MESSAGE FROM THE ROBERT KAPLAN EXECUTIVE DEAN

David M. Stern, MD

Robert Kaplan Executive Dean
UTHSC College of Medicine

This issue of Medicine magazine has been long in the making for good reason. We have an amazing accumulation of good news to share, much of it revolving around people – the primary force that drives our college forward. On page 4, you’ll read about one of our most distinguished alumni, Dr. Bob Kaplan, who also happens to be an outstanding physician and a stalwart philanthropist. His largesse has been, is being and will be enjoyed – past, present and future – by generations of medical students as well as numerous other constituents who are part of the UT and UTHSC communities in Memphis and Knoxville.

Throughout this issue, our enviable faculty are profiled in their multifaceted roles as administrators, scientists, clinicians and industry leaders. You’ll read about Dr. Robert Williams as chair of the new department of Genetics, Genomics and Informatics (page 6), about Dr. Teresa Waters as she assumes her role as chair for the Department of Preventive Medicine (page 7), and about new recruits who bring added depth and richness to the challenging disciplines of pediatric cardiology (page 10) and pediatric obesity (page 12). Plus, on page 19, you’ll read about our partners at Le Bonheur Children’s Hospital, almost entirely staffed by UTHSC faculty, which once again earned distinction on the U.S. News & World Report list of America’s Best Children’s Hospitals.

As the Chancellor declares a call to action in order to bolster our research mission, we’ve presented a compilation of COM research grants that reflect a variety of funding sources and an intimacy of diseases on which our teams continue to focus. The special section on research begins on page 20. As this issue of Medicine goes to press, the UTHSC community is completing interviews with candidates for the next Vice Chancellor for Research. I am very much looking forward to working in partnership with this new administrative leader and our team is anxious to build on our current research success.

The feature on page 41 updates the status of our newest core teaching hospital partnership with Saint Thomas Health One Physicians with Regional One Health, and UT Methodist Physicians with Methodist Le Bonheur Healthcare. Then in late February, with the UT Board of Trustees meeting in Memphis, we took another step to extend our relationship with our largest hospital partner, Methodist Le Bonheur Healthcare. Methodist University Hospital added the UT institutions to exterior signage over its new emergency department, making the change to Methodist UT Hospital. (See page 18.)

As we continue to upgrade the Memphis campus, changes to our physical infrastructure are apparent with the opening of the new Translational Science Research Building, and the impending demolition of the Feurt Building. Replacing the Feurt, we will construct a new, state-of-the-art Multi-Disciplinary Simulation Center, which will connect directly to the GEB. Just as our investigators will reap the rewards of practicing team science in the TSRB, so our students will increase their training and benefit as members of focused, efficient health care teams in the simulation center.

We launched two new faculty practices in 2014 as well, in tandem with core teaching hospital partners – UT Regional One Physicians with Regional One Health, and UT Methodist Physicians with Methodist Le Bonheur Healthcare. Then in mid-February, the Southern Association of Colleges and Schools (SACS) accreditation team left our campus following an extremely positive exit interview. For several years, UTHSC has been working toward our accreditation as a stand-alone entity, rather than as part of Big Orange. Following the SACS site visit, we’re glad to share good news.

The imminent, institutional accreditation of UTHSC reflects the ongoing high-level of activity of all the faculty and staff of our organization. We hope to have positive news to report about UTHSC’s accreditation as a fully independent university in the near future.

The COM in Nashville, which is building a clinical campus in partnership with Saint Thomas Health sites as our core teaching hospitals, has received accreditation for four residency programs in addition to the internal medicine program, extant since 1961. Over the next few years, the College of Medicine expects to have more than 100 medical/surgical residents training at various Saint Thomas hospitals in Nashville and Mariettaboro. Residents will train in obstetrics and gynecology, general surgery, family medicine and emergency medicine in addition to internal medicine and surgical specialties. When mature, UTHSC expects a role for each of our six colleges on the Nashville Saint Thomas clinical campus.

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The only finding or recommendation the commission had was regarding the absence of the state audit of UTHSC as an individual entity. When the audit is received by SACS, we will have no findings, no recommendations, totally clean accreditation. In baseball parlance, that’s the equivalent of a no hitter. The SACS team indicated this is one of the best accreditation visits they have done in a long time.

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We are pleased to report how much progress our institution has achieved both in 2014 and early in this year. Major initiatives that will affect the future of UTHSC for decades to come have surged forward. In mid-February, the Southern Association of Colleges and Schools (SACS) accreditation team left our campus following an extremely positive exit interview. For several years, UTHSC has been working toward our accreditation as a stand-alone entity, rather than as part of Big Orange. Following the SACS site visit, we’re glad to share good news.

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The UTHSC College of Medicine Names Position of Executive Dean for Distinguished Alumnus and Benefactor, Dr. Robert J. Kaplan

Dr. Kaplan was the keynote speaker for the ceremony, which is an annual tradition to welcome new medical students and their families to the College of Medicine. "The practice of medicine is a privilege and honor that cannot be taken for granted," Dr. Kaplan said. "It is our goal to create the best possible environment for medical students to learn science and art of medicine."

Dr. Kaplan has been a longtime patron of the University of Tennessee. In 2013, he supported the creation of the Kaplan-Atmonette Department of Dermatology at UTHSC, and the University of Tennessee system named him a Philanthropist of the Year. In 2005, Dr. Kaplan’s philanthropy allowed for the creation of the nationally recognized Kaplan Clinical Skills and Assessment Center at UTHSC, where teaching, simulation and standardized patient encounters enhance medical students’ abilities to take patient histories, perform physical exams and communicate effectively with patients.

In 2002, Dr. Kaplan and close friend, Rodney Wolf, MD, also a UTHSC College of Medicine alumnus and a cardiovascular surgeon in Memphis, provided support to create the Wolf-Kaplan Athletics Recruiting Center at the University of Tennessee in Knoxville inside Neyland Stadium.

Dr. Kaplan practices medicine in Memphis and holds multiple leadership positions at UTHSC, including serving on the UTHSC Foundation’s board of directors and the UTHSC College of Medicine Alumni Council. He earned his medical degree from the College of Medicine in 1973, and is a 1969 graduate of Franklin and Marshall College in Lancaster, Pennsylvania. While at the UTHSC College of Medicine, he was inducted into the Alpha Omega Alpha Honor Medical Society.

Dr. Kaplan has been a longtime member of the Tennessee Medical Association, the American Medical Association, the American Academy of Dermatology and the Memphis Medical Society. A native of Englewood, New Jersey, he has lived in Memphis since 1970.

The new name became effective on the day of classes for the 2014-2015 academic year and was announced at the college’s annual White Coat Ceremony in August.

Dr. Robert J. Kaplan, MD

UTHSC to Operate West Tennessee Regional Forensic Center

The University of Tennessee Health Science Center has been awarded a $3.1 million contract to operate the West Tennessee Regional Forensic Center (WTRFC) and the Shelby County Medical Examiner's Office. Under the contract, which went into effect July 2014, UTHSC provides a range of services including:

- staffing and management of the center, including forensic pathologists, forensic technicians, and support staff;
- a physician eligible for appointment as the Shelby County medical examiner;
- consultation services 24/7 for all reported cases, when possible.

The center oversees medico-legal death investigation services for all 20 counties west of the Tennessee River that send autopsies to the facility. It applies uniform standards of investigation for all deaths regardless of the county of origin, and maintains investigative integrity beginning with the scene.

"We believe that we are uniquely positioned to deliver high-quality, cost-effective management of the center and to add considerable value to the operational, public service and research elements that the center has the potential to deliver," Kenneth Brown, JD, MPA, PhD, FACHE, executive vice chancellor and chief operations officer at UTHSC, said in the petition to operate the center.

"The integration of the missions of the WTRFC and UTHSC transforms the investigation of suspicious deaths into a discipline of education, research, clinical care, and public service for the benefit of the health and welfare of the citizens of Shelby County and West Tennessee," he said.

Dr. Brown also said UTHSC plans to develop a Center of Excellence in Forensic Science that will use current resources in forensics, including forensic dentistry and forensic nursing. The contract also positions the WTRFC to better respond in instances of natural disasters and acts of terrorism, he said.

Affordable Care Act Works for Most, But Not All

While the Affordable Care Act (ACA) put health insurance coverage within reach of most Americans, it still leaves some groups without affordable options, according to a paper by UTHSC researchers published by the prestigious Annals of Internal Medicine.

Ilana Graetz, PhD, assistant professor in the Department of Preventive Medicine, is lead author of the paper titled, "The U.S. Health Insurance Marketplace: Are Premiums Truly Affordably?" It is one of a series of papers being produced by members of the UTHSC Department of Preventive Medicine examining aspects of the ACA.

Co-authors of the paper are: Cameron Kaplan, PhD, assistant professor in the Department of Preventive Medicine; Erin Kaplan, PhD, assistant professor in the Department of Economics at Rhodes College; Teresa Waters, PhD, chair of the Department of Preventive Medicine at UTHSC, and Jim Bailey, MD, MPH, professor in the Department of Medicine at UTHSC. Annals of Internal Medicine is one of the most highly cited academic medical journals in the world.

The ACA, signed into law in 2010, mandates that most individuals have health insurance or pay a penalty. Those with incomes up to 400 percent of the federal poverty level qualify for a federal subsidy to make coverage more affordable. But if the lowest-cost plan available is greater than 8 percent of income, individuals are exempt from paying the penalty.

The researchers gathered data on premiums for all health plans offered on the state and federal health care marketplaces, and calculated the after-subsidy premiums for the lowest-cost (bronze) plan for every county in the United States. Variations in cost by age, income and geographic location were considered.

"Results indicated that – although marketplace subsidies ensure affordable health insurance for most persons in the United States – many individuals with incomes just above the subsidy threshold will lack affordable coverage and will be exempt from the federal mandate," the paper said. The researchers also found that because of the way the subsidies are calculated, young people with low incomes often pay as much or more than older individuals for bronze plans. The paper said, "If substantial numbers of younger, healthier adults choose to remain uninsured due to cost, health insurance premiums across all ages may increase over time."

"In addition, the subsidies did a lot to improve affordability of health insurance," Dr. Graetz said. "The main message is not that the Affordable Care Act is not working, but just that there are some gaps that I think we can address to make it better. So, my hope is that this paper draws some attention to these gaps and helps the policymakers keep improving the law."
Professor Robert W. Williams, PhD, the UT-ORNL Governor’s Chair in Computational Genomics, is the founding chair of the new Department of Genetics, Genomics and Informatics (GGI) in the UTHSC College of Medicine. GGI will focus on three areas of biomedical research:

- Genetics, with a focus on the causes of variation in disease risk in humans – both genes and the environment.
- Genomics, defined broadly to include many types of research questions and high throughput molecular approaches including DNA sequencing.
- Informatics, defined to include bioinformatics and clinical health informatics.

Starting with five core faculty with primary appointments, the new department’s plan is to grow by offering joint appointments to faculty in many other departments, colleges, campuses, and institutions – including St. Jude Children’s Research Hospital and the University of Memphis.

A faculty member in the Department of Anatomy and Neurobiology for 25 years, Dr. Williams is a renowned experimental neurogeneticist, founder of the Complex Trait Consortium, and editor-in-chief of Frontiers in Neurogenomics. His current research is funded by three NIH institutes – the National Institute on Aging, the National Institute on Alcohol Abuse and Alcoholism, and the National Institute on Mental Health, as well as by the Oak Ridge National Laboratory.

One of the main purposes in creating this new department is to strengthen and consolidate gains UTHSC has made in genetics over the past 15 years. The department will function as a cross-disciplinary, interdepartmental and intercollegiate unit. GGI will serve as a catalyst for both research and teaching initiatives.

Dr. Williams stated, “Forming this department significantly improves our research prospects in the next wave of human genetics, while building on strengths in experimental, molecular, and quantitative genetics. An important mission of the department will be to enhance the genetics components of already strong research and clinical programs across the state.”

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David M. Stern, MD
Robert Kaplan Executive Dean of the UTHSC College of Medicine

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Professor Teresa Waters, Named Chair of Department of Preventive Medicine

David M. Stern, MD
Robert Kaplan executive dean of the UTHSC College of Medicine, has announced the appointment of Teresa Waters, PhD, as the new chair for the Department of Preventive Medicine in the College of Medicine. “With 14 years on our faculty, Dr. Waters brings extensive research experience, sound health policy insights and strong, professional relationships to this position,” said Dr. Stern.

She began her new role August 1. Professor Karen Johnson, MD, MPH, BS, has served as interim chair for the department for more than four years, while simultaneously maintaining her demanding roles as a successfully funded researcher and educator. “We greatly appreciate Dr. Johnson’s willingness to accept the interim responsibilities for Preventive Medicine, and we applaud her work, which has kept the department moving forward during this extended period of transition,” Dr. Stern noted.

Dr. Waters joined the faculty in the Department of Preventive Medicine in 2000. Previously she served on the faculty of Northwestern University where she was an assistant director and, later, an interim deputy director of the Institute for Health Services Research and Policy Studies, a research center that coordinated the efforts of more than 20 faculty and 35 staff. Dr. Waters received her PhD in economics from Vanderbilt University in 1992.

Having published 61 original, peer-reviewed articles and five reviewed articles or book chapters, she is on the editorial board of Medical Care Research and Review. Dr. Waters has also served on multiple NIH and Agency for Healthcare Research and Quality (AHRQ) Study Sections as a member and ad hoc reviewer. Her research is currently funded by AHRQ, Centers for Medicare and Medicaid Services (CMS), and the National Institute on Aging.

Dr. Waters has received several teaching awards, including the UT Student Government Association Excellence in Teaching Award in 2003. She has mentored dozens of graduate students, postdoctoral fellows and junior faculty members during her career at Northwestern University and UTHSC.
Racial Disparities in Medication Adherence Still Continue Despite Policy Improvements

Even though most people know that taking medication properly is key to managing chronic disease, they don’t or can’t always do it. However, the launch of the Medicare Part D prescription drug benefit in 2006 has encouraged more elderly patients to take their heart medications as prescribed. The long-standing gap between white and minority patients in cardiovascular medication adherence has narrowed. That good news is tempered by findings that African-American seniors are still less likely to adhere to medication goals than Hispanic Medicare participants, and both groups lag white seniors in the rate of adherence in using the common drugs that treat high blood pressure and heart failure. That’s according to a study by researchers from UTHSC, presented at a scientific session of the American Heart Association (AHA).

In June, Mustafa Hussein, PhD, presented the research on racial disparities in medication adherence at the AHAs Quality of Care and Outcomes Research 2014 Scientific Sessions. The research was highlighted in a news release from the meeting, and has been published in almost three dozen health, science and medical publications.

“Adherence to medications is crucial for optimal outcomes in patients with cardiovascular disease,” said Dr. Hussein, who has led author of the study and presented a poster about it at the meeting. “Minorities have a higher burden of cardiovascular disease, but historically, racial minorities are less likely to take medications properly because of socioeconomic and environmental factors.”

Study co-authors are Teresa Waters, PhD, professor in the UTHSC Department of Preventive Medicine; David K. Solomon, PharmD, professor in the UTHSC Department of Clinical Pharmacy; and Lawrence Brown, PharmD, PhD, formerly of UTHSC and now professor of Pharmacoconomics and Health Policy at Chapman University.

Mending The Rift

“Despite wanted to study racial disparities in adherence and how a major policy change, such as the introduction of Medicare Part D, affected them,” Dr. Hussein said. Medicare Part D, introduced in 2003 and implemented in 2006, aimed to improve access to prescription drugs and gave special attention to low-income beneficiaries.

The analysis of prescription drug adherence looked at national data from 2002, prior to the introduction of Medicare Part D, through 2010, four years after it was implemented. Overall, adherence among Hispanic seniors improved by about 60 percent, adherence among whites improved 47 percent, but adherence among African-Americans improved by only about 9 percent, Dr. Hussein said.

Hispanics may have more readily responded to aspects of Medicare Part D that encourage medication adherence because they are more likely to live in areas of the country that already had better low-income prescription drug plans even before the benefit was introduced. They appear to have been better primed to use it, he said.

“Even after the introduction of Part D, there are still significant disparities in adherence, and those disparities are large and exist among all sub-groups,” he said.

They are especially large among the dually eligible beneficiaries, those who are receiving Medicaid as well as Medicare, and that can do a lot of harm to final health outcomes.”

Dr. Hussein, who is now a postdoctoral fellow at the School of Public Health at Drexel University in Philadelphia, said the goal behind the numbers is to find solutions that encourage better medication adherence among all populations. “There are currently some impediments in the Medicare Part D program that might be exacerbating these disparities,” he said. Health policymakers should look for more equitable criteria for medication therapy management program eligibility, find ways to improve personal health literacy and confidence, and establish programs to encourage individual ability to keep track of medications.

Patricia Matthews-Juarez, PhD, Receives $50,000 Grant for Hepatitis C Program

According to the Centers for Disease Control and Prevention, 2012 data shows that African-Americans had the highest mortality rates from Hepatitis C Virus (HCV) in the United States from 2004 to 2008, at 6.5 to 7.8 deaths per 100,000 persons. African-Americans died from HCV 74.6 percent more often than did whites, based on their representation in the overall population (Armstrong 2006). It was also concluded that black-white disparities in HCV treatment outcomes may lead to the progression of liver disease and/or primary liver cancer in any African-Americans diagnosed with HCV, causing poor individual health outcomes for African-American beneficiaries and increased hospital services and costs at the community level.

Patricia Matthews-Juarez, PhD, co-director of the Research Center on Health Disparities, Equity, and the Exposome, and professor in the Department of Preventive Medicine at UTHSC, has received a one-year grant totaling $50,000 from Gilead Sciences, Inc., to be used to conduct a provider education and community awareness program about HCV in the African-American community.

The award will support a project titled, “Test, Listen, Cure” (TLC) Hepatitis C Community Awareness Campaign.”

To address HCV in the Mid-South and to implement the project, Dr. Matthews-Juarez and her research team will recruit and train 300 health care providers from Memphis and the surrounding areas (northern Mississippi and east Arkansas). Their objectives will be to develop and implement a health education and promotion campaign to increase community awareness about HCV in the African-American community. The award will support a project titled, “Test, Listen, Cure” (TLC) Hepatitis C Community Awareness Campaign.”

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Jeffrey A. Towbin, MD, New Pediatric Cardiology Chief

Dr. Towbin is a renowned physician-scientist who leads the field of pediatric cardiomyopathies and heart failure. His personal research involves understanding the genetic basis of cardiomyopathies, arrhythmias, sudden death and congenital heart disease and using this knowledge to improve the lives of kids with these devastating heart diseases. His addition to Le Bonheur and St. Jude will transform the manner in which we are able to care for children here and across the nation. Memphis will now be the preferred destination for diagnosis and treatment of complex pediatric heart diseases of childhood,” said Jon McCullers, MD, pediatrician-in-chief at Le Bonheur Children’s and chair of the Department of Pediatrics at UTHSC.

“We are pleased to welcome Dr. Towbin to the UT Health Science Center community,” said David M. Stern, MD, Robert Kaplan Executive Dean for the UTHSC College of Medicine. “As a member of our clinical and academic faculty, he brings specialized patient care skills, a strong research background and a commitment to share his expertise in pediatric cardiology with future generations of physicians.”

At Cincinnati Children’s Hospital Medical Center, Towbin successfully built one of the largest pediatric heart failure and cardiovascular genetics programs in the country. His research and clinical expertise in pediatric heart failure is internationally known, and he is widely thought of as a leader in pediatric cardiology.

“I hope to accomplish the building of a nationally recognized destination program with world-class expertise and help the field to expand into new areas of care based on the paradigm we will develop,” Towbin said.

Dr. Towbin’s plans include the recruitment of additional faculty, enhanced training of pediatric and congenital cardiologists, development of several novel clinical and research programs, and facilitation of a new pediatric cardio-oncology specialty, in partnership with St. Jude. He looks forward to furthering the clinical and research profile of both institutions.

Dr. Towbin graduated from the University of Cincinnati College of Medicine in 1982. He completed a fellowship in pediatric cardiology and molecular cardiology research at Baylor College of Medicine/Texas Children’s Hospital in Houston (1985-1989). He served as Professor and Chief of Pediatric Cardiology at Baylor College of Medicine/Texas Children’s Hospital from 2003-2009, leading that program to a top five ranking. In 2014, he led the Heart Institute at Cincinnati Children’s to a top five ranking as well.

Robert Osher, MD, Keynote Speaker at Hamilton Eye Institute’s Annual Sir Harold Ridley Distinguished Visiting Professorship

The Ridley Visiting Professorship was created by Jerre M. Freeman, MD, clinical professor of ophthalmology at UTHSC, to celebrate the careers of people who have been leaders in changing the face of American medicine. The keynote speaker receives the “Ridley Medal” for exemplifying the ideals of creativity, innovation, perseverance and productivity.

O n Thursday, Oct. 23, the Hamilton Eye Institute at the University of Tennessee Health Science Center hosted its 13th annual Sir Harold Ridley Distinguished Visiting Professorship for Creativity and Innovation in Medicine and Ophthalmology.

The keynote speaker was world-renowned cataract surgeon Robert H. Osher, MD, professor of ophthalmology at the College of Medicine of the University of Cincinnati and medical director emeritus of Cincinnati Eye Institute. Dr. Osher designed many of the intraocular lenses and instruments that are used in contemporary cataract surgery, one of today’s most-performed surgical procedures.

Dr. Osher has received the highest honors from the American Society of Cataract and Refractive Surgery, as well as the highest honor given to a cataract surgeon by the American Academy of Ophthalmology. He has produced more than 250 videos and peer-reviewed articles, is the editor of several video and print publications, and has served on the editorial boards of more than six journals.

The professorship is named for Sir Harold Ridley, an English surgeon who achieved the first implant of an intraocular lens, beginning the revolution that became modern cataract surgery. While working with the Royal Air Force casualties during World War II, Dr. Ridley noticed that splinters of plastic or glass from aircraft cockpit canopies that became lodged in the eyes of wounded pilots did not trigger a reaction. That led him to propose the use of an artificial lens in the eye to correct a cataract. In 1949, Dr. Ridley achieved the first implant of an intraocular lens, and the following year, he left an artificial lens permanently in place in an eye.

“Memphis will now be the preferred destination for diagnosis and treatment of complex pediatric heart diseases of childhood.”

Jon McCullers, MD, pediatrician-in-chief at Le Bonheur Children’s Hospital and chair of the Department of Pediatrics at UTHSC
I n June, 2014, David M. Stern, MD, Robert Kaplan Executive Dean of the UTHSC College of Medicine, and Meri Armour, CEO of Le Bonheur Children’s Hospital, announced the joint appointment of pediatric endocrinologist Joan C. Han, MD. Dr. Han joined UTHSC as associate professor in the Department of Pediatrics, Division of Endocrinology, and founding director of the new UT-Le Bonheur Pediatric Obesity Center. Dr. Han is also director of the Pediatric Obesity Program and on Le Bonheur’s clinical staff.

Supported jointly by UTHSC and Le Bonheur, the Pediatric Obesity Center focuses on both research and patient care in an effort to determine ways to stem the current tide of childhood obesity in the Mid-South. The new center is located on the Le Bonheur Children’s campus, which is near the UTHSC main campus in the Memphis Medical Center. As part of her duties at the hospital, Dr. Han also directs the new Le Bonheur Healthy Lifestyle Clinic.

According to the Centers for Disease Control and Prevention, childhood obesity has more than doubled in children and quadrupled in adolescents in the past 30 years.

“The Department of Pediatrics has focused its research and community outreach efforts in three major areas – obesity, asthma and developmental disabilities. Dr. Han was recruited to spearhead this first major initiative,” says Jon McCullers, MD, professor and chair of UTHSC Pediatrics and Le Bonheur’s pediatrician-in-chief. “Dr. Han will develop and implement a comprehensive initiative in obesity that will span research, education and clinical initiatives, especially community-centered research that extends to our underserved, city neighborhoods.”

“The impact of childhood obesity is manifested in both immediate and long term effects on children’s health and well-being, from elevated cardiovascular and blood pressure risks to pre-diabetes, bone and joint problems,” Dr. Stern says. “Plus, obese children too often grow into obese adults, and we know obesity in adults can lead to increased risks for stroke, heart disease, diabetes and a variety of cancers. Partnering with Le Bonheur to bring Dr. Han to our community has the potential for our organizations to make a significant, measurable impact on childhood obesity and its associated health problems.”

“As we continue to recruit the nation’s top specialists, our impact on the region’s kids will continue to broaden,” says Le Bonheur President and CEO Meri Armour. “Dr. Han brings a nationally known reputation in pediatric obesity research, which sets us apart from any other program in the country.”

Dr. Han joined UTHSC and Le Bonheur from the National Institute of Child Health and Human Development at the National Institutes of Health where she worked for 10 years. She was engaged in a pediatric endocrinology fellowship (2004 to 2007), followed by her role as a senior clinical fellow (2007 to 2009), and as an assistant clinical investigator from 2009 to present. Dr. Han has also served as a commissioned officer of the United States Public Health Service.

In addition, she was previously a clinical research fellow in the Division of Endocrinology at Nemours Children’s Clinic, Jacksonville, Florida, and assistant professor of Pediatrics at the University of Florida, Jacksonville. Dr. Han holds an AB from Harvard and Radcliffe Colleges and earned her MD from Harvard Medical School. She completed her internship and residency in Pediatrics through the Boston Combined Residency Program in Pediatrics at Boston Children’s Hospital and Boston Medical Center. To see how UTHSC is combating obesity through brain research, see page 33.
The UTHSC campus of the future will have at least 15 new buildings to meet expanding academic, research, clinical care and support needs. It will also have improved pedestrian and bicycle routes, better traffic flow, more parking, well-designed green spaces and landscaping, prominent signage, 10 renovated buildings, and updated housing options.

The improvements are part of a Campus Master Plan designed to enhance UTHSC’s stature as an urban academic medical center and secure its spot as the nucleus of the evolution of the Memphis Medical Center district. The plan was unveiled Oct. 27, 2014 during an open house for faculty, staff, students, the media and the community. The event showcased the first major blueprint for growth of the university since the 1980s.

**A Plan for the Future**

The plan, drawn by the award-winning architecture and design firm of Perkins + Will after more than a year of discussions with faculty, staff, students and community stakeholders, focuses on giving UTHSC’s urban campus a clearer sense of identity, showcasing existing and emerging research and clinical centers of excellence, strengthening use of Health Sciences Park as the campus heart or center, making campus open spaces useful and attractive, reinforcing strong pedestrian routes, and grouping like and complementary endeavors and colleges together for ease of access.

“The best academic medical centers around the country and around the world are attempting to create this incredibly rich mix of clinical care, academic instruction and research,” said Krisan Osterby, project manager with Perkins + Will. The emphasis will be on enhancing interdisciplinary cooperation, she said.

**A Necessary Commitment**

The upgrades will increase UTHSC’s economic impact on the city and state, and better enable UTHSC to improve the long-term health of the community. UTHSC’s annual economic impact is $2.7 billion statewide and $2.2 billion in Memphis. The university contributes 26,700 jobs across the state, including 21,878 jobs in Memphis.

“In five years, we’re going to all be talking about what a wonderful job we did, putting ourselves on the back about what we did to take this community into the next millennium, or we could all be looking at each other ashamed of ourselves for squandering the opportunity that we had,” Ken Brown, UTHSC executive vice chancellor and chief operations officer, said. “We are looking to the former, as opposed to the latter.”

Among the 15 new buildings and structures are a College of Medicine Building, a College of Health Professions Building, the Multi-Disciplinary Simulation Building, a second College of Dentistry building, the Plough Center for Sterile Drug Delivery Systems, the Women’s and Infants’ Pavilion, two research buildings, an expanded recreation center, a primary care clinic, a transit and parking center and several parking decks.

A full draft of the UTHSC Campus Master Plan is available at: [http://www.uthsc.edu/masterplan](http://www.uthsc.edu/masterplan). A video of the presentation from the Campus Master Plan Open House, go to: [https://hml.uthsc.edu/Play/1124](https://hml.uthsc.edu/Play/1124).
Dr. Min Yoo Recognized by American Society of Transplant Surgeons

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in Yoo, MD, an assistant professor of surgery at UTHSC and a transplant surgeon with the Methodist University Transplant Institute, has been recognized by the American Society of Transplant Surgeons (ASTS) for her research related to pediatric en bloc kidney transplantation.

The ASTS gave Dr. Yoo a Junior Investigator Award for producing one of the top abstracts in the Junior Faculty Category for the organization’s 15th Annual State of the Art Winter Symposium. During the symposium in January in Miami Beach, Florida, she received $500 for the abstract titled, “Outcomes of pediatric en-bloc kidneys after circulatory death.”

Dr. Yoo evaluated donor and recipient factors affecting graft and patient survival for adult recipients of pediatric en-bloc kidneys after circulatory death as compared to adult recipients of single pediatric kidneys. The surgical technique defined as “en-bloc” involves transplantation of both kidneys along with the aorta and vena cava from one donor to a single recipient. Pediatric en-bloc kidney transplantation is one way to dramatically increase donor pool for adults, which continues to lag the number of patients in need of transplants.

Her study involved a review of data from the United Network for Organ Sharing for all adult recipients of pediatric donor kidneys from 1987-2012 and concluded that transplantation of en-bloc kidneys donated after circulatory death can have outcomes comparable to those from other types of pediatric donors. However, these kidneys are thought to be of higher risk and should be used in carefully selected recipients.

“Her award demonstrates a tremendous commitment to excellence, as she has accomplished this work in addition to her full-time clinical responsibilities.”

James Eason, MD

“Not a group of kidneys used very often by centers because there are a lot of concerns about technical complications,” Dr. Yoo said. “This shows that, yes, you can use them and people can have good outcomes with them.” Further research will look at long-term outcomes and what criteria make their use more successful.

“Hopefully, people will use these organs to increase the number of patients who get transplants,” Dr. Yoo said.

James Eason, MD, professor of surgery at UTHSC and director of the Transplant Institute, called Dr. Yoo an extremly dedicated member of the Transplant Institute.

“Her award demonstrates a tremendous commitment to excellence, as she has accomplished this work in addition to her full-time clinical responsibilities.”

Dr. Eason continued, “Dr. Yoo has also recently published our Transplant Institute’s experience with steroid-free liver transplantation in 500 consecutive patients, which is the largest reported series in the world.”
College of Allied Health Sciences Renamed College of Health Professions

On July 1, 2014, the College of Allied Health Sciences at UTHSC officially changed its name to the College of Health Professions (COHP). Founded in 1972 as the College of Community and Allied Health, the college was absorbed into the College of Allied Health Sciences in 1985. With fall enrollment expected to be approximately 5,850 students, the COHP now comprises six departments: Audiology and Speech Pathology, Clinical Laboratory Sciences, Health Informatics and Information Management, Occupational Therapy, Physical Therapy, and Physician Assistant Studies.

“The name change is in keeping with national trends and will allow the college to better align with the university and our various areas of specialty,” said Dr. Karen Anderson, PhD, dean of the college. “The term ‘allied health’ has been in use since the 1930s and was coined at a time when our disciplines were perceived as ancillary to health care. Today, allied health professions, as a diverse group, account for more than half of the health care workforce in the United States.”

Over the past several decades, the scope of practice, autonomy, and education of health professions team members have all evolved. As a result, the entry-level education requirements for most health care professions are at the graduate and post-baccalaureate level.

“Changing our name to the College of Health Professions presents a more accurate reflection of the vision and mission of our college as articulated by our faculty, students, staff, and alumni,” Dr. Anderson said. “The COHP has some 8,500 alumni, many who work in clinical, administrative, educational and service roles throughout the state of Tennessee and around the world. While its administrative offices and most educational programs are located on the UTHSC Memphis campus, the college also has a major presence in Knoxville, where UTHSC is constructing a $20 million facility for the college’s Audiology and Speech Pathology Department. The new building is expected to open this year.”

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Methodist University Hospital Changes Name to Methodist UT Hospital

On Feb. 25, the University of Tennessee initials reappeared on a Memphis hospital for the first time since the UT Rowd Hospital closed its doors in 2004. The UT icon was added to new exterior signage at Methodist University Hospital, and the hospital is now referred to as Methodist UT Hospital in recognition of the successful and growing partnership between UTHSC and the Methodist Le Bonheur Healthcare system. The new signage is located above the hospital’s main entrance and Emergency Department entrance.

Members of the UT board of trustees, in Memphis for their winter meeting, joined administrators and dignitaries from Methodist and UTHSC for a luncheon and the hospital’s main entrance and Emergency Department entrance.

Methodist University Hospital, the largest and most comprehensive hospital in the Methodist Le Bonheur Healthcare system, is a core teaching hospital for UTHSC. Faculty members from UTHSC make up a significant complement of the physicians and clinicians who provide care at the hospital while teaching the next generation of health care professionals in the clinical and hospital setting. The hospital is also home to UT Methodist Physicians, an academic physician practice group created in 2013 as an outgrowth of the partnership between the university and the hospital.

“Placing the UT initials on the downtown Methodist hospital building and reaffirming the name as Methodist UT Hospital reflects the convergence of the UTHSC and Methodist missions and visions,” said UTHSC Chancellor Steve J. Schwab, MD.


U.S. News & World Report has named Le Bonheur Children’s Hospital in seven specialties in the new 2014-15 Best Children’s Hospitals rankings. Recognized specialties include cardiology/heart surgery, nephrology, neurology/neurosurgery, orthopedics, pulmonology and urology.


“The University of Tennessee Health Science Center is proud to be the major academic partner of Le Bonheur and the hospital while teaching the next generation of health care professionals in the clinical and hospital setting. The hospital is also home to UT Methodist Physicians, an academic physician practice group created in 2013 as an outgrowth of the partnership between the university and the hospital.”

“In the field of medicine, Le Bonheur is one of the nation’s Best Children’s Hospitals,” said UTHSC Chancellor Steve J. Schwab. “Since the vast majority of the physicians at Le Bonheur are UTHSC faculty members, it is our joint physician-faculty who provide the clinical care for patients and the training for generations of new pediatric care professionals.”

“We are thrilled to be recognized as one of the country’s best children’s hospitals,” said Le Bonheur president and CEO Meri Gavin III, MD, MSN, MBA. “We use the U.S. News process as a way to improve the care we offer children. It is our responsibility as health experts to give our children every opportunity to grow up healthy and strong. Le Bonheur researchers, physicians and the entire medical team are committed to excellent clinical care, investigating the causes of our region’s most pressing health problems and teaching the next generation of health professionals.”

First John Ed and Odessa Williams Endowment Lectureship Brings Renowned Diabetes Expert to Campus

The first John Ed and Odessa Williams Diabetes Lectureship was held in October and brought renowned diabetes expert James Gavin III, MD, to the UTHSC campus as the keynote speaker.

The lecture was established through a charitable gift from sisters Willie M. Willliams-Crittenden, PhD, an educator; Ethelyn Williams-Neal, MD, a pediatrician and clinical assistant professor at UTHSC; and Beverly Williams-Cleaves, MD, an internist/endocrinologist and clinical associate professor at UTHSC, in memory of their parents.

Dr. John Ed and Odessa Williams were dedicated to providing their daughters with educational opportunities, and they were also committed to their community. The value they placed in their communities lives on in their daughters, who established this fund named for their parents to provide a permanent opportunity to encourage greater diversity in support of UTHSC, to highlight the importance of excellent community care for those with diabetes and to provide ancillary financial support for minority medical students at UTHSC.

“We were excited to have the opportunity to launch this inaugural lectureship,” Dr. Williams-Cleaves said. “This lectureship is on a topic that is very dear to our hearts.”

As part of the two-day event at UTHSC, Dr. Gavin, clinical professor of Medicine at Emory University School of Medicine in Atlanta and at Indiana University School of Medicine in Indianapolis, spoke at Grand Rounds, consulted with endocrinology fellows and spoke at a meeting of the Bluff City Medical Society. Dr. Gavin is past president of the American Diabetes Association and immediate past chairman of the National Diabetes Education Program.

“We were extremely pleased and honored to have Dr. James Gavin as our inaugural speaker,” Dr. Williams-Cleaves said. “He brought great stature to this event.”
Bricks-and-mortar proof of UTHSC’s commitment to research expansion is on display 24/7, 365 days a year at the corner of Union Avenue and Manassas Street. The $49 million Translational Science Research Building, which has risen over the last 2.5 years at that very prominent intersection, is set to open in 2015 and house state-of-the-art lab spaces and the top-level investigators to staff them. Nearly its mirror image, the adjacent Cancer Research Building at the corner of Manassas and Madison Avenue opened in 2007 and houses researchers investigating new treatments for all types of cancer.

These striking new buildings on the western edge of campus are major steps toward UTHSC’s goal to move into the top quartile of research-based academic health science institutions, but they are not the only efforts in progress to grow the research mission.

In August 2014, Chancellor Steve J. Schwab held a special town hall meeting to lay out UTHSC’s plan to boost research, one of the university’s four main missions along with education, clinical care and public service. Major strides have been made in education, clinical care and community service at UTHSC, Dr. Schwab said.

UTHSC has also continued to grow the amount of sponsored programs or non-clinical grants and contracts including research it brings to the University of Tennessee System. Those dollars have gone from $166.54 million in 2008-2009 to an estimated $215 million to $220 million in 2014, making UTHSC the largest creator of sponsored-program dollars in the UT System.

But the shifting climate for federal funding for science research and the increased competition for dollars necessitates that UTHSC work harder to grow its independent research revenue and take better advantage of new sources of available funding, Dr. Schwab said.

“We believe we have the opportunity to make major advances over the next five years, and we’re prepared to make the investments of time, effort and money to get where we need to go in research.”

Steve J. Schwab, MD
UTHSC chancellor

By Peggy Reisser Winburne

The plan to do this has four major components:

• Build UTHSC’s base of funded and successful independent investigators, particularly in targeted areas of cancer research, child health and asthma, diabetes and health disparities. At least 50 recruits have been hired or are in the process of being hired, he said. New recruits and existing investigators will be better supported with better facilities, infrastructure improvements for clinical trials, bridge funding and incentives.

• Leverage key research partners and facilities. Established and successful partnerships with St. Jude Children’s Research Hospital and Le Bonheur Children’s Hospital will be strengthened and expanded to build research opportunities in children’s health, including cancers, obesity, diabetes and other diseases. UTHSC’s bonds with Oak Ridge National Laboratory will be strengthened to create a joint institute for health informatics, computational genomics and drug discovery.

• Recruit a vice chancellor of research to helm the research effort.

• Expand clinical and translational research with UTHSC’s large clinical enterprise and hospital partners as a base. “We need to leverage the clinical enterprise we know we have so that we can develop the research we know we can do,” Dr. Schwab said. Funding is in place and efforts under way to build a data repository for clinical research.

In 2014, UTHSC’s investigators brought in major grants and conducted research on everything from new treatments for breast and prostate cancer to whether brain stimulation can improve voice therapy for those with Parkinson’s disease.

As UTHSC moves to boost research efforts, the following pages take a look at some of the recent research contributions and news being made in the College of Medicine.
Every year about 720,000 Americans have a heart attack, and approximately 15 percent of people who experience a heart attack die within one year.

Dong Wang, PhD, MD, assistant professor in the UTHSC Department of Medicine, has received a grant totaling $308,000 from the American Heart Association to support a project titled, “The Corin-ANP Axis in Myocardial Infarction and Ischemic Cardiomyopathy.”

Dr. Wang’s research is aimed at explaining the important role of the Corin-atrial natriuretic peptide (ANP) system in heart attack. ANP is a cardiac hormone involved in regulation of blood volume and blood pressure. Corin is a newly discovered enzyme that generates ANP in the heart. Additionally, Corin has a protective role in the development of heart failure. However, whether Corin also influences the outcomes after heart attack and the relationship between Corin and ANP in heart disease is unknown.

Dr. Wang and his research team are trying to understand the functional role of Corin and its correlation with ANP in a rodent heart attack model that mimics human disease. These studies are among the first to define the functional role of Corin in an in vivo model with translational relevance to human cardiovascular disease.

“The dynamic change of Corin observed in our rodent model matches the clinic data from patients who have the similar heart disease,” said Dr. Wang. “Insights into the mechanisms responsible for Corin’s protective effects suggest ways to improve the treatment of patients with heart attack and ischemic heart disease. After discovering the soluble subtype of Corin in physiological conditions, we believe that Corin’s therapeutic potential may eventually be exploited to improve the survival of heart attack patients.”

A $308,000 grant from the American Heart Association will help Dr. Dong Wang and his research team explore ways to treat heart attack and ischemic heart disease.

A disruption of blood flow to the kidneys is associated with life-threatening ailments, including hypertension, diabetes, heart failure, acute kidney injury and chronic kidney disease.

Adedowale Adebiyi, PhD, assistant professor in the Department of Physiology at UTHSC, has received a grant totaling $1.5 million from the National Institute of Diabetes and Digestive and Kidney Diseases, a subsidiary of the National Institutes of Health, to support a project titled, “Regulation of Neonatal Renal Hemodynamics.”

The long-term goal of Dr. Adebiyi’s research is to understand mechanisms that control blood flow dynamics in the kidneys, and the roles they play in cardiovascular and kidney diseases. His laboratory investigates the functions of cell membrane proteins known as “ion channels” that are located in blood vessels and glomeruli (delicate units where blood is cleaned and filtered) within the kidneys.

This study will investigate kidney functions in newborns. At birth, newborn kidneys are structurally and functionally immature, making newborns more vulnerable to kidney impairment, especially when blood circulation in the kidneys is altered by adverse events such as oxygen deprivation, severe infection, and blood flow obstruction immediately before or after birth, or both, which can cause acute kidney injury. The incomplete knowledge of the mechanisms that regulate blood flow in the kidneys limits strategies for the prevention and treatment of kidney disease in newborns.

Recent research efforts in Dr. Adebiyi’s laboratory suggest that an ion channel named TRPV4 may be essential for the intrinsic ability of blood vessels in newborn kidneys to maintain constant blood flow despite fluctuations in blood pressure. Furthermore, their work suggests that acute kidney injury caused by a transient interruption of blood flow to newborn kidneys is associated with alterations in TRPV4 channel expression and activity in the blood vessels.

“I am very excited about this award because it will enable my laboratory to explore how ion channels control blood vessel reactivity and blood circulation in the kidneys of newborns to maintain constant blood flow despite fluctuations in blood pressure,” said Dr. Adebiyi. “Insights into the mechanisms responsible for Corin’s protective effects suggest ways to improve the treatment of patients with heart attack and ischemic heart disease. After discovering the soluble subtype of Corin in physiological conditions, we believe that Corin’s therapeutic potential may eventually be exploited to improve the survival of heart attack patients.”
Cystic fibrosis (CF) is a lethal genetic disease caused by the loss or dysfunction of a protein called the CF transmembrane conductance regulator (CFTR). Chronic lung disease is the main cause of morbidity and mortality for CF patients. F508del is the most common genetic change and associates with a severe form of CF disease.

Weiqiang Zhang, PhD, an instructor in the Departments of Physiology and Pediatrics at UTHSC, has received a grant totaling $1,874,750 from the National Heart, Lung, and Blood Institute, a subsidiary of the National Institutes of Health, for research on CF. The grant, to be distributed over five years, will be used to support a project titled, “Characterization of an Inhibitory Protein Complex for Cystic Fibrosis Therapy.” In this project, Dr. Zhang and his research team will study the formation and regulation of a protein complex at the cell surface. The formation of such a complex inhibits CFTR channel function and contributes to the severity of the disease. The goal is to help CF patients live longer and healthier lives through this innovative research.

The award will support a project titled, “Augmenting Treatment Effects of Voice Therapy in Parkinson’s Disease.” The study will examine speech and voice quality, voice box function and brain activity before and after patients receive voice therapy and brain stimulation or voice therapy alone. The researchers hope to demonstrate that non-invasive brain stimulation improves speech and voice quality at a quicker pace, and that the improvements in communication will be long lasting. It is expected that non-invasive brain stimulation will improve voice box function as well as strengthen the connections between brain areas that are engaged during speaking.

The study will provide free voice therapy and access to neurology, otolaryngology, and speech and voice clinics to people with Parkinson’s disease who live in Memphis and the surrounding greater Mid-South area. The findings from this study will lay the foundation for future large-scale studies to examine the usefulness of brain stimulation as an additional treatment to improve speech and limb motor symptoms in Parkinson’s disease. The results will also form the basis for future studies aimed at understanding how various treatments in Parkinson’s disease mediate changes in brain function.

Dr. Weiqiang Zhang and his research team have received more than $1.8 million from the NIH. Dr. Weiqiang Zhang and his research team are working to pave the way toward novel therapies for cystic fibrosis. F508del-CFTR protein and have direct clinical relevance in mitigating or curing CF. The study will help gain better understanding of the molecular mechanism underlying CF; expand our knowledge of the CFTR protein network, and pave the way to new CF therapies. It might have clinical relevance in combating other obstructive and inflammatory airway diseases, such as asthma and chronic obstructive pulmonary disease.

“I am very excited about this award because it will enable us to continue our research on finding an optimal therapy, or even better, a cure for cystic fibrosis,” said Dr. Zhang. “We also anticipate that the research will have clinical relevance in other obstructive airway diseases.”

Dr. Shalini Narayana, PhD, assistant professor in the Departments of Pediatrics, and Anatomy and Neurobiology at UTHSC, has received a grant totaling $677,385 from The Michael J. Fox Foundation for Parkinson’s Research. Dr. Narayana and her research team are testing to determine if non-invasive brain stimulation can improve the effectiveness of voice therapy, especially for patients with Parkinson’s disease who frequently suffer from speech and voice disorders that adversely affect their communication and quality of life. Medications that help other symptoms of Parkinson’s disease are not very effective in treating speech and voice symptoms, but intensive voice therapy has been shown to be helpful. Recently, non-invasive brain stimulation has gained recognition as a useful treatment tool and is approved by the U.S. Food and Drug Administration for treating depression and migraine.

Dr. Shalini Narayana and her research team intend to determine if non-invasive brain stimulation can improve the effectiveness of voice therapy of individuals with Parkinson’s disease. The findings from this study will lay the foundation for future large-scale studies to examine the usefulness of brain stimulation as an additional treatment to improve speech and limb motor symptoms in Parkinson’s disease. The results will also form the basis for future studies aimed at understanding how various treatments in Parkinson’s disease mediate changes in brain function.

Recently awarded more than $1.1 million from the NIH, Dr. Shalini Narayana and her research team are working to pave the way toward novel therapies for Parkinson's patients.

Giving Voice to Parkinson’s Patients

Patients with Parkinson’s disease frequently suffer from speech and voice disorders that adversely affect their communication and quality of life. Medications that help other symptoms of Parkinson’s disease are not very effective in treating speech and voice symptoms, but intensive voice therapy has been shown to be helpful. Recently, non-invasive brain stimulation has gained recognition as a useful treatment tool and is approved by the U.S. Food and Drug Administration for treating depression and migraine.

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Alcohol Toxicity

Reversing the Damage of Alcohol Intoxication

Dr. Alex Dopico, MD, PhD, is distinguished professor and chair of the Department of Pharmacology at UTHSC. He has spent more than 20 years researching alcohol’s effects on ion channel proteins in the central nervous system and brain circulation, and has been awarded more than $1.85 million to extend funding for his ongoing research into the effects of alcohol on the brain. His goal is to develop drugs that target the proteins within cells that control the physiological and behavioral changes associated with alcohol intoxication in order to prevent or reverse those effects.

In June 2014, Dr. Dopico reported a major breakthrough toward developing new drugs to counteract alcohol’s toxicity by targeting the BK channel proteins, or Big-conductance potassium channel proteins, which are present in all excitable tissues and control a variety of physiological processes. Modification of their activity by exposure to alcohol is thought to be a cause of changes in normal physiology by alcohol intoxication.

“Dr. Dopico and his team identified for the first time a specific site in the BK channel protein where alcohol is recognized and alters the channel’s function.”

Having found and characterized at the molecular level a site that is rather specific for alcohol recognition, we can now develop small pharmacological agents that interact with that site and antagonize alcohol action on the channel, eventually leading to prevention or reversal of alcohol toxicity,” he says.

A paper by Dr. Dopico and his research team detailing this finding was published in 2014 in the Proceedings of the National Academy of Sciences, one of the world’s most cited multidisciplinary scientific journals.

In 2009, Dr. Dopico was awarded a 10-year MERIT Award worth a total of $3.6 million from the National Institute on Alcohol Abuse and Alcoholism, a division of the National Institutes of Health, for his alcohol studies, which have particular emphasis on the effects of alcohol on BK channels in excitable cells, such as central neurons and brain arterial smooth muscle. When the first half of that award expired in June, Dr. Dopico received the $1.85 million extension to fund an additional five years of research.

The MERIT Award (Method to Extend Research in Time) program has become a symbol of scientific achievement in the research community. The awards are offered to investigators who have demonstrated superior competence and productivity in their research, and who are likely to continue the outstanding performance. Investigations receiving a MERIT Award have the opportunity to obtain up to 10 years of support in two five-year periods without having to submit frequent renewal applications.

Dr. Dopico’s previous research includes determining that action in the BK channels makes cerebral arteries contract in the presence of alcohol; that cholesterol levels in cell membranes alter alcohol’s action on these channel proteins in cerebral arteries; and that the receptor for caffeine is a key alcohol action on brain arteries.

Identifying the alcohol-recognition site in BK ion channel protein is “a major finding” that will hopefully impact the development of pharmacotherapeutic agents to treat consequences of alcohol intoxication that affect brain function.

“My job is to find molecular sites and mechanisms by which alcohol affects excitable tissue physiology, and thus agents that fight the consequences of alcohol intoxication in the brain,” Dr. Dopico says. “To do that, you need to find the protein sites where alcohol docks or interacts, and we had a very critical breakthrough in the BK channel protein.”

Preventing the Damage of Fetal Alcohol Spectrum Disorder

Drinking while pregnant may lead to the birth of a child with a range of physical, behavioral and cognitive abnormalities called fetal alcohol spectrum disorder (FASD). FASD represents the leading preventable cause of birth defects and developmental disabilities.

Anna Bukiya, PhD, associate professor in the Department of Pharmacology at UTHSC, has received a grant totaling $393,750 from the National Institute on Alcohol Abuse and Alcoholism, a subsidiary of the National Institutes of Health, to study how alcohol consumption during pregnancy alters development of the fetal brain. The award will be used to support a project titled, “Fetal Cerebrovascular eCB System as a Target of Maternal Alcohol Consumption.”

The mechanisms of FASD are poorly understood. Many studies focus on the devastating consequences of maternal drinking on fetal neuronal cells in the brain. In contrast, this collaborative effort between the UTHSC Departments of Pharmacology, Obstetrics and Gynecology, and Comparative Medicine seeks to determine the effects of alcohol fetal cerebral circulation and function of fetal cerebral arteries. Arterial function is crucial, as arteries supply oxygen and nutrients to the developing brain.

“We hypothesize that maternal alcohol consumption alters cerebral artery function in the fetus,” says Dr. Bukiya. “Moreover, we will determine the mechanism of this alcohol effect. We know that our body produces special lipids – endocannabinoids. We think that alcohol may change the amount of endocannabinoids and may also change the way by which endocannabinoids communicate with membrane proteins called ion channels. These are unknown waters. Our exploratory work may open new horizons in understanding the pathophysiology of FASD.”
THOUGHT

Two UTHSC Researchers Make the List of World’s Most Influential Scientific Minds’ Leaders

“NIH study sections have the responsibility for shaping the science not for things you’ll be reading in journals today, but for the things you’ll be reading in journals five or six years from now.”

Dr. Robert Klesges

As chair of the study section, one of several dozen standing sections, Dr. Klesges will play a key role in assuring the quality of the NIH peer review process for grants that total hundreds of millions of dollars annually and involve large-scale community intervention efforts.

As the principal investigator for five NIH-funded studies and one study funded by the Department of Defense, Dr. Klesges is a longtime and well-respected contributor and researcher in the fields of smoking cessation, weight management, cancer prevention in young adults, and health promotion in underserved populations. He has studied tobacco control issues and smoking cessation issues at multiple institutions since the 1980s.

Dr. Klesges has contributed to seven Surgeon General’s Reports on Smoking and Health, including the seminal one in 1988 that concluded that nicotine was as addictive as heroin.

Karen C. Johnson, MD, MPH, professor in the Departments of Preventive Medicine and Medicine in the College of Medicine at UTHSC, Her research focuses on women’s health, obesity, smoking cessation and preventive medicine.

David Nelson, PhD, professor in the Department of Microbiology, Immunology and Biochemistry in the College of Medicine at UTHSC. His research focuses on the evolutionary genomics of the enzyme Cytochrome P450.

“This report reaffirms what we have long known: that the University of Tennessee Health Science Center is home to some of the best researchers and scientists in the world.”

Congressman Steve Cohen

CURRENTLY, asthma and chronic obstructive pulmonary disease (COPD) are treated with drugs that relax airways. These drugs stimulate receptors by using the intracellular messenger, cAMP, which regulates contraction, metabolism, survival, growth, division and many other functions of all cells in the body. This messenger is utilized by a vast array of hormones, neurotransmitters and other signals to alter cell function.

Rennolds Ostrom, PhD, associate professor in the UTHSC Department of Pharmacology, has received a grant totaling $1,136,476 from the National Institute of General Medical Sciences, a subsidiary of the National Institutes of Health. The award will be used to support a project titled, “Molecular Signal Transduction of cAMP Compartments.” Research in Dr. Ostrom’s lab focuses on understanding how this chemical messenger can carry different information based on where in the cell the signal is generated. The research team has found that cAMP can be produced in different locations inside cells and that different hormones can stimulate cAMP signals in some of these locations but not others.

The researchers are also interested in knowing what elements are present inside cells to create these cAMP “compartments” and how these different locations regulate various cell functions. If these elements can be better manipulated to control how the cell responds to a given signal, new drugs can be developed that are safer and more effective for treating asthma and COPD.

“We are grateful to the National Institutes of Health, specifically the National Institute of General Medical Sciences, for funding our efforts to understand cAMP signaling compartmentalization,” said Dr. Ostrom. “This is a fundamental biological process that is likely important in all cells. We believe our efforts can eventually improve not just the treatment of asthma and COPD but also many other diseases, including cardiovascular, renal and neurological disorders.”
Target: TNBC
Battling Breast Cancer

Breast cancer kills more than 45,000 women per year from metastasis to the brain, bones, liver and lungs. Approximately 15 to 20 percent of breast carcinomas are classified as "triple receptor negative" (TN) and TN-subtypes have the worst survival outcome. The major risk factors for triple negative breast cancer (TNBC) include high body mass index, young age at breast cancer diagnosis (33-45 years old), young age of menarche (first menstrual period), lack of breastfeeding and African-American ethnicity. Despite sensitivity to chemotherapy, TNBC has a propensity to metastasize, mainly to the brain and lungs. Unlike other subtypes of breast cancer, there is no targeted therapy for TNBC.

The long-term goal of Dr. Miranda-Carboni and his research team is to develop a targeted therapy for TNBC. "It is our hope that in collaboration with West Cancer Center and Regional One Health, we can develop a treatment against TNBC metastasis in African-American women at high risk for the disease," said Dr. Miranda-Carboni.

Unfortunately, many patients do not survive. While this treatment is essential for survival, mechanical ventilation itself can contribute to additional lung injury and may affect the repair processes. It was recently discovered that a particular substance called CXCL12 is released by injured lung cells, and that CXCL12 is important for the repair of the lungs.

The award will be used to support a project titled, "CXCR4 Signaling in Lung Epithelial Repair."

Dr. Waters and his research team are studying the mechanisms of how CXCL12 binds to its receptor (CXCR4) and promotes lung repair. In addition, they are studying how this repair process is affected by mechanical ventilation. If successful, these studies will provide new information about how lungs repair during mechanical ventilation that could potentially lead to new treatments for ARDS patients.

"ARDS is a devastating disease with very high mortality and limited treatment options," said Dr. Waters. "The mechanisms of repair following injury are still not well understood, and this project from NIH will allow us to examine a new pathway that has not previously been studied in the lungs."

Rewarding Research
Burroughs Wellcome Career Award Goes to Dr. Jeffery Klco

Dr. Jeffery M. Klco, MD, PhD, assistant professor in the Department of Pathology in the UTHSC College of Medicine, has received a Burroughs Wellcome Career Award for Medical Sciences (CAMS). A highly competitive program, CAMS provides $700,000 awards over five years for physician-scientists who are committed to an academic career to bridge advanced postdoctoral/fellowship training and the early years of faculty service. Proposals must be in the area of basic biomedical, disease-oriented or translational research.

Dr. Klco and his team are investigating how disrupting signals in the bone marrow can influence stem cells, which give rise to all the other blood cells of an animal. "This award will allow us to aggressively pursue novel approaches to treating patients with leukemia by understanding how different cell populations can influence the growth and development of the disease," said Dr. Klco. His research team will be located at St. Jude Children’s Research Hospital, where he is an assistant member in the Department of Pathology.
Signal Failure
Associate Professor Ae-Kyung Yi Studying Pathways Leading to Rheumatoid Arthritis

Rheumatoid arthritis is a chronic and crippling autoimmune disease with destructive inflammation in joints that affects one to two percent of the population. Because of the unknown causes and complexity of rheumatoid arthritis, as well as the multiple mechanisms and pathways that are involved in the disease process, there is no cure. Ae-Kyung Yi, PhD, associate professor in the UTHSC Departments of Pediatrics, and Microbiology, Immunology and Biochemistry, has received a grant totaling $1.6 million from the National Institute of Arthritis and Musculoskeletal and Skin Diseases, a subsidiary of the National Institutes of Health. The award will be used to support a project titled, “TLR/IL-1R Signaling Intermediaries and a Target-Specific Therapeutic for Arthritis.”

The long-term objectives of Dr. Yi’s research program are to understand the biochemical mechanisms of signaling pathways involved in innate immune responses, and the contribution of these responses to the development of acute and chronic inflammatory diseases. Her research team is currently investigating the biochemical mechanisms of an enzyme called protein kinase D1 (PKD1) that is involved in the molecular signaling pathways of innate immune cells that play a critical role in the damaging inflammatory processes in arthritic joints.

Previous studies in Dr. Yi’s laboratory identified PKD1 as an essential signaling intermediary in the immune responses that cause inflammation. Recent research efforts by her team, which were made possible by a support from the Arthritis Foundation, suggest that PKD1 is one of the critical factors for development of inflammation in the joints of susceptible individuals, and can be a valuable target for therapeutic intervention. They have shown that the inhibition of PKD1 function in a specific signaling pathway is possible, without affecting other important pathways, and that this inhibition results in much less inflammation in joints and has fewer adverse effects than currently available treatments.

The grant award will be used to further identify the precise mechanism of PKD1 in the inflammation process, develop pathway-specific PKD1 inhibitors as therapeutic agents, and to deliver the agents directly to painful arthritic joints using nanotechnology.

“I am very thrilled about this award because it will not only enable us to define the activation mechanism and unique function of PKD1 in this important signaling pathway, but will establish the mechanisms by which an early signaling event initiates and perpetuates a chronic inflammatory process in joints. It will also provide new insights into how this pathway can be targeted for suppression – providing the opportunity to develop novel and specific therapeutic approaches to rheumatoid arthritis and other complex autoimmune diseases,” said Dr. Yi. “We anticipate that our work will lead to a new therapeutic option for arthritis patients that is more effective and much safer.”

Ae-Kyung Yi, PhD

“We anticipate that our work will lead to a new therapeutic option for arthritis patients that is more effective and much safer.”

Ae-Kyung Yi, PhD

“Modulation of AgRP Neuronal Excitability: Role of Diet and Body Weight.”

Weighty Matters
Using Our Brains to Fight Obesity

Obesity is a major public health problem in the United States, particularly in Memphis and the Mid-South. At present, nearly 70 percent of adults are overweight or obese. Despite increased public health awareness, the obesity epidemic has not improved. The increased prevalence of childhood obesity suggests the problem is likely to worsen in the future.

Kristen O’Connell, PhD, assistant professor in the UTHSC Department of Physiology, has received a grant totaling $1,607,325 from the National Institute of Diabetes and Digestive and Kidney Diseases, a subsidiary of the National Institutes of Health. The award will be used to support a project titled, “Modulation of AgRP Neuronal Excitability: Role of Diet and Body Weight.”

Research has shown that obesity is associated with dramatic changes in the parts of the brain that control appetite. These changes may compound the difficulty that so many people have in losing weight and keeping it off, since the brain is effectively telling them they are hungry, even if there is no reason to be.

The goal of Dr. O’Connell and her team is to identify the changes that high-calorie diets have on the neural circuits that control appetite and food intake. “We hope to better understand the molecular basis of these changes, as well as how quickly they occur and whether they are reversible,” said Dr. O’Connell. “Our results will hopefully lead to better, safer therapies for obesity and appetite control. In addition, we would like to learn how environmental factors, such as diet, influence flexibility in these key areas of the brain that control appetite, and ultimately identify ways to restore appropriate control of hunger and food intake.”

Kristen O’Connell, PhD

“A new study involving a novel compound that can target a specific molecule in fat cells has been found to reduce body weight more effectively than other weight-loss agents,” said Dr. Yi. “Antidepressants may help with exercise and weight loss,” said Dr. Yi. “We anticipate that our work will lead to a new therapeutic option for arthritis patients that is more effective and much safer.”

“You need to control your eating habits,” said Dr. Yi. “Antidepressants may help with exercise and weight loss.”

Kristen O’Connell, PhD
Assistant Professor Miranda Receives $1.6 Million Osteoporosis Research Grant

Osteoporosis is a significant public health concern that affects more than 10 million people in the United States. While women are more likely than men to suffer from osteoporosis, seven percent of men in the United States over age 50 also have the disease.

Susan Miranda, PhD, assistant professor in the UTHSC Department of Orthopedic Surgery, has received a grant totaling $1.6 million from the National Institute of Arthritis and Musculoskeletal and Skin Diseases, a subsidiary of the National Institutes of Health. Her research project titled, “Determining the Mechanism of How GATA4 Directs ERalpha Binding in Osteoblasts,” aims to understand the mechanism of action of estrogens in bone cells, especially focusing on the genes regulated by estrogens in osteoblasts and osteoclasts. Understanding the molecular biology of estrogens in bone is critical to preventing and/or treating osteoporosis.

“I am so energized to be here in Memphis with the support of the university and this new grant,” said Dr. Miranda. “It has been a long process, but now we can press forward with reaching innovative breakthroughs in osteoporosis research.”

Excellence in Research: Dr. Karen C. Johnson Named Endowed Professor in Women’s Health

Karen C. Johnson, MD, MPH, who has brought more than $40 million in research dollars to UTHSC and is the principal investigator on five currently funded research grants or contracts, has been awarded the UTHSC College of Medicine Endowed Professorship in Women’s Health. The professorship, conferred because of her excellence in research, her national reputation and her history as a strong collaborator at UTHSC, is supported by the Kathryn Sullivan Bowld Endowment Fund.

In August, Dr. Johnson, a professor in the Department of Preventive Medicine, was named to the Thomson Reuters list of “The World’s Most Influential Scientific Minds: 2014.” Because of the significant number of articles she has published and the frequency of which they are cited by fellow researchers. (See page 32)

Despite the major financial support and accolades, Dr. Johnson says her motivation remains simple: “I have always loved asking new questions, being creative and trying to figure out how to help people be healthier and live better-quality lives.”

Dr. Johnson is the principal investigator for the UTHSC site of the Women’s Health Initiative, a large, 40-site clinical trial and cohort study of more than 161,000 women that began in 1993 to look at diseases that affect women and how to help them stay healthier. The study, funded by the National Heart, Lung, and Blood Institute (NHLBI) through 2015 and expected to continue to 2020, is best known for its recommendation that menopausal hormone therapy should not be started or continued for the purpose of preventing cardiovascular disease. UTHSC has enrolled more than 4,200 women from Memphis and the surrounding area in the study.

At UTHSC for the Systolic Blood Pressure Intervention Trial (SPRINT) funded by the NHLBI to determine the best blood pressure and the frequency of which they are enrolled in the study, funded by the National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK). Dr. Johnson has played a major role in helping to show that long-term, sustained weight loss is possible for people with diabetes.

For the UTHSC site of the D2d (Vitamin D and Type 2 Diabetes) study at UTHSC. Dr. Johnson is recruiting participants for the study funded by the NIDDK to determine if vitamin D can prevent those at risk of diabetes from getting the disease.

Dr. Johnson joined the UTHSC faculty in 1990, and served four years as interim chair for the Department of Preventive Medicine. She is a past president of the UTHSC Faculty Senate and a past member of the board of trustees for the UT System.

“It is a great honor to be recognized for my work in the area of clinical research, and the endowed professorship gives me the opportunity to continue to do what I love to do,” said Dr. Johnson. “I hope to continue to make an impact.”

Assistant Professor Sakata Receives $375,000 Inflexible Learning Research Grant

Inflexible learning is the inability to change from one course of action to another by learning from a behavioral consequence. It is a common symptom of many psychiatric disorders, including depression and schizophrenia. Inflexible learning limits the effectiveness of cognitive behavioral therapies and patient recovery. The biological mechanisms of inflexible behavior are largely unknown, but one important cause is deficiency in brain-derived neurotrophic factor (BDNF), a major neuronal growth factor in the brain. Kaoko Sakata, PhD, assistant professor in the UTHSC Department of Pharmacology, has received a $375,000 grant from the National Institute of Mental Health, a subsidiary of the National Institutes of Health. The award will be used to support a project titled, “Neural Mechanisms of Inflexible Learning Caused by BDNF Deficiency.”

This project will aim to explain how BDNF deficiency affects neural processing between the hippocampus (the part of the brain that forms memory) and the medial prefrontal cortex (the part of the brain that controls executive function) during flexible learning. “I hope understanding the neural mechanisms will help in developing the diagnostic tool for inflexible behavior and its effective treatment such as brain stimulation, which will help psychiatric patients to improve flexible learning and recover from their symptoms like depression,” said Dr. Sakata.

Assistant Professor Miranda Receives $1.6 Million Osteoporosis Research Grant

“It has been a long process, but now we can press forward with reaching innovative breakthroughs in osteoporosis research.”

Susan Miranda, PhD

“Neural Mechanisms of Inflexible Learning Caused by BDNF Deficiency.”

Kaoko Sakata, PhD

Assistant Professor Sakata Receives $375,000 Inflexible Learning Research Grant

“I am so energized to be here in Memphis with the support of the university and this new grant,” said Dr. Miranda. “It has been a long process, but now we can press forward with reaching innovative breakthroughs in osteoporosis research.”

Susan Miranda, PhD
A committed educational institution is always moving forward. That's why the UTHSC College of Medicine is constantly adapting, re-evaluating itself and exploring better teaching methods. It turns the lens of research on its own educational programs to make them stronger. It builds new curriculum to leave graduates better prepared to serve the health care needs of the community, the state and the nation.

The COM reaches across the state of Tennessee to offer opportunities to a pool of prospective students who didn’t have options before – building bridges that will link all of the major cities in the state through an Orange Network of care teaching hospitals. Our building materials are new partnerships and a commitment to supply much-needed health care providers.

The COM builds health care teams. We search for new and innovative training tools to hone the skills of graduates and prepare them with a firm foundation once they begin their careers. To aid in the preparation of confident, compassionate physicians, UTHSC is constructing a state-of-the-art facility that will equip our health care professionals to succeed in every environment – from a birthing room to a bathroom.

The road to the future of medicine is paved with the decisions we make today. Building curriculum, strengthening connections, forging teams – it’s a journey we’re well prepared to navigate.
A New Perspective

By Peggy Reisser Winburne

As the field of medicine constantly evolves, so must the training for those who practice it. This is a fact that the leaders of the UTHSC College of Medicine wholeheartedly embrace. “It’s our greatest challenge and our greatest opportunity,” says Clint W. Snyder, PhD, MBA, senior associate dean and chair of the new Department of Medical Education for the UTHSC College of Medicine. Snyder, who joined the faculty in October, is in charge of all undergraduate medical education, including curriculum planning, evaluation, and accreditation, along with educational faculty recruitment, development and research efforts.

To meet the challenge/opportunity, the College of Medicine has been updating its education model to equip medical students to practice in today’s health care system. “Historically, the way that we’ve educated our learners has not been competency based. We’d stand at the front of the room and lecture while they’d sit passively and listen, and we’d give them exams to see if they remembered everything that we’d said,” Dr. Snyder explains. “Simply being a content expert is no longer the way that medicine is practiced, and as our graduates go into their fields, they need a very different set of competencies. They need to be able to work as a collaborative part of the health care team.”

Teaching for Today

Over the last several years at UTHSC, traditional lectures and exams have been giving way to “flipped classrooms” that involve more self-guided and online study by students with class time spent in scenario-based learning, evaluation and application of concepts. “We need to help our learners apply information, not just recall it,” Dr. Snyder says. “We need to help our learners know how to find information, not memorize massive amounts of it. That’s very different from the health care education environment that many of our faculty members went through themselves.”

Multi-disciplinary, systems-based teaching has brought basic and clinical science faculty members at UTHSC together at the same time to teach around a concept or organ system. “Increasingly, we’ve seen our faculty come to this idea that there’s no one department that owns any part of the curriculum,” Dr. Snyder says. For example, instructors in biochemistry, physiology and anatomy are coming together with radiologists, internists and pathologists to teach around a core content area or organ system, rather than teaching in series.

By Peggy Reisser Winburne

Flipping Classrooms, Teaching the Core and Teaming Up

Clint W. Snyder, PhD, MBA, senior associate dean and chair of the new Department of Medical Education for the UTHSC College of Medicine
LEARNING is facilitated when it’s presented in a relevant way that’s similar to the way information is used,” says Stephen Nace, MD, FACP, associate professor of Medicine and assistant dean for Curriculum Integration at UTHSC. “Accrediting bodies have been encouraging transition to integrated curriculums.”

The old two-plus-two model gave students two years of basic science followed by two years of clinical science. “With integrated education, you learn the clinical relevance of a process or disease at the same time you learn the basic science,” Dr. Nace says. “It’s bringing clinical relevance into basic science instruction, so even M1 and M2 students learn clinical application.”

He credits former Associate Dean for Medical Education Robert Shreve, EdD, with being a leader in the move to integrate the medical curriculum at UTHSC. Dr. Shreve retired late last year after the College of Medicine was reaccredited for a maximum eight-year term by the Liaison Committee on Medical Education (LCME). Accreditation by the LCME signifies that national standards for structure, function and performance are met by a medical school’s education program.

Team-based learning, started several years ago at UTHSC, also helps students to learn necessary collaborative problem solving within groups, Dr. Nace says. Pat Ryan, PhD, assistant dean for the Basic Science Curriculum and associate professor in the Departments of Medical Education, and Microbiology, Immunology and Biochemistry, was the faculty accreditation lead for the College of Medicine.

Dr. Ryan says this continuing evolution in teaching contributed to the reaccreditation. “As for key changes, we made two significant ones,” he says. “First, we moved away from department-based courses that resulted in discipline ‘silos’ to a more integrated approach that uses organ systems as a basis for much of the instruction in the first two years. This is not a new idea, but we were using a very traditional model prior to the curriculum revision. The integrated approach facilitates contextual learning by the students and hastens clinical application of basic science tenets.”

Another key change is increasing the amount of engaged, active learning that students experience in the classroom. “One approach was the adoption of team-based learning as one delivery method,” Dr. Ryan says. “Active learning is a point of emphasis by the LCME because it pushes students to learn how to be lifelong learners, obviously a necessary skill for physicians.”

As Dr. Snyder says, “We’ve been doing well here. But, I think that integration can be even stronger.”

Along with the changes in teaching come changes in testing, which is becoming less about recall and regurgitation of facts and more about testing students in ways similar to how they will be tested in practice. Emphasis in testing is placed on assessing skills, at synthesizing information and solving problems collaboratively.

The Robert J. Kaplan Clinical Skills Center on campus is key to this new approach to teaching and testing. Through simulation with standardized patients, students are taught interview skills, communication with patients and team members, and diagnostic skills. They get feedback from instructors based on their performance. Construction will begin soon on a $241 million Multi-Disciplinary Simulation building, which will provide more opportunities for scenario-based training of students.

Expanded use of virtual simulation and educational gamification are also providing educators with additional tools to engage students in meaningful ways. Dr. Nace, who will be leading the introduction of new educational technologies in the medical school curriculum, believes these tools hold the potential to greatly enhance the training of physicians.

Dr. Snyder also sees a teaching opportunity in the community. Training medical students first as patient navigators and later to help solve within groups, Dr. Nace says. “It’s an exciting time here at the College of Medicine, and we expect it to greatly enhance the training of physicians.”

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Planning for the Future

The new Department of Medical Education, formed in 2013, was a major step in the evolution of education in the UTHSC College of Medicine. “The creation of that department really shows the importance of education as one of our core missions,” says Dr. Nace, who served as the interim chair until Dr. Snyder was appointed.

The department reflects a dedication to developing educators and encouraging educational research and publishing. It also recognizes the accomplishments of faculty members as educators.

“Faculty development, the opportunity to improve our skills as faculty members, is vital. Whether it be around our teaching, our assessment, our research, our leadership, we as faculty spend so much of our time educating and training others that oftentimes our own developmental needs go by the wayside,” Dr. Snyder says. “I think development is frankly the least we can do for a group of faculty who have shown such commitment to educating our learners.”

The department is also moving to better map and manage its changing curriculum to ensure it is meeting content goals and objectives.

As the educational mission of the College of Medicine morphs, Dr. Snyder sees UTHSC alumni as “a huge and valuable resource” for the future. He encourages alumni support in providing clinical experiences, mentoring and advice to students.

“It’s an exciting time here at the College of Medicine, and we need them to help us move our education to the next level,” he says.
The Nashville expansion will enable UTHSC to enroll more aspiring physicians, boosting its number of medical residents and fellows statewide from about 1,200 to 1,500 within two or three years. The new campus will also give UTHSC a significant presence in the state capital.

The new residency program builds on an already existing relationship. College of Medicine physicians have been training at STH through a limited residency plan for over 30 years, but recently that relationship has expanded, with the number of residents at Saint Thomas Health hospitals expected to increase from about 32 to about 200 over the next three years. Physician residents will train in five fields: family medicine, internal medicine, emergency medicine, general surgery and OB/GYN.

The Family Medicine Residency Program received its initial accreditation in January 2014. The program is based out of Saint Thomas Rutherford Hospital, a new 286-bed hospital facility in Murfreesboro. Residents will also work in a newly renovated 16,000 square-foot clinic. In an effort to provide a broad spectrum of experiences, residents will have the opportunity to work with a variety of specialists within the local community. This opportunity provides a diverse patient population that will be seen 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, 90 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 begins 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 will begin recruiting its first year of residents in July 2016. Based primarily at Saint Thomas Midtown Hospital, residents will be 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.

The new campus should be a boon to the Nashville health care community. "Most who train in the area stay in the area," Jessica Wells says. "The training now provides an opportunity to utilize excellent clinical care to train the next generation of health professionals for our community." But while UTHSC branches into Nashville, it still remains firmly rooted in Memphis, which has been home to the University of Tennessee’s medical school since 1911. "In fact, it increases our reach and makes us stronger both in Memphis and statewide," says Ken Brown, JD, MPA, PhD, FACHE, UTHSC executive vice chancellor and chief operations officer.

Medical residents who will be trained in Nashville will still begin their studies in Memphis, which will remain the primary UTHSC campus, and the expansion will not diminish the resources invested in the flagship Memphis campus, which is currently undergoing a $380 million expansion and renovation project.

Dr. Mangiante expects the residency program to expand. "In the future, we plan on growing it. There are other areas where Saint Thomas has a real plethora of clinical material and subspecialties." The new campus should be a boon to the Nashville health care community. "Most who train in the area stay in the area," Jessica Wells says. "The training now provides an opportunity to utilize excellent clinical care to train the next generation of health professionals for our community." But while UTHSC branches into Nashville, it still remains firmly rooted in Memphis, which has been home to the University of Tennessee’s medical school since 1911. "In fact, it increases our reach and makes us stronger both in Memphis and statewide," says Ken Brown, JD, MPA, PhD, FACHE, UTHSC executive vice chancellor and chief operations officer.

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The estimated construction cost of the new Nashville campus is $40 million. There would be space for full-time and adjunct faculty and administrative and classroom space.

While the training program will initially serve aspiring physicians, it will eventually serve dentists, nurses, pharmacists and other health providers as well. Steve J. Schwab, MD, chancellor of the University of Tennessee Health Science Center, says, "We anticipate constructing a six- to eight-story, 120,000- to 150,000-square-foot building for academic space to support programs from all six UTHSC colleges."

"We will also be expanding clinical opportunities for our other colleges at UTHSC," says Chancellor Schwab. "This will position us to have major clinical health care training positions throughout the state – in Memphis, Knoxville, Chattanooga and Nashville."

The Aging Population and the Affordable Care Act have increased the demand for physicians nationwide, and according to experts with the Association of American Medical Colleges, the United States will face a shortage of more than 130,600 physicians by 2025. Expanding enrollment at medical schools is one way to mitigate the problem.

Steve J. Schwab, MD, UTHSC chancellor says, "It just became the right time and the right place to really take a good look at our partners and how we can grow together."

The Right Time and the Right Place

Jessica Wells, MS, vice president for medical education and research for Saint Thomas Health and assistant dean for graduate medical education at UTHSC, says, "It just became the right time and the right place to really take a good look at our partners and how we can grow together."

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Team Building

The future of health care education is emerging in the heart of the UTHSC campus. When the new $24.1 million, 45,000-square-foot Multi-Disciplinary Simulation Building, going up in the footprint of the obsolete Feurt Pharmacy Research Building at 26 S. Dunlap Street, is finished in the summer of 2016, UTHSC will stand at the forefront of interprofessional education alongside other comprehensive academic health science centers of its size across the country and beyond.

“All of our health professions are looking for more active ways of engaging their students in general. Students are expecting more hands-on work, and they are doing a lot more team-based learning,” says Alicia Dorsey, PhD, associate vice chancellor, Academic Affairs, and campus liaison with the designers of the simulation building.

“It is expected that students have the opportunity to train in simulation environments,” Dr. Dorsey says. “It used to be a luxury, a unique feature of a program. Now it’s expected.”

The new three-story building provides more room for state-of-the-art simulation training within professions and in teams, bringing together students in various professions. It also consolidates the training mainly under one roof, instead of across campus as it is now.

“There’s a fair amount of evidence that suggests that with students who are trained in simulation centers before they go out and actually are in the health workforce, there is a higher level of confidence as they’re interacting with patients, higher patient safety, and higher quality of care because they have practiced in a safe, simulated environment repeatedly,” Dr. Dorsey said. “So when they actually are faced in a real setting with some of the things they trained on, it’s not the first time they’ve seen it.”

The new building is designed by brcg3s architects of Memphis, which has done new design and redesign work on a number of buildings on the UTHSC campus. Oregon-based SimHealth Group, an internationally known and highly skilled consulting firm that has designed simulation centers all over the world, has also been engaged to guide the campus leadership team and steering committee on design, curriculum, implementation and faculty development to maximize the space and use of the building.

The new building “brings us really up to date,” says George Masih, MD, clinical director of Interprofessional Education and Clinical Simulation and an assistant dean of Student Affairs in the UTHSC College of Medicine. It expands and
enhances current simulated training capabilities available in the Kaplan Clinical Skills Center and the Interprofessional Education and Clinical Simulation Center (IPECS) on campus. It will be a major attraction in recruiting the best and brightest students and residents in the future, he said.

Step Inside
The first floor of the building will host fundamental skills-training opportunities. Two skills rooms, each with 12 hospital beds around the outside of the room and a training table in the center, will provide an environment to learn, practice and test basic exam and clinical skills. This floor will also have large, multi-purpose training rooms, and a home environment with a kitchen area, living room and bathroom to facilitate training for anyone who will be visiting a home to provide patient care.

The second floor will house specialized environments, including simulated hospital rooms, a neonatal intensive care unit, a birthing suite and an operating room, all of which are designed to be flexible enough to be configured as needs dictate.

The third floor will have a community pharmacy area and 24 outpatient clinical rooms.

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All three floors have debriefing rooms where instructors can critique student performance, small group rooms and team training for physicians and staff members at partner hospitals.

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The second floor will house specialized environments, including simulated hospital rooms, a neonatal intensive care unit, a birthing suite and an operating room, all of which are designed to be flexible enough to be configured as needs dictate.

The third floor will have a community pharmacy area and 24 outpatient clinical rooms.

All three floors have debriefing rooms where instructors can critique student performance, small group rooms and team training for physicians and staff members at partner hospitals.

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“All of our health professions are looking for more active ways of engaging their students in general. Students are expecting more hands-on work and they are doing a lot more team-based learning.”
Alicia Dorsey, PhD, associate vice chancellor, Academic Affairs

Looking Ahead
The facility is also being designed to accommodate continuing education for existing health professionals, to serve as a resource for the residency programs affiliated with the College of Medicine, and for team training for physicians and staff members at partner hospitals.

“This is a very exciting time on this campus, and it’s not just because we’re building this new building,” Dr. Dorsey says. “There are incredible efforts that are going on in terms of developing and revising the curriculum of most of our health professional programs as they are doing more and more to integrate simulation across their curriculum.”
Christopher L. Mathis, MD ’89
Hometown: Brownsville, Tennessee
Family: Wife Linda, dog Shelby, cat Ponce
Education background: BS ’85, University of Tennessee; MD ’89, UTHSC; pediatrics residency ’92, Le Bonheur Children’s Hospital
Specialty: Board certified in Pediatrics
Hobby: Triathlons. I am proud to have finished Ironman Cabo San Lucas in 2013 and Ironman Chattanooga in 2014.
What is your favorite memory as a UT student?
Football games at Neyland Stadium
Why did you select UTHSC COM?
My uncle, Dr. Shane Roy, attended and taught school there. He is the reason I became a physician!
What are some of the highlights of your professional career?
Hospitalist at Le Bonheur, 1993; Le Bonheur Urgent Care Center, 1994-1997; Pediatric Consultants PLLC, 1997-present
How have you volunteered?
I have enjoyed mentoring and teaching many medical students and residents at both our office and on hospital rounds.
What is your advice to other UT Alumni about getting involved?
I encourage all physicians to become involved in student and resident education. This keeps us connected to the next generation and allows us to pay back those who were our mentors.
Alvin Crawford, MD ‘64, with Dean David Stern. Dr. Crawford, the first black graduate from the College of Medicine, was honored as a Golden Graduate at this year’s homecoming events.

Class of June 1964
(standing, left to right) Warren Patterson, Charles Arkin, Robert Buchalter, Alvin Crawford, James Shore, Don LaFont
(sitting, left to right) William Foster, James Humphreys, Anne Utley, James Upshaw, Jesse Woodall

Class of March 1964
(left to right) Gerard Billmeier, Edwin Curtis, Thad Connally, David Gav, Herbert Dodge

Class of September 1964
(standing, left to right) William Davis, Jim Pinckley, James Reynolds, James Smith, Doug Wilson
(sitting, left to right) John Holder, Kenneth Brown, O. Raymond Lowry, James Owen

Class of December 1964
(standing, left to right) Dwight Wade, William Morris, Chris McEwan, Richard Cheek, Henry Spangler, Louis Hauri, Randy Nelms, Harry Friedman
(sitting, left to right) Allen Hughes, Kathey Lee Plenge, Jennifer Johnson, Martha Stephens, Louis Carter, Ray Sexton

Lifelong Friendship Between Golden Graduates in the Spotlight

Among this year’s returning alumni was Alvin Crawford, MD ‘64, the first black graduate of the College of Medicine. Crawford is co-director of the Crawford Spine Center at Cincinnati Children’s Hospital and professor emeritus at the University of Cincinnati College of Medicine.

He was joined at the homecoming festivities by lifelong friend and former hallmate Doug Wilson, MD ‘64. The two formed a friendship during their time in Memphis that endured the challenges of medical school and residencies, military service, accomplished careers, growing families, long distances and civil rights struggles.

They met as Wilson was searching for an externship that would allow him to live on campus. He applied at E.H. Crump Hospital and was eventually offered a position by Crawford who showed up in one of Wilson’s classes to discuss the job.

The two agree the encounter launched a friendship, not between two people of different races, but between two young men with common goals. They lived down the hall from one another, studied together, helped one another, and struggled and succeeded together.

“We were both interested in making it through medical school,” Crawford said. Both Memphis natives, they faced similar challenges with finances and, of course, the unrelenting demands on medical students. Their relationship strengthened, and after more than 53 years, it shows no signs of slowing.

“I knew by the time we graduated that he would be my friend forever,” Wilson said.

During the Golden Graduate events, the two had a chance to share their story of friendship through two Memphis media outlets, WHBQ-TV (Fox 13) and the Tri-State Defender.
Check Your Inbox in the Coming Months for Details!

Peabody Hotel – Memphis, TN

Save the Dates!

Join your fellow alumni in Memphis to reminisce about your days in school and learn about the exciting things happening in the College of Medicine and on the Health Science Center campus. Whether you are looking for continuing medical education courses, opportunities to interact with current students or the chance to catch up with old friends, Medicine Alumni Weekend is the event for you!

Don’t miss this opportunity to celebrate the accomplishments of your fellow alumni!

Things to Do:

• Outstanding Alumni Awards Dinner
• CME Program Topic: Pediatric & Adult Obesity
• UT Health Science Center Campus Tour
• NEW EVENT: Class Social & Recognition Dinner
• Reunion activities for the classes of 1975, 1985, 1990, 1995 and 2005

Should you have any questions or if you are interested in chairing your class reunion, contact Kristin Attaway at (901) 448-8580 or kattaway@utfi.org. The UT Health Science Center Office of Development & Alumni Affairs hopes you will make every effort to join us in Memphis in September for this Grand Celebration.

Check Your Inbox in the Coming Months for Details!

A Marriage Made in Med School

The May 25, 2014 wedding of Suzanne Brown, MD (COM ‘11) and Paul Bryant, MD (COM ‘11) became a not-so-mini-reunion.

You’re Invited to

GOLDEN GRADUATE HOMECOMING

OCTOBER 14-16, 2015
MEMPHIS, TN

HONORING GRADUATES OF 1965 FROM ALL SIX UTHSC COLLEGES
Thank You for Your Membership in the 1911 Society

The UT Health Science Center Office of Development and Alumni Affairs is pleased to record a successful inaugural year for the 1911 Society. The society recognizes annual supporters of the College of Medicine, who are critical to our mission of educating some of the best minds, conducting innovative research, and improving health. The listing is available through the 1911 Society members link at uthscalumni.com/1911.

The gifts we receive go a long way toward helping our students, faculty, programs, and facilities. To each of you who has given, thank you,” said Randy Farmer, vice chancellor for Development and Alumni Affairs.

“From recent graduates to alumni, friends, faculty, and staff, we are honored to extend 1911 Society membership to our annual donors,” Farmer added. Named for the year of the Health Science Center’s founding, the 1911 Society recognizes and celebrates total giving by donors who make their gifts between July 1 and June 30 each year. Membership levels are based on total contributions during the year to any college, program or fund at UTHSC. Gifts can be renewed annually to retain membership.

“Private donors to our campus are the leaders of our past, present and future,” Farmer said. “Members of the 1911 Society demonstrate an extraordinary level of interest, involvement, and dedication through their generous financial support.”

Your loyalty matters to us, to our students, and to you. For more information on how to make a gift and become a member of the 1911 Society, please contact the Office of Development and Alumni Affairs at (901) 448-5516 or visit online at uthscalumni.com/1911.

1911 Society Benefits

<table>
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<th>Membership</th>
<th>Milestone</th>
<th>Visionary</th>
<th>Dean’s Alliance</th>
<th>Chancellor’s Circle</th>
<th>Patron</th>
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1911 Society Decal
FY13 and FY14 members are identified as Charter Members

Recognition in annual Roll of Honor
College and campus publications

Communication from UTHSC Students
Email, letter and/or postcard contact

Communication from UTHSC Dean
New year correspondence, update after board meetings

Special Invitations to Campus Events

1911 Society Lapel Pin

Annual VIP Communication from the Chancellor

Special Recognition at Events
Note on rosters, note on name tags, recognized from the podium when possible

The College of Medicine Needs Your Support!

Would you like to find a way to give back to the College of Medicine? Did you receive scholarship support while attending UTHSC and would like to now offer support for future students? Would you like to honor a past mentor or professor? Do you want to see the UTHSC College of Medicine reach new heights in educating medical students, conducting research, and caring for patients in Tennessee and beyond?

If you answered yes to any of these questions, please consider making a gift today. Donations from alumni, residents, past trainees and fellows, former and current parents, community advocates, corporations and foundations, and friends new and old of the College of Medicine are one of the key drivers in making the college exceptional. There are countless areas at the UTHSC College of Medicine that can benefit from your support, including student scholarships, research, departmental-based support, or funding entirely new initiatives. There are so many ways to contribute too – one-time gifts or multiple-year pledges, RA designations, simple bequests, and more. We can help you find the best way for you to contribute to the College of Medicine.

Please contact Zach M. Pretzer, CFRE, Director of Development for the College of Medicine, at (901) 448-4975 or via email at zpretzer@uthsc.edu to learn more about how to donate to the College of Medicine.

Below are examples of some of the College of Medicine’s minimum endowment levels. The minimum amount required to name and endow a fund is $25,000. Gifts can be pledged up to a period of five years. For example, five annual gifts of $5,000 would name/endorse a $25,000 fund, such as a student scholarship, at the end of year five.

CHAIR – $2,000,000 or more

Provides substantial salary support for a College of Medicine faculty member and their related research, library, and travel expenses.

The dean, or the appropriate academic officer, determines specific criteria with approval of the chancellor.

PROFESSORSHIP – $1,500,000 or more

Provides a salary supplement and/or related research, library, and travel expenses. The dean of the College of Medicine, or the appropriate academic officer, determines specific criteria with approval of the chancellor.

DISTINGUISHED VISITING PROFESSORSHIP – $60,000 or more

Provides honorarium and travel expenses for a lecture by a noted scholar.

FACULTY DEVELOPMENT FUND – $50,000 or more

Supports College of Medicine faculty in developing their careers through study, research, travel and professional activities.

SCHOLARSHIP – $25,000 or more

Creates an endowed scholarship fund for the College of Medicine that will benefit current or entering students in need and/or to reward outstanding academic performance.

RESEARCH AND DEVELOPMENT FUND – $100,000 or more

Supports research in the field designated by the donor.

LABORATORY – $75,000 or more

Provides naming rights for an available laboratory space.

LECTURESHIP – $60,000 or more

Provides honorarium and travel expenses for a lecture by a noted scholar.

MINIMUM ENDOWMENT – $25,000 or more

Any of these opportunities may be provided in one payment or be built to this level over a five-year period. All endowment gifts may include naming rights as well.

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The College of Medicine held its annual Parents Appreciation Day Friday, Aug. 15, 2014, beginning with a continental breakfast in the Student-Alumni Center and ending with a White Coat Ceremony at Mississippi Boulevard Christian Church.

The keynote speaker for the Class of 2018 was Robert Kaplan, MD, a longtime UTHSC patron whose support has been transformational for the campus.

Two UTHSC Faculty Members are 2014 Methodist Healthcare Foundation Living Awards Recipients

James H. Beaty, MD
Innovation in Faith and Health – Physician
Recognized regionally, nationally and internationally as a leading pediatric orthopedic surgeon, Dr. Jim Beaty has greatly improved his specialty as well as given Le Bonheur Children’s Hospital a spotlight on the world stage.

Dr. Beaty is currently a professor of Orthopedics and chief of staff at the University of Tennessee - Campbell Clinic Department of Orthopedics. He authored or edited eight textbooks, presented hundreds of lectures, provided training to future generations of orthopedic surgeons, and has been an integral part of Campbell Clinic and Le Bonheur Children’s Hospital for 32 years.

William E. Routt Jr., MD
Inspiration in Faith and Health – Physician
Best defined by his Christian beliefs, his family, his friends and his work, Dr. Bill Routt has been a true friend and supporter of Methodist Le Bonheur Healthcare since his employment with Memphis Radiological, P.C. (MRPC) in 1982. Dr. Routt graduated from Mississippi State University and UTHSC. Since then, he has served MRPC as chief of staff, chair of the Informatics Committee and chair of the Medical Records Committee. He still serves as an associate chair of the Department of Radiology at UTHSC. At MRPC, Dr. Routt has worked with and trained numerous radiology residents.

The Living Awards recognize individuals or organizations that have distinguished themselves by their leadership and commitment to the healing mission of Methodist Le Bonheur Healthcare and to those whose faith-based initiatives have had a profound impact on health care locally, nationally and globally.

Jonathan Wall, PhD, Awarded New Patent

A new patent was issued by the U.S. Patent and Trademark Office to Jonathan Wall, PhD, director of the Preclinical Diagnostic and Molecular Imaging Laboratory in Knoxville, and his collaborators for methods to treat patients with light chain amyloidosis using antibodies. A Phase I clinical trial is in progress at seven sites within the United States.

Dr. Russell Chesney Co-authors NEJM Article about RIVUR Study

Le Bonheur Children’s Hospital nephrologist Russell Chesney, MD, is co-author of a recent New England Journal of Medicine article showing long-term antimicrobial prophylaxis can significantly reduce the risk of recurrent urinary tract infections in children with vesicoureteral reflex. The results were published as part of the primary outcome paper for the Randomized Intervention for Children with Vesicoureteral Reflux (RIVUR) trial. The RIVUR study is funded by the National Institutes of Health.

Dr. Chesney serves as study chair and sits on the executive committee for the two-year, 19-site study, which enrolled more than 600 children with vesicoureteral reflux to study the effects of long-term antimicrobial prophylaxis. Dr. Chesney is the former chair of the UTHSC Department of Pediatrics. He retired as chair in 2012, but continues to see patients at Le Bonheur Children’s Hospital.

Dr. Larry Reiter Recognized for Work with Neurons

Lawrence T. Reiter, PhD, professor in UTHSC’s Department of Neurology, adjunct associate professor in the Department of Pediatrics, adjunct associate professor in the Department of Anatomy and Neurobiology, and director of the Drosophila Transgenic Core, was featured in the newsletter of the Simons Foundation Autism Research Initiative (SFARI) earlier this year. He had presented preliminary data from this work at a conference in Boston hosted by the Dup15q Alliance and the Angelman Syndrome Foundation. He and his team are using neurons grown from dental pulp to study these disorders, both of which are the result of changes to the 15q11.2-q13 chromosomal region, as well as many others, such as Smith-Magenis syndrome and Prader-Willi syndrome.

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Students

Student-2-Student
UTHSC Medical Students are Going Back to High School to Help Make Shelby County Teens Healthier

Some of the more than 10 Student-2-Student Memphis members, medical students who have volunteered to teach Shelby County high school students about sexually transmitted infections.

Eighty-five first- through fourth-year medical students are participating in the Student-2-Student Memphis Program developed at UTHSC. The program designed by UTHSC medical students takes information about sexually transmitted infections (STIs) into high school classrooms in the Shelby County Schools system, offers the teens an opportunity to ask questions and develop communication strategies to navigate difficult situations involving reproductive health, and distributes information about community resources for testing and treatment. A major goal is to help reduce the rate of STIs among teens in Memphis and Shelby County.

“People are really fired up about this program,” said Liz Anderson, an M2 and president of Student-2-Student Memphis. “Education is so important in trying to prevent disease.”

According to the Centers for Disease Control and Prevention, there are approximately 19 million new cases of STIs each year in the United States. Nearly half occur in people ages 15-24.

“We hope on a county level, we are going to help bring down rates,” Anderson said. Since September, the medical students, all volunteers, have been to nine schools and taught the one-to-one, 56-minute sessions in 24 classrooms. Two specially trained medical students teach each class, and boys and girls are separated during the sessions.

“We believe we are in a unique position because we’re students ourselves,” Anderson said. “Since we’re closer to their age, they feel it’s a safe space to talk to us. At the same time, we’re sure the program fits local needs and follows state law. Roger Young, MD, PhD, professor of Obstetrics and Gynecology at UTHSC, is the advisor.

According to the Tennessee Health Department, Shelby County had the highest rate of reported STIs in the state—10.8 cases per 100,000 people—which is higher than the national rate of 9.5. The county’s rate among those ages 15-24 is 37.9, well above the national rate of 12.6. The county’s high rates are among the highest in the state.

“Education provides the opportunity to go out into the community and talk with kids about why they should not start smoking or use tobacco products.”

Tar Wars is a school-based, tobacco-free education program for fourth and fifth graders. Developed by the American Academy of Family Physicians in 1988, Tar Wars is supported by the Tennessee Academy of Family Physicians. The program gets children thinking and talking about the short-term effects and image-based consequences of tobacco use. It explains how the tobacco industry specifically targets kids in advertising and other media. The program also highlights the costs of using tobacco products.

According to TarWars.org, the tobacco industry spends about $8 billion per year—a more than $24 million every day—to promote its products. Much of that marketing directly reaches and influences kids. Each day, about 3,500 children in the United States will smoke their first cigarette. Another 1,000 will become regular daily smokers.

Tar Wars is designed to stop kids from starting. “The participants get excited about their health using interactive classroom exercises, and often later talk with their parents about what they learned,” said Dr. Choby. “The medical and pharmacy students get the benefit of learning about life past the classroom, plus it’s fun for all involved. If Tar Wars can prevent one young person from starting a tobacco habit—and possibly get one parent or loved one to think about quitting—it is time well spent.”

### Academic Credentials

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### Average MCAT

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### Tuition & Fees (2013-14)

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### Undergraduate Schools Attended by New Enrollees

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### Academic Credentials

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<td>100% had baccalaureate degree.</td>
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IPECS: Mastering the Mega Code

The mega code is utilized when an unresponsive patient goes into a cardiac pulmonary arrest, also known as a heart attack. This is a code that is often practiced in the Interprofessional Education and Clinical Simulation Center (IPECS). “In the IPECS Center, the overall goal of all interprofessional simulation experiences is for multidisciplinary groups to be able to come together and learn about and from each other in replicated patient scenarios,” says Teresa Britt, MSN, RN, director of IPECS. “By learning in this simulated environment, there is no risk to actual patients and the students can ask questions, practice the situation multiple times, learn about each of their respective roles and get feedback to improve their performance—all very valuable to their health care education.”

This past summer, nursing, medicine and pharmacy students gathered to participate in a “mega code” simulation, and afterwards and learn about and from each other in replicated patient scenarios,” says Teresa Britt, MSN, RN, director of IPECS. “By learning in this simulated environment, there is no risk to actual patients and the students can ask questions, practice the situation multiple times, learn about each of their respective roles and get feedback to improve their performance—all very valuable to their health care education.”

This past summer, nursing, medicine and pharmacy students gathered to participate in a “mega code” simulation, and afterwards reflected on the experience.

Kathryn Qualis is a student in the College of Pharmacy.

• How did you feel before going into the simulations?
• What did you feel they were going to be like?
• How did this concept of team building prepare you for the future?

Dr. Joseph A. Smith Jr. Named Editor for The Journal of Urology

Joseph A. Smith Jr., MD, of Vanderbilt University Medical Center, has been selected by the American Urological Association (AUA) Board of Directors as the new editor of The Journal of Urology, the official journal of the AUA, and the most widely read and highly cited journal in the field. Dr. Smith will assume his new role on July 1, 2015.

Dr. Smith received his medical degree from UTCHC. He is a member of several medical associations and societies, including the American Medical Association, American Board of Urology, Southeastern Section of the AUA, Society of Urologic Oncology, American Society of Clinical Oncology, International Society for Laser Surgery, American Association of Genitourinary Surgeons, American Association of Clinical Urologists, Société Internationale d’Urologie and Society of Urology University.

Amber Ridley is a student in the College of Nursing.

• How did you feel before going into the simulations?
• What did you feel they were going to be like?
• How did this concept of team building prepare you for the future?

Dr. James E. Calloway Jr. Honored as MAFP Family Physician of the Year

The Mississippi Academy of Family Physicians (MAFP) announced James Everett Calloway Jr., MD, as the 2014 MAFP Family Physician of the Year at the annual MAFP Scientific Assembly.

Dr. Calloway is a graduate of UTCHC, where he also was a member of Alpha Omega Alpha Honorary Medical Fraternity. He participated in the V-12 Navy College Training Program while in medical school and then went on to complete an internship at John Gaston Hospital in Memphis.

Each year, the MAFP Family Physician of the Year award is presented to the physician contributing the most to the development of Family Medicine in Mississippi. It is known as the John B. Howell Memorial Award and was established in memory of Dr. Howell, a pioneer in the practice of Family Medicine and longtime delegate to the American Academy of Family Physicians.

Jason Williams, MD has joined the staff of Memphis Obstetrics & Gynecological Association, PC, where he will specialize in general obstetrical care, infertility, pelvic disorders, and prevention and treatment of diseases such as breast and cervical cancer. Dr. Williams graduated from and completed his residency at UTCHC.

John Woods, MD, has joined Ranch Treatment Center in Tennessee as staff physician. Double board certified in internal medicine and addiction medicine, Dr. Woods has been in private practice in internal medicine in Jackson, Tennessee, for nearly 20 years. Dr. Woods earned his MD at the UTCHC College of Medicine.

Omar L. Hamada, MD, has been appointed Director of Emergency Medicine at Maury Regional Medical Center in Columbia, Tenn. Dr. Hamada, a specialist in family medicine and obstetrics and gynecology, received his medical degree and completed his residency in family medicine and obstetrics and gynecology at UTCHC.

Marvin T. Miller, MD, a UTCHC College of Medicine alumnus, has joined the Jackson Clinic in their hospitalist department.

The Jackson Clinic is a multi-specialty group practice of more than 130 physicians in 25 specialties and subspecialties.

Koryn Keeling-Johnson, MD, has announced the opening of Houston SouthCentral and Rectal Clinic in the Sugar Land, Texas, area. Dr. Keeling-Johnson earned an MD at UTCHC in 2003.

Gene H. Stollerman, MD, passed away in Hanover, New Hampshire, on August 1, 2014, at the age of 93. Dr. Stollerman’s remarkable career spanned much of the 20th century and into the 21st century. He graduated from Dartmouth College in 1941 and received his MD from Columbia University. As director of NYU’s Irvington House for Children with Heart Disease, he received national recognition for his research on the use of penicillin for the prevention of rheumatic fever, leading to an endowed professorship at Northwestern University, Chicago, for research in rheumatic, immunologic and infectious diseases. In 1964 he became chairman of the Department of Medicine at UT, where he became a national leader in infectious diseases, clinical research and preventive medicine. He retired in 1981 to accept a professorship at the Boston University Medical Center, and in 1986 he was appointed Distinguished Physician of the Department of Veterans Affairs. Accepting his appointment in 1988, he retired to Hanover, N.H., where he continued to edit journals, write and teach. Dr. Stollerman served on the Councils of the National Institutes of Health, the Center for Disease Control, the Food and Drug Administration, the world Health Organization’s Expert Committees, and other national and international organizations. He has served as president of the Association of Professors of Medicine, president of the Central Society for Clinical Research, on the Executive Committee of the American Board of Internal Medicine, as master, regent and vice president of the American College of Physicians, as master of the American College of Rheumatology, and as a founder of the Infectious Disease Society of America. Among his awards are: the Bruce Medal for Preventive Medicine from the American College of Physicians, The Thais Award from the American Geriatrics Society, the Bicentennial Medal in Internal Medicine from Columbia University, the Jacobs Distinguished Alumnus Medal from Mt. Sinai Medical School, the Memorial Award of the Infectious Disease Society of America and the Maimonides Award from the State of Israel. The Gene H. Stollerman Chair in Medicine has been endowed by his former students at UTCHC. He served as editor of Advances in Internal Medicine for 25 years, of the American Journal of Geriatrics for six years, and for over 25 years, as editor of Hospital Practice. He is the author of more than 200 research publications, and many textbook chapters, articles, books and monographs. You can read more about Dr. Stollerman’s life and career in his memoir, “Medicine, a Love Story: The 20th Century Odyssey of an American Professor of Medicine.”
In Memoriam

A World War II veteran, he practiced Medicine Society, an honorary member of the Alys H. Lipscomb, MD, of Germantown, eventually joined his father in practice and served as the tuberculosis specialist for the Memphis Medical Association, an outstanding Alumnus at UTHSC.

John Charles Larkin Jr., MD, of Germantown, Tenn., died April 25, 2014. A World War II veteran, he practiced pulmonary medicine with the Memphis Veterans Administration Hospital and served as the tuberculosis specialist for the West Tennessee Health Department.

He was named a Fellow of the International Anesthesia Group in Memphis. Schettler was an active community volunteer well known for those who needed care.

Robert B. Whittle, MD, of Knoxville, Tenn., passed away in Sept. 2014. A veteran of the U.S. Navy, he practiced in Knoxville, served as chief of staff at Baptist Medical Center, worked at Interfaith Health Clinic, and the Volunteers In Medicine Clinic in Hilton Head, South Carolina. He was inducted into the National Golden Gloves Hall of Fame for his work as a physician and was a member of the Knoxville Sports Hall of Fame.

Melton Price Meck, MD, of Lawton, Okla., died April 16, 2014. After completing a number of residencies and serving in numerous medical roles in the U.S. Army, he practiced in Lawton for 34 years. He was instrumental in planning the first local polioymieux immunization drive and the founding of the local children’s shelter. He was highly involved in a large number of local, regional and national professional organizations.

William W. Wilder, MD, of Germantown, Tenn., died June 8, 2014. A World War II veteran, he spent the majority of his career in general medicine and ophthalmology in the Memphis area.

Rae W. Froehlich, MD, of Austin, Texas, passed away.

Robert E. Maddox, MD, of Nashville, Tenn., passed away.

Robert Stephen Colbert, MD, passed away.

Hal P. James, MD, of Germantown, Tenn., passed away June 28, 2014. He practiced obstetrics and gynecology at Methodist Hospital in Memphis for more than 50 years.

Dr. Watson entered private practice in Memphis, where he was honored with the Living Legend Award.

James P. Harmon, MD, of Lakeland, Fla., died Sept. 5, 2014. He served in the U.S. Army in World War II and was a pediatrician in Knoxville, Tenn., before moving his practice to Lakeland.

Clyde R. Kirk, MD, of Molt, Mont., died May 11, 2014. He was a veteran of World War II. He practiced medicine in Chattanooga, Tenn., and Franklin, Ky. Dr. Kirk was a member of the American Medical Association and the Kentucky Medical Society, an honorary member of the Frankfort Medical Society, and a fellow of the American College of Surgeons, American College of Otolaryngology, and American College of Facial Plastic.

John Charles Larkin Jr., MD, of Germantown, Tenn., died April 25, 2014. A World War II veteran, he practiced pulmonary medicine with the Memphis Veterans Administration Hospital and served as the tuberculosis specialist for the West Tennessee Health Department.

William W. Wilder, MD, of Germantown, Tenn., died June 8, 2014. A World War II veteran, he spent the majority of his career in general medicine and ophthalmology in the Memphis area.

Rae W. Froehlich, MD, of Austin, Texas, passed away.

William E. Moak, MD of Richton and most recently Beaumont, Miss., passed away April 30, 2014.

Sue Clarke Cox, MD, of Chattanooga, passed away.

Robert E. Maddox, MD, of Nashville, Tenn., and Longboat Key, Fla., died June 8, 2014. He was a World War II veteran of the U.S. Army Air Corps and served as a radiologist in Kingsport, Tenn., for 31 years.

Ranel B. Spence, MD, died March 10, 2014, in Florence, Ala. Dr. Spence served on the Eliza Coffee Memorial Hospital medical staff from 1962 until 2013, holding various leadership positions including chief of staff and physician advisor of utilization review. He was a UTHSC faculty, was in leadership roles at St. Joseph Hospital and ProMedica Clinic, earned a law degree, served in two branches of the U.S. Army during World War II, and was an accomplished researcher. He held professional memberships in numerous organizations and was a fearless patient advocate.

Robert B. Whittle, MD, of Knoxville, Tenn., passed away in Sept. 2014. A veteran of the U.S. Navy, he practiced in Knoxville, served as chief of staff at Baptist Medical Center, worked at Interfaith Health Clinic, and the Volunteers In Medicine Clinic in Hilton Head, South Carolina. He was inducted into the National Golden Gloves Hall of Fame for his work as a physician and was a member of the Knoxville Sports Hall of Fame.

William Booth Jr., MD, of Leland, Miss., died Sept. 12, 2014. He served in the U.S. Navy and was a general practitioner in Lambert for 10 years. Dr. Booth returned to UT to specialize in general surgery and practiced for 14 years as a surgeon in Holly Springs, Miss., and St. Francis in Memphis. He was named a Fellow of the International College of Surgeons.

David Clay Wolfe, MD, of Belmont, Texas, passed away Sept. 8, 2014. He was a flight surgeon for the U.S. Air Force before completing an orthopedic residency at Lackland Air Force Base in San Antonio, Texas. He served as a surgeon in the Air Force before working in private practice.

Robert Stephen Colbert, MD, passed away in Jan. 2014. Faculty and Graduate, 1960 Max Foner, MD, of Memphis, Tenn., died June 14, 2014. He practiced medicine for more than 54 years. Additionally, he served on the UTHSC faculty, was in leadership roles at St. Joseph Hospital and ProMedica Clinic, earned a law degree, served in two branches of the U.S. Army during World War II, and was an accomplished researcher. He held professional memberships in numerous organizations and was a fearless patient advocate.

1961

William Heymoor Schettler Sr., MD, of Knoxville, passed away Sept. 9, 2014. After attending UTHSC, he completed residencies in anesthesiology including one at Walter Reed Army Medical Center. He co-founded the Medical Anesthesia Group in Memphis. Schettler was a veteran of the U.S. Army Reserve.

1963


James H. Donnell, MD, of Jackson, Tenn., died April 16, 2014. He served in the U.S. Air Force, completing his family practice residency at Keeler Air Force Base. He founded his own private practice in Alamo, Tenn., where he served for 14 years before becoming director of UT’s Family Practice Clinic in Jackson, Tenn. He was a celebrated leader in numerous professional and community organizations.

1964

Charles Richardson, MD, 75, of Signal Mountain, Tenn., died Feb. 25, 2012. Dr. Richardson was a Fellow of the American College of Physicians, Fellow of American College of Cardiology, American Society of Echocardiography and pioneer as chief of Echocardiography in the Southeast, Diplomate of the American Board of Internal Medicine, Certified in Nuclear Medicine and a member of the AAMA Anti-Aging and Regenerative Medicine.

1967

James B. Watson III, MD, passed away at his home on Feb. 6, 2014. Dr. Watson practiced gastroenterology in Anchorage, Alaska, for 24 years, where he and his family enjoyed spending time in the Alaskan wilderness, exploring the wilderness, and photographing Alaskan nature.

George Lafayette Smith Jr., MD, died April 15, 2014. Dr. Smith attended medical school at the University of Tennessee before going to Vietnam in 1971. He served as a physician and was a Fellow of the American College of Surgeons.
SAVE THE DATE

September 17 - 20, 2015
2015 Medicine Alumni Weekend

Oct 14 - 16, 2015
Memphis, Tennessee
Golden Graduate Homecoming
Honoring the Class of 1965
(plus all previous Golden Graduates invited)