Friends and colleagues,

The past 20 months have certainly tested us in every way imaginable. The Department, tasked with caring for every inpatient infected with COVID-19, was stretched to new limits and met with seemingly unending challenges. Our faculty channeled their expertise into what they do best - caring for Mississippi - and in doing so, helped UMMC lead the way in this effort.

Inside this Impact Report, you’ll find examples of some of the wonderful work being done by our outstanding faculty and trainees, innovations in each realm of our tripartite mission, and metrics of growth in our clinical and research activities. There is a special section on the Department’s role in the COVID-19 pandemic. Despite the challenges brought about by the pandemic, the Department had another record year in research productivity, even with the temporary restrictions. Education programs rapidly adapted, both in terms of making sure that trainee education is not negatively affected, as well as how to recruit the best and the brightest class of future trainees. Clinical volumes and services have picked back up, innovative new services have been added, and evolving healthcare delivery modes to accommodate the needs of the pandemic rapidly have been embraced.

In a lot of ways, this experience has made us stronger by building fortitude and forcing us to find ways to adapt and innovate to meet our goals.

The articles in this Impact Report are but a glimpse into the larger picture of what the Department of Medicine is every single day - and what we strive to be. I am fortunate to witness it daily and I hope you will enjoy learning about what it is that makes us so great.

Best,

Javed Butler, MBBS, MPH, MBA
Professor and Chair, Department of Medicine
Patrick H. Lehan Chair in Cardiovascular Research
Professor of Physiology and Biophysics
University of Mississippi Medical Center
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CHAIR
Javed Butler, MBBS, MPH, MBA

VICE CHAIRS
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Myrna E. Alexander Nickens, MD, Vice Chair, Diversity and Inclusion
Russell Boles, MBA, Vice Chair, Finance and Business Administration
Jimmy Stewart, MD, Vice Chair, Faculty Development
Gailen D. Marshall, MD, PhD, Vice Chair, Research
S. Calvin Thigpen, MD, Vice Chair, Education
Amanda Clark, MD, Associate Vice Chair, Communications, Development and Technology
Michael Hall, MD, MS, Associate Vice Chair, Research
Demondes Haynes, MD, Associate Vice Chair, Patient Safety

DIVISION DIRECTORS
Frederick Asher, MD, Hospital Medicine
Stephanie Elkins, MD, Hematology and Oncology
Sarah Glover, DO, Digestive Diseases
Michelle Horn, MD, General Internal Medicine
Lillian F. Liem, MD, Endocrinology, Metabolism, and Diabetes
Vikas Majithia, MBBS, MPH, Vice Chair, Faculty Development
Gailen D. Marshall, Jr., MD, PhD, Asthma, Allergy, and Clinical Immunology
Michael R. McMullan, MD, Cardiovascular Diseases
Jason Parham, MD, MPH, Infectious Diseases
Kimberly C. Tarver, MD, Geriatrics and Gerontology
Tariq Shafi, MBBS, MHS, Nephrology
Andrew Wilhelm, DO, Pulmonary, Critical Care, and Sleep Medicine

ADMINISTRATIVE STAFF
Hayley Hammon
ASSOCIATE DIRECTOR OF ADMINISTRATION AND FINANCE
Candice Adams
DIRECTOR OF AMBULATORY SERVICES
Dimitra Kefalogianni
PROJECT MANAGER
Stacey Hibbard
SUPERVISOR OF BUSINESS OPERATIONS
DEPARTMENT OF MEDICINE

BY THE NUMBERS

66 YEARS
155 FACULTY
43% ARE FEMALE

12 DIVISIONS
42% OF DIVISION DIRECTORS ARE FEMALE

8 SECTIONS

124 RESIDENTS
72 FELLOWS
14 FELLOWSHIPS

2 RESIDENCY PROGRAMS

43% ARE FEMALE

WORK RELATIVE VALUE UNITS (WRVUs)

FY18 533,609
FY19 563,067
FY20 580,107

OUR PATIENTS SPEAK

10+ DIFFERENT LANGUAGES
INCLUDING SPANISH, AMERICAN SIGN LANGUAGE, VIETNAMESE, ARABIC, HINDI, CHOCTAW, AND PUNJABI

TOTAL NUMBER OF INPATIENT/NEW CONSULTS
FY18 18,691
FY19 19,165
FY20 19,920

KIDNEY TRANSPLANTS PERFORMED AT UMMC

127 132 132 127
2017 2018 2019 2020

LIVER TRANSPLANTS SINCE 2013

300+
DEPARTMENT OF MEDICINE

AWARDS

CARL G. EVERS
SOCIETY AWARDS

DEPARTMENT OF MEDICINE IMPACT REPORT

SCHOOL OF MEDICINE
PRE-CLINICAL PROFESSOR OF THE YEAR
2020
Zeb Henson, MD

SCHOOL OF MEDICINE
CLINICAL PROFESSOR OF THE YEAR
2021
Zeb Henson, MD
2020
Savannah Duckworth, MD

DEPARTMENT OF MEDICINE
TEACHER OF THE YEAR
2021
Zeb Henson, MD
2020
Jessie Harvey, MD

NELSON C. NELSON
ORDER OF TEACHING EXCELLENCE
2021
Savannah Duckworth, MD
Zeb Henson, MD
Lyssa Weatherly, MD

REGIONS TEACH PRIZE FINALISTS
2021
Lyssa Weatherly, MD
2020
Zeb Henson, MD

TRAILBLAZER TEACHING AWARDS
2021
TRAILBLAZER FACULTY OF THE YEAR
Savannah Duckworth, MD

TRAILBLAZER TEACHING AWARDS
2021
Amanda Clark, MD
Jessie Harvey, MD
Michelle Horn, MD
Pegah Hosseini-Carroll, MD
2020
Kenneth Bennett, MD
Jessie Harvey, MD
Brett Jeter, MD
Michael McMullan, MD
Rahat Noor, MD
Thomas Skelton, MD

DEPARTMENT OF MEDICINE
AWARDS

M2 ATTENDING
OF THE YEAR
2021
Demondes Haynes, MD

M3 ATTENDING
OF THE YEAR
2021
Asef Mahmud, MD

M4 ATTENDING
OF THE YEAR
2021
Jessie Harvey, MD

M2 ALL-STAR
RESIDENT
2021
Will Crews, MD

M3 ALL-STAR
RESIDENT
2021
John Caleb Grenn, MD

M3 RESIDENT
OF THE YEAR
2020
Brett Jeter, MD

M3 ALL-STAR
ATTENDING
2020
Brett Jeter, MD

M3 RESIDENT
OF THE YEAR
2020
John Caleb Grenn, MD

M4 ALL-STAR
RESIDENT
2021
Miles DeBardeleben, MD
2020
Nathalie Malcolm, MD
Samer Mehio, MD

M4 ATTENDING
OF THE YEAR
2021
Amanda Clark, MD

M4 RESIDENT
OF THE YEAR
2020
Adrian Sims, MD

M4 ALL-STAR
ATTENDING
2020
Amanda Clark, MD
Asef Mahmud, MD

M4 ATTENDING
OF THE YEAR
2021
Amanda Clark, MD

CARL G. EVERS
HALL OF FAME INDUCTION
2021
Amanda Clark, MD
John Caleb Grenn, MD

CARL G. EVERS
SOCIETY AWARDS

2021
Amanda Clark, MD

2020
Kenneth Bennett, MD
Jessie Harvey, MD
Brett Jeter, MD
Michael McMullan, MD
Rahat Noor, MD
Thomas Skelton, MD

2021
Demondes Haynes, MD

2021
Asef Mahmud, MD

2021
Jessie Harvey, MD

2021
Amanda Clark, MD

2021
Amanda Clark, MD
John Caleb Grenn, MD
Each year, UMMC’s Office of Diversity and Inclusion sponsors “The Pillars,” a series of institutional awards that honor individuals who have made meaningful contributions that broaden diversity and promote a climate of inclusion. Recent recipients from the Department of Medicine include:

**ALPHA OMEGA ALPHA**

**AOA FACULTY TEACHER OF THE YEAR**
- 2020: Zeb Henson, MD
- 2021: Michael Hall, MD, Michelle Horin, MD, Samer Mehio, MD, Adam Parker, MD, Priya Patel, MD, Meredith Sloan, MD, Caroline Garaway, MD, Keton Kingsley, MD, Jaslyn Paschal, MD, Sarah Grace Sobeski, MD, Kelly Dale, MD, AOA President

**AOA INDUCTEES**
- 2021: AOA Inductees
  - Michael Hall, MD
  - Michelle Horin, MD
  - Samer Mehio, MD
  - Adam Parker, MD
  - Priya Patel, MD
  - Meredith Sloan, MD
  - Caroline Garaway, MD
  - Keton Kingsley, MD
  - Jaslyn Paschal, MD
  - Sarah Grace Sobeski, MD
  - Kelly Dale, MD, AOA President

**SCHOOL OF MEDICINE ALUMNI HALL OF FAME**
- 2021: Bryan Barksdale, MD, Kenneth Bennett, MD, Joe Files, MD
- 2020: Bernard J. Drelling, MD

**INTERN OF THE YEAR**
- 2021: Raina Muthukumaru, MD
- 2020: Peyton Reves, MD

**CLINICIAN EDUCATOR TRACK GRADUATES**
- 2021: Will Crews, MD
- 2020: Dana Brunson, MD, Ashley Villarreal, MD

**HUMANISM AND EXCELLENCE IN TEACHING AWARD**
- 2021: Mani Young, MD
- 2020: Lucas Buchanan, DO, John Caleb Grenn, MD

**DEPARTMENT OF MEDICINE FACULTY RECEIVE PILLARS AWARDS**

- **DR. JEREMY COURTNEY**
  - **PGY IV, PULMONARY AND CRITICAL CARE**
  - **2021 EXCELLENCE AWARD**
  - The Excellence Award honors a student, resident, or fellow from any school of UMMC who demonstrates an outstanding commitment to the institution’s goals to promote diversity and inclusion within the institution and through service to the community.

- **DR. ERVIN FOX**
  - **PROFESSOR OF CARDIOLOGY**
  - **2021 BEACON AWARD**
  - The Beacon Award honors any clinical or non-clinical faculty member with an academic designation or rank who demonstrates inclusive excellence in teaching, instruction, research, or clinical practice at UMMC.

- **DR. DEMONDES HAYNES**
  - **PROFESSOR OF PULMONARY AND CRITICAL CARE AND ASSOCIATE DEAN OF ADMISSIONS, SCHOOL OF MEDICINE**
  - **2019 LIFETIME ACHIEVEMENT AWARD**
  - The Lifetime Achievement Award acknowledges an alumni who has made a significant contribution to improving health outcomes in diverse communities in the state of Mississippi.
DEPARTMENT OF MEDICINE
ANNUAL AWARDS

MASTER CLINICIAN

2020-2021
DR. DOUGLAS A. WOLFE
(CARDIOLOGY)

2019-2020
DR. MARK MEEKS
(GERIATRICS)

MENTORING

2020-2021
DR. MARION WOFFORD
(GENERAL INTERNAL MEDICINE)

2019-2020
DR. LILLIAN LIEN
(ENDOCRINOLOGY)

EDUCATOR/TEACHER

2020-2021
DR. PRAKHAR VIJAYVARGIYA
(INFECTION DISEASES)

2019-2020
DR. JESSIE HARVEY
(PULMONARY AND CRITICAL CARE)

OUTSTANDING SERVICE/FACULTY

2020-2021
DR. BRETT JETER
(HOSPITAL MEDICINE)

2019-2020
DR. BRYAN BARKSDALE
(CARDIOLOGY)

OUTSTANDING SERVICE/STAFF

2020-2021
SANDY SARTIN
(GENERAL INTERNAL MEDICINE)

2019-2020
LORRAINE FINDLEY, RN
(ENDOCRINOLOGY)

DEPARTMENT OF MEDICINE
IMPACT REPORT

OUR DIVISIONS

• ALLERGY, ASTHMA, AND CLINICAL IMMUNOLOGY
• CARDIOVASCULAR DISEASES
• DIGESTIVE DISEASES
• ENDOCRINOLOGY, METABOLISM, AND DIABETES
• GENERAL INTERNAL MEDICINE
• GERIATRICS AND GERONTOLOGY
• HEMATOLOGY AND ONCOLOGY
• HOSPITAL MEDICINE
• INFECTIOUS DISEASES
• NEPHROLOGY
• PULMONARY, CRITICAL CARE, & SLEEP MEDICINE
• RHEUMATOLOGY AND MOLECULAR IMMUNOLOGY
The Division of Allergy, Asthma, and Clinical Immunology is dedicated to pursuing cutting-edge, immunology-based research with direct clinical application, providing precision medicine-based care for patients with allergy, asthma, and immune-based illness, and educating the next generation of allergy, asthma, and immunology specialists for the citizens of Mississippi.
DIVISION OF CARDIOVASCULAR DISEASES

The Division is dedicated to excellence in the diagnosis and treatment of cardiovascular diseases, providing high-quality comprehensive cardiovascular services to the community and state with a continuous commitment to education and research.

HIGHLIGHTS

- UMMC’s Structural Heart Program, under the leadership of Kellan Ashley, MD, has received accreditation by the American College of Cardiology as a Transcatheter Valve Center. This accreditation is the first and only of its kind in Mississippi. Ashley’s expertise lies in minimally-invasive heart valve procedures, allowing patients to avoid long operations and recovery time.

- UMMC’s Advanced Heart Failure and Cardiac Transplant Program offers the only program in the state for advanced therapies for heart failure, including cardiac transplant as well as mechanical circulatory support for extracorporeal membrane oxygenation and ventricular assist device therapy. The program now offers tailored evaluation and management for patients with cancer and heart disease in the new Cardio-Oncology program, led by Brandon Lennep, MD.

- John Winscott, MD directs the Division’s Endovascular Cath Lab and its Endovascular Training Program for both interventional cardiology and vascular surgery. He specializes in complex lower extremity revascularization and leads UMMC’s multidisciplinary limb salvage program. UMMC is now home to one of the largest cardiac centers in the region that provides endovascular limb salvage, achieving recognition by the American College of Cardiology as a best performer.

- UMMC’s Adult Congenital Heart Disease program, under the leadership of William Campbell, MD, offers the state’s only program for patients with all forms of congenital heart disease. The program is accredited by the Adult Congenital Heart Association as a Comprehensive Care Center, the only one of its kind in Mississippi.

- Javed Butler, MBBS, MPH, MBA, Professor and Chair of the Department of Medicine is also the Patrick H. Lehman Chair for Cardiovascular Research. He is a leading authority on heart failure and is involved in multiple clinical trials and other national and international initiatives related to heart failure. Butler was identified by Clarivate’s Web of Science in 2020 as being in the top one percent of highly cited researchers in clinical medicine.

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DIVISION OF DIGESTIVE DISEASES

The Division of Digestive Diseases is dedicated to advances in clinical and translational science, state-of-the-art clinical care, and the education of future leaders in digestive and liver diseases.

HIGHLIGHTS

• The Division is home to three board-certified hepatologists who work closely with the transplant teams to manage patients before, during, and after their liver transplant. UMMC has performed more than 300 transplants since the program was established in 2013.

• UMMC is the only center in Mississippi that offers EndoFLIP® (endoluminal functional lumen imaging probe), a newer, minimally invasive type of technology that can be used during upper endoscopy to measure the dimensions, movement, and pressure inside the esophagus and other organs. This technology is used by our division and in close collaboration with UMMC’s Pediatric GI Division.

• The Division employs two experienced and well-trained advanced endoscopists and has the capability to perform advanced biliary direct imaging techniques that allow diagnoses not readily obtained by other methods.

• Sarah Glover, DO, Professor and Division Director, has bolstered the Division’s research mission with her distinguished work in hereditary alpha tryptasemia syndrome, inflammatory bowel disease, and COVID-19 and immunity. She is assisted in caring for complicated IBD and short bowel patients by Bobby Owens, PharmD. Her translational science laboratory is run by Tanya Robinson, PhD.
The Division of Endocrinology, Metabolism, and Diabetes is committed to excellence and innovation. Our providers deliver state-of-the-art management of diabetes and obesity, thyroid, pituitary, and adrenal disorders, osteoporosis and metabolic bone disease, and all types of subspecialty endocrine disorders.
The Division of General Internal Medicine is dedicated to improving the lives of adults through excellent patient care, ground-breaking research, and professional education.

HIGHLIGHTS

- Jimmy Stewart, MD, and Morgan McLeod, MD, serve as regular hosts of weekday radio shows on Mississippi Public Broadcasting (MPB), The Original Southern Remedy and Kids and Teens, respectively. The Original Southern Remedy is MPB’s flagship wellness program dedicated to keeping Mississippians healthy, while Kids and Teens is specifically targeted to wellness in the pediatric population. Tune in live or download as a podcast.

- Mohammad I. Ullah, MD is board-certified in both Internal Medicine and Sleep Medicine. In addition to serving as a primary care physician, Ullah conducts evaluations for sleep-related disorders, an area in which he is also an active researcher.

- Elizabeth Fryoux, MD and Jarrett Morgan, MD are board-certified in obesity medicine and operate a robust non-surgical weight management clinic.

- Patients with difficult-to-control hypertension are seen in the division’s Hypertension Clinic. Faculty members recognized by the American Society of Hypertension as specialists in clinical hypertension are Drs. Kimberly Harkins, Zeb Henson, Jimmy Stewart, and Marion Wofford.

- The Division hosts internal medicine and medicine-pediatric resident clinics at two locations. Staffed by Division faculty, the clinics include pharmacy consultation by Deborah Minor, PharmD, Professor of Medicine, Ha Phan, PharmD, and rotating pharmacy students.
The Division provides comprehensive health care to older persons throughout Mississippi as well as comprehensive dementia care through the MIND Center, and is dedicated to training future leaders in geriatrics and gerontology.
The Division of Hematology and Oncology is dedicated to developing the next generation of academic investigators and practitioners and providing evidence-based, compassionate care to our patients.
The Division of Hospital Medicine is dedicated to excellence in delivering collaborative, compassionate, and comprehensive care to high-complexity patients and their families and by shaping the next generation of medical professionals through mentorship and education.

HIGHLIGHTS

• During the first several months of the COVID-19 pandemic, the Division of Hospital Medicine cared for all non-ICU inpatients at UMMC with the novel virus. The exceedingly high census of patients seen by the division during this time was unprecedented.

• The Division recently initiated UMMC’s Procedure Service and performed more than 120 procedures in its first three months. This team is composed of Hospital Medicine faculty members and is able to perform paracenteses, lumbar punctures, central venous access, temporary hemodialysis catheter access, and arthrocentesis to any inpatient at UMMC.

• Rahat Noor, MD serves as an associate program director for the internal medicine residency program. In this role, he is a co-director of the quality improvement (QI) curriculum, which includes didactics about patient safety and QI as well as a yearly QI project by each resident.

• Fred Asher, MD and Seema McKenzie, MD serve as two of nine Physician Advisors for the UMMC health system. In this role, they work to enhance care coordination by working alongside social workers, nurse case managers, utilization review nurses, and caregivers to maximize value in quality of care.
HIGHLIGHTS

• The Division of Infectious Diseases hosts the most consulted inpatient program at UMMC, which includes two teams of general ID specialists, a COVID-19 ID service, and a transplant ID service.

• Under the direction of Ben Brock, MD, MSCI, the Adult Special Care Clinic, Mississippi’s largest Ryan White-funded clinic, provides comprehensive services for more than 2,000 patients living with HIV with quality metrics for HIV care exceeding regional and national averages.

• The Infectious Diseases Division operates two additional unique ventures that join public health, healthcare, and research:
  1. Express Personal Health, which merges private industry and public health funding in an academic setting to explore novel prevention, linkage, and care delivery methods for patients at risk for sexually transmitted diseases, HIV, and chronic viral hepatitis; and
  2. CIRCLE (an acronym for Collaborative for Innovation, Research, and Clinical Engagement), which houses several ID clinical trials, including the NIH-funded Multicenter AIDS Cohort Study (MACS)/Women’s Interagency HIV Study (WHIS) Combined Cohort Study.

• Under the leadership of Jason Parham, MD, MPH, UMMC’s Antimicrobial Stewardship Program was awarded Center of Excellence status by the Infectious Diseases Society of America for its comprehensive services engaging all areas of antimicrobial use, always under the guiding principles of pursuing best clinical practice and patient safety.
DIVISION OF
NEPHROLOGY

The Division of Nephrology is dedicated to advancing our knowledge of a wide range of complex kidney diseases and kidney transplants, training the next generation of nephrologist clinicians and leaders, and providing compassionate, pioneering, advanced care for our patients.

HIGHLIGHTS

- Tariq Shafi, MBBS, MHS joined the UMMC faculty in 2018 as Director of the Nephrology Division. An active researcher and prolific author, Shafi is a member of NIH’s Health Services Quality and Effectiveness Study Section and two editorial boards: Clinical Journal of the American Society of Nephrology and the American Journal of Kidney Diseases. In 2020, Shafi was elected a Fellow of the Southern Society of Clinical Investigation. He was also the recipient of the 2020 UMMC Herbert G. Langford Research Mentor Award. He is the principal investigator or co-investigator for five NIH-funded R01s focusing on patients with advanced kidney disease.

- UMMC hosts the state’s only kidney transplant center, and the Division evaluates approximately 600 patients each year for kidney transplants and manages about 1,100 transplant recipients in its outpatient clinics. Pradeep Vaitla, MD serves as Medical Director for UMMC’s Kidney and Pancreas Transplantation Programs.

- UMMC’s Nephrology Fellowship program is the major pipeline for training nephrologists in Mississippi. Neville Dossabhoy, MD, Fellowship Program Director, has revitalized the fellowship program and increased interest in nephrology at UMMC.

- The Population Health, Research, and Innovation for Specialized Management of Kidney Diseases (PRISM-Kidney) program provides state-of-the-art care to patients with kidney disease in Mississippi. As part of this program, the Division is now offering non-radioactive glomerular filtration function (GFR) measurement for persons considering kidney donation. The procedure is included in the living donor transplant evaluation visit. Other PRISM-Kidney activities include a nephrology population health registry, continuous glucose monitoring for dialysis patients with diabetes, home blood pressure monitoring (in conjunction with UMMC’s Telehealth Center) for dialysis patients, 24-hour ambulatory blood pressure monitoring, a clinical trial of nocturnal hemodialysis, and an advanced kidney disease education program designed to reduce disparities in living kidney donation. Programs in the final phases of development include two clinical trials focusing on genetic causes and treatment of kidney diseases.
The Division provides state-of-the-art pulmonary and critical care and is dedicated to research and training future leaders in pulmonary and critical care medicine.

HIGHLIGHTS

• Division faculty members and 12 pulmonary/critical care fellows care for approximately 2,000 ICU patients per year. The Division works closely with the Mississippi Critical Care Organization to provide advanced critical care services such as extracorporeal membrane oxygenation, critical care obstetrics, and a Pulmonary Embolus Response Team.

• The Division’s Interventional Pulmonology Section, headed by Michal Senitko, MD, offers advanced minimally invasive diagnostic and therapeutic approaches to various diseases of the trachea, lung, and pleural space.

• John Spurzem, MD, MSPH serves as Director of the Adult Cystic Fibrosis Center. His research includes several clinical trials funded by both industry and the National Cystic Fibrosis Foundation. Together with Joseph Majure, MD, a pediatric pulmonary specialist at UMMC, Spurzem received the Cystic Fibrosis Foundation’s 2020 Quality Care Award in recognition of “outstanding QI processes and accomplishments.”

• The Division created a Post-ICU Recovery Clinic to accommodate patients recovering from COVID-19. This clinic is a member of the Critical and Acute Illness Recovery Organization global network and one of only 17 similar clinics across the U.S. It has since been expanded to include all non-COVID ICU recovery patients as well.
The Division is committed to improving our understanding of the nature and treatment of rheumatic disease and dedicated to training future leaders in rheumatology and molecular immunology.

HIGHLIGHTS

- Vikas Majithia, MBBS, MPH has an active research portfolio, including several industry-sponsored clinical trials and two sponsored through the Patient-Centered Outcomes Research Institute. In addition to serving as Division Director, Majithia chairs the Department of Medicine’s Promotion and Tenure Committee and is Vice Chair of Faculty Development for the Department of Medicine.

- The Division’s Metabolic Bone and Osteoporosis Program provides osteoporosis care to Mississippians by supporting bone density measurement using DXA scans and administering as well as maintaining a robust service of injectable agents.

- The Division’s Lupus Clinic provides care to more than 200 patients of Systemic Lupus Erythematosus, managing this complex illness in collaboration with other specialties in the institution.

- More than 60 percent of rheumatologists currently practicing in Mississippi were trained in the Division’s fellowship program. Together, they formed the Mississippi Arthritis and Rheumatism Society, which meets annually to share the latest research and clinical information.
ZEB HENSON
APPOINTED ASSOCIATE CHIEF OF STAFF

Zeb Henson, MD was recently appointed UMMC’s Associate Chief of Staff. A Mississippi State University graduate, Dr. Henson received his medical degree and his postgraduate training in Internal Medicine and Pediatrics at UMMC, where he also served as Chief Resident in Internal Medicine. He joined the UMMC faculty in 2009 and is now Associate Professor of Medicine and Internal Medicine/Pediatrics Residency Program Director. He also serves as Course Co-Director for “Introduction to the Medical Profession 2” and for the M3 Medicine Clerkship.

As a clinician, teacher, and mentor, Henson is respected, inspirational, well-rounded, and perfectly suited for this role. In addition to board certifications in both internal medicine and pediatrics, he also received certification in hypertension by the American Society of Hypertension. His accolades related to teaching and mentoring are numerous and include Clinical Professor of the Year, Pre-clinical Professor of the Year, AOA Faculty Teacher of the Year, Department of Medicine Teacher of the Year, and was inducted into the Evers Society Hall of Fame and Norman C. Nelson Order. He has also served on various institutional committees and task forces, including the Healthcare Compliance Management Committee, Pharmacy and Therapeutics Committee, Executive Committee, and the Documentation Standards and Architecture Committee, for which he serves as Co-Chair.

Henson joins Kirk Reid, MD, Medical Chief of Staff, and the rest of the Chief Medical Officer (CMO) leadership team in his new role. The CMO leadership team, led by Michael Henderson, MD, oversees the infrastructure for quality improvement at UMMC.

MYRNA ALEXANDER NICKENS
NAMED VICE CHAIR FOR DIVERSITY AND INCLUSION

Myrna Alexander Nickens, MD, Professor of Medicine, was named the Department of Medicine Vice Chair for Diversity and Inclusion in 2019. Mississippi’s first female interventional cardiologist, Nickens has been on faculty at UMMC since 2012. Her current clinical interest lies in cardio-obstetrics focusing on high-risk cardiovascular disorders during pregnancy. She serves as President of the Women in Cardiology section of the American College of Cardiology. In her role as Vice Chair, Nickens formed a Diversity Equity and Inclusion (DEI) Committee, which aims to foster and support a work community that allows all people to thrive and prosper.

Committee members include Monica Watkins and Drs. Amanda Clark, Jessie Harvey, Rahat Noor, Elizabeth Paine, Calvin Thigpen, Richard Wells, and Charletta Wright.

The University of Mississippi Medical Center was selected as one of six teams to participate in the AAMC pilot program Applying Holistic Principles to Faculty Recruitment and Retention. This program is based upon work that was conducted at Baylor College of Medicine, and is designed to identify effective strategies to both increase faculty diversity and to increase recruitment of faculty from groups that are historically underrepresented in medicine.

“I’m really excited about the work we are doing throughout the department and campus, which is exemplified through the initiatives of the DEI Committee and the Medical Center’s enthusiastic embrace of the AAMC pilot program,” said Nickens.
TELEHEALTH CENTER OF EXCELLENCE RECEIVES NEW ROUND OF FUNDING

Originally named one of only two Telehealth Centers of Excellence in the U.S. in 2017, the Health Resources and Services Administration approved continuing its designation for an additional five years, starting September 30, 2021, with funding of slightly more than $16 million.

With continued designation as a Telehealth COE, plans are underway for several new initiatives, according to Chandra. One initiative is to address the long-term health consequences of COVID-19 through telehealth. Often referred to as “Long Covid,” this initiative will be led by ANDY WILHELM, MD, Director of the Department of Medicine’s Division of Pulmonary, Critical Care, and Sleep Medicine. The project team, which includes several faculty members from the Department of Medicine, will follow 300 COVID-19 patients discharged from University Hospital for one year. At the end of one year, clinical and economic outcomes will be assessed and analyzed.

Chandra also noted that the Telehealth Center’s Remote Patient Monitoring Program will be utilized for management of several chronic diseases, including COPD, congestive heart failure, adult asthma, gestational diabetes, and hypertension in chronic kidney disease. TARIQ SHAFI, MBBS, MHA, Director of the Department of Medicine’s Nephrology Division, will lead efforts for the initiative addressing hypertension in chronic kidney disease.

After earning his medical degree from Dow Medical College in Karachi, Pakistan, Shafi completed his residency at Wayne State University in Detroit and a nephrology fellowship at Johns Hopkins Hospital. He is an NIH-funded clinician-scientist with a research focus on cardiovascular risk factors and outcomes in patients with kidney disease treated with dialysis. Shafi is also a member of the NIH Health Services Quality and Effectiveness Study Section and serves on the editorial boards of the Clinical Journal of the American Society of Nephrology, the American Journal of Kidney Diseases, and Kidney360.

Shafi’s telehealth initiative has built a program for remote home blood pressure monitoring for patients with chronic kidney disease including those treated with dialysis. The program expects to provide home blood pressure monitoring to about 50 patients over the course of one year.

The population health intervention to blood pressure monitoring will be seamlessly integrated into the flow of clinical care with regular reports integrated to the Epic electronic medical record. The project will evaluate the feasibility of broader expansion of blood pressure monitoring in this patient population and also assess clinical outcomes, cost effectiveness, patient satisfaction, and provider satisfaction.

Shafi’s clinical research programs also include biomarker studies using large specimen banks to understand the mechanisms of symptoms experienced by patients with kidney failure, a study to understand the cardiac arrhythmias contributing to sudden death in patients on dialysis, and a recently funded collaborative trial (with Duke University) designed to improve living kidney transplantation before dialysis initiation and reduce disparities in this area.

Remote patient monitoring uses digital technologies to collect medical and other forms of health data from individuals in one location and electronically transmit that information securely to healthcare providers in a different location for assessment and recommendations.

“Access to specialty care is often limited, especially to those living in rural areas,” said Clark. Remote patient monitoring is a powerful tool in helping to address access to care issues, especially for chronic diseases such as diabetes and hypertension.

Clark’s article, “Digital Informed Consent in a Rural and Low-Income Population,” which was published in JAMA Cardiology in June 2020, received special recognition for being rated in the 91st percentile for impact. Another article by Clark and colleagues demonstrating the effectiveness of remote patient monitoring, “Home Blood Pressure Telemonitoring with Remote Hypertension Management in a Rural and Low-Income Population,” will be appearing in the journal, Hypertension.

VISHNU GARLA, MD
Associate Professor of Medicine in the Department of Medicine’s Division of Endocrinology, Metabolism, and Diabetes, is working with members of the Telehealth Center’s Diabetes Management Program to treat patients with diabetes. Mississippi consistently has among the highest rates of diabetes (14.3%) and prediabetes (36.5%) nationally.

“Mississippians face several barriers for diabetes management,” said Garla. “They often have to travel two to three hours to see a doctor, and that’s often not feasible for them. The Telehealth Center’s Diabetes Management Program provides patients with access to education so they can better manage their disease,” he said.

Several UMMC Telehealth COE programs have met with great success. DONALD “TREY” CLARK, III, MD, Associate Professor of Medicine in the Department of Medicine’s Division of Cardiovascular Diseases, leads the Telehealth Center’s Remote Patient Monitoring Program.

SAURABH CHANDRA, MBBS, PhD, UMMC’s Chief Telehealth Officer and an associate professor in the Division of Pulmonary, Critical Care, and Sleep Medicine, noted, “Being named a Telehealth Center of Excellence is an incredibly prestigious designation. We will work to be deserving of this honor by thinking strategically about how to implement innovative telehealth programs and provide telehealth services throughout Mississippi and beyond.”

Chandra summarized the mission of the UMMC Telehealth Center of Excellence (COE), saying that it was threefold. “We want to (1) serve as a platform for the development of innovative telehealth applications, (2) assess the efficacy and economy of telehealth services in the improvement of healthcare in underserved and rural populations, and (3) share expertise and resources to assist others in the effective integration of telehealth practices into rural healthcare delivery.”

Several UMMC Telehealth COE programs have met with great success. DONALD “TREY” CLARK, III, MD, Associate Professor of Medicine in the Department of Medicine’s Division of Cardiovascular Diseases, leads the Telehealth Center’s Remote Patient Monitoring Program.
Zerelda Esquer Garrigos, MD and Prakhar Vijayvargiya, MBBS recently joined the faculty in the Department of Medicine's Division of Infectious Diseases with a specific charge: establish UMMC’s Transplant Infectious Diseases Program. Their paths to Mississippi were both circuitous in nature and international in scope.

Garrigos was raised in Mexico and earned her MD from the Universidad Autonoma De San Luis Potosi Facultad De Medicina in 2010. She completed her residency at Albert Einstein College of Medicine in New York and a fellowship in general infectious diseases and transplant infectious diseases at Mayo Clinic in Rochester.

Vijayvargiya was raised in Pachore, India and earned his MBBS degree from Grant Medical College in Mumbai. He completed his residency at the University of Miami Palm Beach Campus and a fellowship in general infectious diseases and transplant infectious diseases at Mayo Clinic in Rochester—where he and Garrigos met.

Their interests and expertise in transplant infectious diseases aligned with the planned initiatives of UMMC’s administration, including Jason Parham, MD, Director of the Division of Infectious Diseases. “Recruiting faculty to start a comprehensive transplant ID program has been on my wish list for a while,” said Parham. “It was clear from our first interview that Drs. Garrigos and Vijayvargiya were two exceptionally well-trained and motivated physicians, and that they were the right team to build this program.”

HIV-positive patients frequently experience organ failure and, historically, they were not seen as good candidates for kidney transplants. Over time, however, HIV-positive transplantation surgery was found to be safe and effective.

Mississippi has a relatively large population of residents who are infected with HIV: it has the nation’s 8th highest rate of HIV diagnoses among all adults and the 6th highest rate of AIDS diagnoses. UMMC’s Adult Special Care Clinic, which specializes in HIV care provided through the Division of Infectious Diseases, serves more than 2,100 patients.

With the arrival of Garrigos and Vijayvargiya, Mississippians with HIV who also have kidney failure will no longer need to travel out of state to get a kidney transplant. They will work closely with UMMC’s transplant team to manage the care of their transplant patients.

Garrigos and Vijayvargiya are specifically trained to monitor drug therapy for patients living with HIV and manage any infections they might have before and after the transplant surgery. “We make sure that each patient’s immune system will tolerate the anti-rejection drug therapy they would receive after a transplant,” said Garrigos. “We perform a thorough evaluation of patients’ previous infections and evaluate their risk.”

Vijayvargiya is pleased with the journey that led him and Garrigos to UMMC to establish the Transplant Infectious Diseases Program. “It’s a unique opportunity to start something from scratch, and to design a program the way we want it to be,” he said. “We really like the transplant team, and the ID team here is incredibly supportive.”

UMMC received accreditation from the Adult Congenital Heart Association as one of only 40 Comprehensive Care Centers in the nation.

Requirements for certification are stringent. Comprehensive Care Centers must include on their staff a minimum of two adult congenital heart disease (ACHD)-certified cardiologists, board-certified or board-eligible in either pediatric or internal medicine cardiology. They also must have a cardiothoracic surgery and cardiothoracic intensive care unit led by an ACHD-certified surgical director who is board-certified as a congenital heart surgeon by the American Board of Thoracic Surgery.

Other requirements include having access to heart failure and heart transplant programs, offering interventional cardiac catheterization and interventional electrophysiology, and offering impatient, outpatient and transitional services, patient-centered care and psychology and social work services.

Comprehensive Care Centers also must offer cardiac MRI, cardiac computed tomography, pulmonary arterial hypertension services, exercise testing and cardiac rehabilitation, and reproductive services.

Congenital heart disease is the most common birth defect in the U.S. and is diagnosed in close to one percent of all births—about 40,000 per year. The Centers for Disease Control and Prevention estimates that approximately 2.4 million children and adults in the U.S. are living with congenital heart disease.
Kellan Ashley, MD, Associate Professor in the Department of Medicine’s Division of Cardiovascular Diseases, reported that UMMC recently received accreditation from the American College of Cardiology for its Transcatheter Aortic Valve Replacement (TAVR) Program. Patients who have severe, symptomatic aortic stenosis and wish to avoid traditional open heart surgery might be candidates for TAVR. TAVR is a less invasive procedure that typically allows a new valve to be inserted into the diseased aortic valve through a catheter placed in the groin. It is less complicated than open heart surgery and is especially suitable for older patients with chronic diseases.

Ashley, who directs UMMC’s Structural Heart Program, works with a dedicated TAVR team consisting of cardiologists, cardiothoracic surgeons, echocardiographers, anesthesiologists, nurse practitioners, nurse coordinators and members of the surgical and cardiac catheterization lab staff. "We enjoy a high level of collaboration among the TAVR team," said Ashley. "As a result," she continued, "We keep improving our procedures and the experiences of our patients. When we first started doing TAVR several years ago, patients went to the ICU and had several days’ stay in the hospital. It was better than open heart surgery, but today we take a minimalist approach. Patients generally can go home one day after the procedure."

Ashley, an interventional cardiologist, earned her medical degree and completed her residency at UMMC. She then went to Cleveland Clinic Foundation where she completed a fellowship in cardiovascular medicine and an advanced fellowship in interventional cardiology. She joined the faculty at UMMC in 2018.

The Procedure Service was started in 2019 with four Hospital Medicine faculty and 1-2 rotating internal medicine residents. In its first three months, more than 120 procedures were performed in the hospital. Lance Majors, MD, Assistant Professor, serves as Director; Pradeep Bathina, MD, Brett Jeter, MD and Zack Knott, MD also staff the service. The goals of the service are to provide excellence in patient safety and quality of inpatient procedures, improve patient care by streamlining procedure availability, and decrease unnecessary length of stay from delayed procedures for hospitalized patients. In a review of length-of-stay data related to procedure team interventions, the average hospital length of stay for a patient was 10.5 days for a paracentesis and 24 days for a lumbar puncture when performed by the Procedure Team compared to 20.3 days for a paracentesis and 27.5 days for a LP when performed by other hospital services.

The service is available from Monday-Friday 8:00 AM until 5:00 PM to any hospitalized patient. Procedures performed include paracentesis, lumbar puncture, central venous access, temporary hemodialysis catheters, and arthrocentesis. UMMC RECEIVES ACCREDITATION FOR TRANSCATHETER AORTIC VALVE REPLACEMENT PROGRAM

Kellan Ashley in clinic

Drs. Lance Majors and Brett Jeter are two of the physicians that staff the Procedure Service

HOSPITAL MEDICINE’S PROCEDURE SERVICE FILLS A NEED ACROSS CAMPUS

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Dr. Kellan Ashley in clinic
November is National Hospice and Palliative Care Month. The purpose of the Senate’s 2021 bipartisan resolution, endorsed by the National Hospice and Palliative Care Organization, is to honor the work and dedication of long-term and palliative care providers and the critical services they provide to families and their loved ones facing serious illnesses.

Each year, according to the World Health Organization, an estimated 40 million people are in need of palliative care, but only about 14 percent of them receive it.

The Department of Medicine established its Adult Palliative and Supportive Care Service Line in 2016. Headed by J. Keith Mansel, MD, Professor of Medicine, the service line currently operates an inpatient consult service and is most frequently asked to help with goals of care, facilitating family meetings, and guiding patients with decisions surrounding serious illness.

Mansel, a pulmonary and critical care physician, decided to return to training at the age of 58 for a palliative care fellowship at Mayo Clinic, where he originally trained after completing medical school at UMMC. Afterwards, he remained on staff for four years before being recruited to his home state of Mississippi to lead the Palliative and Supportive Care Service Line. “At age 63, I had to consider if I wanted to start something new,” he said. “But my wife and I love Mississippi, and it’s a chance to give something back.”

Mansel is the director of the fellowship program in Hospice and Palliative Medicine. The one-year training program provides inter-professional learning opportunities, clinical experience, didactic instruction, and intensive communication skills training and practice. Four fellows have trained in the program since 2018.

Working side-by-side with Mansel are Brooke Banks, NP and Carole Ward, RN. Ward, who has worked with Mansel for more than five years, said, “I enjoy working with this team to help our patients and families better understand their illness and make wise decisions.”
Michal Senitko, MD, Assistant Professor of Medicine and Surgery and Chief of the Department of Medicine’s Interventional Pulmonology (IP) Section, is building a team that focuses on minimally invasive diagnostic and treatment methods for patients with lung disease. He is serving as the Section’s inaugural chief with a team that includes George E. “Trey” Abraham III, MD, Professor of Medicine; advanced bronchoscopist Yang Guo, MD, Co-director of UMMC’s Lung Cancer Program; Jonathan Hontzas, NP; and Carol R. Bartley, RN. Senitko first performed an endoscopic lung volume reduction procedure in September 2020, the first in the state since FDA approval in 2018. Lung volume reduction is one of a growing number of novel procedures performed by Senitko and his team. They also are using a novel approach to the biopsy of peripheral lung nodules that uses an adjunctive imaging modality added to navigational bronchoscopy, which allows them to confirm instrument location within the lesion in question. Senitko also has expertise in the management of central airway obstruction; the ability to select from several therapeutic approaches helps the team serve as Mississippi’s main referral center for lung disease.

Lung cancer is the leading cause of cancer-related deaths in Mississippi, and the IP Section plans to continue introducing new technologies that focus on shortening the ‘nodule-to-diagnosis’ time and endoscopic treatment. “One of our other top priorities is to offer an endoscopic lung volume reduction treatment option for patients with advanced COPD” said Senitko.

Brandon Lennep, MD, Assistant Professor in the Department of Medicine’s Division of Cardiovascular Diseases, has been named to direct UMMC’s Cardio-Oncology Clinic, located within the Cancer Center and Research Institute at its Jackson Medical Mall outpatient facilities.

Developments in cancer treatment and care have dramatically improved survival for cancer patients, allowing them to live longer, fuller lives. However, just as these treatments can damage and kill cancer cells, they can also damage other parts of the body, including the heart. Cardio-oncology is an emerging field in cardiovascular medicine, developed in response to the growing need for clinicians with expertise in both cancer and cardiology.

Cardio-oncology focuses on the detection, monitoring, and treatment of cardiovascular disease occurring as a side effect of chemotherapy and radiotherapy. Both cancer treatment modalities can cause cardiac dysfunction, a major cause of morbidity and mortality in the oncologic population.

Lennep completed two fellowships at UMMC: one in cardiovascular diseases, and another in advanced heart failure and transplant cardiology. He also spent additional training time in cardio-oncology clinic at Washington University School of Medicine in St. Louis.

“I’ve been very pleased with the recent growth of our clinic,” said Lennep. “The collaboration between our Cardiology and Hematology/Oncology divisions allows us to deliver high-quality cardiovascular care in a setting that promotes open communication among doctors and reduces stress on a heavily-burdened patient population.”

Stephanie Elkins, MD, Director of the Department of Medicine’s Division of Hematology and Oncology, agrees. “We are delighted to have this service to offer to our patients.” she said. “It allows us to evaluate and intervene, hopefully before any cardiac toxicity can occur from our medications.”

Lennep is gratified by the strides being made in the cardio-oncology clinic. “It’s been rewarding to see our patients with heart disease receiving the best possible cancer treatments, and even more rewarding to hear those patients express their thanks for what we are doing,” he said.
The Department of Medicine has a rich history in education and has paved the way in this mission throughout campus.

The Department of Medicine has a rich history in education and has paved the way in this mission throughout campus.

18
ALL-STAR ATTENDINGS
by the Evers Society

10
Faculty in the
EVERS HALL OF FAME

31
NELSON C. NELSON
ORDER OF TEACHING EXCELLENCE
Inductees

10
CLINICAL PROFESSORS OF THE YEAR

15
TRAILBLAZER
TEACHING AWARDS

The Department of Medicine has a rich history in education and has paved the way in this mission throughout campus.
PAVING THE WAY: NEW LEADERS IN THE SCHOOL OF MEDICINE

MICHAEL R. MCMULLAN, MD. Professor in the Division of Cardiology, was named Associate Dean for Student Affairs for the School of Medicine in 2020. He also serves as Division Director of Cardiovascular Diseases and Director of the Cardiovascular Service Line, and in the past has served as Director of the state’s only Adult Congenital Heart Program. McMullan has received numerous teaching accolades, including the Carl G. Evers Hall of Fame and Norman C. Nelson Order induction, Clinical Professor of the Year, Department of Medicine Teacher of the Year, and the Trailblazer Teaching Award. In his role as Associate Dean for Student Affairs, McMullan, along with Dr. Weatherly, works with more than 650 medical students annually, guiding them through everything from orientation and the White Coat Ceremony at the beginning of medical school, to preparation for the Match, and finally to the Long Coat Ceremony the evening before their graduation from medical school.

DEMONDES HAYNES, MD. Professor in the Division of Pulmonary and Critical Care, was named Associate Dean of Medical School Admissions in 2019. He has served in the past as both Executive Vice Chair for the Department of Medicine and Fellowship Program Director for Pulmonary and Critical Care. Haynes has been awarded numerous accolades, including Intern of the Year, Fellow of the Year, All-Star Clinician, AOA Resident of the Year, Teacher of the Year and, most recently, M2 Clinical Professor of the Year in 2021. In his current role, he focuses on broadening outreach and increasing diversity within each medical school class. One such initiative is an early assurance program for students underrepresented in medicine – the PROMISE program. PROMISE (Promoting Recruitment Opportunities in Medicine with Individual Study Experience) aids students through the admission process, outlines requirements for acceptance, and provides prep work for the MCAT. PROMISE is just one of the innovations that Haynes and his staff in admissions have created. They also offer numerous webinars and outreach programs to pre-medical students to help them better understand and be better prepared for the medical school admissions process. Haynes spends a significant amount of time providing individual counseling services to students to help them create their individual plans and paths to medical school.

LYSSA WEATHERLY, MD. Assistant Professor in the Division of Geriatrics, was named Assistant Dean for Student Affairs for the School of Medicine in 2019. She serves as an associate program director in the internal medicine residency program with particular interest in medical student and resident education and mentorship. Weatherly also serves as Course Co-director for the M2 Introduction to the Medical Profession and the M3 Bootcamp Transition to Clinical Medicine courses as well the UMMC chapter advisor for the Gold Humanism Honor Society. Weatherly has received numerous accolades, including Intern of the Year, Resident of the Year, Fellow of the Year, Clinical Professor of the Year, Department of Medicine Teacher of the Year, and induction into the Carl G. Evers Hall of Fame and Norman C. Nelson Order. In her role as Assistant Dean of Student Affairs, Weatherly works alongside the Office of Student Affairs to foster an environment that promotes academic success and medical student development. She focuses on student counseling, advising, wellness initiatives, and the smooth transition from classroom to clinical education.
Jimmy Stewart, MD, Professor in the divisions of both General Internal Medicine and Pediatrics, was named Associate Dean of Graduate Medical Education in 2017. In this role, Dr. Stewart serves as the Designated Institutional Officer (DIO) and oversees all resident and fellow training programs at UMMC. Currently, the institution trains 670 residents and fellows in 64 programs throughout campus. The DIO is responsible for assuring compliance with Accreditation Council for Graduate Medical Education (ACGME) Institutional, Common, and specialty-specific program requirements and other applicable professional, educational, accreditation, and regulatory standards.

Stewart serves as Co-Investigator of an American Medical Association (AMA) grant to transform the way future physicians are trained. UMMC was awarded this grant, entitled The GOL2D Project (Goals of Life and Learning Delineated): Collaboration Across Academic Health Systems to Better Align GME with Learner, Patient, and Societal Needs, in partnership with Vanderbilt University Medical Center. The AMA is providing $1.8 million over five years to fund each of the eleven innovation projects that were selected to promote systemic change in residency training.

S. Calvin Thigpen, MD, Associate Professor in the Division of General Internal Medicine, was named Vice Chair of Education for the Department of Medicine in 2021. A Rhodes Scholar, Thigpen completed medical school, residency, chief residency and a hematology/oncology fellowship at UMMC. He also serves as Director for the Internal Medicine Residency Program. He is the immediate Past-President of the Mississippi American College of Physicians, which received Chapter Excellence Awards under his tenure. He is the recipient of multiple accolades, including Resident of Year, Fellow of the Year, Nelson C. Order, Evers Hall of Fame, Clinical Professor of the Year, Trailblazer Teaching Award, Department of Medicine Teacher of the Year, and AOA Teacher of the Year. In his role as Vice Chair of Education, Thigpen oversees all education programs within the Department, which includes two residency programs, 14 fellowship programs, the third-year medical student clerkship, fourth-year medical student sub-internship, and 26 additional medical school courses.
Growing up in East Atlanta in a single-parent home, I learned the true meaning of hard work and sacrifice needed to survive. My mom always instilled in me that whatever I put my mind to, I could achieve. Whenever anyone asked what I wanted to be when I grew up, my eyes would light up, and a giant grin would come across my face as I’d reply, “a doctor.”

My childhood dream of becoming a physician to help heal others was something I held on to despite the hurdles I faced. Coming from Atlanta, Georgia to Mississippi was a considerable adjustment with a slower pace. I attended Alcorn State University on a full band scholarship as I believed that I would be a professional flutist in addition to becoming a doctor.

While attending Alcorn, I was asked by an advisor what my plans were after college. Emphatically I said I was going to be a physician. He took one look at me and said, “Have you considered an alternative?” Stunned into silence, I sat there looking at him with a blank stare. I had never had a teacher or an advisor tell me that I should consider another career. I explained that there were no other options because I didn’t see myself doing anything else. That moment still sticks with me as a reminder that despite what others may think, as long as I believe in myself, that is what counts.

I want to say that the fairy tale of getting into medical school right after college came true, but that was not the case. After failing the MCAT, I enrolled in Mississippi College’s Master of Medical Science program, where I learned that I was far more capable than I previously believed.

Third time’s a charm

I retook the MCAT, applied to UMMC, but was not accepted. I was working at Target as a cashier to try and make ends meet. One day as I was receiving the items across the conveyor belt, I saw that my customer was the then Dean of Admissions for UMMC Medical School. Immediately, I said excitedly, “I know you probably don’t remember me, but I’m reapplying to medical school this year.” Startled, she said, “That is wonderful, I am so glad you are not giving up.”

I retook the MCAT, and this time I was ready. I look back at that time and remember studying my MCAT prep book constantly, even while walking my dog. My MCAT score was high enough not only for admission but to qualify for a full academic scholarship!

Residency Humbles You

I chose Internal Medicine and Pediatrics as my specialty. I loved the idea of being able to take care of anyone at any age—the feeling of wanting to “do it all” in Medicine. Residency was a trying and humbling time, with the long hours, extensive information one learns, and battling fatigue. Not to mention getting married, having a child, and being a trainee through a pandemic.

But when I reflect on residency, the times that helped me move on were the smallest moments. You know, the ones no one is ever around to witness. For example, I was in the pediatric ER doing a shift when an African-American seven-year-old female came in. After workup, education, and discharge instructions, she beams up and looks at me. Thinking she was just happy that I told her they could leave, her mom looks at her and says, “Go ahead and tell her.”

The young girl looks at me and says, “I didn’t know we could be doctors. Will you be my doctor?” I looked at her as tears welled in my eyes. I couldn’t help but think of myself as a child. Some weeks later, she had a follow-up appointment in my clinic. Her mom explained that she had been so excited to see me and going around telling everyone that she, too, will be a doctor one day, just like Dr. Courtney.
Sharon Douglas, MD, Professor of Medicine and Associate Dean for Education at the G.V. (Sonny) Montgomery VA Medical Center, recently celebrated her 35th anniversary at UMMC. Douglas clinically practices pulmonology at the VA and is heavily involved in medical student education at UMMC. In her education role, she advises medical students about the residency match process, meets twice monthly with the Deans’ Group, and addresses all educational issues related to the VA. She also writes Medical Student Performance Evaluations for the Office of Medical Education, which are required letters for residency.

Douglas also has a strong interest in ethics, having earned certification in healthcare ethics from the University of Washington in 1998. She is a core faculty member of the Center for Bioethics and Medical Humanities at UMMC, Associate Chief of Staff for Education and Ethics at the VA, and a former member of the Veterans Health Administration National Ethics Committee. The VA has recognized Douglas’ work with a number of awards, including the 1998 Chief of Staff Award, the 2005 VA Secretary’s Hero Award for her work in disaster response following Hurricane Katrina, and the 2009 William A. Nelson Award for Excellence in VHA Healthcare Ethics. Douglas has been selected as a School of Medicine All-Star Teacher three times, AOA Teacher of the Year in 2010, and Keynote Speaker for both the Long Coat and White Coat Ceremonies in recent years.

Savannah Duckworth, MD, Assistant Professor in General Internal Medicine, received the 2021 Trailblazer of the Year Award in the School of Medicine. The Trailblazer Teaching Awards are given each year by the Office of Medical Education to celebrate faculty who have shown dedication to excellence and innovation in undergraduate medical education. This award is the only one in the School of Medicine in which a faculty member is recognized for outstanding performance by his or her peers. In 2021, faculty members also placed nominations for the inaugural Trailblazer of the Year award to represent the “best of the best.” Duckworth completed medical school and internal medicine residency at UMMC. She serves as Course Director for the Introduction to the Medical Profession I course and M3 Ambulatory Elective in Internal Medicine. Duckworth is also the medical director of the Judith G. Gearhart Clinical Skills Assessment Center, which provides a setting for medical students to practice and be given feedback in communication and clinical skills using a realistic clinical environment and standardized patients.
Christina Wallace, MD must be getting used to setting records for the Mississippi Band of Choctaw Indians. In 2019, Wallace was the first member of her tribe to earn her medical degree from UMMC. Now in her third year of residency, Wallace is in line to also become the tribe’s first internal medicine physician.

With more than 11,000 members, the Mississippi Band of Choctaw Indians is the only federally-recognized American Indian tribe living within the state of Mississippi. Its lands cover more than 35,000 acres in ten different Mississippi counties.

American Indians and Alaska Natives represent less than one-half of one percent of the nation’s physician workforce. Of the estimated 5.2 million American Indians and Alaska Natives in the U.S., only about 3,400 are physicians.

Wallace’s interest in medicine started at a young age. Her grandfather was a “traditional healer,” and her mother was a nurse at the G.V. “Sonny” Montgomery Veterans Affairs Medical Center in Jackson.

Married with two children, Wallace earned her undergraduate degree in chemistry from the University of Mississippi. Prior to applying to medical school, Wallace worked for the Mississippi State Department of Health in the biomonitoring and chemical terrorism section of its Public Health Laboratory. She also worked as a patient liaison for the Choctaw Health Center in Neshoba County.

Those experiences only strengthened her desire to become a primary care physician. “I plan to practice in Mississippi and stress to my patients the importance of preventive care,” said Wallace. “At some point, I want to give back to my community.”

Wallace will undoubtedly add tremendous value to her community. When describing her attributes, Michelle Horn, Associate Professor of Medicine and Director of the Department of Medicine’s Division of General Internal Medicine, said, “[Wallace] has an innate ability to make patients and their families feel at ease and is able to explain things to them in such an easy-to-understand manner. Even for physicians it’s sometimes difficult to achieve this skill, but with Christina, it’s a part of her nature, and patients certainly respond to that and to her.”

Wallace’s mother, Barbara Willis, made a traditional Choctaw dress to help celebrate her daughter’s graduation from medical school. (Photo courtesy of Wes Wallace)
INTERNAL MEDICINE RESIDENCY LEADERSHIP

S. CALVIN THIGPEN, MD
VICE CHAIR OF EDUCATION, DEPARTMENT OF MEDICINE
PROGRAM DIRECTOR, INTERNAL MEDICINE RESIDENCY PROGRAM

AMANDA CLARK, MD
ASSOCIATE PROGRAM DIRECTOR

KIMBERLY HARKINS, MD
ASSOCIATE PROGRAM DIRECTOR

RAHAT NOOR, MD
ASSOCIATE PROGRAM DIRECTOR

LYSSA WEATHERLY, MD
ASSOCIATE PROGRAM DIRECTOR

CHARLETTA WRIGHT, MD
ASSOCIATE PROGRAM DIRECTOR

2021-2022 CHIEF MEDICAL RESIDENTS
Drs. Ashley Villareal, Austin Burkenstock, Anna Owings, and Caleb Stanfield

INTERNAL MEDICINE RESIDENCY PROGRAM CORE FACULTY

ASHRAF ABDO, MD
LICY YANES CARDozo, MD
J. BEN BROCK, MD
JESSIE HARVEY, MD
DIRECTOR, RESIDENT RESEARCH
DIRECTOR, POINT-OF-CARE ULTRASOUND CURRICULUM

J. CLARK HENEGAN, MD
BRETT JETER, MD
JESSIE LAVENDER, MD
ELIZABETH PAINE, MD
DIRECTOR, PRIMARY CARE TRACK
CHAIR, CLINICAL COMPETENCY COMMITTEE
2021-2022
INTERNAL MEDICINE RESIDENTS

PGY – III

Hala Aboissi, MD
Himmat Brar, MD
Darin Busby, MD
Hilary Daugherty, MD
Paul Davis, DO
Miles Delarbreten, MD
Kane Edwards, MD
Anna Gladfeather, MD
Thor Goodfellow, MD
Taylor Harvey, MD
Sandeep Kancharla, MD
Mobin Khokhrakan, MD
Heidi Latiolais, MD
Mia Missel, DO
Valencia Oglesby, DO
Mauricio Ordaz, DO
Ayush Patel, DO
Aleks Pavlovic, DO
Shea Qarqish, DO
James Roberts, MD
Melinda Solomon, MD
Petros Svoronos, MD
Peyton Rives, MD
Liz Young, MD

PGY – II

Zak Ali, MD
Preston Bell, MD
Steven Billingsley, MD
Lauren Bradley, MD
Reese Bulmash, DO
Jabari Burks, MD
Hilary Elom, MD
Arsalan Hamid, MBBS
Yousef Hindi, MD
Clara Hitchcock, DO
Mary Moses Hitt, MD
Jamal Kang, MD
Michael McCain, MD
Adil Mohyadin, MD
Rana Muthukumar, MD
Ritesh Patel, MD
Mari Rader, MD
Utt tav Sandersa, DO
Ryan Shephard, DO
Mindy Talley, MD
Sparsh Tarugu, MD
Christopher Tidwell, MD
Sydney West, MD
Christian Young, MD

PRIMARY CARE PGY – III

Allie Price, DO
Christina Wallace, MD

PRIMARY CARE PGY – II

Rebecca Mullins, DO
Sara Parks, MD
The first “virtually recruited” class consisted of twenty-six categorical and five medicine-pediatrics interns, who started in July 2021. Residency and fellowship recruitment is currently virtual for the 2021-2022 academic year.

Current board pass rates are 96 percent for internal medicine and 100 percent for medicine-pediatrics, both above the national mean of around 91 percent. The Department offers a free board review course for all residents.

In 2019, the Medicine-Pediatrics intern class increased to five interns per year. This program expansion, now with 19 total residents reflects the growth of the Medical Center and its education efforts.

The internal medicine residency program implemented an X+Y+Z schedule in the 2021-2022 year, allowing for more schedule flexibility and increased subspecialty clinic exposure.

Point of Care Ultrasound (POCUS) Curriculum, led by Jessie Harvey, MD, includes ultrasound didactics and hands-on practice with technique. The Department recently obtained two additional ultrasound machines, now with a total of five for use while on wards or in the MICU.

Licy Yanes Cardozo, MD was named Director of Resident Research for the Internal Medicine Residency Program. She oversees research curricula and aids residents in their pursuit of clinical research or quality improvement projects.

Medicine-Pediatrics residency graduates have a long history of serving in primary care after graduation, with recent graduates serving in ten communities throughout Mississippi.

Jessie Lavender, MD was named Director of the Primary Care Track for the internal medicine residency program. In her role, she will serve to enhance ambulatory education in both general medicine and subspecialty medicine.

The Internal Medicine Residency Program, in partnership with Magnolia Regional Residency Program, received a $20,000 grant, entitled Building Trust through Diversity, Health Care Equity and Inclusion in Internal Medicine Training. The grant is sponsored by the American Board of Internal Medicine (ABIM), ABIM Foundation, Alliance for Academic Internal Medicine, American College of Physicians, and the Josiah H. Macy Foundation. Principal investigators include Drs. Jessie Lavender, Lyssa Weatherly, and Hayes Baker of Magnolia Regional. The grant will expand the curriculum for primary care residents to include education about community-focused health topics.

The Clinician Educator Track was implemented in 2019 and is a longitudinal curriculum throughout two academic years to develop teaching and leadership skills of residents interested in becoming clinician educators. The track includes eight upper-level residents who teach their peers, medical students, and assist in teaching two medical student courses. Drs. Amanda Clark and Lyssa Weatherly serve as Co-Directors of the track.

Two Medicine-Pediatrics graduates, John Caleb Green, MD and Ashley Villareal, MD, are currently serving as 2021-2022 Chief Residents for Pediatrics and Internal Medicine respectively. Meagan Robbins, MD will serve as a Pediatrics Chief Resident for the 2022-2023 academic year.

The internal medicine residency program’s health disparities curriculum serves to educate residents about the health disparities that exist in the state and country, social determinants of health, implicit bias, advocacy opportunities, and provide resources to aid the underserved.

Residents are able to work with the Procedure Team as an elective rotation. The Procedure Team is managed by Hospital Medicine faculty and offers a number of procedures to all hospitalized patients, including paracentesis, lumbar punctures, central venous access, temporary hemodialysis catheters, and arthrocentesis.

In 2021, the Internal Medicine Residency Program resumed continuity clinic operations at the Jackson VA Medical Center. Around half of the 2021-2022 intern class has continuity clinic at the VA where Drs. Nikesia Beamon-Webb, Fowler Joiner, Sue Roberts, and Brendan Ross serve as clinic preceptors.

Several Medicine-Pediatrics residency graduates are currently serving in leadership positions throughout UMMC, including:

- J. Ben Brock, MD, Fellowship Program Director, Infectious Diseases
- David Gilliam, MD, Physician Advisor, UMMC Health System
- Zeb Henson, MD, Associate Chief of Staff, UMMC
- Michelle Horn, MD, Division Director, General Internal Medicine
- Jasmine Kenoy, MD, Medical Director of the Office of Patient Experience
- Seema McKenzie, MD, Physician Advisor, UMMC Health System
- Jarrett Morgan, MD, Co-Course Director, Introduction to the Medical Profession I
- Jimmy Stewart, MD, Associate Dean for Graduate Medical Education
DEPARTMENT OF MEDICINE IMPACT REPORT

QUALITY IMPROVEMENT LEADS TO QUALITY CARE

The Internal Medicine Residency Program’s curriculum in quality improvement (QI), led by Drs. Rahat Noor and Charletta Wright, is aimed at developing residents’ skills in the area of QI and patient safety. Each year, every resident participates in a project as part of a team, along with other residents and a faculty advisor. The residents’ understanding of QI processes is supplemented by didactic sessions throughout the academic year.

Over the past few years, residents have been actively involved in projects that have led to improved patient care. One such example is the I-PASS project, which is aimed at standardizing hand-off communication between teams. This was identified as an area in need of improvement to heighten patient safety and, working with UMMC’s Chief Quality Office and Dr. Noor, led to implementation by other programs throughout our campus. The current, three-tiered, sliding scale insulin regimen and the colonoscopy order set are other examples of projects where the residents identified a problem and brought about change and improvements to current care.

At a national level, our Department is also engaged with ACP’s “I Raise the Rates” program. This QI initiative is supported by grants from the Centers for Disease Control, Merck, and GlaxoSmithKline, and is a collaborative effort designed to help clinicians increase adult immunization in their practices. Noor is the faculty sponsor and Jessie Lavender, MD leads this project in the internal medicine resident clinic.

In 2019, nine resident QI projects were presented at the American College of Physicians (ACP) Mississippi Chapter Abstract Day. Despite the pandemic, the residents represented the Department by presenting their work at various meetings, including the American College of Physicians National and Alabama and Mississippi Chapters Scientific Meetings in 2021 and Digestive Disease Week in 2021.

Faculty judges at ACP Abstract Day

2021 BEST RESEARCH ABSTRACT, NATIONAL AMERICAN COLLEGE OF PHYSICIANS MEETING
“Utilization and the cost burden analysis of amylase testing in acute pancreatitis”
Himmat Brar, MD, Jannat Kang, MD, and Pradeep Bathina, MD

2021 INTERNAL MEDICINE RESIDENCY PROGRAM, BEST RESIDENCY QI PROJECT
“SGLT2 inhibitors in T2DM and ASCVD in LB clinic. Implementation of Pocket Cards on Empagliflozin Prescription Rates”
Will Crews, MD, Samer Mehio, MD, Aayush Patel, DO, and Steven Bilingley MD; Faculty Advisor Asef Mahmud, MD.

2021 “BEST POSTER” AT ACP ALABAMA AND MISSISSIPPI CHAPTERS SCIENTIFIC MEETING
Ryan Shephard, DO

2021 SOUTHERN SOCIETY OF CLINICAL INVESTIGATION TRAINEE RESEARCH AWARD
Arsalan Hamid, MD
# Fellowship Programs Leadership

**Allergy, Asthma, and Clinical Immunology**

- **Patricia Stewart, MD**
  - Program Director
- **Jessica Perkins, MD**
  - Associate Program Director

**Adult Congenital Heart Disease**

- **William Campbell, MD**
  - Program Director
- **Scott Gibson, MD**
  - Program Director

**Cardiovascular Diseases**

- **Donald “Trey” Clark, III, MD, MPH**
  - Program Director
- **Michael Hall, MD, MS**
  - Associate Program Director
- **Craig Long, MD**
  - Program Director

**Digestive Diseases**

- **David C. Schaefer, MD**
  - Program Director
- **Pegah Hosseini-Carroll, MD, MS**
  - Associate Program Director

**Hematology and Oncology**

- **Jessica Perkins, MD**
  - Program Director
- **Stephanie Elkins, MD**
  - Associate Program Director

**Hospice and Palliative Medicine**

- **Kelly Wilkinson, MD**
  - Program Director
- **Kelly Wingerter, MD**
  - Associate Program Director

**Interventional Cardiology**

- **Kellan Ashley, MD**
  - Program Director
- **John Winscott, MD**
  - Associate Program Director

**Advanced Heart Failure and Transplant Cardiology**

- **Craig Long, MD**
  - Program Director

**Infectious Diseases**

- **James B. Brock, MD, MSCI**
  - Program Director

**Rheumatology and Molecular Immunology**

- **Vikas Majithia, MBBS, MPH**
  - Program Director
- **Kelli Wilkinson, MD**
  - Program Director

**Pulmonary and Critical Care**

- **Jessie Harvey, MD**
  - Program Director
- **Lehka Sunkara Deere, MD**
  - Associate Program Director

**Endocrinology**

- **Jose “Pepe” S. Subauste, MD**
  - Program Director
- **Vishnu Garla, MD**
  - Associate Program Director
2021-2022
MEDICINE FELLOWS LIST

ALLERGY AND IMMUNOLOGY

Charles Crogan, MD (PGY-V)
Matthew Elliot, MD (PGY-V)
Priya Patel, MD (PGY-V)
Natalie Radenske, MD (PGY-IV)

CARDOLOGY-INTERVENTIONAL

Jonathan Blossom, MD (PGY-VII)
Catherine Lowe, MD (PGY-VI)

CARDOLOGY

Patrick Bauphin, MD (PGY-V)
Murphy Henson, DO (PGY-VI)
Olu Kolawole, MBChB (PGY-VI)
Aditya Sabharwal, DO (PGY-V)
Varun Sardar, MBBS (PGY-VI)

CARDOLOGY-ADULT CONGENITAL HEART DISEASE

Sarah Studyn, DO (PGY-VI)

GERIATRICS

Baker Boler, MD (PGY-V)
Jordan Fryeux, MD (PGY-V)
Andrew Brown, MD (PGY-V)
Ryan Gay, MD (PGY-V)
Daniel Kelly, MD (PGY-V)

Drew Daniels, DO (PGY-V)
Samer Meho, MD (PGY-V)
Tommy Skeleton, MD (PGY-V)
Andy Smith, MD (PGY-V)
Dantwan Smith, MD (PGY-V)

Mitch Hudson, MD (PGY-V)

DIGESTIVE DISEASES

Brandon Brousse, MD (PGY-VI)
Adam Parker, MD (PGY-VI)
Paul Dotherow, MD (PGY-V)
Vechha Sanjhi, MBBS (PGY-V)
Zachary Field, MD (PGY-V)
Parth Maheshwari, MD (PGY-V)
Abdallah Abdallah, MD (PGY-V)

ENDOCRINOLOGY

Teresa Moli, MD (PGY-V)
Lauren Cutrone, MD (PGY-V)
Roopitha Kaval, MD (PGY-V)
David Loft, DO (PGY-V)

INFECTION DISEASES

Rochelle Thompson Kolawole, MBBS (PGY-V)
Samantha Williams, MD (PGY-V)

Nephrology

Safa Osman, MD (PGY-V)
Liia Ovcharenko, MD (PGY-V)
Uma Mahesh Avulas, MBBS (PGY-V)
Carter Schwartz, DO (PGY-V)
Sriram Sriperumbuduri, MD (PGY-V)

RHEUMATOLOGY

Elizabeth Bui, MD (PGY-V)
Daniel Cirino, DO (PGY-V)
Kathryn Chow, MD (PGY-V)
Martha Magnuson, MD (PGY-V)

HOSPMCE AND PALLIATIVE CARE

Kayla Richter, MD (PGY-V)
2021-2022 MEDICINE FELLOWS LIST

HEMATOLOGY AND ONCOLOGY

Clark Cutrer, MD (PGY-VI)
Elizabeth LeJeune, MD (PGY-VI)
John Schub, DO (PGY-VI)
Shradha Ahuja, MBBS (PGY-VI)
Gamer Bell, DO (PGY-VI)
Doug Gibson, DO (PGY-VI)
Carrie Wynn, MD (PGY-VI)
Bo Brimson, MD (PGY-VI)
Page Garem, DO (PGY-VI)
Jacob Graham, MD (PGY-VI)

PULMONARY AND CRITICAL CARE

Jeremy Courtney, MD (PGY-VI)
Midul Gupta, MBBS (PGY-VI)
Kristin Ham, DO (PGY-VI)
Daniel Rees, MD (PGY-VI)
John Forrest, DO (PGY-I)
Kevin Knoech, MD (PGY-VI)
Jackson Ross, MD (PGY-V)
Arash Samanghandi, MD (PGY-V)
Anna Carr, DO (PGY-V)
Tyler Fuller, MD (PGY-V)
Kate Howell, MD (PGY-V)
Meredith Sloah, MD (PGY-V)

FEATURED SPEAKERS, 2020-2021 DEPARTMENT OF MEDICINE GRAND ROUNDS

Alan Maisel University of California San Diego
Aziz Ansari Loyola University Medical Center
Reinaldo Rampolla Ochsner Clinic Foundation
Arshed Quyyumi Emory University School of Medicine
Nancy Cologol Emory University School of Medicine
Micah Whitson University of Alabama at Birmingham
Harlan Krumholz Yale School of Medicine
Neal Dickert, Jr Emory University School of Medicine
Amanda Pelletier Vanderbilt University Medical Center
Stephan Anker Charte University, Germany
James Januzzi Massachusetts General Hospital
Vasan Ramsachandran Boston University School of Medicine
Chris McCarthy University of Virginia
Gurpreet Dhalwal University of California, San Francisco
Tracy Henry Emory University School of Medicine
Keith Swetz University of Alabama at Birmingham
Gerard Silvestri Medical University of South Carolina
Barry Greenberg University of California San Diego
Brigitta Brott University of Alabama at Birmingham
Jeffrey Klausner University of California, Los Angeles

Sushma Cribbs Emory University School of Medicine
Joshua Berkowitz University of North Carolina
Janet Jokela University of Illinois
Joshua Berkowitz University of North Carolina School of Medicine
Lawrence Leiter University of Toronto
Olivia Van Gerwen University of Alabama at Birmingham
Jonathan Lyons National Institute of Allergy and Infectious Diseases, Bethesda, Maryland
Rajiv Agarwal Indiana University
Ethan Weiss University of California, San Francisco
George Mensah National Heart, Lung, Blood Institute, Bethesda, Maryland
Mitchell Kaminski Jefferson College of Population Health
Mark Anderson Johns Hopkins University
Neha Sachdev AMA Diabetes Prevention Program, Chicago
Thomas Huddle University of Alabama at Birmingham
Robert Harrington Stanford University
Dennis Ledford University of South Florida
Leah Leisch University of Alabama at Birmingham
Rana Awadish Henry Ford Health System
Edward Marcantoni Harvard Medical School

The Department of Medicine’s Grand Rounds program hosts local faculty and outstanding regional or national leaders in their respective fields who present on a range of topics representing each of the department’s subspecialties. These presentations are designed for our faculty, residents, fellows, other healthcare professionals, and researchers who wish to remain up to date on new science in their fields and to encourage collaboration among scientists and physicians. Attendees can receive CME credit. Beginning in March 2020, Grand Rounds was changed to a virtual platform. Jasmine Kency, MD serves as Faculty Lead of Medicine Grand Rounds.
The Jackson Free Clinic, lovingly known as the JFC, is a 501(c)(3) non-profit run by UMMC students and has been serving the uninsured of Jackson for more than 20 years. The clinic offers free medical, dental, psychiatric, physical therapy, and occupational therapy services to anyone without insurance. In 2020, the JFC served 760 patients with 1,345 patient visits.

The partnership between the Department of Medicine and the JFC is strong. Fifty percent of JFC medical staffing coverage is provided by volunteers within the Department of Medicine, including residents, fellows, and faculty. To many, there is no greater use of our ability as medical providers than to provide high-quality care to those who need it most.

Savannah Duckworth, MD, serves as the Department’s liaison for JFC staffing. In 2019, the JFC Board of Directors instituted two awards in Duckworth’s honor. Known as the “Savannah Duckworth Excellence in Education Awards,” one is presented to a medical student and another to a medical resident each year who demonstrate exemplary education skills at JFC.

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The Class of 2018 Pulmonary Training Fund endowment was established by Bobby Tullos, MD, who completed his fellowship in pulmonary and critical care medicine in 2018. The endowment will be used for the Department of Medicine’s Division of Pulmonary, Critical Care, and Sleep Medicine for the purpose of training pulmonary fellows in the areas of advanced airway management, ultrasound, bronchoscopy procedures, and other specialized pulmonary medical care. The fund will also support pulmonary fellows who attend courses that are not available at UMMC facilities.

A native of Mississippi, Tullos joined the U.S. Army after graduating high school. After serving in active duty for five years, Tullos earned an undergraduate degree from the University of Mississippi. He subsequently went to medical school at UMMC, where he also completed his internal medicine residency and pulmonary/critical care fellowship.

During his undergraduate education and medical training, Tullos remained in the U.S. Army Reserves. With 21 years of service under his belt and a current rank of Major, Tullos is now Brigade Surgeon for the 155th Infantry Brigade located in Tupelo, Mississippi. He practices pulmonary and critical care at Memorial Hospital in Gulfport, Mississippi.

When asked what made him decide to create a pulmonary training endowment, Tullos said, “During my 20 plus years in the Army and with multiple deployments, I’ve learned how valuable thorough training can be for mission success. My residency and fellowship training at UMMC was top notch and prepared me to competently practice medicine anywhere in the world.”

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A HISTORY OF EXCELLENCE:

LEADERSHIP TIMELINE FOR THE DEPARTMENT OF MEDICINE

The Department of Medicine’s original faculty: From left, sitting: Guy Gillespie, MD, senior resident; J. Robert Snavely, MD, Chair; Joe Covington, MD, senior resident. From left, standing: George Pratt, MD, senior resident; Peter Blake, MD, Assistant Professor; Warren Bell, MD, Assistant Professor; Herbert Longford, MD, Assistant Professor; and Fred Allison, Jr, MD, Assistant Professor.

CHAIRS OF MEDICINE

J. ROBERT SNAVELY, MD 1955-1965
HARPER HELLEMS, MD 1965-1990
JOHN O’CONNELL, MD 1991-1996
JOE FILES, MD, INTERIM 1996-1997
RICHARD DESHAZO, MD 1997-2010
SHIRLEY SCHLESSINGER, MD, INTERIM 2010-2013
WILLIAM LITTLE, MD 2013-2015
DANIEL JONES, MD, INTERIM 2015-2017
JAVED BUTLER, MBBS, MPH, MBA 2017-PRESENT

UMMC DEPARTMENT OF MEDICINE’S RESPONSE TO COVID-19

SPECIAL FEATURE | RESPONSE TO COVID-19
In late 2019, the Department of Medicine learned of the novel coronavirus and its associated outbreaks throughout the world. Before the first case was reported in Mississippi, leaders within the department and institution began preparing for the feared influx of infected patients. This comprised a multitude of initiatives and adjustments to prepare for the imminent surge.

**COVID-19 BY THE NUMBERS**

2,667
ADULT HOSPITALIZATIONS WITH COVID-19 AS OF 11/28/21

35%
REQUIRED ICU CARE

21,221
TELEHEALTH VISITS FY 20

26,331
TELEHEALTH VISITS FY 21

15,273
VACCINES ADMINISTERED BY UMMC’S VACCINE CLINIC AS OF 9/12/21

19
CLINICAL TRIALS RELATED TO COVID-19
Bhagyashri “Bhagy” Navalkele, MBBS, Medical Director for UMMC’s Infection Prevention Program, and Jason Parham, MD, Division Director of Infectious Diseases and Executive Vice Chair for the Department of Medicine, held pivotal roles in the COVID response, serving as lead in-house experts.

On March 11, 2020, Mississippi reported its first case of COVID-19, and two days later UMMC had its first hospitalized case of COVID-19. Faced with an overwhelming number of calls and questions regarding COVID-19 screening, diagnostic testing, and infection prevention practices, it became imperative for infection prevention and infectious diseases teams to collaborate in their response. In less than seven days they established the Infectious Diseases-Infection Prevention Command Center, which was operational 24/7.

The Command Center was staffed by infection preventists, infectious diseases physicians, antimicrobial stewardship pharmacists, volunteer students, and residents—all working together to combat the COVID-19 pandemic. Many DOM faculty members worked at the Command Center in lieu of their clinics during the shutdown, on overnight shifts, and on weekends. The infection prevention team, supervised by infectious diseases physicians, operated the COVID-19 hotline for students and employees. Infectious diseases physicians, along with volunteer students and residents, answered calls from UMMC’s Jackson, Grenada and Lexington campuses and provided recommendations on COVID-19 diagnostic testing for patients presenting to ERs.

Navalkele and Parham ensured front-line clinical staff were prepared for the incoming flood of patients and adept at using personal protective equipment (PPE), such as face masks, face shields, gowns, and gloves.

In early 2020 there was, of course, very limited data available on COVID-19: how best to diagnose it, how to treat it, and how to prevent its spread. Navalkele and Parham, along with Jose Lucar, MD, Medical Director of the Outpatient Antimicrobial Service and other ID physicians, often engaged in long after-hours discussions and brainstorming sessions to formulate multiple COVID-19 policies and procedures, including approaches to acute respiratory illness during the pandemic, discontinuation of isolation precautions of COVID-19 positive patients in inpatient and outpatient settings, home discharge guidance, process for pre-operative COVID-19 testing, student and employee testing and isolation guidance, and infection prevention guidance, which are currently available on UMMC’s intranet under COVID-19 clinical processes.

“The creation of an in-house COVID-19 testing facility was a game changer,” said Navalkele. The testing facility allowed staff members to confirm a COVID-19 diagnosis in hours instead of days, and to isolate only the patients who needed it.

By the end of October 2020, the Command Center operations closed and Navalkele and Parham returned to their offices. Their COVID work, however, has not stopped. They continue to monitor the number of patients in the hospital with COVID and provide daily guidance for testing, treatment plans for hospital patients, and COVID-19 outbreak investigations.

For their contributions, both Navalkele and Parham were named “Community Heroes” by the Mississippi Clarion Ledger in April 2020.

“The Medical Center is lucky to have Dr. Navalkele and Dr. Parham leading our infection intervention efforts.”
 — LouAnn Woodward, MD
VICE CHANCELLOR FOR HEALTH AFFAIRS
AND DEAN OF THE SCHOOL OF MEDICINE

Drs. Bhagy Navalkele and Jason Parham

Drs. Bhagy Navalkele, Jason Parham, and Luis Shimose Ciudad discuss COVID precautions

Nurse Station

Drs. Bhagy Navalkele and Jason Parham
In February 2021, Mississippi had a rare and historic ice storm. That month, Sherry Jones, RN Case Manager for Coordinated Care, and her husband experienced a different kind of storm. Jones’ husband was in a rehabilitation facility when he tested positive for COVID-19 and was admitted to UMMC. Sherry tested positive as well and went home to quarantine. Over a period of several days, her symptoms continued to worsen – severe cough, loss of appetite, and shortness of breath. Her symptoms eventually became so worrisome that she asked her son to take her to the emergency room.

On their way to the ER, however, the bridge on Woodrow Wilson Avenue was so icy from the storm that it was barricaded with barrels. Undeterred, Sherry’s son drove around the barricade to get her to UMMC’s Emergency Room. She was admitted with hypoxic respiratory failure from COVID-19.

“It was so scary. I was scared for myself, my husband, and for our four sons. Having both parents hospitalized at the same time was petrifying. The worst part was that none of us could see or visit each other due to our isolation status.” said Jones. She remained in the hospital for seven days and her husband for ten days.

“It truly was a test of my faith,” she said, “but from the ER staff to the floor staff, I was amazed at the care I received. I began to write down names of all those who took such good care of me, but I lost track of names and did not want to leave anyone out. The day shift and night shift on 2North were awesome. It was all very touching.”

Jones recalls some of the small things that made a big difference in her care. She remembers one morning when she was very thirsty and wanted a Sierra Mist. John, her nurse, checked and could not find any on the floor and went to a vending machine to get her a ginger ale. “To him, it was probably nothing, but to me it was just over the top.”

Her oxygen levels remained low, and she was discharged from the hospital with oxygen. She returned to work one week later but for weeks, she would have occasional shortness of breath. Sometimes after returning home from work, she would use oxygen through the night until returning to work the next morning. “It was tough to be winded and to sometimes have shortness of breath,” she said.

Jones currently works on one of UMMC’s COVID-19 floors, but does not have to go into the COVID-19 isolation rooms. However, after her experience with COVID-19, she is sure to encourage patients’ family members to get vaccinated. In fact, when she and her husband were in the hospital, many of their family members got the vaccine. “We were the poster children for the importance of vaccination!”

Jones is thankful for her care and recovery and looks forward to the future. “One of my favorite quotes is from scripture about God’s grace being sufficient. I say that every day no matter the situation or what is going on – his grace is sufficient. I’m just glad we are both okay.”

In his role as Director of University Hospital’s ICU, Andy Wilhelm, MD, Division Director of Pulmonary, Critical Care, and Sleep Medicine, played an essential role in UMMC’s response to the COVID-19 pandemic. Wilhelm led multiple response teams that included pulmonary and critical care faculty, fellows, ICU nurse managers, ED disaster response providers, and critical care pharmacy personnel. “There was one day during noon conference when we realized the train was coming and we had to prepare. So, I grabbed a marker and a whiteboard and called the troops to the table,” said Wilhelm.

These teams developed processes for caring for patients infected with COVID-19. “Our processes were meticulously detailed, including, for example, who pushed the elevator button during COVID transport and how to bring food in and out of negative pressure rooms,” said Wilhelm. With assistance from the Mississippi Critical Care Organization, Wilhelm also assembled a multidisciplinary group of critical care physicians to rotate caring for COVID-19 ICU patients. His response teams met daily for several months. The teams created living recommendations documents, which they continue to edit as new treatment data emerges. This, along with other process protocols are available on a public site as a resource for institutions across the state.
At the department level, an Internal Medicine COVID-19 Task Force, chaired by Vikas Majithia, MD, Division Director of Rheumatology, was assembled that included Drs. Fred Asher, Stephanie Elkins, Tariq Shafi, John Spurzem, and Richard Wardrop. Majithia and his team focused on managing patient censuses, trainee education, cautious use of PPE, critical care integration planning, and renal failure management plans, all the while ensuring balance of the department’s educational initiatives with the demands of clinical care.

During the national shutdown, all UMMC elective, non-essential surgeries and procedures were cancelled and all outpatient appointments were rescheduled or transitioned to telehealth visits. The telehealth platform was piloted first by the divisions of Cardiology and Geriatrics. Drs. Trey Clark, Lillian Lien, Tariq Shafi and Kim Tarver provided department personnel with guidance on documentation, billing, and telehealth logistics. The DOM conducted more than 47,000 telehealth visits during fiscal years 2020 and 2021.

During early 2020, all patients at UMMC with COVID-19 were cared for either by the Hospital Medicine Division or in the Medical ICU. During this time, other DOM divisions and services assisted with the increased capacity to offload non-COVID patients from the Hospital Medicine services. Team census caps were raised, faculty and fellows stepped up and took on more inpatient service responsibilities to accommodate the increased load, and residents volunteered to move from a primarily outpatient rotation to services that provided COVID care.

Faculty members in the Infectious Diseases (ID) Division were consulted and followed all patients with COVID-19. They reorganized their inpatient consult services into general ID and a new COVID-ID consult service, with the goal of seeing all symptomatic COVID inpatients. The COVID-ID consult team provided a frontline presence and ensured that UMMC was following best evidence-based practices for treatment of this novel patient population. The Division also established the first telehealth clinic for follow-up of discharged COVID patients.

The Division of Nephrology was consulted on patients with COVID-19 and renal failure. At times, dialysis machines were in short supply due to increased need, and our nephrologists were able to develop and implement processes that allowed for maximum efficiency and use of machines. In order to assist the hospitalists’ increased patient load, the Division of General Internal Medicine took over the staffing of medicine consults and the Advanced Practice Provider services from June until September 2020.

As hospitalizations increased, patients with COVID-19 began to be admitted to other DOM services, including the internal medicine teaching teams, geriatrics, cardiology, hematology, and oncology. The internal medicine and medicine-pediatrics residency programs made more than 200 schedule changes in 2020 due to COVID-19. The 2019-2020 and 2020-2021 Medicine Chief Residents were instrumental during this time.

The Division of Hematology and Oncology was able to continue chemotherapy treatments to its patients while streamlining its processes. In order to assist the hospitalists’ increased patient load, the Division of General Internal Medicine took over the staffing of medicine consults and the Advanced Practice Provider services from June until September 2020.

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The Division of Hematology and Oncology was able to continue chemotherapy treatments to its patients while streamlining its processes. In order to social distance as much as possible, the Division set up a mobile blood draw tent in a public space within the Jackson Medical Mall and utilized telehealth visits as much as possible. It also provided consultative services to help manage the coagulation and platelet abnormalities often seen with COVID, and worked with others to develop inpatient anticoagulation guidelines for all hospitalized patients with COVID.
I arrived at UMMC August 8, 2020 by ambulance from my hometown hospital after being diagnosed with COVID-19 on July 29. I was in my hometown hospital from August 4-8 and then was transferred to UMMC CICU as I needed a higher level of care.

The care I received at UMMC was exceptional and I am sure I would have died had I not been treated by your team. My days in ICU aren’t completely clear but are clear enough to know that Dr. Andy Wilhelm and Dr. Michael Brewer were intentional, thoughtful, and proactive in treating me. It also helped that my daughter and son-in-law, Drs. Zach and Kelly Pippin, both physicians who recently completed residency at UMMC, knew the critical care team and put me at ease reassuring me I was receiving excellent care. The nurses were attentive, professional, and sensitive to my needs in an environment that put their own health at risk. I will never forget their selflessness.

Dr. Mansel’s visits over my time at UMMC were especially “above and beyond the call of duty.” He provided a calm and reassuring presence that I needed more than I knew. He read Scripture to me, took notes for my husband as he could not visit due to visitor restrictions, and gave me the feeling of a family member at my side.

After being at UMMC for 26 days, I had encountered many physicians, NP’s, Nurses, Assistants, Therapists and others; I could count on one hand the negative experiences but the good far exceeds them. I probably saw Dr. Zack Burns the most. He was very kind, professional, thorough, and honest when he was unsure. He and the August Geniatrics Ward team were attentive and I felt they were addressing my health needs no matter how big or small. There is a special and unique calling for Nurses, LPN’s, CNA’s, Assistants and Techs. They do for people of all ages things that others can’t or won’t do; often times working with me. And Jasmine is a great motivator!

After being sick for 3 weeks, I was in need of a real hair wash. Three times Aliah, Kayla, Karen, Janna and her assistant accomplished the impossible. They actually shampooed my hair in the bed—with hardly a drop of water on anything but my hair! I will forever be grateful to these Nurse Angels for working “outside the box” to make a 63-year-old just breathe. One of the attributes of many of the nurses was to coach and breathe. One of the attributes of many of the nurses was to coach and guide me in my breathing. There are many other stories of your Nursing Staff—too many to list but all of whom I appreciate for their work ethic, genuine care for patients and “patience.” After talking with many of them I know some are pursuing new degrees, buying a first home, getting married and having babies.

I have to give a shout-out to Randy, OT. His first day in the room I asked him to climb up and reset my clock which was an hour and 10 minutes off, which was driving me crazy. Without hesitation he fixed it like it was part of his job. He also tidied up my room if it needed it while he was working with me. And Jasmine is a great motivator!

Housekeeping: Ora—always cheerful, pleasant, does a good job and cheered for me if she saw me walking in the hall.

Last and certainly not least—my primary care doctor, Dr. Lyssa Weatherly. There isn’t enough room here or enough positive adjectives to describe this special lady. She has been the perfect choice of doctor for my husband and me; recommended to us by our daughter, Kelly Pippin. She looks through our eyes and into our hearts (and doctor for my husband and me; recommended to us by our daughter, Kelly Pippin. She looks through our eyes and into our hearts (and) and is a great caregiver. She has been a great motivator for me and my husband.

One of my issues was anxiety and panic attacks due to shortness of breath. I had never experienced fear like this before so this was a foreign sensation for me. I thought I would die because I couldn’t breathe. One of the attributes of many of the nurses was to coach and comfort me through these episodes. Oby and Vioki were especially sensitive, helpful and empathetic. Oby would stop in, say hello, and check on me even when I was not her patient.

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UMMC’s first round of employee vaccinations began in December 2020. Several DOM faculty members worked volunteer shifts to assist in the Medical Center’s employee vaccination effort. UMMC opened a vaccine clinic for patients at the Jackson Medical Mall in January 2021 administering the Pfizer vaccine. As the eligibility criteria broadened, an option for the public to sign up for vaccination was added. The clinic was staffed by UMMC ambulatory operations employees and volunteers and overseen by a scheduled ID attending present daily on site throughout clinic hours. As of September 2021, a total of 15,273 vaccines have been administered to 8,318 patients.
COVID-19

UMMC OPENS ACUTE RESPIRATORY FIELD CLINIC

In April 2020, UMMC implemented an acute respiratory field clinic on campus to see and evaluate those who had a non-severe respiratory illness. The clinic opened in UMMC’s Parking Garage B and evaluated both adults and children with a respiratory illness. The clinic was equipped with lab and X-ray capability and was staffed by internal medicine, pediatrics, and allergy and immunology physicians and nurse practitioners.

The Acute Respiratory Clinic was led by Marion Wofford, MD, MPH, Professor in the Division of General Internal Medicine; Kim Torvec, MD, Division Director of Geriatrics; Candice Adams, Director of Ambulatory Services for the DOM; and Jessica Bernamonti, Supervisor of the LB Internal Medicine Clinic.

The Acute Respiratory Clinic served to fill several gaps in the care of patients in the community since many clinics were temporarily closed or not able to see patients with acute symptoms. The clinic also alleviated crowding in UMMC’s Emergency Department. The clinic was open from April until late June 2020.

COVID-19

CLINICAL TRIALS

The Department of Medicine took on a major role in clinical trials related to COVID-19. As of December 2020, 19 clinical trials had begun at the institution that involved COVID-19. Galen Marshall, MD, PhD, Division Director of Allergy, Asthma, and Clinical Immunology and Executive Director of the Mississippi Clinical Research and Trials Center, played a crucial role in this process. “The purpose of clinical trials is to help us prepare so that we can have more knowledge, treat more people quickly, prevent severe disease, and decrease the number of deaths during a future outbreak,” said Marshall.

As this article is going to press, the fourth wave of COVID-19 is hitting Mississippi hard. During the month of August 2021, for example, the Mississippi State Department of Health reported more than 87,000 new cases of COVID-19. “The seriousness of this fourth wave cannot be overstated,” said Javed Butler, MBBS, MPA, MBA, Chair of the Department of Medicine. “I am so impressed with and grateful to all of our faculty and staff members in how they’ve rallied to treat COVID-19 since early 2020. And I have every confidence they will continue their excellent work and passionate care as we get through this next wave. I am very proud to be a member of this fantastic team,” he said.

WHAT LIES IN STORE?
DEPARTMENT OF MEDICINE RESEARCH
BY THE NUMBERS

TOTAL EXTERNAL FUNDING TO DEPARTMENT OF MEDICINE

FOR FY 2021:

NUMBER OF PUBLICATIONS IN PEER-REVIEWED JOURNALS

464

NUMBER OF PATENTS

7

11 JOURNAL EDITORS

22 EDITORIAL BOARD MEMBERS

72 MEMBERS OF NATIONAL STUDY SECTIONS INTERNATIONAL COMMITTEES NATIONAL COMMITTEES

$11,040,506

$15,768,201

$15,705,924

$20,619,534

$23,547,958

2017 2018 2019 2020 2021

FISCAL YEAR

$ IN MILLIONS
Ervin Fox, MD, MPH is directing Mississippi’s participation in the NHLBI-funded “Risk Underlying Rural Areas Longitudinal (RURAL) Cohort Study.” While communities in the rural south play an important role in the U.S. economy, their residents have higher rates of heart, lung, blood, and sleep disorders. The RURAL Cohort Study is designed to address a critical gap in research data regarding the health of people in the rural south.

Headed by Boston University’s Vasan Ramachandran, MD, University of Alabama at Birmingham’s Suzanne Judd, PhD, and University of Virginia’s Paul Targonski, MD, PhD, this six-year project focuses on ten rural counties in Alabama, Kentucky, Louisiana, and Mississippi. The research team, which includes 50 investigators from 16 institutions, will examine 4,600 residents to study different aspects of their heart, lung, and general health.

Within Mississippi, Fox plans to enroll 1,350 study participants by mid-2022: approximately 725 residents of Oktibbeha County and 625 residents of Panola County. According to Fox, “These two counties are well matched in terms of rurality, income, ethnicity, and other important variables.”

The Mississippi RURAL Study team will conduct a four-hour detailed baseline exam of each study participant. Team members will use a combination of tools, such as a mobile examination unit, wearable activity monitors, and smart phones to assess familial, lifestyle, behavior, and medical histories, including risks for heart, lung, blood, and sleep disorders. They will also examine daily activities of participants, such as eating conditions, heart health procedures, water supply access, and home environment.

“The results of the RURAL Cohort Study will help researchers and clinicians better understand the unique drivers of disease and outcomes in rural communities throughout the U.S.,” said Fox.

Fox is Professor of Medicine in the Division of Cardiology and Medical Director of the Clinical Noninvasive Laboratory for Cardiac Testing. He also serves as an associate editor for the American Heart Association journal, Circulation: Cardiovascular Imaging. He was a 2011 recipient of the Presidential Early Career Award for Scientists and Engineers, 2014 recipient of the Herbert G. Langford Research Mentor Award, 2021 recipient of the Pillars Beacon Award, and 2021 recipient of the IHL Excellence in Diversity and Inclusion Award for UMMC.
CLINICAL TRIALS INCREASE BY 35 PERCENT IN FISCAL YEAR 2020

Galen Marshall, MD, PhD, who, in addition to the several hats he wears within the Department of Medicine, is Executive Director of the Mississippi Clinical Research and Trials Center, reported a 35 percent increase in the number of clinical trials started during Fiscal Year 2020.

“I am so pleased at the progress we are making with our clinical trials program,” said Marshall. “For a relatively new endeavor, we are making great strides.”

UMMC’s Clinical Research and Trials Unit (CRTU), for which Marshall serves as Medical Director, officially opened in 2019. Located on the seventh floor of University Hospital, the CRTU comprises 22 inpatient/outpatient rooms, a research pharmacy, a sample processing lab, an eight-chair infusion center, encounter rooms, and a conference room.

“During our first year of operation,” said Marshall, “We hosted 74 new clinical trials. This past year, that number jumped to 100, and I suspect we’ll see a dramatically higher number by the end of this year.”

The CRTU is home to clinical research in several specialties, including cardiovascular disease, cancer, neurology, and—most recently—COVID. Marshall’s work in particular is exploring the use of convalescent plasma and the potential for anti-inflammatory products as potential treatments for COVID-19. He and colleagues are embarking on a study to better understand post-acute sequelae of having contracted the virus.

JOHN AND MICHAEL HALL CO-AUTHOR 14TH EDITION OF WORLD-RENOWED PHYSIOLOGY TEXT

Michael Hall, MD, MS joined forces with his father, John E. Hall, PhD, to co-author the 14th edition of the Guyton and Hall Textbook of Medical Physiology. Published in 2020 by Elsevier, this textbook is widely regarded as the gold standard in the field of medical physiology.

The first eight editions of the textbook were authored by Arthur C. Guyton, PhD, beginning in 1956. Guyton’s seminal contributions to our understanding of cardiovascular physiology continue to guide our treatment of hypertension, heart failure, and other types of cardiovascular disorders. John Hall, who chairs UMMC’s Department of Physiology and Biophysics, began co-authoring the textbook with Guyton—who died in 2003—beginning with the 9th edition, which was published in 1986.

Michael Hall is an Associate Division Director in UMMC’s Division of Cardiovascular Diseases, Associate Vice Chair for Research in the Department of Medicine, and Director of Clinical and Population Studies for the Mississippi Center for Clinical and Translational Research.

With more than 1,200 full-color drawings and diagrams within its 1,100 pages, the Guyton and Hall Textbook of Medical Physiology has been translated into 22 languages. Reviews of the 14th edition are excellent. One reader wrote, “The current edition incorporates many of the recent developments in physiology, and still explains all the basics comprehensively and well.”

After receiving the textbook, a medical student wrote, “Best physiology text in existence,” and then went on to add, “Now I can torture myself.”

Dr. Marshall is the R. Faser Triplett Chair of Allergy and Immunology; Professor of Medicine, Pediatrics, Pathology, and Population Health Sciences; Vice Chair for Research in the Department of Medicine; Director of the Division of Allergy, Asthma, and Clinical Immunology; Executive Director of the Mississippi Clinical Research and Trials Center; and Medical Director for UMMC’s Clinical Research and Trials Unit.
Sarah Glover, DO joined the UMMC faculty in January 2019 as Director of the Division of Digestive Diseases. An active NIH and industry-funded researcher, Glover wasted no time in establishing her own research lab and fostering the establishment of a state-of-the-art flow cytometry core at UMMC.

Glover’s laboratory focuses on innate immune mechanisms of gut inflammation and COVID-19 immune responses in the nasal and oral mucosa. Her work in gut inflammation has focused on inflammatory bowel disease (IBD) and hereditary alpha tryptasemia. She and her team have been increasingly focused on improving understanding of the disease mechanism and treatment for African Americans with IBD. In collaboration with the UMMC revenue cycle office and NIH, Glover got an ICD-10 code approved for hereditary alpha tryptasemia.

In addition to three other peer-reviewed papers, she and the six members of her lab also recently co-authored an article published in the journal *Cell*, “Impaired Local Intrinsic Immunity to SARS-CoV-2 Infection in Severe COVID-19.” The article was the result of collaborations with researchers from the Ragon Institute of MGH, MIT, and Harvard; the Broad Institute of MIT and Harvard; Boston Children’s Hospital; and MIT. Additional authors from the Department of Medicine include Drs. Mohammad Hassan and Adam Parker (Division of Digestive Diseases); Drs. George Abraham, Michal Senitko, Campbell B. Sindell, and Meredith Sloan (Division of Pulmonary Medicine). The research team is working on a follow-up study to compare their initial findings to patients with either the COVID-19 Delta variant or who are experiencing breakthrough infections after having been vaccinated.

This team also recently received funding for two projects from the Chan Zuckerberg Initiative (CZI) Pediatric Networks for the Human Cell Atlas. The first is focused on understanding normal mucosal immunity in the nose and mouth in children. Glover will serve as the site PI for this project in collaboration with Drs. Justin Davis (pediatric ED) and Laura Saxton-Wright (PICU). The second seeks to understand how the pediatric gut immunity is influenced by environmental factors. Dr. Phyllis Bishop (pediatric GI) will serve as site PI.

THE GLOVER RESEARCH LAB

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Beta-3 adrenoceptor stimulation in heart failure patients with hyperkalemia: Pharmacoeconomics. 2019 Dec;36(12):1463-1473. PMID: 31089966; PMCID: PMC6830401.


inhibitors in patients with and without type 2 diabetes: implications for incident and prev-

EJ, Hernandez AF, Desvigne-Nickens P, Scherzer R, Hsue PY, Braunwald E. Diastolic

Butler J,

Association of FMO3

Mosley TH, Grove ML, Guan Bressler J, Marioni RE, Walker RM, Xia R, Gottesman RF, CIR.0000000000000773. PMID: 32460555; PMCID: PMC7351358.


Stockbridge N, O'Connor CM. Heart failure end points in cardiovascular outcome trials of

Packer M, Greene SJ, Fiuzat M, Anker SD, Anstrom KJ, Carson PE, Cooper LB, JA, Anker SD. Minimal clinically important difference in quality of life scores for patients with

Pieske-Kraigher E, Sabbah HN, Senni M, Voors AA, Udelson JE, Carr J, Gheorghiade M, Filip-

Khan MS, Anker SD, Fonarow GC, Kim RJ, Nodari S, O'Connor CM, Pieske B, Butler J,

The association of goal-striving stress


Seliger SL, Shlipak MG, Rahman M, Kestenbaum BR; CRIC Study


Longstreth WT Jr, Debette S; Stroke Genetics Network (SiGN), the International Stroke Genetics Con-

Hyacinth HI. Corrigen-...dum to 'Association of sickle cell trait with measures of cognitive function and dementia in African Americans' in the Jackson Heart Study. Neurology. 2019 Jan 16;92(5):e486–503. doi: 10.1212/WNL.0000000000006851. PMID:


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We refer you to the full reference list for further reading.


Tang SJ, 31334430; PMCID: PMC6617238.

ACKNOWLEDGMENTS

The Department of Medicine would like to thank the many individuals, including our division directors and division administrators, for their collective efforts in helping to complete this Impact Report. Additionally, we would like to thank those who are featured within these pages for their contributions and continued service to UMMC. We are especially grateful to Joseph Ellis and all UMMC photographers for their assistance with photography.