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College of Pharmacy alumnus among world’s leading experts on rattlesnake antivenom – p. 8

‘That’s who we are’
International service plays key role in educating Mercer’s future doctors, nurses, pharmacists and health professionals – p. 10
This past summer, Mercer On Mission sent an interdisciplinary team of 26 students and eight faculty to Honduras, where they treated more than 2,700 patients, dispensed more than 3,000 prescriptions and logged nearly 2,000 service hours. Pictured: Pharmacy professor Gina Ryan greets a Honduran mother and child at one of the team’s clinics. — p. 10
Mercer On Mission: International service trips are eye-opening experiences for students and faculty addressing health challenges in the field and reaching needy, underserved communities.

ON THE COVER: Nursing professor Cathleen Provis-Churbock assesses a young girl at a primary care clinic in the Department of Choluteca during last summer’s Mercer On Mission trip to Honduras.

PHOTO LEFT: School of Medicine professor Alice House evaluates the head of a young girl held by her mother at a clinic set up in a Honduran schoolhouse.

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Health Sciences Center faculty, students working together to combat the opioid crisis

Bachelor of Science in Nursing student Clara Moon cultivates large online following as an advocate for healthy living
We hear about opioids almost every day, as they now account for two-thirds of all drug-related deaths each year. (Opioid users are more likely to overdose and die than meth users, for example, since opioids slow or stop people’s breathing.) Opioid abuse affects almost every corner of health care, and healthcare professionals are challenged every day to treat its victims. The financial toll alone on the healthcare system is tagged at $805 million.

This national crisis means that we as educators must prepare students for what is taking place in practice. Our health sciences programs are centered on an interprofessional model that integrates all the disciplines into one healthcare team and prepares practitioners to be practice and team ready. The model focuses on cultivating shared knowledge and emphasizing an understanding of all healthcare roles. From our experiences, we create best practice models that will provide better care for patients.

Studies have shown that health care delivered in teams is more efficient and leads to better patient outcomes through higher quality care and fewer medical errors. This model also allows us to be nimble in our curricula to address pressing national and state healthcare issues, such as the opioid crisis that is upon us now. This agility helps position and strengthen the four health sciences programs to graduate the best practitioners.

We take a closer look at how the health sciences are teaching about the use and abuse of opioids in the story “A gargantuan task” on page 20.

That is one example of how our interprofessional model works to team train our students; another is Mercer On Mission. On page 10, you’ll see how our faculty and students function as one healthcare team (again) to provide care in communities in developing countries, such as in this past summer’s stops in Honduras and Cambodia. Working together, they assess population health and often see dozens of people a day in an environment challenged by their patients’ limited resources and their own limited equipment and medications.

Putting our health sciences students on the path to working better together changes health care for the better. And that’s what all of our students do at Mercer — they major in changing the world.
Mercer alumnus and longtime pharmacy educator Brian Crabtree, Pharm.D., recently assumed leadership of the University’s College of Pharmacy as its dean.

Last October, Dr. Crabtree succeeded Mercer’s longest-serving dean, Hewitt W. “Ted” Matthews, Ph.D., who retired last June after 27 years as dean of the College of Pharmacy and 44 years at Mercer.

“I am very pleased that Dr. Crabtree has agreed to return to his alma mater and native state to lead the College of Pharmacy is a dream come true,” said Dr. Crabtree. “Dean Matthews and the faculty and staff have created a legacy of excellence that has established Mercer’s prominence in the academy of pharmacy. I am energized by the opportunity to continue and build on the success of the College and this wonderful University to enhance the health of our communities.”

Dr. Crabtree’s teaching and research interests are in the areas of patient care, psychiatry, addictive diseases, developmental disabilities, and teaching and learning. He developed a particular interest in active learning strategies and coordinated implementation of the problem-based learning initiative at the University of Mississippi. Leadership, faculty mentoring and faculty development are his key passions. He is board certified in psychiatric pharmacy.

A past president of the American Association of Colleges of Pharmacy (AACP), Dr. Crabtree also previously served as chair of the Argus Commission, composed of the five most recent past presidents. He also served as chair of the AACP Council of Faculties.

“I would like to thank the pharmacy dean search committee, led by Nader Moniri, Ph.D., associate dean for research and associate professor of pharmaceutical sciences, for its excellent work in recruiting a well-qualified candidate pool,” Dr. Davis said.

HSC Launches Startups to Commercialize Promising New Drug Delivery Systems

Two startup companies recently were launched in the Mercer Health Sciences Center to commercialize promising new drug delivery systems developed in the labs of University research scientists.

SynPloid LLC, formed by Edward Perkins, Ph.D., and...
Amy Greene, Ph.D., associate professor and assistant professor, respectively, in the Mercer School of Medicine, is focused on bioengineering solutions for complex biological problems using a synthetic chromosome system. One application of this new system allows for delivery of genetic material, including multiple encoded chemotherapeutic agents, in a targeted manner to directly attack tumor cells while not harming healthy normal tissue. Dr. Perkins’ lab is currently focused on applying this new gene/drug delivery technology in treatment of certain forms of breast cancer as well as orphan genetic diseases.

Dr. Perkins’ research program is currently funded by two grants from the National Institutes of Health and a Department of Defense Advance Research Program Award (DARPA). The DARPA award represents a collaborative partnership to develop further new applications for the synthetic chromosome gene/drug delivery system.

The Perkins research program has completed a Phase I DARPA award, which provided proof of concept for engineering of multiple, large genetic payloads onto the synthetic chromosome. It is now in the Phase II DARPA process, which provides funding for the company startup, expansion of the gene/drug delivery system applications and development of commercialization strategies.

DD Therapeutics, formed by College of Pharmacy researchers Kevin Murnane, Ph.D., assistant professor of pharmaceutical sciences, Ajay K. Banga, Ph.D., chair and professor of pharmaceutical sciences and co-director of the Center for Drug Delivery Research, and Martin D’Souza, Ph.D., professor of pharmaceutical sciences and co-director of the Center for Drug Delivery Research, is developing new transdermal and nanotechnology-based delivery systems that will provide more stable and sustained dosing with less fluctuations and variability in drug levels and improved drug delivery to the central nervous system.

Potential therapeutic applications include improved treatment in a variety of neurological diseases such as attention deficit hyperactivity disorder, substance dependence, narcolepsy and appetite suppression.

Patent applications for these new drug delivery technologies have been filed, and DD Therapeutics is now a startup company focused on development and commercialization of these technologies. DD Therapeutics has been awarded a phase-one Ventures Grant from the Georgia Research Alliance and also is pursuing grant applications with the National Institutes of Health.

In another business development, the University entered into a licensing agreement with Kiromic Inc., of Houston, Texas. The licensing agreement is centered on the patented vaccine and drug delivery technologies developed in the research lab of Dr. D’Souza. Dr. D’Souza has developed novel biodegradable nanoparticle vaccine and drug delivery systems. The systems contain potential cancer vaccines to stimulate a patient’s own immune system to recognize developing cancers as foreign molecules and eradicate the cancer cells before they grow into tumors. Other vaccines in development include a universal flu vaccine and a vaccine to treat Respiratory Syncytial Virus.

**Medical**

**Medical, Gov. Nathan Deal Recognize First Physicians for Rural Georgia Scholars**

Mercer School of Medicine last August recognized the first 25 students to receive inaugural Physicians for Rural Georgia Scholarships, which cover 85 to 100 percent of tuition for up to
four years in the Doctor of Medicine (M.D.) program.

The University funded the scholarship program with the entirety of a one-time infusion of $35 million from the state of Georgia as a result of a settlement agreement offer from the Centers for Medicare and Medicaid Services in February 2016. “It is critical that we remain focused on improving access to quality health care in rural and medically underserved areas of Georgia,” said Deal. “When rural hospitals shut their doors, it’s not only bad for healthcare access but also for the local economies. The Physicians for Rural Georgia Scholarship Program is instrumental in prioritizing this access by training and placing graduates in high-demand areas of our state.”

Mercer President William D. Underwood announced that current and future recipients of the scholarship will be called Nathan Deal Scholars in recognition of Georgia’s 82nd governor who is a graduate of both the University’s College of Liberal Arts and School of Law.

“Gov. Deal, who was raised in Sandersville, has been a strong advocate for rural health care in the state,” said Underwood. “He was instrumental in directing the federal settlement proceeds to programs that enable the preparation of more physicians for rural and other medically underserved areas of our state.”

The Physicians for Rural Georgia Scholarship Program will accept new applicants each fall among admitted first- through fourth-year students. Second-, third- and fourth-year students who meet the program’s criteria will be eligible to receive funding for each of their previous years of study.

In return, those who accept the scholarship commit to at least four continuous years of full-time medical practice in a medically underserved, rural Georgia county upon the completion of residency. Furthermore, the medical practice must accept Medicaid patients.

“Mercer University School of Medicine, our faculty, staff and students are committed to service in rural Georgia and underserved communities of this state,” said Jean R. Sumner, M.D., dean of the School. “The Physicians for Rural Georgia Scholarship Program enables well-prepared students from rural communities, who want to return to their rural community after medical school, to begin practice with essentially no debt. We are grateful for this opportunity and solely focused on improving access to quality health care in these areas.”

Mercer School of Medicine was established in 1982 to educate physicians and health professionals to meet the primary care and healthcare needs of rural and other medically underserved areas of Georgia.

The School only accepts Georgia residents and now offers its full four-year M.D. program in both Macon and Savannah, where a campus was established in 2008 at Memorial University Medical Center, as well as the third and fourth years of the M.D. program in Columbus, where a campus was established in 2012 in affiliation with Columbus Regional Health and St. Francis Hospital.

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**Nursing**

**College of Nursing Receives Nearly $2 Million to Improve Workforce Diversity**

Mercer’s Georgia Baptist College of Nursing last June was awarded a nearly $2 million grant by the Health Resources and Services Administration (HRSA) to increase nursing education opportunities for individuals from disadvantaged backgrounds, including racial and ethnic minorities who are underrepresented among registered nurses.

The College, which celebrated its 115th year of nursing education in 2017, was one of 23 programs across the country — and one of only two in the state — to receive this grant. A total of $1,992,044 will be awarded to the College over four years.

In concert with the legislative purpose under Title VIII of the Public Health Service (PHS) Act, the Dedicated to Diversity: Risk to Resilience (R2R) program is focused on promoting successful transition to the nursing workforce for baccalaureate (BSN) nursing students from diverse and disadvantaged backgrounds. The project’s goal is to identify and mitigate risk while fostering resilience and ultimately increasing diversity in the nursing workforce and enabling health equity.

The R2R program is built on a strong foundation of lessons learned through the 2016 Dedicated to Diversity (D2D) program, which focused on the retention of diverse and disadvantaged BSN nursing students through a multilayered program of academic, social, physical and mental health, financial, and professional interventions.

“Our nursing program is strongly committed to improving the enrollment, retention and graduation of our diverse nursing student population,” said Linda A. Streit, Ph.D., RN, dean of the College of Nursing. “The goals of the R2R program are innovative and reflect the mission of the University and the College.”

Lanell M. Bellury, Ph.D., RN, AOCNS, associate professor, will serve as the principal investigator and project director for the grant, which involves collaboration with faculty in Mercer’s College of Health Professions and Tift College of Education, the Center for Nursing Excellence, student affairs and minority affairs offices, as well as the Atlanta Black Nurses Association.

The 2016 D2D program supported 20 qualified undergraduate nursing students who evidenced academic potential as well as economic need. The 2017 R2R program will continue to support up to 20 qualified progressing senior students and support up to 15 qualified junior nursing students annually.

“In our work with the 2016 D2D scholars, the project team discovered that while underrepresented minorities are at increased risk for attrition in nursing school, an uncommon resilience was present in successful students. Our goal is to nurture resilience and success. Additionally, the R2R program aims to heighten the overall cultural awareness within the College and University to one that can foster health equity through a diverse nursing workforce,” said Dr. Bellury.

HRSA, an agency of the U.S. Department of Health and Human Services...
Services, is the primary federal agency for improving access to health care by strengthening the healthcare workforce, building healthy communities and achieving health equity.

Health Professions

► College of Health Professions to Launch Master of Athletic Training Program

Mercer’s College of Health Professions is starting a Master of Athletic Training (MAT) program, with matriculation of the first class in June 2018.

The six-semester, 70-credit-hour professional program will prepare students for national certification in athletic training. The program will be offered on the Macon campus so students will have clinical experience opportunities with Mercer Athletics.

“We plan to seek specialized accreditation from the Commission on Accreditation of Athletic Training Education (CAATE) as soon as the program is eligible, which will occur during the academic year 2019-2020,” said Bill Holcomb, Ph.D., director of the MAT program. “Our aim is to recruit at least 10 quality students for our first cohort and grow the program to a goal of 20 students within two years, resulting in 40 total students in the program.”

The program will be ongoing, accepting one cohort per year for the lockstep curriculum. The majority of the curriculum will be delivered face-to-face with lecture, clinical application activities, and clinical laboratory classes coupled with clinical experiences with Mercer Athletics, regional school systems, local healthcare providers, and industry.

“Mercer’s MAT program will prepare patient-centered athletic trainers who are devoted to improving health care for athletes and the greater community,” said Lisa M. Lundquist, Pharm.D., dean of the College of Health Professions. “We will strive for excellence in education, scholarship, leadership and service as we build the program.”

► CHP Seeks Specialized Reaccreditation for MMSc, DPT; PsyD Up for Accreditation

Mercer’s College of Health Professions hosted specialized reaccreditation site visits for its Master of Medical Science (MMSc) and Doctor of Physical Therapy (DPT) in 2017 and an initial accreditation site visit for the Doctor of Psychology (PsyD).

The College was recently notified by the Accreditation Review Commission on Education for the Physician Assistant (ARC-PA) that the MMSc was awarded the maximum 10-year Accreditation-Continued status. The ARC-PA reaccreditation site visit team visited Mercer’s Cecil B. Day Graduate and Professional Campus in Atlanta last June 8-9.

The MMSc is a full-time degree program that spans seven consecutive semesters, or 28 months of study. Students are led by a distinguished faculty of physician assistants, physicians, and other healthcare professionals in a stimulating learning environment of integrated didactic courses and a variety of clinical rotations.

The College is awaiting an announcement later this spring from the Commission on Accreditation in Physical Therapy Education (CAPTE) on the DPT program. CAPTE held a reaccreditation site visit Sept. 10-13 on the Atlanta campus.

The DPT is an innovative, eight-semester program that provides a comprehensive entry-level professional education, including an integrated clinical education track that consists of service-learning and clinical experiences. The curriculum provides a strong foundation in basic, applied, and physical therapy science courses.

Additionally, the College is awaiting an announcement later this spring from the American Psychological Association Commission on Accreditation (APA CoA) on initial accreditation for the PsyD program. APA CoA held a site visit Sept. 28-29 on the Atlanta campus.

The PsyD is a five-year program designed to produce graduates who are eligible for licensure as practicing clinical psychologists, particularly in interdisciplinary healthcare settings. Graduates also will be prepared for careers in research and in higher education, especially medical education.

“Specialized accreditation requires significant self-evaluation and determination to achieve and maintain,” said Dr. Lisa Lundquist, dean of the College of Health Professions. “The College of Health Professions faculty and staff are committed to excellence and the quality improvement process to ensure continued delivery of high-quality education to our students. We are extremely proud of the 10-year Accreditation-Continued status for our PA program and look forward to hearing from the respective commissions for our DPT and PsyD programs in the spring.”

Pharmacy

► Pharmacy Establishes New Pharmaceutical Industry Fellowship

Mercer’s College of Pharmacy recently established a pharmaceutical industry fellowship with Atlanta-based Galt Pharmaceuticals. The one-year fellowship is for a pharmacy graduate interested in a career in the pharmaceutical industry.

Fellows will divide their time between the College and Galt, where they will help advance the clinical development of secondary indications of approved drugs and support scientific affairs of Galt products as they move from development to commercialization.

Faculty of the College’s Center for Clinical Outcomes Research and Education, or CCORE, will train fellows to conduct research in drug therapy outcomes and help guide their research projects.

Fellows will be expected to publish their research results in peer-reviewed publications and to present at scientific conferences, in addition to teaching Mercer students pursuing the Doctor of Pharmacy (Pharm.D.) degree.

“This fellowship will give a graduate in-depth experience in evaluating the economic and clinical outcomes of a drug therapy,” said Samuel Peasah, Ph.D., MBA, assistant professor of pharmacy practice and director of CCORE. “New pharmacists and pharmaceutical scientists will have valuable expertise as
Fellows will work alongside Galt co-founder and Mercer alumnus Barry Patel, PHARM ’92. Dr. Patel in 1995 founded his own pharmaceutical outcomes and education research company, Total Therapeutic Management (TTM), along with another Mercer pharmacy graduate, Ed Perez, PHARM ’92. They sold TTM to Indegene Lifesystems in 2013.

“We are proud to support our alma mater by sponsoring this unique fellowship experience that will provide pharmacy grads with a comprehensive understanding of scientific affairs, clinical development and outcomes research within the pharmaceutical industry,” Dr. Patel said.

Dr. Moniri, right

New Avenue to Reduce Inflammation Identified in NIH-funded Study

Mercer College of Pharmacy researchers recently identified a new avenue in which the omega-3 fatty acid receptor known as free-fatty acid receptor-4, or FFA4, reduces inflammation. Their study, led by Nader Moniri, Ph.D., associate dean for research in the College, was published in *Biochemical Pharmacology* and funded by the National Institutes of Health.

Activating FFA4 either by omega-3 fatty acids or by synthetic small molecule drugs reduces inflammatory signals from immune cells known as macrophages. Macrophages are a type of white blood cell that form in response to infection or other types of cell and tissue damage, but if they are present for an extended period of time, they can instead promote inflammation.

Chronic inflammation can lead to insulin resistance and type 2 diabetes, among other diseases, but drugs that activate FFA4 in macrophages have been shown to reverse insulin resistance and promote anti-diabetic effects.

The Moniri research group found that drugs that activate FFA4 in macrophages also produce a significant reduction in reactive oxygen species, or ROS. ROS are natural byproducts of oxygen metabolism, but high levels can cause inflammation and oxidative stress. In macrophages, ROS can convert beneficial anti-inflammatory cells to harmful inflammation-causing ones.

The same drugs that reduced ROS also diminished the inflammatory action of cyclooxygenase-2, or COX-2, an enzyme that non-steroidal anti-inflammatory drugs (NSAIDs) such as ibuprofen target, the researchers found. Omega-3 fatty acids are known to reduce both ROS and COX-2 enzymes.

“The finding that activating FFA4 can reduce ROS adds to the known inflammation-modulating properties of this receptor,” Dr. Moniri said. “Activating FFA4 also suggests that drugs that activate this receptor can alleviate inflammation through many different cellular mechanism.”

The laboratory group hopes to extend this study into tissue and animal models to see if the same actions occur.
Dr. Garrard’s time in Uzbekistan allowed him to experience how healthcare systems operate outside of the U.S. and the challenges people face in less developed parts of the world. “My time in Uzbekistan was like humanitarian relief work,” he said. “We helped target growing public health issues and threats in the region.”

While studying in the College of Pharmacy, Dr. Garrard was able to pursue his passion in toxicology while working with organizations that helped him develop a global perspective on crisis management. “Mercer placed a heavy focus on specialization. I became interested in toxicology during my first clinical rotations of my last year. I never would have had this opportunity had it not been for the College’s strong relationship with the Georgia Poison Center in Atlanta,” he said.

As a Pharm.D. student, Dr. Garrard learned the importance of public speaking and relationship building. As a medical science liaison, he deals with medical providers and patients directly. Each day presents a new set of challenges that enables him to better understand various toxicology-related issues. “Mercer instilled in me a continuing passion for learning and bettering myself,” Dr. Garrard said. “In the healthcare field there are always opportunities to grow and become more than what you are.”

Working in the field can be quite challenging, especially when people’s lives are at stake. This human aspect requires field professionals to make tough choices when it comes to dealing with growing crises.

“When I worked at the Centers for Disease Control and Prevention in the Strategic National Stockpile, one of the most challenging moments in disaster planning was deciding who gets treated in a public health disaster and who doesn’t,” he said. “It may sound easy, but when you start weighing all the various factors and realize that it could apply to your own family members, that decision-making process becomes a lot more difficult and challenging.”

Dr. Garrard decided not to pursue the more common path of becoming a community pharmacist and followed his dream of becoming a toxicologist, which has taken him across the world and provided him the chance to use his knowledge to help those in need. He hopes to continue his research on treatments for emerging overdoses overseas that are not common in the U.S.

“I hope that my career path might inspire others to pursue their passions and to not say no to opportunities that come their way. Keep an open mind, step out on the ledge and don’t be afraid to take a risk,” he said.

In addition to being one of the world’s leading experts on rattlesnake antivenom, Alexander Garrard, Pharm.D., has traveled the globe using his knowledge and expertise to help educate and respond to emerging crises.

A 2008 graduate of the College of Pharmacy, he was director of the Washington State Poison Center before recently transitioning to a UK-based pharmaceutical company, BTG, where he serves as the North American medical affairs science expert, focusing on rattlesnake antivenom.

“For the past three years, I was the clinical managing director of the Washington Poison Center,” he said. “An opportunity opened up at BTG where a new role was created for me to be a medical affairs science expert for BTG’s product, CroFab®.”

CroFab® is a rattlesnake antivenom developed for all North American pit viper venoms. Dr. Garrard spends most of his time traveling to regions where snakebites are most prevalent, from the Southeast to Colorado.

“I focus strictly on the research, science and clinical application of CroFab® in the management of snakebite victims. I work with physicians and other medical providers to explore research opportunities and provide clinical education,” he said.

According to the Department of Wildlife Ecology and Conservation, approximately 8,000 venomous snakebites occur in the U.S. each year. Proper education is important for physicians to be able to recognize and treat snakebite victims.

“One of my roles is to shed light on the differences between snakebites and empower physicians and other providers to make the best decisions in managing their patients,” Dr. Garrard said.

While at the Washington State Poison Center, Dr. Garrard was the only Pharm.D. toxicologist asked by the Drug Enforcement Agency to attend a conference in Uzbekistan on the emerging drug crisis in Central Asia.

“A lot of synthetic drugs were being produced in China,” he said. “They were then being trafficked through Afghanistan and Uzbekistan, ultimately arriving in both Europe and North America.”

Formerly part of the Soviet Union, Uzbekistan has a poor healthcare system, he said. Dr. Garrard helped educate physicians on how to properly recognize and treat drug overdoses.

“I came over as the clinical expert on managing overdoses on bath salts and synthetic marijuana products. We worked to optimize patient care because there really are no antidotes for drug overdoses,” he said.
"I said, ‘That’s a good idea — I’ll give it my best shot,’” Dr. McMahan recalled with a laugh. “And he said, ‘I don’t want your ‘best shot.’ I want you to do this.’"

Mercer On Mission (MOM) launched in June 2007 when 38 students and six faculty members traveled to Kenya to hand out 5,000 mosquito repellent-laced bed nets and work with at-risk children in a Guatemalan orphanage and in the favelas of Rio de Janeiro.

Marking its 12th year this coming summer, MOM has grown exponentially, with 227 students involved in 2017. Mercer hopes that number will eventually reach 450 students with an additional 80 faculty participating each year.

Mercer On Mission’s most high-profile work may be its prosthetic program in Vietnam, begun in 2009 and administered by biomedical engineering professor Ha Van Vo, M.D., Ph.D., DPM, and students from the School of Engineering. Additional MOM programs have allowed students and faculty the opportunity to serve others in Peru, Honduras, Cambodia, India and Greece.

The four units of the Mercer Health Sciences Center have become an increasingly important part of the MOM profile. Every summer, a mix of undergraduate, graduate and professional students, faculty and interpreters spend weeks overseas, setting up clinics in remote villages, treating the local people, filling prescriptions and teaching proper health practices.

That may sound scenic, but the core of each mission is service, which includes a lot of hard work. The missions are eye-opening experiences for students and faculty addressing health challenges in the field and reaching needy, underserved communities. Sometimes, when dealing with short-term ailments and providing health education, the students come face to face with diseases, like cancer and microcephaly in infants caused by the Zika virus, that can often go untreated due to a lack of resources in the area. The inspirational and the heartbreaking can be inextricably entwined in a day’s work.

“What’s gratifying to me are the extremes you see in situations like this, which offer the opportunity for growth that our students almost always seize and benefit from,” Dr. McMahan said. “We’re laying the foundation for medical healthcare practitioners who are not only clinically skilled, but are emotionally, psychologically and spiritually inspired to care about human beings.”

Brad Lian, Ph.D., associate professor of community medicine in the School of Medicine and associate professor of public health in the College of Health Professions, discovered the hard way how rigorous a Mercer On Mission trip can be. He’d gone once already to Ecuador, and on his second trip, to Honduras, he broke his hip in a freak accident. Until then, though, the daily routine was well established. Following a 45-minute bus ride from their lodgings, the interdisciplinary team would set up shop in schools or small community centers where they would make community health assessments and treat ailments.

“All the students have great hearts, and they go with the idea of making an impact on
the area we’re going to,” Dr. Lian said. “But when they come back they say, ‘You know, the people we dealt with impacted my life more than I impacted theirs.’”

Jean Sumner, M.D., dean of the School of Medicine, thinks it’s vital that students in the Health Sciences Center see healthcare issues in multiple, hands-on environments, including internationally.

“It gives them a perspective on how wonderful the opportunities we have in this country are, compared to some other countries, and the opportunity that we have to serve others,” she said. “It opens their eyes to the needs of their own community and expands their horizons. They can take the learning and opportunities they had internationally and bring them back and apply them locally.”

As a doctor who has practiced in very poor, rural parts of Georgia during her career, Dr. Sumner is considering making it a prerequisite for any medical student who wants to participate in Mercer On Mission to first spend time practicing their skills in underserved areas of the state that, in some ways, resemble the hardscrabble hamlets of foreign countries.

Dr. Sumner thinks MOM is a program that truly distinguishes Mercer: “It separates us from other universities in that we’re committed to service first and foremost.”

Alice Aumann House, M.D., senior associate dean and professor of family medicine, traveled to Honduras last summer with an interdisciplinary team of 26 students and eight faculty who treated more than 2,700 patients, dispensed more than 3,000 prescriptions and logged nearly 2,000 service hours. This was MOM’s fifth trip overall to Honduras and second to the southern region of the country.

At primary care clinics throughout the Department of Choluteca, students rotated through an intake/vital sign station, provider station, education station and pharmacy station allowing them to experience and understand the various workings of each profession in a clinic setting. Additionally, a team from the

Nursing student Rebecca Sukumar (left) provides medication to a baby who is being comforted by her mother.
Master of Family Therapy program in the School of Medicine provided psychoeducation and family therapy clinics.

“This system demonstrates to students by hands-on performance how crucial each profession is to the overall success of the clinic. Each student helped teach others aspects of their specialty,” said Dr. House. “There is no question that the attitudes and perceptions of our students were impacted by their Mercer On Mission experience in Honduras.”

Long before College of Pharmacy students and faculty flew to Honduras, they looked at the population they would be serving. The residents of rural, poor villages, far outside the capital of Tegucigalpa didn’t have electricity — thus no refrigeration for medications — and often no clean water. People frequently had intestinal worms. So the students and Gina Ryan, Pharm.D., associate dean and clinical professor of pharmacy practice, put together a formulary list of antibiotics, anti-parasitics, non-narcotic pain medication, and drugs for hypertension and diabetes. Still, with all the medications they took with them, the team found pharmacy challenging.

“In the United States, we are used to having almost every drug at an arm’s reach,” said Dr. Ryan. “I think the team was surprised by a much different reality. But the medical students worked together with the pharmacy students to collaborate on what drugs were available and would work given the patient’s condition. They had a lot of conversations on what they could use of what we had.”

But not all health conditions could be easily solved, like the day the team encountered a child with terminal leukemia. “I think all of us cried about something at some point in the trip,” she said. “But that’s the challenge of mission work. Students get to see how other people live and look at the world through a different lens.”

The pharmacy team also trained with the nursing students in the triage area and vice versa. The student pharmacists showed how and why a pharmacy is set up by therapeutic areas and that some medications were relabeled to avoid errors caused by similar markings.

While the teams learned more about each other’s roles on the healthcare team, the students and faculty readily agree that providing care in an underserved area is the best reward, Dr. Ryan said. “We left knowing
we had a positive impact on people’s lives, short-term and long-term, with something as simple as an antibiotic.”

For fun, Cathleen Provins-Churbock, Ph.D., assistant professor in the College of Nursing, scuba dives to depths of 100 feet below sea level, jumps 10,000 feet out of airplanes and skis black diamond runs. Even so, she found herself challenged in rural Honduras.

“I work emergency medicine, so I see people daily who are uninsured or underserved and not able to get the care they need,” she said. “But when you go to a country like Honduras, you realize we really have little to complain about.”

On a typical day, she and students would triage the patients — some of whom walked as far as 20 miles to attend the clinic — by taking vital signs, obtaining medical history and doing other things for which the profession is known. They helped the weak, held hands of the scared and played ball with children as patients waited sometimes hours to be seen by the “Americans.”

“As nurses, our foundation comes from within — it is the caring, the compassion and the desire to help that makes us who we are.

“In America, someone may say I ‘need’ a new car, a new iPhone or a new pair of reading glasses,” said Dr. Provins-Churbock. “Seeing a child with worm infestation because they do not have a safe water source gives ‘need’ an entirely new meaning. Having a young mother ask you how to prevent her unborn child from being like this — as she holds a child with microcephaly in an area where Zika is epidemic — gives ‘need’ a new meaning.”

Such experiences change young healthcare professionals and instill a sense of community that truly comes from the heart. And, yes, some days in Honduras were difficult. Students were tired, hungry and even ill. But that didn’t stop them. “This is who we are,” Dr. Provins-Churbock said. “This is what we do. We take care of people. We take care of each other.”

Also on that interdisciplinary trip to Honduras, Mary Mathis, DrPH, assistant professor of practice in the College of Health Professions and coordinator of the Bachelor of Science in Public Health program, took two undergraduate public health students on MOM for the first time since the BSPH program began in 2015.

“They learned how to apply in real life what they learned in the classroom. You are not there for just a half-hour. You are living it, so there’s no avoiding learning the lessons.”

They traveled to rural health clinics, provided education about diabetes and dental hygiene and nutrition, and also did a population health assessment that will help inform MOM trips to the area in the future. The daily interaction with patients sparked students to think about bigger, long-term goals for the community.

One challenge the local residents faced was access to clean water. “The river that goes through Honduras literally collects all the waste from everybody until it lands at the very end of the country, which was where these people lived,” she said. “So the students got really interested in working out a project for the future that would help the people filter their water.”

While it has not yet been involved with Mercer On Mission, the Department of Physician Assistant Studies has participated in service since 2014 with Global Health Outreach (GHO), an organization working with the Christian Medical Dental Association.

“This became a yearly event for students to volunteer for medical missions during their breaks between semesters,” said Jill Mattingly, DHSc, MMSc, PA-C, chair and clinical assistant professor, who coordinates and participates in these efforts. “For the last three years, we’ve gone to three different locations in Nicaragua with GHO.”

Students work in teams with a physician and physician assistant or nurse practitioner. “The students get so much exposure to patient care and spend lots of time doing histories, physicals and treatment with the providers and the preceptors. It’s extremely beneficial for them.”

Dr. Mattingly also collaborated with the College of Pharmacy to send PA students to Madagascar in the fall of 2016 and 2017 with the organization Medical Mission Teams.

She’s also exploring the possibility of sending students to Kosovo, whose health ministry has been seeking U.S. teams to help with a refugee clinic, as well as to Haiti and Puerto Rico.

In the future, Dr. Mattingly intends for the PA program to take part in Mercer On Mission. “Working in interprofessional teams seems to be one of the most beneficial activities that happens on these mission trips. Students have not necessarily come from backgrounds where they’ve worked with other professions, and this is a concentrated time where they can really share with each other and form friendships and even become future colleagues. I feel it’s extremely beneficial for us to be involved with Mercer On Mission.

“For the students, the benefit of these trips goes deep into their DNA,” she added. “As they’re becoming a provider, it reinforces that what their future holds is a daily thought about ‘How do I give back to my community, my region, my nation and my world?’”

That sense of service, she believes, goes to the heart of what Mercer University is all about. She’s even created a social media hashtag for use among her PA students — #MercerServes.

“That’s who we are. We’re all #MercerServes. That’s our core value.”
Mercer School of Medicine emphasizes the importance of family in the practice of family medicine. One degree program in particular, the Master of Family Therapy (MFT), has proven to challenge students in ways that similar programs at other institutions do not.

G. Bowden Templeton, Ph.D., LMFT, associate professor, director and a graduate of the Master of Family Therapy program, believes that Mercer’s program is exceptional due to its well-rounded course of study and affiliation with the School of Medicine.

The program, which is offered in Macon and Atlanta, not only satisfies the educational requirements for licensure as a family therapist in Georgia; as one of three MFT programs in the country housed in a medical school, it provides unique educational opportunities that prepare graduates to work as part of comprehensive, integrated healthcare teams.

“A majority of primary care visits entail chief complaints related to psychosocial stressors and lifestyle choices, and there is tremendous need for treatment approaches that address them,” Dr. Templeton said. “Our graduates are prepared to work not only in traditional mental health and substance abuse agencies and private practice but also develop skills necessary for integrative approaches in primary care medical practices.”

Coming from a family-oriented household that also shared an appreciation for the study of medicine, Dr. Templeton was naturally attracted to the values of Mercer’s MFT program.

“One of the things that drew my attention to this program was its integration in the medical school and the attention being given to understanding the whole person from biological, psychological, social and spiritual perspectives,” Dr. Templeton said.

As a student, he gained the knowledge and skills necessary to succeed as part of an integrated healthcare team. He trained side-by-side with medical students in the Mercer Family Therapy Center, the program’s community based training center. Currently, the center schedules up to 70 patients per week between Macon and Atlanta.

“The goal is for students in both the family therapy and M.D. programs to learn to recognize the complexities of treating patients with general medical conditions, psychiatric illness and social system stressors; develop assessment skills that inform appropriate referral and consultation with other professionals; and appreciate the importance of a collaborative approach between mental health professionals and physicians,” Dr. Templeton said.

After graduating from Mercer, Dr. Templeton earned a Ph.D. in child and family development with a specialization in family therapy from the University of Georgia and continued pursuing professional interests focused in the areas of medical family therapy and family adjustment to illness.

He gained experience working in integrated care at Mercer Medicine, Navicent Health Emergency Center and as clinical director for United in Pink, a local nonprofit organization serving the needs of women with breast cancer and their families.

Dr. Templeton “came full circle” in 2006 when he joined the faculty of the MFT program as director of family related medical education. He is currently an associate professor of psychiatry and behavioral sciences and, for the past four years, director of the MFT program. The program continues to thrive under his leadership.

He has earned numerous accolades and leadership positions for his work, including Clinical Fellow and Approved Supervisor of the American Association for Marriage and Family Therapy, as well as site visitor and member of the Eligibility Criteria Review Committee for the Commission on Accreditation for Marriage and Family Therapy Education. In January, he began a two-year term as president of the Georgia Association for Marriage and Family Therapy.

Dr. Templeton’s research suggests that as family therapy students acquire knowledge of medical training and medical students learn more about the role of behavioral health and psychotherapy in patient outcomes and compliance, attitudes regarding integrative care are positively changed and there is increased likelihood of future collaboration.
Maura Schlairet, Ed.D., M.A., MSN, RN, CNL
College of Nursing, Atlanta

Maura C. Schlairet, Ed.D., M.A., MSN, RN, CNL, is an associate professor in the Georgia Baptist College of Nursing. With a background in adult intensive care nursing, Dr. Schlairet moved into higher education in 2006 at Valdosta State University where she taught in the College of Nursing and Health Sciences as a tenured professor of nursing.

She is a fellow of the American Association of Colleges of Nursing’s Leadership for Academic Nursing Program and inaugural member of the national Geriatric Nursing Education Consortium Faculty Development Institute. As the 2014 recipient of the Valdosta State University Excellence Award for the Scholarship of Teaching and Learning, she has a robust record of published work in peer-reviewed journals and has presented regionally, nationally and internationally.

Dr. Schlairet has an active research trajectory with pedagogic and disciplinary foci. An emphasis within this pedagogic research strand is evaluation of the use of human patient simulation at classroom and programmatic levels.

Her 2010 findings on “dose” and “frequency” of simulated versus direct care experiences among beginning nursing students were validated by results of the 2014 National Council of State Boards of Nursing’s National Simulation Study exploring replacing clinical hours with simulation in prelicensure nursing education.

“An interleaved model of simulation and direct care at 50 percent each, with simulation preceding direct care experience, was associated with robust clinical judgment scores and positive perceptions of learning,” said Dr. Schlairet.

Other areas of inquiry into high-fidelity simulation include cognitive load, emotion, knowledge acquisition and performance among beginning nursing students.

Dr. Schlairet holds a certificate in simulation and continues to advance the science of human patient simulation in prelicensure nursing education.

She is on the project team for the College’s “Dedicated to Diversity: Risk to Resilience” nursing retention program, funded by a $1.9 million grant from the Health Resources and Services Administration, where her contributions focus on supporting academic success.

Clinton Canal, Ph.D.
College of Pharmacy, Atlanta

Clinton Canal, Ph.D., recently joined the College of Pharmacy as an assistant professor of pharmaceutical sciences from Northeastern University. His research centers on the functions of serotonin receptors and their viability as targets for psychiatric drug discovery for autism, fragile X syndrome and drug addiction.

Autism affects about one in 68 children, and fragile X syndrome is the most common inherited cause of intellectual disability. Symptoms of both conditions suggest an impaired serotonin system, though there has been little research on how the serotonin system’s unique receptors affect fragile X or autism.

Dr. Canal is hoping to fill that void by testing whether the serotonin system interacts with genes or proteins that are altered in autism or fragile X.

“The serotonin system is a powerful modulator of brain activity — akin to an equalizer control on a stereo — and it consists of 15 distinct serotonin receptors,” said Dr. Canal. “Precisely tuning specific serotonin receptors may help rewire brain circuits that are impaired in psychiatric disorders.”

Dr. Canal, with funding from the Department of Defense and FRAXA Research Foundation, is working to develop a novel serotonin receptor-targeting pharmacotherapy for autism and fragile X.

He is focusing on two unique serotonin receptors, 5-HT1A, which regulates anxiety, a prevalent symptom in autism and fragile X, and 5-HT7, which may impact core symptoms common to autism and fragile X, including rigid and repetitive patterns of behavior and social and communication deficits.

If Dr. Canal finds a particular serotonin receptor is altered in fragile X, he may be able to repurpose an existing medication to instead treat fragile X. There are many approved drugs that bind to distinct serotonin receptors.

Research also has pointed to targeting unique serotonin receptors to treat drug addiction, including cocaine and opiate addiction. With funding from the National Institute on Drug Abuse, Dr. Canal and Kevin Murnane, Ph.D., assistant professor of the College of Pharmacy, are researching the pharmacology and toxicology of addictive psychostimulants, called cathinones, previously sold as “bath salts.”

Cathinones are chemically very similar to amphetamines. Some have been outlawed, but new chemicals, with slight modifications in their structures, continue to emerge to circumvent existing laws.

Though not as popular as other illicit drugs, some cathinones are more potent than cocaine. Certain types can cause extreme psychotic symptoms and fatal overdose, but how they cause these actions is unclear.

Dr. Canal and Dr. Murnane are assessing the pharmacological activity of new synthetic cathinones and testing novel receptors as potential targets to treat cathinone-induced psychosis and overdose.
Retrotransposons are similar to retroviruses in that they can both integrate their own genomes into the human genome. They both make an enzyme that converts RNA into DNA, which is the reverse of the normal order, hence, the prefix “retro.” After generating a DNA copy of their genomes, both retroviruses and retrotransposons create breaks in human DNA in order to insert their own DNA.

However, unlike non-endogenous retroviruses, such as HIV, retrotransposons are part of our DNA. The human genome contains about one-and-a-half million retrotransposon insertions, which are stretches of DNA of variable length interspersed throughout every chromosome. These transposable elements are usually dormant, similar to latent viruses. However, some of them can be activated by factors such as environmental pollutants, heavy metals and radiation. Once activated, these retrotransposons can insert new copies of their DNA into new locations in an individual’s genome. Additionally, retrotransposons are activated in many types of cancers.

Dr. Cook, with funding from the School of Medicine, is currently examining the effects of transposable element activation on the development of chemoresistance in different types of tumor cells. She also has applied for several external grants, including one from the National Institutes of Health.

The ability of transposable elements to mutate and rearrange DNA can enable cells to acquire adaptive traits. For example, transposable elements in some organisms have been found to facilitate resistance to chemotoxins such as antibiotics and pesticides. It is possible that activation of transposable elements in human cancers might similarly mediate resistance to chemotherapy, but only a couple of studies have investigated this, and results have been conflicting.

“Since drugs to inhibit transposable elements have been proposed for clinical use in cancer, it is important to better understand the effects that these elements have on acquired drug resistance. Moreover, some chemotherapy agents themselves have been reported to increase the activity of some transposable elements,” said Dr. Cook. “Therefore, a greater understanding of how these elements are activated and their effects in cancer cells may have timely clinical relevance.”

Additionally, Dr. Cook’s lab is currently investigating the ORF1p protein produced by the LINE-1 retrotransposon, which is expressed at very high levels in some types of tumors. While almost nothing is known about how this protein affects cellular function, Dr. Cook’s data suggest that it deregulates key pathways in cells that control growth and proliferation. Therefore, activation of LINE-1 and subsequent expression of the ORF1p protein may further influence the growth of cancer cells.
Holcomb Receives NSCA Sports Medicine/Rehabilitation Specialist of the Year Award

Bill Holcomb, Ph.D., LAT, ATC, FNATA, CSCS*D, FNSCA, professor and founding director of the Master of Athletic Training Program in Mercer’s College of Health Professions, was presented the Sports Medicine/Rehabilitation Specialist of the Year Award by the National Strength and Conditioning Association (NSCA).

Dr. Holcomb was selected for the award by the NSCA’s Sports Medicine/Rehabilitation Special Interest Group, which determines the winner based on contributions to the NSCA, their community and the field of sports medicine/rehabilitation for athletes. The award has been presented annually since 2001. Dr. Holcomb joined the College of Health Professions last May, bringing 24 years of program directorship experience to the faculty. He is a Certified Athletic Trainer and Fellow in the National Athletic Trainers’ Association, as well as a Certified Strength and Conditioning Specialist and Fellow in the National Strength and Conditioning Association. His primary teaching and research expertise is in the area of athletic injury rehabilitation.

“We are so pleased that Dr. Holcomb has joined Mercer University and are proud of his many accomplishments to date,” said Lisa Lundquist, Pharm.D., dean of the College of Health Professions. “He is a leader in the field of athletic training, an accomplished scholar and an experienced program director and teacher. We know that he will continue to advance the education and clinical training of athletic trainers.”

Dr. Holcomb received the award during the 40th Annual NSCA National Conference last July in Las Vegas, Nevada.

Health Professions

Sheena Brown-Waller, Ph.D., MSCR, Tia Solh, MSWS, PA-C, and Jill Mattingly, DHSc, MMSc, PA-C, clinical assistant professors of physician assistant studies, received a $62,500 HRSA Primary Care Training and Enhancement Program grant for “Integration of Medication-Assisted Treatment (MAT) Training into Primary Care Training.”

Meghan Cody, Ph.D., assistant professor of clinical medical psychology, was appointed to the American Psychological Association Continuing Education Council.

Joseph Donnelly, PT, DHS, OCS, clinical professor of physical therapy, received the Distinguished Lecturer Award from the American Academy of Orthopaedic Manual Physical Therapists and was named an honorary fellow in the Academy.

Alyssa Fiss, PT, Ph.D., PCS, associate professor of physical therapy, in collaboration with three research colleagues, co-authored a publication that received the 2016 Toby Long Award for best paper published in Pediatric Physical Therapy from the Academy of Pediatric Physical Therapy.

Cheryl Gaddis, DrPH, MPH, CHES, assistant professor of public health, was elected treasurer of the Georgia Society of Public Health Educators.

Bill Holcomb, Ph.D., LAT, ATC, FNATA, CSCS*D, FNSCA, professor of athletic training, received the Sports Medicine/Rehabilitation Specialist of the Year Award from the National Strength and Conditioning Association.

Craig Marker, Ph.D., associate professor of clinical medical psychology, was appointed to the Executive Committee of the American Psychological Association Division 5 (Quantitative and Qualitative Methods).

Leslie Taylor, PT, Ph.D., MS, professor of physical therapy, and Huey Chen, Ph.D., professor of public health, received a $68,469 sub-award from the State of Georgia, Department of Health and Human Services, Division of Aging Services for “Evaluation of Evidence-based Falls Prevention Programs.”

Nursing

Suzanne Applegate, M.S.N., RN, CHSE, clinical assistant professor, was selected by Lippincott as a reviewer of DocuCare cases.

Tammy D. Barbie, Ph.D., RN, CNE, assistant professor, was selected to serve with the National League for Nursing as Certified Nurse Educator (CNE) Commission Nominating Committee and member of the CNE Test Item Writing Committee.

Susan Sweet Gundy, Ph.D., RN, professor, was reappointed as a member of the Georgia Board of Nursing Education Committee for a second two-year term beginning in 2017.

Ruth McCaffrey, D.N.P., ARNP, FNP-BC, GNP-BC, FAAN, professor and Doctor of Nursing Practice coordinator, received a Mercer University Seed Grant as co-investigator of a project to study the effects of chair yoga and silver sneakers classic exercise on pain, depression, physical function, fear of falling, sleep and quality of life in older adults with osteoarthritis.

Freida J. Payne, Ph.D., RN, CFNP, professor and Nurse Practitioner program coordinator, was appointed to the editorial board of the Journal of Nutrition and Obesity.

Darlene M. Rogers, Ph.D., RN-BC, clinical instructor, received the 2017 Annie Beery Bieber Award for Outstanding Leadership from Duke University.

Maura Schlairet, Ed.D, M.A., RN, CNL, associate professor, was elected to serve a two-year term on the Board for the Georgia Nurses Association in the position of secretary.

Linda A. Streit, Ph.D., RN, dean and professor, was appointed to the Sigma Theta Tau International Foundation Board of Directors.

Medicine

Kim Meeks, MLS, library assistant professor and medical library director, was accepted as an Association of American Medical Colleges 2017-2018 Leadership Education and Development Fellow for the Southern Group on Education Affairs.
Callins Appointed to Board for Georgia Center for Early Language and Literacy

School of Medicine faculty member Keisha R. Callins, M.D., MPH, was appointed by Georgia Gov. Nathan Deal to the newly-created nine-member board for the Georgia Center for Early Language and Literacy at Georgia College and State University.

Dr. Callins, assistant professor and chair of the Department of Community Medicine, was selected for the board alongside leaders representing the Georgia Department of Early Care and Learning, the Technical College System of Georgia, the Governor’s Office of Student Achievement, the Georgia Public Library Service, GCSU, the Georgia Board of Education, providers of primary health care and education advocacy organizations across the state.

“Early language development and literacy are vitally important to ensuring successful educational opportunities for Georgia’s youngest learners,” said Deal. “The Georgia Center for Early Language and Literacy in Milledgeville will work tirelessly to make sure our children and educators are equipped with the right tools and instruction to succeed.”

Prior to joining the faculty at Mercer, Dr. Callins worked as a women’s health expert and public health professional at the Mirian Worthy Women’s Health Center and served as assistant medical director for Albany Area Primary Health Care.

Dr. Callins earned a bachelor’s degree in biology from the University of Virginia, a master’s degree in public health from the University of Alabama at Birmingham and a medical degree from Morehouse School of Medicine (MSM). She completed her graduate medical training at the MSM OB/GYN Residency Program at Grady Memorial Hospital, where she served as chief resident.

Barbé Named a Governor’s Teaching Fellow

Tammy Barbé, Ph.D., RN, CNE, assistant professor and student development coordinator in the College of Nursing, was one of three Mercer faculty members selected as Governor’s Teaching Fellows in 2017. This highly selective program, designed to develop important teaching skills through emerging technologies and instructional tools, is sponsored by the Institute of Higher Education at the University of Georgia.

Dr. Barbé has more than 15 years of teaching experience following a career as a critical care nurse with a focus on cardiovascular nursing. Her research interests include the professional development of students, nurses and nursing faculty.

She is a member of Sigma Theta Tau International Nursing Honor Society and a past president of the Pi Gamma Chapter. She is a certified nurse educator by the National League for Nursing and the 2016 recipient of the Georgia Baptist College of Nursing Distinguished Faculty Member of the Year Award.

She earned her Associate Degree in Nursing from Gulf Coast Community College, Bachelor of Science in Nursing and Master of Science in Nursing from the University of South Alabama and Ph.D. in nursing education from the University of Northern Colorado.

“It is an honor to be selected to participate in the Governor’s Teaching Fellows program, and I am excited to collaborate with faculty across the state,” said Dr. Barbé. “I am working to develop targeted interventions to decrease attrition of qualified nursing students, with a specific emphasis on how social determinants influence attrition of diverse students.”

The Governor’s Teaching Fellows Program was established in 1995 by then-Gov. Zell Miller. To date, more than 89 subject areas, professions and teaching areas have been represented, and Fellows have come from more than 61 public and private institutions statewide.

School of Pharmacy

Ashish Advani, Pharm.D., was named a member of the steering committee of the Georgia Department of Public Health’s opioid data driven grant.

Jill Augustine, Pharm.D., Ph.D., MPH, director of assessment and assistant professor, was named a volunteer committee member of the American Pharmacists Association Academy of Pharmaceutical Research and Science Awards Standing Committee.

Clinton Canal, Ph.D., assistant professor, was awarded a $268,725 grant from the Department of Defense to develop novel drugs targeting serotonin receptors to treat autism spectrum disorder using mouse models. He also received a $45,000 grant from the FRAAA fragile X Research Foundation to assess the serotonin system in a mouse model of fragile X syndrome. He and Kevin Munane, Ph.D., assistant professor, were awarded a $223,491 from the National Institutes of Health to study the pharmacology and toxicology of “bath salt” cathinones.

Martin D’Souza, Ph.D., professor and Dick R. Gourley Chair of Pharmaceutics, was appointed committee chair of the NIH-NIAID-Adjuvant Development Program, BAA2017-1, for the National Institute of Allergy and Infectious Diseases Division of Allergy, Immunology and Transplantation.

Maria Miller Thurston, Pharm.D., clinical assistant professor, received the New Educator Award from the American College of Clinical Pharmacy and the Outstanding District Director Award from the Georgia Society of Health-System Pharmacists.

Candace Barnett, Ph.D., executive associate dean, was named Distinguished Professor in Pharmacy Administration in recognition of 33 years of dedicated service to the College.

Susan Miller, Pharm.D., chair and professor of the Department of Pharmacy Practice, was named the Hood-Meyer Alumni Chair after Reuben Hood, the College’s first dean, from 1938-1950, and the College’s second dean, Minnie Meyer, 1950-1952. Dr. Miller has served the College for almost 38 years in a variety of positions.

Nader Monir, Ph.D., associate dean for research, associate professor and principal investigator, was awarded $452,660 from the National Institutes of Health/National Heart, Lung and Blood Institute for “The role of ROS on beta-2-adrenergic receptor function in human airway.”
His was a classic addiction story, but he survived through medication-assisted treatment (MAT) and counseling. Many Americans aren’t so lucky.

The United States has the world’s highest rate of opioid addiction and mortality. Over the past 20 years, the number of opioid prescriptions has quadrupled. The U.S. represents less than 5 percent of the world’s population but takes more than 99 percent of prescribed hydrocodone. Opioid overdoses are the No. 1 cause of premature deaths of males — more than traffic accidents, more than gunshot wounds. Opioid addiction is the No. 1 reason for incarceration.

“It’s worse than the AIDS epidemic,” said Kevin Murnane, Ph.D., assistant professor of pharmaceutical sciences in Mercer’s College of Pharmacy.

Though prescribing of opiate pain medication is beginning to level off or even decline slightly in some areas, use of heroin and illicit synthetic opiates and deaths due to accidental overdoses continue to increase sharply. Heroin is now commonly contaminated with fentanyl or carfentanil — superpotent narcotics that dramatically increase the risk of fatal overdose. Emergency responders often must give multiple doses of naloxone to revive people who have overdosed.

Georgia ranks in the top 12 states in terms of drug abuse. Opioid-related deaths in this state have increased more than tenfold over the past 15 years compared to a fourfold increase across the rest of the nation.

The burden of the epidemic is especially heavy in Georgia’s rural and underserved areas — 35 percent of Georgia counties have a higher rate of prescription opioid-related deaths than the national average.

Mercer Health Sciences Center is uniquely positioned to lead the fight against this deadly epidemic. Central to its mission is preparing healthcare providers committed to the primary care and healthcare needs of rural and medically underserved populations in Georgia.

From the classroom to the bedside, scientists, physicians, physician assistants, pharmacists, physical therapists, nurses and public health professionals are talking with their students, patients and each other about their roles as educators, caregivers and researchers to stem this dangerous tide. All agree much more needs to be done.

One key concern for Jean Sumner, M.D., dean of the Mercer School of Medicine, is lack of understanding of the issues that contribute to the opioid crisis.

“It’s not just doctors overprescribing, not just drug companies making high-powered...
Addiction medicine expert Stephen Kassels, M.D., spoke to College of Health Professions faculty, students, preceptors and alumni in October about opioid addiction diagnosis, prevention and medication-assisted treatment for opioid use disorder. He outlined the primary care physician assistant’s role and described training available for PAs to become licensed providers of buprenorphine, a drug used to treat opioid addiction.

The epidemic: The United States has the world’s highest rate of opioid addiction and mortality. Over the past 20 years, the number of opioid prescriptions has quadrupled.

The U.S. represents less than 5 percent of the world’s population but takes more than 99 percent of prescribed hydrocodone. Opioid overdoses are the No. 1 cause of premature deaths of males. Opioid addiction is the No. 1 reason for incarceration.
narcotics. It is a multitude of factors, all of which must be held accountable. It’s communication, education, insurers, regulatory and accreditation agencies. It’s saying ‘Pain is the fifth vital sign,’ a subjective finding that opened the doors to manufacturers promoting the extensive use of opioids for pain relief.

“We spend a lot of time in the classroom talking about professionalism, ethics and quality of care,” she continued. “That means doing what’s right for the patient, but that’s not always what patients want if they’re in pain. I’m in favor of controlling pain, but we must be prudent prescribers of every drug out there and consider alternatives like physical therapy.”

Inexperienced or unformed physicians are often targets for seekers. “Sometimes it’s hard to say no, and sometimes the unhappy patient goes online and rates the doctor poorly because he didn’t get the drugs he wanted,” Dr. Sumner said. “So it takes well-trained doctors who are confident in their ability, who know their patients and who want to do the best for their patients.

“That’s why we’ve got to re-establish the primary care workforce so every patient has a doctor they can trust to give the best advice and connect them to specialty care they might need. Re-establishing that value is part of solving the opioid crisis, and we’re committed to it at Mercer. We believe when quality and safety increase, overprescribing and inappropriate care goes down.”

**Habitual behavior and addiction**

Habits and addiction share common characteristics such as inflexibility and insensitivity to punishment. “For example, addicts will continue to use drugs even though they lost their job, family or have been to jail,” said Ashley Horner, Ph.D., associate professor of pharmacology in the School of Medicine. She studies underlying neural pathways involved in development of habitual behaviors.

The neuropharmacologist has trained rats to habitually consume sucrose and has discovered that removing a tiny sub-region of the basal ganglia in the brain can prevent that habitual behavior. That tiny pathway contributes to inflexible behavior.

With funding from the National Institute on Drug Abuse, she hopes to duplicate those results with drugs of abuse like methamphetamines and opioids. She’s found that blocking mu opioid receptors prevents animals from forming an association between the environment and the rewarding effects of meth. Opiate blockers, such as the overdose-reversal drug naloxone (Narcan®), can treat the repetitive and drug-seeking behaviors associated with meth addiction.

In the classroom, Dr. Horner teaches medical students how drugs affect the brain, as well as risk factors and how to assess whether a patient might need an opioid medication for an injury. Does that patient have a history of mental illness or depression? Are they in a stressful situation or an environment that might make them more susceptible to abusing drugs?

Making sure patients understand the pitfalls of abuse is important as well. “We emphasize the importance of taking medication as directed. Sometimes patients think ‘I’m in a lot of pain, so more medicine must be better so I’ll take two pills instead of one.’ That escalates and soon it becomes four pills and on and on.”

Prescribers need education, too, Dr. Horner stressed, recalling how her mother, age 84, broke her arm and a vertebra in her neck a couple of years ago. “Her physician gave her oxycodone for pain, but at no time did anyone say these are powerful opioids and let’s take a minute to talk about them. It’s a conversation that’s important for physicians to have with patients.”

Mercer is accelerating its efforts to get that message out to providers with prescriptive authority — physicians, physician assistants and nurse practitioners. A Primary Care Update event presented by the School of Medicine, College of Nursing and Northside Hospital this fall drew 80 physicians and nurses to hear the perspectives of a psychiatrist, a pharmacist and a physical therapist. Dozens of physician assistants attended a seminar on “Addressing the Opioid Addiction Epidemic,” hosted by the Department of Physician Assistant Studies in the College of Health Professions during the same weekend in October.

One of the presenters, Jennifer Elliott, Pharm.D., clinical assistant professor of pharmacy practice, teaches Mercer students about the role of pharmacists in understanding patients’ pain, as well as appropriate doses and formulations for pain, how to taper patients off opioids and how pharmacists can help deal with opioid overdoses.

Her students often ask about the legal aspects of opioid dispensing — what they should and shouldn’t do, what they should fill, how to send away a patient effectively. “Pharmacies being robbed for opioids by desperate patients is the No. 1 worry,” Dr. Elliott said.

**Georgia laws respond to epidemic**

Dr. Elliott also is a clinical pharmacist at Grady Hospital where she sees many patients seeking pain medicine. She now has access to the state’s Prescription Drug Monitoring Program (PDMP), an electronic database that provides prescribers and pharmacists with patients’ controlled substance prescription history and protects patients at risk of abuse.

Georgia is one of 11 states covered by the PDMP.

**Opioid-related deaths in Georgia have increased more than tenfold over the past 15 years compared to a fourfold increase across the rest of the nation.**

Another new law in Georgia allows anyone who has abused opioids or thinks a family member is at risk of overdosing to get the overdose-reversal drug Narcan®. Mercer pharmacy faculty like Dr. Elliott and Robyn Lorys, Pharm.D., clinical assistant professor and director of the Clinical Skills and Simulation Laboratory in the College of Pharmacy, teach Mercer’s future pharmacists, homeless people and Narcotics Anonymous participants how to administer the life-saving agent.
The pros and cons of the Georgia law providing standing orders for Narcan® stir debate in the substance abuse elective course taught by Katelynn Mayberry, Pharm.D., clinical assistant professor of pharmacy practice. Does this standing order provide a solution to the addiction problem? Should insurance be required to cover services that treat substance abuse?

Dr. Mayberry, whose specialty is psychiatric pharmacotherapy, approaches substance abuse from a mental health perspective, including depression, anxiety and bipolar disorders. Her students are required to attend an NA or AA session to help humanize their perception of those with substance abuse disorders.

She recognizes progress in tackling the opioid epidemic, but worries about other trends. On the positive side, “Thanks to Georgia’s 911 Amnesty Law, if you see someone overdosing, you can call 911 and you and the victim won’t be prosecuted for possession of controlled substances.” On the other hand, she and Dr. Lorys are deeply concerned about the direct role consumer advertisements play in the epidemic. “You watch TV and see these drugs advertised, and while you don’t even know what the drug is, you feel a simple solution can be achieved by taking a pill,” Dr. Lorys said.

A pill for a pill?

A clinical pharmacist for 26 years, Dr. Lorys contends working with a pharmacist can make a difference in this epidemic. “There are several key factors that pharmacists can address, including patient counseling, assessing patients for substance use disorder risk and appropriate intervention with providers as needed.”

Working with students taking research electives, Dr. Lorys studies outcomes of medication-assisted treatment and what factors put people at risk for addiction. She helped develop a survey directed to pharmacists on the use of the PDMP and subsequent interventions with other healthcare providers. Using the survey, Dr. Lorys hopes to enhance pharmacists’ intervention to help curb opioid addiction.

Dr. Murnane, a pharmacologist, takes a different tack. “We need better drugs for pain.” With funding from a Georgia Research Alliance grant, he and Department of Pharmaceutical Sciences colleagues are developing drug delivery systems to treat ADHD and cocaine-use disorder that minimize their abuse potentials. Another grant from the National Institute on Drug Abuse underwrites the search for a better understanding of another class of dangerous drugs called cathinones (more commonly known as “bath salts”), which also have been associated with a growing number of drug overdoses.

Ajay Banga, Ph.D., professor and chair of the Department of Pharmaceutical Sciences, is driving a project to develop a patch for children who have oral surgeries each year, in particular tonsillectomies, and can’t swallow well after surgery. In the past, patients would be given codeine for pain, which is synthesized from the opiate morphine. However, a small number of children metabolized the codeine quickly back to morphine and died of respiratory depression. “We’re trying to make a transdermal patch that will bypass metabolic pathways for morphine,” said Dr. Murnane. Preliminary research shows promise for a similar patch with adult dosing.

Mercer’s College of Pharmacy is the only pharmacy school in the country with its own clinical trial center, a 7,000-square-foot facility that facilitates phase 1-4 studies. Once human trials begin, patches for adults and children could be available within the next five to 10 years, said Dr. Murnane.

Some pharmacy students also are taking action to stem the epidemic. Through the student chapters of the American College of Clinical Pharmacy, they are working with Mercer Police on a drop-off program for unused prescribed medications. These same students can be seen in the state legislature advocating for changes in the law to allow pharmacies to do partial fills.

Promoting alternatives to painkillers

Combating pain with therapies other than opioids resonates with Timothy McMahon, PT, DPT, FAOMPT, CertSMT, clinical assistant professor and director of Mercer’s Physical Therapy Clinic, as well as Ruth McCaffrey,
through graded motor imagery, pain education and a variety of movement strategies.”

Yoga and other types of exercise also may be effective in managing pain. Dr. McCaffrey in the College of Nursing researches movement therapies for older adults who can’t do standing exercises. An eight-week pilot study funded by Mercer at Decatur Christian Towers compares yoga and a National Institutes of Aging chair exercise program to determine if they reduce pain that interferes with the lives of the participants, ages 80 to 101.

In pharmacology classes for nurse practitioner students, Dr. McCaffrey reviews CDC guidelines that call for non-opioid therapies, if possible, such as physical therapy, massage, heat and cold, or using short-acting opioids for a short amount of time unless the pain is related to end-stage cancer.

Her colleague, Tammy Barbé, Ph.D., RN, CNE, assistant professor of nursing, brings her background in critical care to the classroom. “In an acute-care setting, nurses are with patients more than any other providers,” she said, “and patients feel comfortable talking with nurses. So nurses must be educated holistically to pick up on the subtleties of opioid misuse and abuse.”

An advocate for interprofessional education, Dr. Barbé recently partnered with faculty from the University of North Texas Health Science Center on an Institute for Patient Safety seed grant as its nursing expert in a study examining current practices in pain education within pharmacy, nursing and medical schools.

**Training for the treatment of addiction**

Jill Mattingly, DHSc, MMSc, PA-C, clinical assistant professor and chair of physician assistant studies at Mercer, previously worked...
Dr. Turner’s longtime interest in addictive behavior has evolved as trends in America have changed. “Tobacco was the big concern 10 to 15 years ago, but now opioid abuse has gone mainstream. Tobacco addiction is more chronic — as smokers age, you see the bad effects of that habit.

“Opioids, on the other hand, are synthetic and more potent. The trajectory to death is shorter. People are dying from opioids at an alarming rate, and we’re seeing more students who want to work in public health capacities that address addiction.”

For example, a current second-year public health student is interning with the Georgia Department of Public Health’s Opioid and Prescription Drug Project, which is developing a statewide response to the opioid crisis.

Mercer’s public health faculty are gathering data about opioid addiction in Georgia, particularly in the northwest and southwest corners of the state, which have the highest incidences of opioid abuse. “If you are in a rural community, you may be doing work that could make you more prone to injuries, and, in turn, you may seek pain relief that could lead to addiction and could be exacerbated by lack of treatment facilities,” Dr. Turner said.

Exploring alternatives to opioids, such as physical therapy and counseling, is at the heart of this research, along with approaches like educating providers, preventing injuries in the workplace and addressing social determinants such as poverty and joblessness that lead to despair and drug seeking. Dr. Turner expects to propose more emphasis on communication using social media and other technologies to counter the epidemic — for instance, using telehealth to provide mental health services like counseling to patients in pain or battling addiction.

“It’s a gargantuan task,” she said. “We are trying to add to the knowledge base and find solutions that could be implemented on a large, population-based scale.”

In the meantime, opioid addiction and opioid overdosing promise to worsen, she said.

“Businesses are finding it difficult to fill jobs because so many people test positive for opioids. It’s starting to affect people financially, and, when the bottom line is affected, people at the national level start getting upset. I’m glad the state is looking at it, but academic institutions need to get involved, too. We certainly are doing so.”

needed: Public awareness

Nannette Turner, Ph.D., MPH, associate professor and chair of the Department of Public Health in the College of Health Professions, said the greatest effect of President Donald Trump’s recent declaration calling the opioid crisis a “public health emergency” is raising awareness. Like many of her colleagues across the Mercer Health Sciences Center, she hopes that funding for new research, education and other public outreach will follow.

In addiction medicine and remembers when opioid addiction started to take off in the late 1990s with the marketing of OxyContin®.

What drew her to that field was “seeing that people were struggling with a disease process that was being treated like diabetes was 50 years ago when you were expected to pull yourself up by the bootstraps and stop eating sugar. It’s the same thing with addiction. Organizations like NA and AA do a great job, but often are not enough to treat a disease process.”

Addiction to pain medication has turned into a tsunami that demands many approaches, including medication-assisted treatment, cognitive behavioral therapy, group therapy, exercise, nutrition, and physical therapy.

Since coming to Mercer in 2009, Dr. Mattingly’s goal has been to put significant addiction training into the physician assistant curriculum. “It’s absolutely necessary that all providers be well-trained in treatment of this disease,” she said.

To address addiction, especially in rural and underserved areas, she and colleagues Sheena D. Brown-Waller, Ph.D., MSCR, clinical assistant professor of physician assistant studies, and Tia Solh, MSPAS, PA-C, clinical assistant professor of physician assistant studies, received a $62,500 Health Resources and Services Administration (HRSA) grant in 2017 to teach students, alumni, faculty, preceptors and primary care providers about opioid addiction, diagnosis, prevention and medication-assisted treatment. The latter provides information on how to treat opioid addiction with non-addictive drugs, such as buprenorphine, to reduce craving for opioids. The grant funds one-week addiction medicine rotations at substance abuse treatment centers.

Dr. Mattingly also is taking MAT training national. Under the auspices of the American Society of Addiction Medicine, she teams with Paul Seale, M.D., professor in the Mercer School of Medicine, to present the fundamentals of addiction medicine to PAs, physicians and nurse practitioners across the country.

Dr. Brown-Waller’s research looks at health disparities, like hypertension and addiction, that disproportionately affect underserved populations, and ways to reduce the gap between those who are underserved and those who are not. She attributes the high rates of opioid addiction and death in rural areas to lack of access to care and a high rate of opioid prescribing. Mercer’s PA department received a $1.6 million HRSA grant to train future physician assistants who are from rural areas, or are minorities or veterans, and are interested in practicing in underserved, rural areas to help alleviate the access gap.

Needed: Public awareness

Nannette Turner, Ph.D., MPH, associate professor and chair of the Department of Public Health in the College of Health Professions, said the greatest effect of President Donald Trump’s recent declaration calling the opioid crisis a “public health emergency” is raising awareness. Like many of her colleagues across the Mercer Health Sciences Center, she hopes that funding for new research, education and other public outreach will follow.
For Clara Moon, a Bachelor of Science in Nursing student at Mercer, there is no greater calling than that of the University’s mission to serve others. In addition to pursuing a career as a nurse, she has found multiple ways in which she can impact the world around her. In a generation dominated by impersonal communication and technology, Moon has cultivated a large following as a lifestyle blogger and uses that platform as a source of inspiration and motivation for healthy living.

Her blog, “Clara’s Clean Eats,” strives to redefine the healthy lifestyle in the modern world. Complete with diverse and nutritious recipes, daily skincare routines and exercise regimes, her website attracts viewers of all backgrounds, interests and cultures.

As a nursing student, she highlights the importance of taking care of both the body and the mind. She hopes to be an advocate for self-love and positive body image in addition to healthy eating.

Despite no professional culinary training, Moon credits her upbringing for her passion for cooking and eating authentic Korean cuisine, among a variety of other delicious foods.

Though she calls Suwanee, Georgia, her hometown, she was raised by South Korean parents who moved to the United States when she was 7 years old, and her native culture always has played a large role in her life. Her passion for maintaining a healthy diet motivated her to take some of her favorite Korean dishes and introduce them to her followers as nutritious options for daily life.

Moon’s blogging often calls upon her experiences as an Asian-American woman, first-generation college student and a victor over bouts of orthorexia. She hopes to teach others about how she learned to live a balanced life.

“I love sharing my story,” she said, “not only because it reminds me of all that I’ve overcome and experienced but also because it’s important to me to know that others feel understood and that they aren’t ever alone in any of the trying seasons of their lives.”

Moon desired to pursue a nursing career that would allow her to seek similar goals as those she pursues through blogging — “to interact with people at a personal level, inspire them to be their best selves and lead lives that make an impact in this world.”

Attending Mercer has helped Moon make her impact. “I first loved Mercer because it felt like home. I didn’t feel like an outlier.” In a similar way, “Clara’s Clean Eats” hopes to replicate her Mercer experience of a loving community, full of understanding peers and mentors for anyone who needs motivation.

Now, with an online presence that includes more than 35,000 followers on social media platform Instagram and a college experience that includes numerous leadership roles on campus, Moon has become a resounding voice for change.

“I’m very lucky to be able to connect with so many different groups of people,” she said, “Asian-Americans, women in my generation, college students, aspiring nurses, women’s health advocates, and health and fitness lovers.”

You can follow Clara’s blog at www.clarascleaneats.com.
Students, Faculty Showcase Work at HSC Research Conference

Mercer Health Sciences Center held its annual joint research conference last May at the College of Pharmacy on the University’s Cecil B. Day Campus in Atlanta.

The conference highlighted faculty and students conducting research in the School of Medicine, College of Pharmacy and College of Health Professions. Attendees had the opportunity to hear a number of oral presentations on topics ranging from cancer to women and children’s health.

Undergraduate, graduate, medical and pharmaceutical students presented their research during a poster session. Posters were judged on scientific quality, and students were judged on their professionalism and overall presentation.

The top three posters were:
- First place: “Disposition of methylmercury over time in a model of chronic kidney disease” by Sarah Orr and Christy Bridges, Ph.D., Department of Biomedical Sciences, School of Medicine
- Second place: “On the accuracy of clinical data relayed by online drug information resources: A review of the last 10 years of literature” by David Book, Department of Pharmacy Practice, College of Pharmacy
- Third place: “Effects of phosphodefective FFAR4 C-terminal mutants on COX-2 expression in macrophages” by Ameneh Cheshmehkani and Nader Moniri, Ph.D., Department of Pharmaceutical Sciences, College of Pharmacy

Physical Therapy Students Win National Fundraising Challenge

Mercer’s Department of Physical Therapy earned first place in the 2016-2017 VCU-Marquette Challenge by raising a total of $45,220 for physical therapy (PT) research.

In 1989, students at Marquette University started the Challenge, which serves as the primary fundraising event for the Foundation for Physical Therapy. Each year, Marquette PT students challenge students at other PT and physical therapist assistant (PTA) programs to raise money for research.

By virtue of raising the largest amount of money among the 143 institutions that participated in this year’s Challenge, Mercer serves as co-host of this year’s effort, which is named the Mercer-Marquette Challenge.

Mercer raised a total of $106,448.57 for the Marquette Challenge over the past three years. The University placed second in the 2015-2016 Pittsburgh-Marquette Challenge and received both the Award of Excellence and the Most Successful PT Newcomer Award in the 2014-2015 Miami-Marquette Challenge.

“We are so proud of the continued efforts of our students to raise funds benefiting physical therapy research,” said...
Jeannette Anderson, PT, DHS, MTC, chair of the Department of Physical Therapy. “Their dedication over the past three years indicates the value that our students place on increasing the available evidence to continually improve the care provided to patients and clients.”

Five student representatives — Sarah Hicks and Lindsey Ventura from the Class of 2017 and Kelly McKinnon, Kimberly Pauley and Taylor Smith from the Class of 2018 — accepted the first-place prize on behalf of Mercer at the American Physical Therapy Association’s NEXT Conference and Exposition, held last June in Boston, Massachusetts. The annual conference provides contemporary programming and interaction with progressive thinkers in the profession.

The Foundation for Physical Therapy was established in 1979 as a national, independent nonprofit organization, dedicated to improving the quality and delivery of physical therapy care by providing support for scientifically based and clinically relevant physical therapy research and doctoral scholarships and fellowships.

Over the last 36 years, the Foundation has awarded more than $17 million in research grants, fellowships and post-professional doctoral scholarships to more than 550 emerging scientists. Foundation-funded researchers have gone on to receive an estimated $753 million in external funding from the National Institutes of Health and other sources.

Inaugural AGANCP Class Perfect in Certification Exams

All members of the first graduating class of Mercer’s Georgia Baptist College of Nursing Adult Gerontology Acute Care Nurse Practitioner (AGACNP) program passed the American Nurses Credentialing Center (ANCC) certification examination on their first attempt and are now practicing nurse practitioners.

“We were thrilled when we heard the news,” said Cathy Provis-Churbock, Ph.D., assistant professor, who serves as a faculty member in many of the courses for this specialty within the graduate program. “The inaugural AGACNP class entered into a brand new curriculum plan, and these certification results provided an external evaluation measure of our program. It’s very reaffirming that the program meets standards established by an external certifying body.”

Freida Payne, Ph.D., RN, CFNP, serves as coordinator of both nurse practitioner specialties in the College of Nursing and is also a site visit team leader for the nursing school accrediting body, the Commission on Collegiate Nursing Education.

“Both the AGACNP and Family Nurse Practitioner programs are a combination of online and in-classroom instruction with field experiences at clinical sites throughout Georgia,” said Dr. Payne. “Both programs are vital to meeting the healthcare needs of our population.”

Mercer’s inaugural AGACNP class began coursework in August 2016 and completed it in December 2017, earning a Master of Science in Nursing from the College of Nursing, which is the state’s longest-standing educator of nurses.

The AGACNP specialty is the newest track offered in the College’s master’s program. Nurses also may obtain nurse practitioner specialties post-baccalaureate through the College’s Bachelor of Science in Nursing to Doctor of Nursing Practice option.

The graduates, who will formally walk at the University’s Atlanta commencement in May, have been complimentary of the program, said Linda Streit, Ph.D., RN, dean of the College of Nursing.

“We have worked very hard to support the program with area experts in acute care, extensive clinical practice and supplementation of clinical learning with special diagnostics, such as the SonoSim® Ultrasound,” added Dr. Streit.

“What stands out about our AGACNP program is that the faculty genuinely care about each student and want each one to succeed. Students who meet rigorous entry criteria are able to work with the best providers in the area, and they are poised to be successful providers and leaders in the profession.”
While pursuing her Master of Public Health (MPH) degree, Christina Evans is playing an active role in combating the global HIV/AIDS crisis in countries that do not have adequate resources for full-scale prevention.

Using her knowledge of women’s health, she hopes to contribute to a more comprehensive knowledge base to prevent the spread of HIV and other sexually transmitted diseases throughout the world.

Evans entered Mercer’s College of Health Professions as a *cum laude* graduate of Spelman College. In January 2017, she was selected as a Fellow in the Oak Ridge Institute for Science and Education (ORISE) program. She was assigned to work at the Centers for Disease Control and Prevention (CDC) in the Center for Global Health. She serves as the lead for Expenditure Analysis (EA) technical assistance provider evaluation and as the lead for Field Epidemiology Training Program (FETP) tracking tool analysis.

Evans was sent to South Africa, Swaziland and Namibia last fall to work, attend trainings and meet with various teams regarding her respective projects supporting the CDC’s work to control the HIV/AIDS epidemic on the continent.

Through this work, she gained firsthand knowledge of the many challenges that must be overcome to stop the global spread of HIV, especially in areas where the disease is still seen as taboo. “In many countries, people with HIV, no matter their age, have to deal with the stigma the disease carries and the consequences attached to it,” Evans said.

Her outreach efforts are not limited to Africa. She also has helped provide education and technical assistance about STDs within the United States.

“The summer before I came to Mercer, I worked on a women’s health intervention study in the Georgia prison system. We focused on educating women who were soon to be released from prison to better protect themselves from STDs,” she said. “This experience provided insight into gaps that need further interventions. Health care in the U.S. prison system is limited. Many women in prison do not understand the dangers STDs pose.”

Evans found that this work combined many of her interests, which include women’s health, reproductive health, maternal and child health, and injury prevention and control. “I wanted to provide these women with a large knowledge base so they could better protect themselves when released from prison,” she said.

“At Mercer, the motto is ‘Everyone majors in changing the world.’ The University has strong relationship with the CDC, which has enabled me to pursue my passion for providing technical assistance for sexual health and reproductive health education globally,” she said. “I hope to create solutions to provide better health care to those battling HIV, as well as other preventable diseases and illnesses in countries that do not have adequate resources.”

Evans will be graduating with her MPH in May. She was awarded the Dean’s Excellence Award in the College of Health Professions in recognition of her excellence in scholastic accomplishment, professional leadership and her commitment to community service. Upon graduation, she plans to continue her work at the CDC.

“I am grateful to Mercer for giving me this opportunity to pursue my aspirations of making a difference. After visiting various countries in Africa for the first time, I’ve become more appreciative for things we take for granted in the United States,” she said. “Things like creating sustainable water systems, providing stable, dependable housing, improving sanitary conditions and addressing basic nutritional needs for those suffering continue to push me. The more we can help now, the greater impact and legacy we can leave. We have to be the change we wish to see in the world.”
Degree Programs

School of Medicine
Doctor of Medicine (Macon, Savannah, Columbus)

Graduate Degree Programs
Master of Science in Biomedical Sciences (Macon, Savannah)
Master of Science in Preclinical Sciences (Macon)
Master of Family Therapy (Macon, Atlanta)
Post-Master’s Certificate Program in Marriage and Family Therapy (Macon, Atlanta)

For more information, visit medicine.mercer.edu/programs

College of Pharmacy
All programs are located in Atlanta:
Doctor of Pharmacy
Doctor of Philosophy in Pharmaceutical Sciences
Pharm.D./Ph.D. combined degree
Pharm.D./MBA combined degree
Pharm.D./MPH combined degree

For more information, visit pharmacy.mercer.edu/programs

Georgia Baptist College of Nursing
All programs are located in Atlanta:
Bachelor of Science in Nursing (Prelicensure and RN/BSN)
Master of Science in Nursing
Doctor of Nursing Practice
Doctor of Philosophy in Nursing

For more information, visit nursing.mercer.edu/academics

College of Health Professions

Physical Therapy
Doctor of Physical Therapy (Atlanta)
DPT/MPH combined degree (Atlanta)
DPT/MBA combined degree (Atlanta)

Physician Assistant
Master of Medical Science (Atlanta)
MMSc/MPH combined degree (Atlanta)

Public Health
Bachelor of Science in Public Health (Macon)
Master of Public Health (Atlanta, Online)
DPT/MPH combined degree (Atlanta)
MMSc/MPH combined degree (Atlanta)
Pharm.D./MPH combined degree (Atlanta)
PsyD/MPH combined degree (Atlanta)

Clinical Medical Psychology
Doctor of Psychology (Atlanta)
PsyD/MPH combined degree (Atlanta)

Athletic Training
Master of Athletic Training (Macon)

For more information, visit chp.mercer.edu/academics-departments

Teaching Hospitals
The Medical Center, Navicent Health (Macon)
Memorial University Medical Center (Savannah)
Midtown Medical Center (Columbus)
St. Francis Hospital (Columbus)

Affiliated Teaching Hospitals
Atlanta Medical Center
Floyd Medical Center (Rome)
HCA Coliseum Medical Center (Macon)
Phoebe Putney Memorial Hospital (Albany)
2016-17 DEGREES AWARDED

185
School of Medicine

165
College of Pharmacy

164
College of Nursing

134
College of Health Professions

Health Sciences Fall 2017 Enrollment*
As of November 3, 2017
* Dual degree students counted in both programs

Health Sciences Enrollment 2007-2017
School of Medicine
College of Pharmacy
Georgia Baptist College of Nursing
College of Health Professions

Last summer, the Mercer On Mission program made its fifth trip to Honduras, where primary care clinics were set up throughout the Department of Choluteca.

Pictured: Public health professor Mary Mathis takes a blood pressure reading from an elderly Honduran woman as medical student Adrienne Wofford Jones (back, left) and nursing professor Cathleen Provins-Churbock (back, right) look on.