The UTHSC College of Medicine

It is my pleasure to welcome you to the University of Tennessee Health Science Center (UTHSC) College of Medicine. Since I joined the College of Medicine as executive dean in 2011, I have been on a mission to ensure that we not only train the next generation of physicians who will care for our city, state and beyond, but also to ensure that we make a difference in the health and welfare of all the citizens we reach.

I am happy to report that we are doing that with new clinical initiatives to battle stroke, addiction and mental health issues, as well as expanded efforts to combat diabetes, cancer, hypertension and obesity – all health problems that plague our community.

At the same time, we are building on our more than 100-year history of education and training the physician workforce of the future, establishing programs on four fully integrated campus locations: Memphis, Knoxville, Chattanooga and Nashville, as well as at smaller sites across the state. Medical students spend the first two years on the main campus in Memphis, and then undergo clinical training at any or all four campus locations.

In addition, statewide on all four College of Medicine campuses, more than 1,400 residents and fellows receive advanced medical education through our Graduate Medical Education (GME) Program. New physicians train as residents in such specialties as internal medicine, pediatrics and surgery, and as clinical fellows in subspecialties like cardiology and vascular surgery. Our most recent ACGME-accredited efforts include a new Emergency Medicine Program in Memphis and four new training programs in Nashville.

Our students continue to excel, and our residency match consistently results in quality, desired placements for our students. In recent years, we have been especially pleased with the large number of students remaining in the state of Tennessee for their residency, as well as the number of students pursuing primary care specialties.

Under the supervision of the College of Medicine’s experienced faculty, graduate trainees see patients and provide care at hospitals, clinics and other health care facilities across the state. Every year, UTHSC professionals provide more than one million days of hospital care across the state, and more than two million outpatient visits.

As this fact sheet demonstrates, all UTHSC College of Medicine campus locations have much to offer medical students, residents and fellows, at all levels. We continue to make tremendous progress toward joining the top-quartile medical schools in the nation as we educate and train competent, caring medical professionals to serve the state, region and our global community.

And we continue our commitment to build a College of Medicine that is a force for good for the people we serve.

David Stern
David M. Stern, MD

Robert Kaplan Executive Dean – Memphis, Knoxville, Chattanooga, Nashville Campuses
Vice Chancellor, Clinical Affairs, UTHSC
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Our Statewide Reach

Economic Impact
Our organization’s teaching, research and clinical activities have a more than $2.7 billion economic impact on our state. In fiscal year 2013, UTHSC was directly and indirectly responsible for approximately 26,701 jobs across the state, which, in turn, generated a total of more than $804 million in earnings. Among the major academic units, the College of Medicine was responsible for more job creation than the other colleges combined, contributing more than $2.4 billion (or 88.3 percent) of total economic contribution.

Residents, Fellows and Training Sites
Statewide, more than 1,200 residents and fellows receive training in 85 ACGME-accredited programs through the UTHSC Graduate Medical Education Program. Sixteen of these programs are under the auspices of the UT Graduate School of Medicine in Knoxville; 13 are sponsored by the Chattanooga College of Medicine; and 55 programs are organized from Memphis, including a family practice residency in Jackson and an internal medicine residency in Nashville. Public and continuing education programs are offered throughout the state. Fifteen teaching hospitals and clinical facilities across the state have a formal affiliation with UTHSC.

Tennessee Mouse Genome Consortium
The Tennessee Mouse Genome Consortium is a collaboration of experts and resources from across Tennessee that is dedicated to studying complex disorders that impact human health (diabetes, Alzheimer’s disease, developmental disorders, etc.) by using powerful mouse models.

Telehealth
The University of Tennessee Telehealth Network is a tri-state collaborative program uniting the UT campuses with health departments, pharmacies, clinics, rural hospitals, and rural and urban correctional facilities to provide distant communities with access to specialists and educators who would otherwise not be available in their area. This interactive network allows physicians, nurses, therapists, counselors, nutritionists and educators to see and speak with clinicians, patients and families in rural or isolated communities.

Trauma Center Network
UTHSC surgeons led the effort to establish a statewide trauma center network more than 25 years ago. Of the six Tennessee Level I Trauma Centers, three are UTHSC facilities: the Regional Medical Center in Memphis, Erlanger Health System in Chattanooga and the UT Medical Center in Knoxville. In 2011, Le Bonheur Children’s Hospital received national accreditation as a Level I Trauma Center for pediatrics.

National Prominence

Hamilton Eye Institute
Consistently ranked in the nation’s top 10 for clinical care, the Hamilton Eye Institute (HEI) is the only university eye center providing an advanced level of vision care within a 200-mile radius of Memphis. In addition to clinics for general adult eye care, HEI staffs clinics for 12 ophthalmic specialties including glaucoma, diabetic retinopathy, macular degeneration, oculoplastics and pediatric ophthalmology, as well as an ambulatory surgery center.

Molecular Imaging and Translational Research Program
The Molecular Imaging and Translational Research Program in Knoxville is a world-renowned center for translational research applying state-of-the-art molecular imaging platforms and image analysis techniques. The program focuses on the development of novel radiotracers for patients with amyloidosis and cancers of the skin, head/neck and prostate.

Regional Biocontainment Laboratory
Opened in 2009, the UTHSC Regional Biocontainment Laboratory (RBL) is one of only 13 regional sites in the nation to conduct biomedical and biodefense research and training. The National Institute of Allergy and Infectious Diseases, part of the National Institutes of Health, awarded UTHSC $18 million to build the RBL.

Research and Scientific Discovery
UTHSC scientists continue to conduct groundbreaking research in areas such as diabetes and cancer. Discoveries by UTHSC scientists were recently featured in “The New England Journal of Medicine” and “The Journal of the American Medical Association,” garnering nationwide recognition.
UTHSC Aims to Improve Human Health through Education, Research, Clinical Care and Public Service

Memphis

Expanding Our Research Portfolio
- The Department of Physiology ranks third among 186 such departments based on an institution’s research funds, number of faculty, and amount of research space.
- The Department of Anatomy and Neurobiology ranks in the top 25 for NIH funding nationally.
- The Center for Cancer Research is specially designed to encourage multidisciplinary basic cancer research among scientists from the Colleges of Dentistry, Medicine and Pharmacy.
- The UT Center for Integrative and Translational Genomics (CITG) was recently established as an offshoot of the UT Center for Genomics and Bioinformatics and the Tennessee Mouse Genome Consortium. One of the first goals of the CITG is to catalyze research that exploits a wide variety of genetically well-characterized strains of mice made at UTHSC and Oak Ridge National Laboratory.

Encouraging Student Success
- Our college remains the largest of the four medical colleges in Tennessee, enrolling 170 students per class.
- College of Medicine graduates consistently excel on the United States Medical Licensing Examination with pass rates greater than 99 percent on the first attempt.

Excelling in Clinical Care
- The College of Medicine in Memphis is a multi-hospital system centered around the downtown core of Methodist University Hospital, the Regional Medical Center, Le Bonheur Children’s Hospital, and the Veterans Affairs Medical Center. University Clinical Health (UCH), our primary physician practice group, is growing by more than 15 percent a year.
- Our UT/Methodist Transplant Institute is nationally recognized for its success with organ transplantation and is one of the 10 largest liver transplant programs in the country. UTHSC-MUH physicians at the institute performed Apple co-founder Steve Jobs’ liver transplant in 2009.
- Le Bonheur Children’s Hospital, staffed primarily by UTHSC physicians, opened its new $327 million children’s hospital in December 2010. The same year, UTHSC also launched a new faculty practice group with Le Bonheur – UT Le Bonheur Pediatric Specialists – which includes more than 110 pediatric subspecialists.
At the University of Tennessee Graduate School of Medicine, almost 200 residents, dentists and fellows participate in our 12 residency and 10 fellowship programs to gain advanced training in specialties, such as cardiology and sports medicine.

Our 200 teaching physicians and researchers, as well as more than 180 volunteer faculty physicians and dentists, lead the way in educating these professionals, while continuing to practice medicine and conduct research of their own. We believe that practicing physicians make better educators. In this evolving body of knowledge we call medicine, we believe the best medical educators are those who never stop learning.

**Making a Difference**

- Of the nine Association of American Medical Colleges Graduate Regional Medical Centers in the Southeast, the Graduate School of Medicine is the largest with a total of 16 ACGME-accredited residency and fellowship programs, two ADA-accredited residency programs, and three non-ACGME/ADA-accredited programs.
- Medical students have the opportunity to rotate throughout the Graduate School of Medicine during their third and fourth years of medical school.
- Research supports our educational mission through clinical trials, clinical outcomes, bench and translational research. Our researchers collaborate with Oak Ridge National Laboratory, the University of Tennessee, Knoxville, and industry to advance medicine and health care.
- About one-half of all of our residents and more than two-thirds of our primary care residents remain in the state of Tennessee, increasing access to health care to Tennesseans.
- The Graduate School of Medicine and our clinical partner, University Health System Inc., form the University of Tennessee Medical Center, the only academic medical center in the region.
- The University of Tennessee Medical Center has five Centers of Excellence: Brain & Spine Institute; Cancer Institute; Women & Children’s Health; Emergency & Trauma Services; and Heart, Lung, Vascular Institute and is home to a Level I Trauma Center, Level III (highest level) Neonatal Intensive Care and a regional Perinatal Center.
- The Graduate School of Medicine plays a significant role in attracting and retaining talent, jobs, investment and growth in the state of Tennessee.

**Teaching Programs**

**ACGME- or ADA-Accredited Residency Programs**

- Anesthesiology
- Family Medicine
- General Dentistry
- General Surgery
- Internal Medicine
- Obstetrics & Gynecology
- Oral & Maxillofacial Surgery
- Pathology
- Radiology
- Transitional
- Urology

**ACGME- or ADA-Accredited Fellowship Programs**

- Cardiovascular Disease
- Cytopathology
- Oral & Maxillofacial Surgery - Oncology
- Pulmonary Medicine
- Sports Medicine
- Surgical Critical Care
- Vascular Surgery
Teaching Programs

Fully accredited by the Accreditation Council for Graduate Medical Education (ACGME), the College of Medicine in Chattanooga currently includes:

ACGME-Accredited Residency Programs
- Emergency Medicine
- Family Medicine
- Internal Medicine
- Obstetrics & Gynecology
- Orthopaedic Surgery
- Pediatrics
- Plastic Surgery
- Surgery
- Transitional

ACGME-Accredited Fellowships
- Colorectal Surgery (sponsored by the Department of Surgery)
- Hospice and Palliative Medicine (sponsored by the Department of Internal Medicine)
- Surgical Critical Care (sponsored by the Department of Surgery)
- Vascular Surgery (sponsored by the Department of Surgery)

Offering High-Tech Clinical and Simulation Training

The Skills and Simulation Center includes traditional skills and human patient simulation labs.

- State-of-the-art operating rooms
- Micro-surgery rooms
- An anatomical study room where residents practice the latest surgical techniques, and medical students are taught basic surgical skills and practices
- A three-room Simulation Center, which houses state-of-the-art human patient simulators for interdisciplinary medical training in clinical care, communication skills, patient safety, medical error reduction and infection control

Collaborating on Research

The College of Medicine, Chattanooga, collaborates with the University of Tennessee at Chattanooga (UTC) faculty researchers in psychology, health care systems engineering, analysis of disease-management strategies, environmental toxicology, and low-birth-weight studies, as well as nanotechnology applications in orthopaedic surgery. Faculty are also pursuing research projects that will include the UTC SimCenter, a computational engineering research and education center that offers multiple practical applications in engineering and science that require supercomputer simulations.

Erlanger Health System

Our primary clinical training site is the Erlanger Health System, a non-profit teaching hospital that features Children's Hospital at Erlanger, a comprehensive Regional Pediatric Center, the highest designation in the state for pediatric care, and a Level I Trauma Center for adults.
UTHSC and Saint Thomas Health (STH) have expanded their existing partnership in Nashville to train medical residents. Started in 2013, the new Nashville satellite campus and expansion of the residency program give the College of Medicine the ability to provide access to all regions within the state.

A World Class Partner

STH is the leading faith-based health system in Tennessee and part of Ascension Health, the largest not-for-profit health care system in the United States. STH comprises nine hospitals: Saint Thomas West Hospital, Saint Thomas Midtown Hospital and Saint Thomas Hospital for Spinal Surgery, all in Nashville, plus Saint Thomas Rutherford Hospital in Murfreesboro, Saint Thomas Hickman Hospital in Centerville, Saint Thomas Highlands Hospital in Sparta, Saint Thomas River Park Hospital in McMinnville, Saint Thomas Stones River Hospital in Woodbury and Saint Thomas DeKalb Hospital in Smithville. Saint Thomas Health also has a large physician-led medical group, Saint Thomas Medical Partners, providing primary care, specialty services, medical imaging, outpatient services and community-based medical practices through Middle Tennessee and Southern Kentucky.

Physician Residents Train in Five Fields

- The Family Medicine Residency Program received its initial accreditation in January 2014. The program is based out of Saint Thomas Rutherford Hospital, a 286-bed hospital facility in Murfreesboro. Residents also work in a newly renovated 16,000-square-foot clinic, and have the opportunity to work with a variety of specialists within the local community. This opportunity provides residents with experience working with a diverse patient population throughout the three-year program.

- Established in 1981, the Internal Medicine Residency Program is committed to enabling all residents to fulfill their personal and professional goals. Program graduates are qualified to pursue careers in general internal medicine, hospital medicine or enter subspecialty fellowship programs. Of recent graduates, 30 percent entered subspecialty fellowship programs, 37 percent entered traditional internal medicine and 33 percent entered hospital medicine.

- The Emergency Medicine Residency Program’s first class began in July 2015. This community-based program offers the unique combination of a high-volume, efficient community hospital and a major university medical school. Residents play a hands-on role in managing patients and have the opportunity to perform numerous resuscitations and procedures, while faculty teach the “real world” of emergency medicine.

- The General Surgery Residency Program began recruiting R1s and R2s in July 2016. Saint Thomas West and Saint Thomas Midtown Hospitals both have high volumes of operative cases that cover the range of general, vascular and endocrine surgery procedures. Saint Thomas West also provides extensive opportunities for breast, plastic, and transplant surgical experiences. In addition, the general surgery residency has a newly constructed simulation facility to provide an environment where residents and practicing physicians can advance their technical skills prior to performing procedures on a patient.

- The OB/GYN Residency Program began recruiting its first year of residents in July 2016. Based primarily at Saint Thomas Midtown Hospital, residents are trained in the largest obstetrics and gynecology hospital in the Southeast, which delivers almost 8,000 babies a year. Faculty have a variety of experiences that will provide a well-rounded environment for each resident. Residents will be involved in a vast array of surgical procedures and high-volume deliveries, and be strengthened by a robust didactic and simulation curriculum.
White Coat Ceremony
During New Student Orientation Week, the UT College of Medicine hosts an annual Parents Appreciation Day and White Coat Ceremony. The ceremony symbolizes a physician’s entry into clinical practice.

Kaplan Clinical Skills Center
Students begin honing their clinical care skills early, training in settings that duplicate real-world examination and hospital rooms. UTHSC employs simulators as well as standardized patients to present to physicians. Standardized patients are real people who are “acting” as patients, prepared to describe disease symptoms and health dilemmas. Through use of advanced audio and video technology in the Kaplan Clinical Skills Center, experienced clinicians observe and grade the interactions. This helps students improve their clinical skills and their communication with patients.

Hospital Partners
Through close alignment with major hospital partners, the UTHSC College of Medicine prepares physicians in training for the rigors and constantly shifting dynamics of patient care. Major hospital partners provide opportunities for onsite clinical training in a range of specialties and subspecialties for pediatrics and adult medicine.

Team Health Care
“One of the expectations of modern education is that health care is a team sport, that you can’t educate health care professionals in a vacuum without other professionals.” – UTHSC Chancellor Steve Schwab. To that end, UTHSC has plans to construct an Interprofessional Simulation and Patient Safety Center where teams of health care professionals – physicians, nurses, pharmacists, dentists and allied health professionals – will collaborate to serve patients and solve health care problems.

Match Day
At the culmination of medical school is Match Day, when fourth-year med students learn where they will spend their residencies – the next step on their journey to becoming independent, competent and caring practitioners.
Community Service

Our College of Medicine is tackling health problems that plague our region – launching a Mobile Stroke Unit to speed time to treatment for stroke victims, a Center for Addiction Science to combat substance abuse, and a Center for Health in Justice-Involved Youth to address the mental health of young people to keep them out of the juvenile justice system.

UT Mobile Stroke Unit
The UT Mobile Stroke Unit is the world’s most comprehensive vehicle of its kind, capable of conducting and producing advanced quality imaging for stroke diagnosis and noninvasive CT-angiography. The sophistication of the UT College of Medicine Mobile Stroke Unit means a patient will be prepped to go straight to the catheterization laboratory, Neuro Intensive Care Unit or Hospital Stroke Unit, bypassing the stop in the emergency department entirely. It is the largest Mobile Stroke Unit in the world, complete with an internal power source capable of matching regular electrical outlet access. It is also the first in the world to be staffed with stroke fellowship-trained, doctorally-prepared nurses certified as advanced neurovascular practitioners, ANVP-BC.

Center for Addiction Science
The Center for Addiction Science’s nontraditional medical staff interfaces with addiction patients through clinical care to better manage substance use, process disorders and coordinate a patient’s movement from one level of care to another. By training across disciplines, more medical practitioners learn how to identify and treat substance use and process addictions. Cooperation between basic science and clinical science is unusual in medical universities, but participating departments at UTHSC already include family medicine, psychiatry, general internal medicine, emergency medicine, and anesthesiology. The addiction clinical care program focuses on the assessment of substance use and process (for example gambling or sex) disorders, referral to the appropriate level of treatment, detoxification and abstinence, harm reduction treatments, treatment of co-occurring psychiatric disorders, and collaboration and consultation with referring physicians and other agencies and community-based medical practices through Middle Tennessee and Southern Kentucky.

Health in Justice-Involved Youth
Children with mental health issues often end up in juvenile court, foster care or expelled from school. The Center for Health in Justice-Involved Youth is sponsored by the UTHSC College of Medicine and the Shelby County Juvenile Court System as a way to deal with that concern – serving as a central coordinator for organizations providing help for children and families in three areas: specialized services; hosting, support and identification of opportunities for grant funds for research; and education and training. The education and training happens on two fronts – UTHSC helps train the next generation of medical professionals to work with troubled children and is also part of a cohort of universities incorporating more training into the curriculum.