEDICINE

The Joe R. & Teresa Lozano Long School of Medicine at UT Health San Antonio is the largest trainer of physicians in South Texas, many of whom remain in San Antonio and the region to practice medicine. With full accreditation by the Liaison Committee on Medical Education (LCME), the school annually educates more than 900 students and trains 800 residents.

The UT Health Physicians practice is the largest vertically integrated medical group in San Antonio with 850 physicians in more than 100 specialties. This is powerful for patients, because specialists who are at the top of their professions work together in close proximity. Only here can a patient see these specialists as part of one team, each talking to the other about the patient's case. The spectrum of health care extends from primary care in health maintenance and disease prevention, all the way through the most complex specialty care, such as liver transplants or curing cardiac arrhythmias.

The Long School of Medicine and UT Health San Antonio have a highly productive research enterprise replete with basic scientific discoveries and state-of-the-art clinical care. World leaders in Alzheimer's disease, diabetes, cancer, aging and kidney disease, to name a few fields, are translating molecular discoveries into new therapies for these diseases. School of Medicine faculty members regularly publish in the top journals in the nation. UT Health San Antonio is one of the few universities with a National Institutes of Health-funded cancer center, NIH-funded aging center and NIH-funded clinical trials center. Only a dozen institutions in the country have all three.

San Antonio is fertile ground for testing new clinical treatments because demographically it is what the nation will look like in 20 years. The School of Medicine's clinical, research and educational partnerships with University Health System, the military including the South Texas Veterans Health Care System, and numerous state and private partners enrich San Antonio's large biosciences and health care economic sector.

UNIVERSITY HEALTH SYSTEM

University Health System is a nationally recognized teaching hospital and network outpatient healthcare centers, owned by the people of Bexar County. In partnership with UT Health San Antonio, consistently recognized as a leader in advanced treatment options, new technologies and clinical research. University



Health System provides healthcare for families close to home at our many clinic locations, including the historic Robert B. Green Campus, Texas Diabetes Institute, 13 neighborhood clinics across the community, five ExpressMed urgent-care clinics and four outpatient renal dialysis centers. The Harlandale ISD Schoolbased Health Center and Southwest ISD School-based Health Center, a collaboration with the Harlandale Director, Perry and Ruby Stevens Parkinson's Disease Center of Excellence



and Southwest independent school districts, helps keep district students healthy and in the classroom. All of these health centers and clinics are staffed by outstanding physicians, nurse practitioners and physician assistants of University Medicine Associates, University Health System's nonprofit provider practice.

University Hospital is undergoing a \$899.4 million expansion and renovation, which includes:

- ▲ New Sky Tower, completed April 2014 84 bed emergency department, 35 operating rooms and 420 new private rooms.
- △ Clinical Pavilion, completed Jan 2013 269,000 square foot, six-story building downtown with primary care, specialty care, radiology, ASC, lab and pharmacy.
- ▲ Women and Children's Tower, expected to open in 2022, 250 private rooms and a heart, vascular and endoscopy suite in the hospitals existing Sky Tower will expand the system from three catherization labs to five catherization labs. The project also includes a new parking structure and an additional shell space for future growth.

THE UNIVERSITY OF TEXAS SYSTEM

For more than 130 years, The University of Texas System has been committed to improving the lives of Texans and people all over the world through education, research and health care. The University of Texas System is one of the nation's largest systems of higher education, with 14 institutions that educate more than 235,000 students. Each year, UT institutions award more than one-third of all undergraduate degrees in Texas and almost two-thirds of all health professional degrees. With about 21,000 faculty – including Nobel laureates – and more than 85,000 health care professionals, researchers, student advisors and support staff, the UT System is one of the largest employers in the state.

Life-changing research and invention of new technologies at UT institutions places the UT System among the top 10 "World's Most Innovative Universities," according to Reuters. The UT System ranks third in the nation in patent applications, and because of the high caliber of scientific research conducted at UT institutions, the UT System is ranked No. 1 in Texas and No. 3 in the nation in federal research expenditures. In addition, the UT System is home to three of the nation's National Cancer Institute Cancer Centers – UT MD Anderson, UT Southwestern and UT Health Science Center-San Antonio – which must meet rigorous criteria for world-class programs in cancer research. And the UT System is the only System in the country to have four Clinical and Translational Science Awards (CTSA) from the National Institutes of Health.

Transformational initiatives implemented over the past several years have cemented UT as a national leader in higher education, including the expansion of educational opportunities in South Texas with the opening of The University of Texas Rio Grande Valley in 2015. And UT was the only system of higher education in the nation that established not one, but two new medical schools in 2016 at The University of Texas at Austin and UT Rio Grande Valley. University of Texas institutions are setting the standard for excellence in higher education and will continue to do so thanks to our generous donors and the leadership of the Chancellor, Board of Regents and UT presidents.



LIFE IN SAN ANTONIO



The seventh largest city in the United States, San Antonio offers the many attractions and opportunities expected of a metropolis, but without the usual congestion and high cost of living. San Antonio has been ranked as one of the most livable cities in the U.S. and is a popular destination for visitors and retirees. There are many recreational activities in San Antonio and the surrounding Texas Hill Country. Most famously known as the home of the Alamo, the spirit of the region expands beyond its tourist labels, offering a community

rich in Spanish and Old West heritage.

The pace of life in San Antonio can be as active or as quiet as one chooses. Families appreciate having year-round access to Six Flags Fiesta Texas and SeaWorld San Antonio. Foodies enjoy every genre of cuisine from food trucks to the beloved Tex-Mex and barbecue fare. Theater, music and art aficionados can attend productions at the Majestic Theater and the Tobin Center or exhibitions at the McNay Art Museum. Sports fans cheer on their NBA team, the San Antonio Spurs. San Antonio offers more than 50 major events and festivals throughout the year, including the Ford Holiday River Parade and Lighting Ceremony, the Texas Folklife Festival and the famous Fiesta, a spirited 10-day salute to the Spanish heritage with numerous events citywide.

San Antonio's richest source of culture and community is derived from the Mexican-American population: Hispanic culture showcased in the region's cuisine, music and entertainment. The metro area embraces bilingualism, with Spanish as the city's most widely spoken non-English language. San Antonio's history as the site of five Spanish Catholic missions is palpable throughout the region, with sites like the Alamo and San Antonio Missions National Historical Park (Texas' first



San Antonio Fiesta- fiesta-sa.org

UNESCO World Heritage Site) harkening to yesteryear. But that doesn't mean the region is stuck in the past. Two of the most recent areas of significant revitalization include the Quarry Market and the Pearl Brewery. Originally the Alamo Cement Factory, the Quarry Market offers boutique shopping and trendy residences surrounding the original smokestacks. The Pearl Brewery is now home to The Culinary Institute of America and an impressive weekend farmers market.



San Antonio offers a thriving job market with growing opportunities in the bioscience, renewable energy and manufacturing industries. Leading companies include Southwest Research Institute, Valero Energy Corporation and Toyota. San Antonio also is a proud military region, with Lackland Air Force Base, Fort Sam Houston, Camp Bullis and Randolph Air Force Base forming the Joint Base San Antonio. As a destination city, the leisure and hospitality industry is well-represented. Other top employers include the homegrown supermarket chain H-E-B, with a large local workforce, as well as the Fortune 500 company USAA and the Northside Independent School District. San Antonio encompasses 123 public elementary, middle and high schools. San Antonio also has 105 private schools. Fourteen high schools are recognized on U.S. News & World Report's Best High Schools rankings.

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