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**Office of Strategic & Translational Research Initiatives**

**This is a resource page template designed to be used by UNTHSC faculty in NIH applications, although it may also be helpful for other granting agencies. Investigators should modify this page to meet the needs of their specific proposal by adding or deleting sections as appropriate. The following information will be updated on a regular basis by the Office of Strategic & Translational Research Initiatives (OSTRI). To request updates or additions of new or existing resources at UNTHSC please e-mail SRI at** [**sri@unthsc.edu**](mailto:sri@unthsc.edu)**.**

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**The University of North Texas Health Science Center:**

The University of North Texas Health Science Center, (UNTHSC) is exclusively a graduate-level university focusing on the life sciences and has made tremendous progress in meeting the state’s needs for physicians, physician extenders, public health workers and scientists for industry and academia. Opened in 1970 as the Texas College of Osteopathic Medicine (TCOM), our 1,500-student campus has grown to also comprise the Graduate School of Biomedical Sciences (GSBS), School of Public Health (SPH), and School of Health Professions (SHP). The UNTHSC’s mission is to improve the health and quality of life for the people of Texas and beyond through excellence in education, research, clinical care, community engagement and to provide national leadership in primary care.

UNTHSC is a 33-acre $312 million campus located in Fort Worth's Cultural District and includes three additional off campus acres.. The campus includes 26 buildings with 1,328,823 gross square feet and 496,584 net assignable square feet encompasses a 129,000 square foot Clinical Care Building and a 140,000 square foot Center for Biohealth. To accommodate our growing student body and expand our capabilities to meet the health care needs of our community, the UNTHSC will add more than 300,000 square feet of floor space to its campus over the coming years. Currently under construction is a 112,000-square-foot building designed to house additional classrooms, laboratories and state of the art patient simulator training facilities.

The Health Science Center has a $220 million annual budget, adds approximately $500 million into Fort Worth's economy annually and provides over 2,500 jobs with a combined faculty of more than 400, a staff of more than 1,400 and 750 part-time and adjunct faculty from other institutions and the community. TCOM faculty provide patient care to our community through UNT Health, the largest multi-specialty group practice in Tarrant County, with nearly 175 physicians in 34 locations including campus locations. UNT Health practitioners have more than a half million patient encounters within a year.

The UNTHSC’s has a diverse student body. *Hispanic Business* magazine has ranked TCOM as one of the Top 20 Medical Schools for Hispanics four times since 2005. Our GSBS consistently leads all health science centers in Texas in the percentage of minority students enrolled and our SPH has a more divese student body than any other school of public health in the nation.

**The Graduate School of Biomedical Science:**

The GSBS of the UNTHSC, although young, has a strong record in graduate training. The mission of the GSBS is to advance medical science through innovative research and develop outstanding biomedical and clinical research scientists. Students in the GSBS can earn advanced degrees in anatomy and cell biology, biochemistry and molecular biology, physiology, pharmacology & neuroscience, and microbiology and immunology through an innovative and diverse educational environment that supports state-of-the-art research in areas of health science and biotechnology. The Graduate School of Biomedical Sciences recognizes the importance of a diverse student population and research areas that derive from an understanding of all cultures. Importantly, GSBS has received presidential recognition from both the Clinton White House and the Bush White House, and recently received a designation as a “Role Model Institution in the Training of Minority Biomedical Scientists” by Minority Access, Inc., a NIH-affiliated organization.

The GSBS has the following five departments: Department of Pharmacology and Neuroscience, Department of Molecular Biology and Immunology, Department of Integrative Physiology, Department of Cell Biology and Department of Forensic and Investigative Genetics.

**Department of Pharmacology and Neuroscience:** The Department of Pharmacology and Neuroscience is located on the first and third floors of the Research and Education building (RES), the fourth floor of Education and Administration (EAD) building and the 5th floor of the Center for Biohealth building (CBH). The Department has 13 full time faculty members, and 10 Research Professors. The areas of research expertise include molecular-cellular and/or behavioral pharmacology, focusing on aging, neurodegeneration, substance abuse, and ocular pharmacology. The research programs are funded from a variety of sources, including the National Institute on Drug Abuse, National Heart, Lung, and Blood Institute, National Institute on Aging, National Institute on Alcohol Abuse and Alcoholism, National Institute of Environmental Health Sciences, and National Center for Research Resources. Of note, the department of Pharmacology & Neuroscience has three active Program Project (P01) Grants in areas relevant to Neuroscience.

**Department of Molecular Biology and Immunology:** The Department of Molecular Biology and Immunology has 21 faculty members and 27,468 sq. ft. of research/office space. The faculty participate in highly multidisciplinary research programs in cancer research, medicinal chemistry, biophysics, infectious diseases and immunology. There are three graduate programs within the Department (i.e., Microbiology & Immunology, Cancer Biology and Biochemistry & Molecular Biology), involving both Ph.D. and MS training, leading to careers in research, biotechnology and related areas. Students have the opportunity to participate in research projects employing state-of-the-art molecular, cellular and biochemical techniques, including genomics, proteomics, mass spectrometry, molecular cloning, gene targeting, FACS analysis, advanced fluorescence spectroscopy, and optical imaging.

The research efforts by faculty and students are supported by state-of-the-art technology and translational core facilities. Accordingly, the Department of Molecular Biology & Immunology houses and supports the *Center for Commercialization of Fluorescence Technologies*, *Flow Cytometry and Laser Microdissection Core Facility*, and the *Advanced Mass Spectrometry and Proteomics Laboratory*. The Department is also the home for *Preclinical Services*, a contracting laboratory that performs studies, utilizingestablished animal models of both acute and chronic bacterial infections for industrial and academic research clients to facilitate the discovery of new anti-microbial agents for eventual FDA submissions. Pharmacokinetic studies with accompanied bioanalytical LCMS or HPLC analysis are also performed to characterize compounds as suitable targets for drug development. Thus, the available core resources complement research laboratories in the Department and throughout the Health Science Center to produce state of the art basic and translational research.

**Department of Integrative Physiology:** The Department of Integrative Physiology has 9 full time faculty members and 15,862 sq. ft. of research/office space. The core of the department's research is the physiology and pathophysiology of the cardiovascular system. Research in the department is funded by agencies such as the National Institutes of Health, the American Heart Association and its Texas Affiliate, the National Aeronautics and Space Administration, and many others. Members of the department are nationally and internationally recognized in their specific areas of research. Faculty members of the Department of Integrative Physiology serve on grant review panels for the National Institutes of Health and the American Heart Association, as well as the editorial boards of prestigious cardiovascular journals, and hold offices in several scientific and clinical organizations.

**Department of Cell Biology and Anatomy.** The department of Cell Biology and Anatomy has 15 full time faculty members committed to educate our future health care providers, cutting-edge multidisciplinary biomedical research and graduate training, and participate in community outreach. Our research and educational facilities span almost 22,000 square feet of space in the research and education building. In addition to state-of-the-art Anatomy Education and the Biomedical Skills Research and Education Laboratories, our department houses three independent graduate programs (Cell Biology, Visual Science and Structural Anatomy). Research excellence areas include cancer biology, visual sciences, HIV-1 biology, cellular and molecular fluorescence spectroscopy and imaging. The Cell Biology and Anatomy department is also home to the majority of the North Texas Eye Research Institute faculty and is actively involved in the development of a Brain Bank for procuring human tissues for biomedical research. Independent research programs are funded through the National Institutes of Health, National Science Foundation, Department of Defense and other private foundations.

**Department of Forensic and Investigative Genetics: Department of Forensic and Investigative Genetics:** The Department of Forensic and Investigative Genetics is the academic component of the UNT Center for Human Identification.  It has 8 full time faculty members and several additional experts who provide guest lecturers’ in a variety of forensic disciplines. It is a nationally and internationally recognized center which provides the most advanced DNA analysis for traditional forensic casework, the molecular and anthropological analysis of human remains as well as DNA database capability to identify missing persons. These services are routinely provided to law enforcement agencies and medical examiner/coroners offices throughout the U.S. and numerous countries around the world. It is currently the only academic center in the U.S. that has participated in the development and validation of the FBI’s next-generation CODIS DNA software. The Department of Forensic and Investigative Genetics offers both a Doctoral and Masters Degree program which provide comprehensive training in analytical and computational meth­ods necessary for studies in the various fields of applied genetics.  In addition, a specialized masters program in Forensic Genetics is offered to individuals interested in becoming a qualified forensic DNA Analyst. Areas of research focus include forensic genetics, clinical genetics, computational genomics, evolutionary biology, microbial forensics and many other interrelated disciplines.  A large portion of the research laboratories in the Department of Forensic and Investigative Genetics will be relocated to a 10,000 sq ft research and animal facility which is currently under construction.  This new research facility will contain a specialized animal BSL3 facility, as well as other laboratories and office space for forensics, microbial and human identification.

**The Texas College of Osteopathic Medicine (TCOM):**

TCOM is a national leader in training primary care physicians skilled in comprehensive primary care medicine, helping to reduce the shortage of physicians in many Texas communities. TCOM has been recognized as "One of the Top 50 Medical Schools" in the nation for primary care by US News and World Report for the past eight years. In 2009 *U.S. News and World Report* ranked TCOM 29th among all U.S. Medical schools for primary care and 17th for the family medicine. More than half, 55%, of the 2009 TCOM graduates entered primary care residencies, the third highest in the nation. TCOM’s unique Rural Osteopathic Medical Education of Texas Program trains doctors to practice in rural and underserved areas. Of all TCOM graduates, 29 percent practice in small towns. TCOM’s medical students score the highest in the nation on all levels of the Osteopathic medical licensing exam. *Hispanic Business* magazine has ranked TCOM as one of the Top 20 Medical Schools for Hispanics for three consecutive years.

**TCOM Entrance Data as Compared to All Texas Medical Schools (2008 applicants)**

|  |  |  |
| --- | --- | --- |
|  | MCAT | GPA |
| UT Southwestern | 33.6 | 3.81 |
| UTHSC -Houston | 29.2 | 3.77 |
| Texas Tech University HSC | 28.7 | 3.74 |
| UT Medical Branch | 28.5 | 3.68 |
| **UNTHSC- TCOM** | **28.3** | **3.60** |
| UTHSC-San Antonio | 28.2 | 3.59 |
| Texas A&M University HSC | 28.2 | 3.56 |

TCOM has the following eight departments: Department of Family Medicine, Department of Internal Medicine, Department of Obstetrics and Gynecology, Department of Osteopathic Manipulative Medicine, Department of Orthopaedic Surgery, Department of Pediatrics, Department of Psychiatry and Behavioral Health, Department of Surgery

**Department of Family Medicine**: The Department of Family Medicine has the largest clinical and educational network of ambulatory primary care clinics within the medical school. With a diverse faculty of physicians, social scientists, nurse practitioners and physician assistants, the department provides instruction in medical interviewing, physical examination, physical diagnosis, ambulatory family practice and elective courses in sports medicine and emergency medicine. The department is also home to the Rural Osteopathic Medical Education (ROME) program, which is a four-year parallel curriculum specializing in the education of future rural physicians.

**Department of Internal Medicine:** The Department of Internal Medicine prepares osteopathic medical students and other health science center students for successful practices in primary care and subspecialty disciplines. Department faculty members honor the principles of osteopathic medicine, including health promotion, disease prevention and nutrition in all teaching activities and they strive to serve as role models and mentors for all students. Specialty practice areas of departmental faculty include cardiology, endocrinology, gastroenterology, geriatrics, infectious disease, rheumatology, neurology, pulmonary and critical care, and sleep medicine.

**Department of Obstetrics and Gynecology:** The Department of Obstetrics and Gynecology handles approximately 7,300 deliveries and 110,000 outpatient visits each year. In addition, faculty members provide services related to general obstetrics and gynecology, Reproductive Endocrinology, Maternal-Fetal Medicine, Gynecologic Oncology, Urogynecology and pain management. Educationally, the department provides instruction to medical students in both the pre-clincial and clinical portions of the curriculum as well as instruction for a residency training program consisting of 16 residents.

**Department of Osteopathic Manipulative Medicine:** The Department of Osteopathic Manipulative Medicine (OMM) Department is responsible for all OMM education occurring at UNTHSC. The department offers both a two-year and a 'plus one' graduate training program in OMM. Medical students are provided additional opportunities for specialized training in OMM through a Teaching Assistant Program and a Pre-doctoral Fellowship Program. In addition to educational mission, the OMM faculty actively conducts research through the Physical Medicine Institute and the Osteopathic Research Center.

**Department of Orthopaedic Surgery:** The Department of Orthopaedic Surgery is a multidisciplinary group of orthopaedic and podiatric surgeons who are involved in patient care, education and research. Faculty members actively participate in research and have published in internationally recognized peer reviewed journals. In addition to providing instruction for TCOM medical students, the department also teaches orthopaedic and podiatric residents in fully accredited graduate medical education programs at John Peter Smith Hospital in Fort Worth.

**Department of Pediatrics:** The Department of Pediatrics provides clinical instruction, patient care and research in the care of newborns, infants, children and adolescents. In addition, the department collaborates with a number of hospitals and clinics to provide students with both outpatient and inpatient exposure to pediatric care.

**The Department of Psychiatry and Behavioral Health:** The Department of Psychiatry and Behavioral Health provides a broad range of clinical services for the JPS Health Network and the University of North Texas Health Science Center including psychiatric emergency care, inpatient adult services, inpatient adolescent services, outpatient care, acute care and neuropsychiatry. In conjunction with the JPS Health Network, the department also has a residency program that is fully accredited by the Accreditation Council for Graduate Medical Education (ACGME) and the American Osteopathic Association (AOA).

**Department of Surgery:** The Department of Surgery provides multi-discipline surgical services and research in a number of areas to promote excellence and quality care. Faculty members actively engage in research in critical care, endocrine surgery, laparoscopic surgery, endovascular surgery, swallowing disorders, airway obstructive diseases, wound healing, clinical outcomes and a variety of clinical trials. Other areas include basic science research in cardiac metabolism and cardiopulmonary bypass.

**The School of Public Health:**

Founded in 1999 as a result of grassroots efforts of community leaders and public health officials, the School of Public Health (SPH), is now one of the only 43 accredited schools of its kind in the North America. SPH has grown rapidly in student enrollment and research funding since its initial accreditation with the Council on Education for Public Health (CEPH) in June 2002, while maintaining strong and vital links with public health professionals in the community. In 2007, SPH was re-accredited for the maximum term of seven years. Currently, the SPH has 38 faculty members and approximately 300 students.

The SPH offers the following degrees: Master of Public Health (MPH), Master of Health Administration (MHA), Doctor of Public Health (DrPH), and a new PhD in Public Health Sciences program, which is pending final approval from the Texas Higher Education Coordinating Board. The PhD in Public Health Sciences will prepare professionals for research, teaching, and service with the overall objective of improving the health of populations. The primary focus is on research that advances knowledge and facilitates discovery regarding etiology, interventions, and policies that promote health at all levels. The PhD curriculum will provide advanced training in a specialized field of public health and will cultivate a strong foundation in research methodology necessary for the public health sciences. The SPH has a more diverse student body than any other school of public health in the nation.

The SPH has the following six departments: Department of Biostatistics, Department of Environmental and Occupational Health Sciences, Department of Epidemiology, Department of Health Management and Policy, Department of Public Health Education, and the Department of Social and Behavioral Sciences.

**Department of Biostatistics:** The Department of Biostatistics includes faculty with expertise in longitudinal data analysis, statistical computing, survival methodology, clinical trials, sequential analysis, regression methods, multivariate analysis, robust inference, multistate cancer modeling, data management and information systems and health services methodological research. The department promotes statistical practice, applications, and research in the design and analysis of research studies, in the preparation of data monitoring, in evaluating the accumulating evidence for safety and efficacy, in the development and application of statistical methods in medical and biomedical sciences, in training graduate students, and in collaborating with basic and clinical science investigators.

**Department of Environmental and Occupational Health Sciences:** The goal of the graduate program in the Department of Environmental & Occupational Health Sciences is to train highly competent scientists and public health practitioners in the field of environmental and occupational health. This department focuses on education designed to train students to acquire up-to-date knowledge and competency in this area based on sound scientific theory and methodology. At the same time, students are given the unique opportunity to immediately begin to translate the knowledge acquired in the classroom or laboratory, into practical applications in the real-world setting through participating in faculty cutting-edge research, internships in industry, state or national agencies, or site visits to these establishments.

**Department of Epidemiology:** The Department of Epidemiology includes faculty with expertise in the conduct of etiologic research, applied epidemiology, public health surveillance, statistical analyses, and data management. Faculty research has emphasized the etiology of occupational diseases, cancer, cardiovascular disease and other chronic and infectious diseases, diseases related to environmental hazards, health disparities and social determinants of health, and reproductive and family health.

**Department of Health Management and Policy:** The Department of Health Management and Policy prepares graduate students for careers in health services management in the public and private, for-profit and not-for-profit, health sectors, health policy analysis, and policy development,. Graduates of these programs will be able to start or further develop their careers in health care delivery organizations; local, managed care companies; state or federal government health agencies; consulting firms; or academia. Faculty in the Department of Health Management and Policy are trained and actively conduct research in the areas of health policy, health economics, health management, health services research, and health law.

**Department of Public Health Education:** The Department of Public Health Education utilizes the expertise of faculty across all five of the disciplines within the School of Public Health to design, implement and evaluate the public health doctoral degree programs. Courses offered through PHED are interdisciplinary and foster collaboration within the school, the health science center, and the public health community. This department directs the Doctor of Public Health in Public Health Practice (DrPH) degree and the Doctor of Philosophy in Public Health Sciences (PhD) degree which are designed to prepare professionals for a variety of careers in public health practice, leadership, management, academics, and research.

**Department of Social and Behavioral Sciences:** The Department of Social and Behavioral Sciences includes faculty with expertise in health education/promotion, ethnicity and culture, health communication, health psychology, addictions, motivational interviewing, Hispanic/Latino health, anthropology, and sociology. The department emphasizes a multidisciplinary approach to identify community, family, social, and behavioral factors in both the onset of and solution to public health problems through disease prevention, health promotion, or health care. The department administers the MPH concentration in community health and will offer a PhD concentration in Health Disparities, pending final approval from the state. Graduates of this program are prepared to perform community-based research, communicate findings to the public and policymakers, and advocate for evidence-based programs and policies.

**The School of Health Professions:**

The School of Health Profession (SHP) is the newest school on the UNTHSC Campus. The SHP was approved by the University Of North Texas System Board Of Regents on May 20, 2004 and subsequently approved by the Texas Higher Education Coordinating Board on July 8, 2004.  The mission of the SHP is to provide opportunities for a diverse student body to obtain the knowledge, attitudes and skills needed to serve in the health care professions and to continue their development throughout their professional careers

SHP will soon offer a new degree program, a Doctor of Physical Therapy (DPT) degree, through its Department of Physical Therapy. Physical therapy classes are scheduled to begin in July 2010, and are contingent upon receiving accreditation candidacy from the Commission on Accreditation in Physical Therapy Education and final state approval of the Texas Higher Education Coordinating Board.

The SHP currently has two departments; the Department of Physical Therapy and the Department of Physician Assistant Studies.

**Department of Physical Therapy:** The SHP has received Preliminary Authority from the Texas Higher Education Coordinating Board to offer a 30 month Doctor of Physical Therapy (DPT) degree, and currently has filed a request for final program approval. Contingent upon receiving final Coordinating Board approval, this program is planned to begin in July 2010. This program will take place in the Department of Physical Therapy under the guidance of its eight faculty members

**Department of Physician Assistant Studies**: UNTHSC’s Physician Assistant (PA) program, first began accepting PA students in 1997 and currently has 131 students enrolled. This state supported program, was recently was ranked 34th in the nation by U.S. News and World Report. The PA Studies Program is accredited by the ARC-PA (Accreditation Review Commission for Physician Assistant Education) and graduates receive a Master of Physician Assistant Studies degree from the UNTHSC upon completion of requirements.

**Enrollment by Gender and Ethnicity at UNTHSC**

• 18% of UNTHSC students are underrepresented minorities (Black, Hispanic, or American Indian)

• 29% of SPH students are underrepresented minorities

**UNTHSC Fall Enrollment by Program: 2007-2010**

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  | Gender |  | Ethnicity \* |  |  |  |  |  |  |  |
| Year | Program | Male | Female | White | Black | Hispanic | American Indian | Asian/Pacific Islander | Foreign | Unknown | Total |
| 2007 | DO | 50% | 50% | 58% | 3% | 10% | 1% | 27% | 1% | 1% | 593 |
| 2008 | DO | 53% | 47% | 55% | 3% | 10% | 0% | 28% | 1% | 3% | 630 |
| 2009 | DO | 54% | 46% | 54% | 3% | 10% | 1% | 32% | 1% | 1% | 685 |
| 2010 | DO | 52% | 48% | 56% | 3% | 8% | 1% | 31% | 1% | 1% | 728 |
|  |  |  |  |  |  |  |  |  |  |  |  |
| 2007 | PAS | 21% | 79% | 74% | 5% | 15% | 1% | 5% | 0% | 0% | 96 |
| 2008 | PAS | 25% | 75% | 72% | 2% | 17% | 2% | 6% | 0% | 2% | 109 |
| 2009 | PAS | 24% | 76% | 69% | 3% | 15% | 1% | 11% | 0% | 0% | 134 |
| 2010 | PAS | 25% | 75% | 70% | 3% | 14% | 1% | 12% | 0% | 0% | 169 |
|  |  |  |  |  |  |  |  |  |  |  |  |
| 2010 | PT | 37% | 63% | 73% | 10% | 10% | 0% | 7% | 0% | 0% | 30 |
|  |  |  |  |  |  |  |  |  |  |  |  |
| 2007 | GSBS | 40% | 60% | 42% | 7% | 13% | 0% | 10% | 24% | 3% | 243 |
| 2008 | GSBS | 40% | 60% | 43% | 11% | 15% | 0% | 9% | 19% | 3% | 252 |
| 2009 | GSBS | 48% | 52% | 46% | 11% | 11% | 0% | 11% | 20% | 0% | 284 |
| 2010 | GSBS | 45% | 55% | 44% | 8% | 10% | 1% | 17% | 19% | 1% | 353 |
|  |  |  |  |  |  |  |  |  |  |  |  |
| 2007 | SPH | 39% | 61% | 38% | 19% | 10% | 0% | 8% | 24% | 0% | 221 |
| 2008 | SPH | 37% | 63% | 36% | 19% | 9% | 0% | 9% | 25% | 3% | 234 |
| 2009 | SPH | 38% | 62% | 37% | 22% | 7% | 0% | 9% | 25% | 0% | 292 |
| 2010 | SPH | 37% | 63% | 33% | 21% | 8% | 0% | 9% | 26% | 3% | 299 |
|  |  |  |  |  |  |  |  |  |  |  |  |
| 2007 | UNTHSC | 43% | 57% | 52% | 7% | 11% | 1% | 18% | 10% | 1% | 1153 |
| 2008 | UNTHSC | 45% | 55% | 51% | 7% | 11% | 0% | 18% | 9% | 3% | 1225 |
| 2009 | UNTHSC | 46% | 54% | 50% | 8% | 10% | 1% | 21% | 10% | 1% | 1395 |
| 2010 | UNTHSC | 44% | 56% | 49% | 8% | 9% | 1% | 21% | 9% | 1% | 1579 |
|  |  |  |  |  |  |  |  |  |  |  |  |

\*Percentages may not sum to 100% due to rounding

**UNTHSC Research and Research Resources:**

Research at the University of North Texas Health Science Center in Fort Worth (UNTHSC) has grown at the fastest rate of all the health science centers in Texas (Texas Higher Education Coordinating Board report, 2008). Over 80% of UNTHSC research was supported by federal sources in 2008, and the majority of funding was from NIH. NIH funding received by UNTHSC scientists has grown at an exceptional pace. Whereas NIH funding in general has increased about 120% since 1998, NIH funding received by UNTHSC scientists has increased over 450% over the same period (Figure 1). In addition, according to data from the American Association of Medical Colleges (AAMC Data book, http://www.aamc.org/data/databook/start.htm), the faculty of the Graduate School have generally ranked in the top 25 in research funding per FTE faculty member over the past several years. Thus, UNTHSC has a demonstrated commitment to excellence and success in biomedical research.

**Health Institutes of Texas (HIT):**

The Health Institutes of Texas (HIT) was formed in 2006 in response to UNTHSC s growing expertise in public health, interdisciplinary scientific research, medical education and health care delivery. HIT provides the University with an innovative way to translate information and research into new models of care and provider training.

Currently UNTHSC has the following active HIT institutes and centers.

**Cardiovascular Research Institute (CRI):** CRI is a multidisciplinary institute with a goal of promoting basic and clinical research, clinical advancement and community outreach programs in the prevention, diagnosis, treatment and rehabilitation of cardiovascular disease.

**Center for Commercialization of Fluorescence Technologies (CCFT):** CCFT’s goal is to efficiently transfer new technologies for commercialization and fast utilization of fluorescence technologies by the public.

**Center for Community Health (CCH):** This research center promotes and fosters interdisciplinary broad-based partnerships to conduct policy-relevant health research and enhance community capacity for prevention ultimately leading to elimination of health disparities in the North Texas area.

**Focused on Resources for her Health Education and Research (FOR HER):** FOR HER’s mission is to improve women s health across the spectrum of ages and cultures through excellence in clinical care, research and education

**Institute for Aging and Alzheimer’s Disease (IAADR):** IAADR promotes research into the basic mechanisms and clinical assessment of preventable brain aging and translates these results into application for the welfare of the citizens of Fort Worth, the Metroplex and the Nation.

**Mental Sciences Institute (MSI):** The mission of the MSI is to foster a greater understanding of human thought and behavior through interdisciplinary research and education. The MSI conducts multidisciplinary research and provides education and consultation in the mental sciences associated with human behavior.

**North Texas Eye Research Institute (NTERI):** The North Texas Eye Research Institute (NTERI) is dedicated to preserving vision and curing eye disease through promotion of interdisciplinary research teams.

**Physical Medicine Institute (PMI):** The mission of the Physical Medicine Institute (PMI) is to promote basic and clinical research, education, clinical practice and community outreach programs in the prevention, diagnoses, treatment and rehabilitation of neuromusculoskeletal disease of human beings of all ages.

**Primary Care Research Institute (PCRI):** Improving the health of Texas citizens through interdisciplinary primary care, public health research and education is the mission of the PCRI

**Texas Center for Health Disparities (TCHD):** TCHD is an NIH-designated EXPORT center established in September of 2005 to prevent, reduce and eliminate health disparities in our communities through research, education and community relations.

**Institute of Investigative Genetics (IIG):** The Institute of Investigative Genetics (IIG), founded in 2009, is an interdisciplinary institute that focuses on the use of genetics to improve quality of life and safety of society. The IIG is comprised of three centers: Center for Human Identification, Center for Biosafety and Security, and Center for Computational Genomics. Currently its primary work is focused on developing new technologies and practices to support human and microbial forensic investigations

**Scientific Instrumentation:** The UNTHSC is well equipped with state-of-the-art equipment in each of the laboratories of the proposed investigators. This instrumentation includes that for video imaging analysis, calcium imaging microscopy, brain histology, molecular biology, fluorescence microscopy, confocal microscopy, electron microscopy, tissue culture, patch-clamp electrophysiology systems, proteomics and genomics, animal memory-related behavioral assessment, and drug-addition behavioral assessment. We have recently added several major pieces of equipment that have been used by our trainees, including a linear ion trap-Fourier-transform ion-cyclotron resonance mass spectrometer, an EPICS Altra Fluorescent Activated Cell Sorter coupled to an EPICS XL-MCL flow cytometer, an Affymetrics Gene Array Imager, a laser dissector, and a quantum dot technology confocal microscope.

**Animal Care Facilities:** The UNTHSC’s existing animal facility is registered with the United States Department of Agriculture (USDA), and is a member in good standing with the Association for Assessment and Accreditation of Laboratory Animal Care International (AAALAC). Both USDA and AAALAC personnel periodically inspect both the facility and the program. The UNTHSC Animal Facility is located in the basement level of the Research and Education Building (RES) and consists of 20,000 square feet that is designed for small animals (mice, rats, guinea pigs, rabbit and aquatic species) canines, swine and small ruminants (sheep, goat). Access to the Animal Facility is secured by a door locking system controlled by electronic card keys. Only investigators and staff who have approved protocols, who are listed on an approved protocol, who have filed a “Statement of Training and Experience,” and who have completed an orientation and training session are permitted entry. The facility also has a barrier hall and encompasses 8,500 square feet that includes a four room suite for biohazard containment. There is a quarantine room, isolation room, surgical room and suite, two procedure rooms, lab, three full shower facilities, a dirty/clean cage wash area, clean cage storage room, four offices, two storage rooms, one of which is for storage of clean bedding materials, a walk-in freezer and food cooler, a radiology room and an animal receiving room.

**Animal Care and Use Program:** The Institution has developed a first class animal resource program to support training and research efforts. The Animal Care Facility is responsible for (1) procuring all animals used in teaching, research, and testing programs; (2) quarantining, stabilizing and surveying animals; (3) maintaining specific pathogen free and immuno-compromised breeding colonies; (4) caring for and housing animals; (5) providing trained personnel and facilities for conducting technical procedures such as post surgical care, necropsy, blood collection, antibody production and surgically altered animals; (6) assuring compliance with federal regulations and funding agency policies regarding the care and use of animals; (7) conducting training programs for animal technicians, research technicians, graduate students, and faculty regarding the humane use of animals; and (8) assisting faculty and students in planning and conducting research and training programs requiring animals.

**The Institutional Review Board:** The Institutional Review Board (IRB) at UNTHSC is responsible for protecting the welfare and rights of individuals who are subjects of any research, whether funded or unfunded, whether on or off campus, which is conducted by Health Science Center faculty, staff, or students. The IRB reviews and approves all research involving human subjects. Research involving human subjects cannot be conducted without the approval of the IRB. The IRB is duly constituted and is a standing committee established under the Faculty Bylaws of UNTHSC. The Federal Wide Assurance number is 00005755. Federal guidelines for the conduct of research involving human subjects are provided by the United States Department of Health and Human Services and all members of the IRB are in compliance with 45 Code of the Federal Regulations section 46.107 regarding gender and diversity. The IRB reflects maturity, experience, and expertise to insure the rights and welfare of human subjects are protected. The UNTHSC IRB, in accordance with a federal regulation issued on June 5, 2000, ensures that all persons who are responsible for the design and conduct of a study complete educational training on the protection of human subjects.

**Responsible Conduct of Research:** Instruction in the responsible conduct of research is mandatory and a high priority at our institution.

**Other University Resources:**

**Gibson D. Lewis Health Science Library:** The Gibson D. Lewis Health Science Library supports the educational, patient care, research, and community service missions of the University of North Texas Health Science Center (UNTHSC) by meeting the faculty member’s need for well structured and easy access to quality information.  Featuring the latest information technology, the spacious and attractive library building provides the physical and intellectual resources needed for teaching, research, and patient care.  All UNTHSC faculty receive a full complement of on-site library services, including borrowing privileges, use of individual and group study areas, photocopying, document delivery/interlibrary loan, expert instruction in the use of information resources, and access to professionally trained librarians for reference and search assistance.  Lewis Library is open for research and study 109 hours per week and is staffed by over 20 employees, including 10 degreed librarians.

All of Lewis Library’s electronic resources are available to UNTHSC students, staff, and faculty 24 hours a day, 7 days a week from anywhere in the world.  The library collection contains approximately 170,000 print volumes and over 16,000 electronic journal titles in the basic biomedical sciences, clinical medicine, public health, and affiliated fields.  Access to the electronic resources is provided through the Lewis Library web page at [http://library.hsc.unt.edu](http://library.hsc.unt.edu/).  Book and journal literature not owned by the library may be obtained through interlibrary loan from many sources.

**The Department of Biomedical Communications:** Includes medical art, photography, audiovisual/television and electronic engineering. Medical arts and photography provide presentation charts, graphs, illustrations and posters for both the research and graduate education programs. Electronic engineering assembles, maintains and repairs electrical audiovisual equipment.

**Information Technology Services (ITS):** Provides quality computer and telecommunication services to all academic, academic administrative and fiscal administrative areas of the health science center. Information Technology Services maintains a worldwide web server for serving the educational, research and science mission of the health science center. ITS also provides the following services:

• Academic Information Services scores and analyzes classroom examinations and results. The effectiveness of the graduate curriculum is monitored by course and instructor evaluations.

• Systems and Programming designs and implements computer systems and programs for fiscal and academic administrative areas of the college. Investigators now have on-line access to their research accounts at the office computers.

• Computer operations and client support is responsible for the design, installation and maintenance of academic and administrative local-area networks (LANS) on campus. Computer users have access to a variety of software programs to the University mainframe and to national and international computer networks

• Telecommunication Services operates and maintains the campus-wide telephone and voice mail system with state-of-the-art equipment and software.

• Records Management maintains records containing adequate and proper documentation of UNTHSCFW functions, policies, decisions, procedures and essential transactions of the institution, designed to furnish information to protect the legal and financial rights of the State and of any person affected by activities of the institution.

.**Minority Training Programs:**

**Bridge to the Future: Masters to the Doctoral Degree Program:**The UNTHSC-FW is the center for this training program that supports students in MS programs at Southern University and A&M College (Baton Rouge, LA), Texas A&M University-Corpus Christy Campus, Jackson State University (MS), the University of Texas-Brownsville, Texas A&M University-Kingsville and Grambling State University (Grambling, LA) by enhancing their preparation for study in the Ph.D. program in the biomedical sciences at the UNTHSC-FW. This program is in its 8th year of funding from the NIH.

**Post-Baccalaureate Research Education Program and Retention Enhancement (PREPARE):** This program provides underrepresented minority individuals who have received undergraduate degrees in science, a challenging, focused post-baccalaureate experience that will prepare them for acceptance into doctoral programs and allow them to successfully complete the program, thus obtaining their PhDs.

**Summer multicultural advanced research training (SMART):**Now in its 9th year of funding form the National Heart Lung and Blood Institute, this training program provides summer research training opportunities for minority undergraduate students.

**Ronald E. McNair Post-Baccalaureate Achievement Program*:*** This U.S. Department of Education funded grant supports research training of under represented minority graduate students. We are one of only two free-standing graduate schools to receive a McNair grant.

**Minority Opportunities in Research and Education (MORE):**This currently funded program serves to enhance the successful participation of minorities in graduate training at the UNTHSC by supporting the recruitment and retention of high quality minority students in our existing graduate training programs. This program uses several novel approaches to enhance the likelihood that our already successful recruitment programs will result in the graduating of minority Ph.D. who can serve as role models for other graduate students.