

# 2018-2019 College of Medicine Highlights

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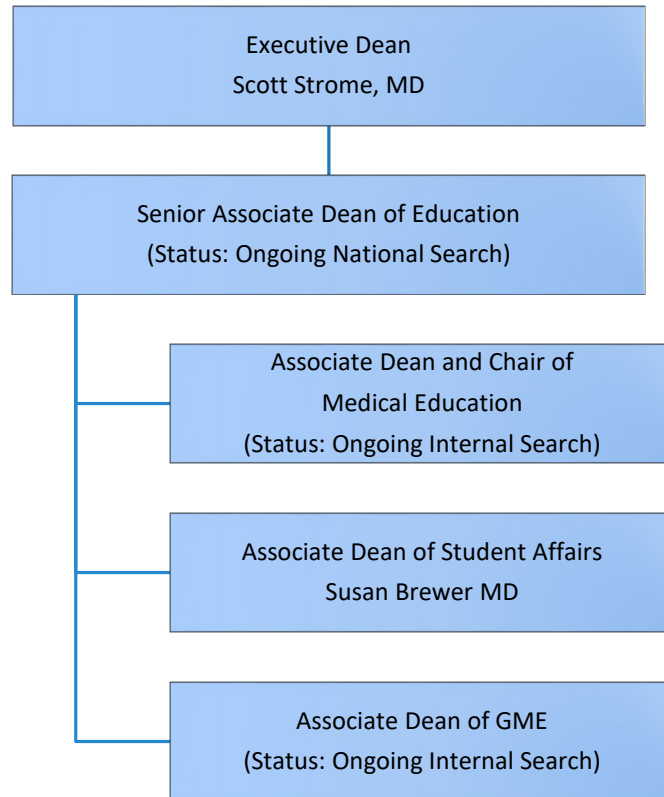
SCOTT E. STROME, MD

ROBERT KAPLAN EXECUTIVE DEAN

VICE CHANCELLOR FOR CLINICAL AFFAIRS



# Strategic Priority A: Educate Outstanding Graduates Who Meet the Needs of the State & Its Communities



- Identified optimal leadership structure and initiated national search for Sr. Associate Dean of Education.
- MD Program: Curriculum
  - Initiated internal recruit for Associate Dean of Medical Education.
  - As a part of our continuous quality improvement initiatives, revised the M2 Central-Peripheral Nervous Systems course and identified a new faculty member to serve as the course director.
  - Purchased a new enterprise software system for the entire medical curriculum that replaces multiple antiquated systems.
  - Developed of a Wellness Day policy that provides students with a “no questions asked” ability to take time for emergent self-care needs.

# Strategic Priority A: Educate Outstanding Graduates Who Meet the Needs of the State & Its Communities

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- MD Program: Student Affairs & Admissions
  - Formed an official Wellness Committee of Students.
  - Worked with SASSI to produce a campus-wide #Take Care-Thriving, Not Just Surviving wellness and mental health week with guest speaker Kwabena Blankson, MD.
  - Created a new student-led initiative, Admissions Ambassadors to recruit a diverse class, and assist students with the transition to medical school.
  - Redesigned Second-Look Weekend that brings our previously separate weekends for housing, Women in Medicine and Science, and diversity recruitment weekends together.

# Strategic Priority A: Educate Outstanding Graduates Who Meet the Needs of the State & Its Communities

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The Physician Assistant Class of 2018 received a 100% first-time pass rate on the recent PANCE. (Photo by Allen Gillespie/UTHSC)

- Physician Assistant Program

- Achieved a 100% first-time pass rate on the PANCE national certification examination.
- Prepared for and completed a 2-day in-person, accreditation site visit with results coming in March 2019.
- Redesigned PAS-544 (Patient Assessment) to include a comprehensive simulation curriculum and a focused approach to patient interactions, social determinants of health, and quality medical documentation.

# Strategic Priority A: Educate Outstanding Graduates Who Meet the Needs of the State & Its Communities

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- Residents and Fellows

- Developed a GME wellness initiative
  - Hired a GME-specific counselor
  - Established of GME Wellness Subcommittee
  - Developed a GME Wellness website
  - Identified of wellness champions in each program
  - Administered a wellness survey to residents/fellows
- GME collaborated with primary hospital partner in support of communication platform for residents, allowing for enhanced patient communication strategies, positive impact on patient safety and improved patient satisfaction.
- New Fellowships:
  - Complex General Surgical Oncology; Martin Fleming, MD
  - Pediatric Otolaryngology; Jerome Thompson, MD
  - Pediatric Surgical Critical Care; Alex Feliz, MD

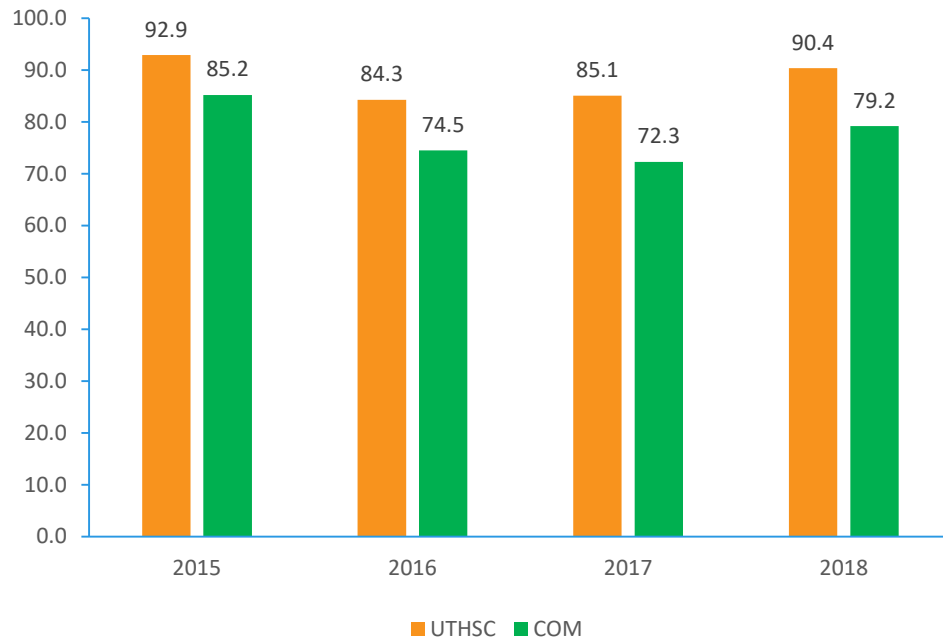


## 2018 by the Numbers:

- 72 accredited GME programs
- Modest increase: 1273 to 1298 residents/fellows
- Placement of 91 UT residency/fellowship graduates in Tennessee practice sites

# Strategic Priority B: Grow the Research Portfolio Focusing on Targeted Areas

Total Awards in \$Millions – Oct 2018 Townhall

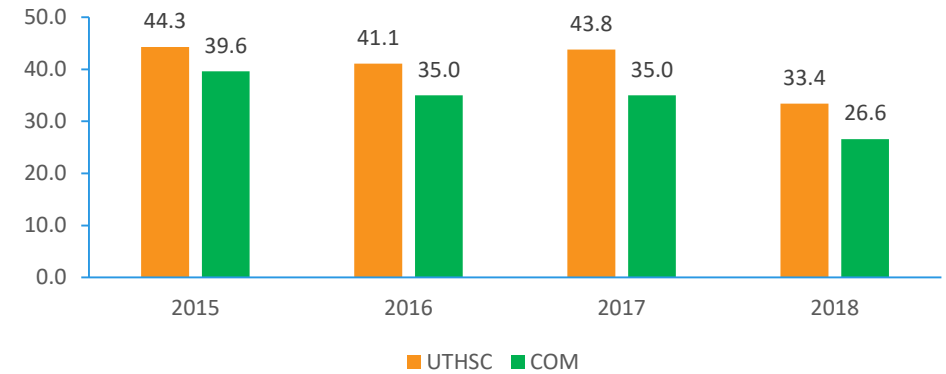


From 2017 to 2018 Total Awards increased by 5.3M in UTHSC and 6.9 M in COM.

The COM increase was due to many factors with a major contribution from State of TN contracts to provide services such as support for the high risk perinatal care program, child development (Bolling Center), and childhood genetic screening.

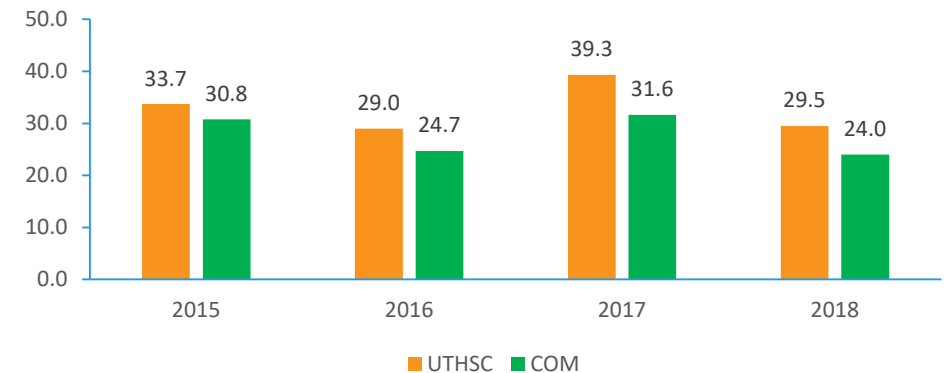
Neither the UTHSC or COM increase in Total Awards was due to federal or NIH research grants. These grant awards appear to be falling.

All Federal Awards in \$Millions



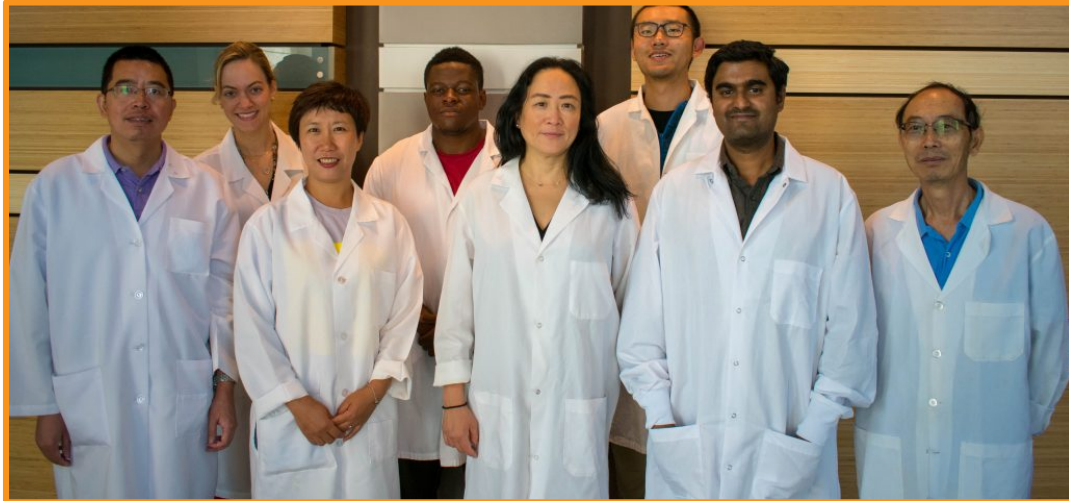
Federal  
2018-2017  
UTHSC -10.4  
COM -8.4

NIH Awards in \$Millions



NIH  
2018-2017  
UTHSC -9.8  
COM -7.6

# Strategic Priority B: Grow the Research Portfolio Focusing on Targeted Areas



Dr. Liao (center), and her lab group received \$2.6 Million to study the link between metabolic syndromes and dementia (Pictured from left to right: Xingyong Chen, MD, PhD; medical student Taiane Ferrari, Wei Zheng, MD, PhD; Tomi Akinduro, MD; graduate assistant Yi Zheng; graduate research assistant Mahesh Chandra Kodali; and Lubin Lan, MD, PhD) (Photo by Connor Bran/UTHSC)

## Major (> \$1 million), **New** Federal Grants in 2018:

- Julio Cordero-Morales, PhD, Department of Physiology
- Elena Parfenova, PhD, Department of Physiology
- Zhongjie Sun, PhD MD, Department of Physiology
- Gabor Tigyi, PhD MD, Department of Physiology
- Robert Foehring, PhD, Department of Anatomy and Neurobiology
- Detlef Heck, PhD, Department of Anatomy and Neurobiology
- John Boughter, PhD, Department of Anatomy and Neurobiology
- Kui Li, PhD, Department of Microbiology, Immunology, and Biochemistry
- KU Malik, PhD, Department of Pharmacology
- Francesca-Fang Liao, PhD, Department of Pharmacology
- Kevin Freeman, PhD, Department of Genetics, Genomics, and Informatics
- Jay Fowke, PhD, Department of Preventive Medicine
- Jack Tsao, MD, Department of Neurology
- Ken Ataga, MD, Department of Medicine
- Darryl Quarles, MD, Department of Medicine
- Amber Smith, PhD, Department of Pediatrics
- Guoyun Chen, PhD, Department of Pediatrics
- Valeria Mas, PhD, Department of Surgery

# Strategic Priority B: Grow the Research Portfolio Focusing on Targeted Areas

## BIG: From bedside to data warehouse



1. Every patient at Le Bonheur is eligible to have his or her DNA – extracted from leftover blood samples — stored in the biorepository. Patients and their parents are required to watch an introductory video that explains how researchers will potentially use the DNA for future studies. If the patient doesn't want his or her DNA stored, Le Bonheur will discard any leftover blood samples.



2. Once a patient and his or her parents consent to participating in the biorepository, the leftover blood samples are taken to the lab where laboratory assistant Ashley Rimmer extracts DNA from the child's blood.



3. When DNA extraction is complete, the samples are sent to the biorepository where it is stored on one of the freezers. Robert Rooney, PhD, helped develop and maintain BIG's tracking system, which de-identifies the sample and links it to a medical record.

- Department of Pediatrics and Le Bonheur Children's Hospital's DNA biorepository passed 10,000 patients enrolled
- An NIH CTSI program application was organized and submitted. This effort was led by the co-PIs of Karen Johnson, MD, and Michelle Martin, PhD, both in the Department of Preventive Medicine.
- Knoxville faculty members working in trauma were investigators on a study of pre-hospital aeromedical use of plasma in severely injured patients (N Engl J Med 2018; 379:315-326). Results are changing helicopter EMS resuscitation paradigms by bringing plasma to the injured immediately to improve survival.
- Recruited and hired a new Associate Dean for Research, Dr. Giuseppe Pizorno, PhD, Pharm D, on the Chattanooga campus.
- COM began internal research grant awards for (1) innovative research collaborations between a clinician and basic researchers, and (2) for faculty to further develop technologies that have the potential for commercial success.



# Strategic Priority B: Grow the Research Portfolio Focusing on Targeted Areas



Leaders of the Memphis sites for the national SPRINT MIND clinical trial are, from left, Karen C. Johnson, MD, MPH; William Cushman, MD; Barry Wall, MD; Catherine Womack, MD; Linda Nichols, PhD; and Jennifer Martindale-Adams, EdD. (Photo by Connor Bran/UTHSC)

- UTHSC Neuroscience Institute faculty (>90% appointed in the COM) had 157 publications in 2018-2019 with >10 in very high impact journals such as Nature Comm, PNAS, and Neuron. Further, the neuroscience graduate program currently has 3 fellows with NIH-F31 predoctoral grants.
- Multiple COM faculty were a part of a consortium, SPRINT MIND, report published in JAMA (Jan 2019) describing the link between blood pressure and cognition, with possible links to the onset of dementia. (*Blood Pressure Control on Probable Dementia: A Randomized Clinical Trial*). This work is exciting as it may be the first identified, modifiable risk factor for cognitive decline associated with aging or other causes.
- Results were published from a new perinatal program that demonstrated a reduction in the neonatal mortality for very-low-birth-weight (VLBW) infants from 20% above the expected to 20% below the expected at Regional One Health. This study was led by Giancarlo Mari, MD, and R. Dhanireddy, MD from the Departments of Obsetrics/Gyncology and Pediatrics and published in Glob Pediatr Health. (2018, Vol 5)
- The first-in-human trial (NCT03678259) is now underway, assessing the dosimetry, safety and efficacy based on organ retention sensitivity of peptide p5+14, developed in the lab, in patients with all forms of systemic amyloidosis. This work is led by Jon Wall, PhD, at our Knoxville campus.

# Strategic Priority C: Create Areas of Clinical Prominence While Expanding Outreach



Drs. Matthew Davis and Virginia Weaver were recruited to UTHSC to launch an adult bariatric surgery program in the Department of Surgery in the College of Medicine. The two physicians also will lead the new UTMP Weight Management and Wellness Center. (Photo by Peggy Reisser/UTHSC)

- Established a Section of Bariatric Surgery in the UTHSC Department of Surgery and the comprehensive multidisciplinary UTMP Weight Management and Wellness Center under the leadership of Dr. Virginia Weaver, Assistant Professor, UTHSC Department of Surgery.
- Formalization and expansion of the UTHSC Global Surgery Institute with recognition as a formal partner of the American College of Surgeons Operation Giving Back. The institute was founded and is directed by Dr. Nia Zalmea, Assistant Professor, UTHSC Department of Surgery and has had faculty engagement in missions across Europe, Asia, Africa, Central America and the Middle East.
- Completed a groundbreaking transcatheter patent ductus arteriosus (PDA) closure study in extremely low birthweight infants resulting in FDA approval for this pioneering technique. Study led by Shyam Sathanandam, MD, Department of Pediatrics.
- Established the Opioid Research and Education Center based in the Department of Preventive Medicine with Karen Derefinko, PhD, as the Director.

# Strategic Priority C: Create Areas of Clinical Prominence While Expanding Outreach



UT COM and Methodist University leaders tour the new cancer facility at MUH.

- Re-Envisioned Cancer initiative with Methodist for the formulation of the UT-Methodist Cancer Institute.
- UT investigators are collaborating with the country of Ghana to look at the APO1 gene as it relates to the high rates of preeclampsia. Knowledge of APOL1 status may be useful for preeclampsia prediction and the ability to reduce maternal and perinatal mortality in African-Americans. This work is supported by the Bill and Melinda Gates Foundation in an award to Bob Davis, MD, Department of Pediatrics and Claire Simpson, PhD, in the Department of Genetics, Genomics, Informatics.
- In partnership with the Church Health Center, faculty and residents are engage in the Culinary Medicine Continuing Medical Education Series. This hand-on cooking class provides physicians with evidence-based information on dietary education for patients.

# Strategic Priority D: Increase Visibility & Recognition of UTHSC Contribution



Memphis Street Health hosts its Foot Clinic monthly. While there, members of the homeless community are provided with warm foot baths, new socks, and foot health education.

- COM Winners of the 2018 Health Care Hero Awards.
  - Health Care Provider, Physician Category: Frederick Boop, MD, Chair of the Department of Neurosurgery.
  - Lifetime Achievement Award: Jewell Ward, MD, PhD, a geneticist in the Department of Pediatrics.
- Initiated relationship with Memphis Parks Department and the Mayor’s “Play your park” summer program. COM to deliver preventive health and health information in “lunch and learns” for teens at the park sites. Initiative led by Tejesh Patel, MD, Chair of Dermatology.
- Department of Pediatrics and Le Bonheur Children’s Hospital’s Heart Institute was ranked in the Top 10 by US News and World Report and received one of only twelve 3-Star accreditations by STS nationally
- Department of Pediatrics and Le Bonheur Children’s Hospital inaugurated the Family Resilience Initiative to provide resources to families of children exposed to Adverse Childhood Events (ACEs)
- Medical Students created “Memphis Street Health”, a community health initiative that provides health care education and access to the homeless. These students organize or support the Monthly Foot Clinic, Family Promise Clinic, Room in the Inn, and Meals on Heels

# Strategic Priority F: Expand & Strengthen Key Community & Other Partnerships



- Initiated discussion with ORNL to jointly recruit and award a Governor's chair to a To Be Named prestigious faculty in Health Data Analysis. This faculty and their group would have their primary home in Graduate School of Medicine at Knoxville.
- Expanded training opportunities for students in collaboration with the Lakeside Behavior Health System
- Re-established commitment between the Memphis VA Hospital and UT COM to jointly recruit and build research in areas of interest to the VA.
- Working with St Jude, strengthened a pathway a care for children with sickle cell as they transition to adults with benign hematologic disorders.
- Working with St Jude to develop a joint Fibrolamellar Cancer Center.

# Cross Cutting Priority 6: Recruit & Retain Faculty, and Staff Through Development, Support & Mentorship

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Faculty and Staff by the Numbers: July 1, 2018 – Feb 1, 2019

- The COM recruited 80 new faculty with the majority at the rank of Instructor-Assistant Professor and 13 at the rank of Associate or Full Professor.
- All told there was a 3% increase in paid faculty from 985 to 1010 FTE.
- During this timeframe, the COM also welcomed 62 new staff supporting all of our missions. As of February 1, 2019, the COM had 690 staff.

# Cross Cutting Priority 6: Recruit & Retain Faculty, and Staff Through Development, Support & Mentorship

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Chittoor Sai Sudhakar, MD  
Chief of Cardiac Surgery



- Recruited New Division Chief of Cardiac Surgery: Chittoor Sai Sudhakar, MD
- Ongoing recruit for new Chair of the Department of Medicine
- Ongoing recruit for new Chair of Preventive Medicine



Zhongjie Sun, MD, PhD  
Chair of Physiology



John L. Jefferies, MD, MPH  
Chief of the Division of Cardiology

# Cross Cutting Priority 7: Foster and sustain a diverse and inclusive culture where we respect and engage all members of the UTHSC community

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College of Medicine Executive Dean Scott Strome, MD, signs a banner bearing an anti-hate message at campus observance in solidarity against hate in all forms. (Photos by Allen Gillespie/UTHSC)

- COM and UTHSC leadership initiated and supported the “UTHSC Campus Community Stands in Unity Against Hate”
- Initiated a fundraising campaign to reduce student debt and increase the medical student class diversity.