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UAB MEDICINE

A Magazine for Alumni and Friends of the School of Medicine

Volume 40 • Number 1 • Winter 2014



Starting FROM HOME

Dean Vickery Shares a
Vision of Transformation

Gifts of Knowledge



Senior vice president and dean Selwyn Vickers

As School of Medicine physicians, researchers, and teachers, we have seen the power of knowledge firsthand. We have used it to restore lives, develop breakthrough treatments, help students grow into highly skilled medical specialists, and improve the health of families throughout Alabama and beyond. Knowledge is a positive message, and UAB is sharing it with the public through a new promotional campaign that carries the tagline “Knowledge that will change your world.”

This campaign unifies UAB’s clinical, educational, and research enterprises under a single brand for the first time. The campaign will spotlight UAB’s contributions to the body of knowledge, elevate our profile locally and nationally, and communicate our relevance and value to the community. We want our pride,

enthusiasm, and commitment to be contagious to a broader audience who will share our excitement about the discoveries, breakthroughs, and daily miracles that happen here—and we want them to know they can turn to us when they need expert care, a world-class medical education, or a place to invest in the future.

“Change” also is the inspiration behind another campaign—the Campaign for UAB, which, with a goal of \$1 billion, is the largest fund-raising effort in the university’s history. With the theme “Give Something, Change Everything,” the campaign offers everyone the chance to transform our community for the better.

How will the Campaign for UAB strengthen the School of Medicine? First and foremost, it will provide resources for faculty recruitment and retention, which remains our greatest area of opportunity. By building and supporting our faculty, we can become national leaders in key medical specialties. The campaign also will fuel innovation in research, giving us the ability to explore new avenues of discovery, accelerate projects in progress, and advance the development of new, disease-modifying treatments. In addition, we want to grow our primary care leadership and scholarship programs and expand educational initiatives so that our students are ready to meet health care’s most pressing needs.

The Campaign for UAB is structured so that you can support the efforts most meaningful to you, and you have many options for how to give. I encourage you to take part because the opportunities are great. By giving something, you can change the future of medicine and transform our city, state, and nation with improved health, education, and quality of life. We know it can happen because we see it every day—in a city that thrives because of our academic medical center and our university, in the successful careers of our alumni, in our growing list of breakthrough discoveries and treatments, and in the faces of the patients and families who benefit from our care. Your participation helps us realize our potential.

Sincerely,
Selwyn M. Vickers, M.D., F.A.C.S.
Senior Vice President for Medicine
Dean, School of Medicine

Get monthly updates from Dean Vickers at www.uab.edu/medicine/dean.

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Starting FROM HOME



Dean Vickers Shares a Vision
of Transformation

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Spain Rehabilitation Center’s golden anniversary

In the article titled “Sunday of Sorrow” in our last issue, we incorrectly listed Joseph M. Donald Jr., M.D., chief resident in surgery in September 1963, as Joseph McDonald Jr. We regret the error.



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What Do You Want to Change Today?

CAMPAIGN FOR UAB PROMOTES POSITIVE IMPACTS

UAB has launched the public phase of the largest fund-raising campaign in its history, setting an ambitious \$1 billion goal for The Campaign for UAB: Give Something, Change Everything. “When you give to UAB, you help us change our community and our world for the better, whether by finding the cure for a disease, enabling a bright young person to go to college, or lighting the spark for a new innovation,” says UAB President **Ray L. Watts, M.D.**, former dean of the School of Medicine. “We are working hard to strengthen our position as one of the nation’s most productive and dynamic universities. To accomplish this goal, we are setting priorities, investing resources carefully, and inviting partners to join us.”

The campaign, which runs through 2018, allows donors to choose what efforts their gifts support. “We want to help donors support what they are passionate about by connecting them with people who share the same passion in the work they do,” says UAB Vice President **Shirley Salloway Kahn, Ph.D.** Donors can help fund student scholarships, create faculty endowments, help expand facilities for research and patient care, invest in new technologies, and underwrite efforts to commercialize discoveries, for example. “UAB is poised for transformational growth, and the money raised will help our faculty and staff continue their efforts to find new cures for diseases, educate students, and bring recognition to our city and state through their outstanding teaching, patient care, research, and service,” Kahn says.

“The scope and impact of this campaign will extend far beyond our campus,” says Watts, noting that more than \$424 million has already been raised toward the goal. He also highlighted Health Services Foundation physicians who kicked off the faculty/staff campaign with a \$2.5 million lead gift toward the development of a cutting-edge PET/MRI facility. “A successful fund-raising effort of this scale will reap vastly improved health care, educational opportunities, and quality of life, as well as robust economic development, throughout our community, state, nation, and beyond,” Watts says. “This will be a campaign with a truly global impact.”

Theresa Bruno, president of THB Inc.; Mike Warren, president and CEO of Children’s of Alabama; and Johnny Johns, president and CEO of Protective Life Corporation, serve as campaign co-chairs.

Learn more about the campaign, follow its progress, or make a gift at uab.edu/campaign.

Professional Development

CLINICAL SKILLS SCHOLARS INTRODUCED

When it comes to developing clinical skills, experience is the best teacher. That’s the principle behind the School of Medicine’s new Clinical Skills Scholars program, introduced last fall with a select group of faculty mentors known for their excellence in teaching professionalism in the clinic. Each of the 31 Clinical Skills Scholars spends a half day each week with a small group of first- and second-year students, discussing topics such as conducting physical exams and taking medical histories. The faculty scholars also provide additional context as students proceed through their Introduction to Clinical Medicine (ICM) curriculum, and they will help expand clinical skills training in the third and fourth years of medical school.

Clinical skills are “fundamental” to practicing medicine, says **Stan Massie, M.D.**, associate professor of internal medicine, who directs the new program and the ICM course. “At their core, they involve interacting with patients and exhibiting professional behavior. They require much more than just possessing scientific knowledge—they are skills you can’t merely read about in a book. You have to learn and cultivate them with repeated practice under the guidance of a practicing physician.”

Watch a video featuring co-assistant directors **Caroline Harada, M.D.**, and **Marjorie Lee White, M.D.**, discussing the need for the Clinical Skills Scholars program on **UAB Medicine’s iPad app**.

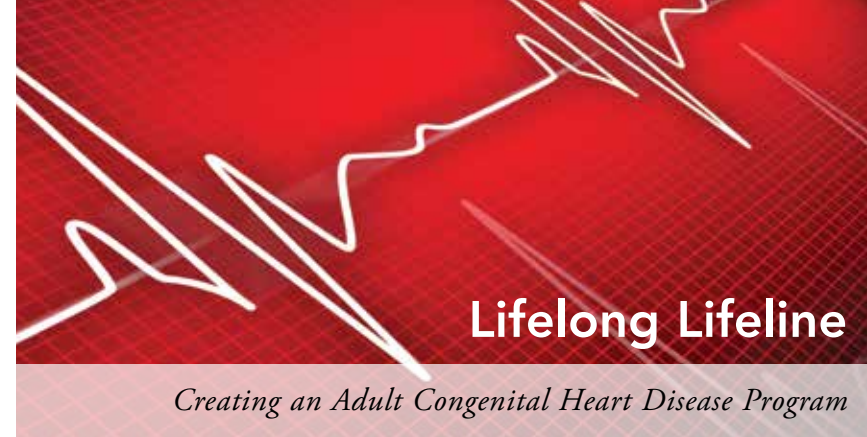


POSITIVE SIGNS

Tailored Treatments for a Common Breast Cancer



Physicians may soon have a more targeted approach to treating estrogen receptor positive (ER+) breast cancer, the most commonly diagnosed form of the disease—and the one that accounts for the largest percentage of breast cancer deaths each year. UAB’s Comprehensive Cancer Center and HudsonAlpha Institute for Biotechnology have received nearly \$1 million from Susan G. Komen for the Cure to continue collaborative genetic research to identify molecular signatures that could lead to faster, more effective treatments. “This research should provide valuable insight that will allow us to tailor treatments for ER+ in the most effective way,” says **Andres Forero, M.D.**, a UAB professor of hematology and oncology.



Lifelong Lifeline

Creating an Adult Congenital Heart Disease Program

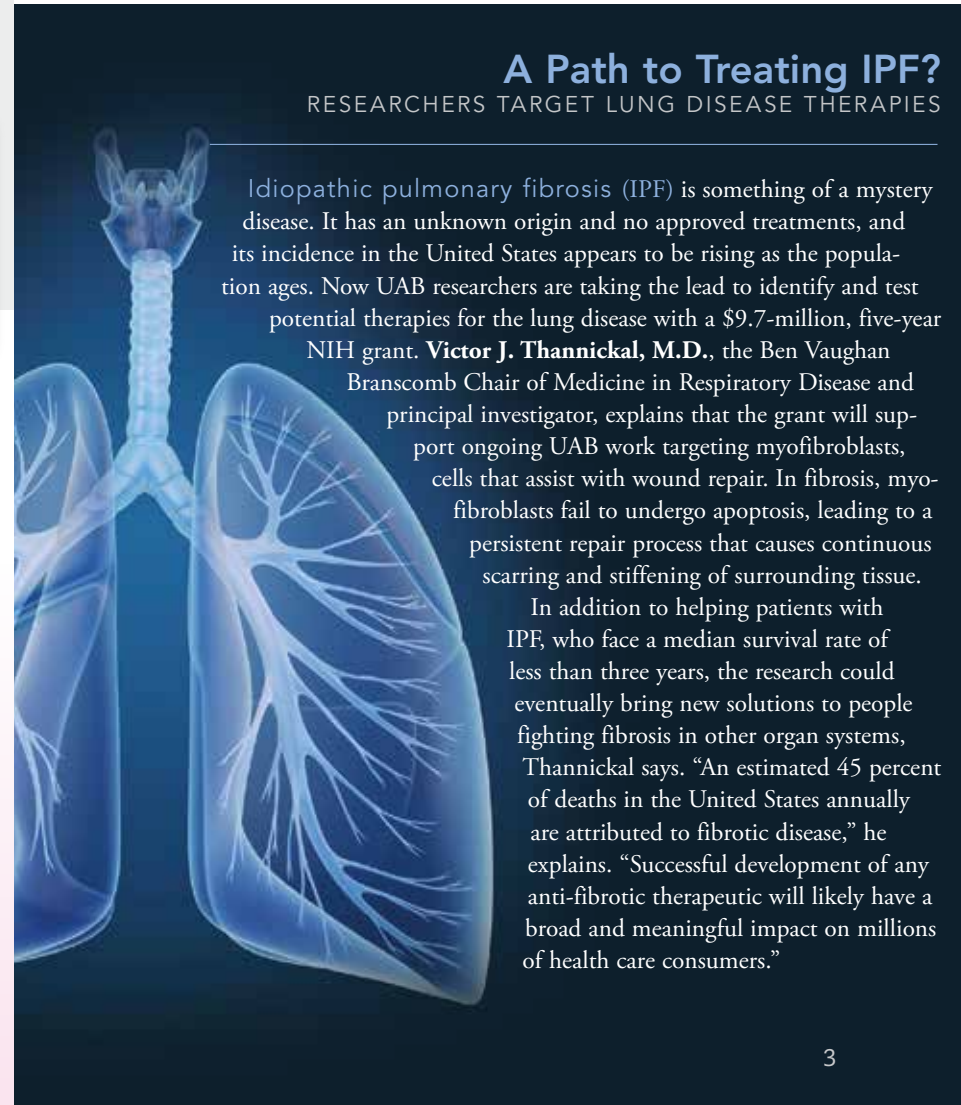
While medical innovations are helping more children born with congenital heart disease to grow into adulthood, an estimated 60 percent aren’t getting follow-up care because of a lack of specialists for adult patients. To address that need, UAB’s Division of Cardiovascular Disease has created the new Alabama Adult Congenital Heart Disease (ACHD) Program and recruited **Marc Cribbs, M.D.**, to serve as its director as part of the AMC21 strategic plan. The program is a vital addition, Cribbs says, because “many patients never transition to an adult program after they age out of pediatric care,” putting them at risk for the development of heart failure, arrhythmia, and other long-term medical issues. Cribbs will be part of a multidisciplinary team of experts from fields including cardiovascular surgery, interventional cardiology, electrophysiology, cardiac anesthesiology, and maternal-fetal medicine. In particular, he will collaborate with the Division of Pediatric Cardiology to ensure a smooth transition of patients into adult congenital care. Cribbs also will partner with local cardiologists and primary care physicians around Alabama to develop the ACHD program and its outreach clinics.

A Path to Treating IPF?

RESEARCHERS TARGET LUNG DISEASE THERAPIES

Idiopathic pulmonary fibrosis (IPF) is something of a mystery disease. It has an unknown origin and no approved treatments, and its incidence in the United States appears to be rising as the population ages. Now UAB researchers are taking the lead to identify and test potential therapies for the lung disease with a \$9.7-million, five-year NIH grant. **Victor J. Thannickal, M.D.**, the Ben Vaughan Branscomb Chair of Medicine in Respiratory Disease and principal investigator, explains that the grant will support ongoing UAB work targeting myofibroblasts, cells that assist with wound repair. In fibrosis, myofibroblasts fail to undergo apoptosis, leading to a persistent repair process that causes continuous scarring and stiffening of surrounding tissue.

In addition to helping patients with IPF, who face a median survival rate of less than three years, the research could eventually bring new solutions to people fighting fibrosis in other organ systems, Thannickal says. “An estimated 45 percent of deaths in the United States annually are attributed to fibrotic disease,” he explains. “Successful development of any anti-fibrotic therapeutic will likely have a broad and meaningful impact on millions of health care consumers.”



MASTER OF EDUCATION



Gustavo R. Heudebert, M.D., vice chair for medical education in the Department of Medicine and assistant dean of graduate medical education, has been elected to mastership by the American College of Physicians, one of primary care’s highest honors.

Only a select number of physicians receive mastership; recipients must have a distinguishing record of mentorship, advocacy for quality in internal medicine, strength of character, clinical competence and compassion, and a commitment to social justice, among other requirements.

“Having Dr. Heudebert on our faculty is a great honor for UAB, but it also is a point of pride for Alabama,” says **Selwyn M. Vickers, M.D., F.A.C.S.**, senior vice president for medicine and School of Medicine dean. “Dr. Heudebert, and the scores of students and residents he has trained, represent the highest quality medical education and medical care available anywhere in the world.” Heudebert joined UAB’s faculty in 1995.

UAB Joins Key Women’s HIV Study

UAB is one of five Southern sites joining the Women’s Interagency HIV study, a longitudinal study funded by the National Institutes of Health to examine how HIV affects the health of women. **Mirjam-Collette Kempf, Ph.D.**, associate professor of nursing and health behavior, and **Michael S. Saag, M.D.**, the Jim Straley Endowed Chair in AIDS Research, received a \$3-million, five-year award for the study. Saag will serve as principal investigator at UAB and a sister site at the University of Mississippi Medical Center; Kempf is co-principal investigator.

A Destination for Dystonia Experts



UAB will help discover new clues to treating dystonia with its new Bachmann-Strauss Dystonia and Parkinson's Disease Center of Excellence. It is one of three established at major medical centers across the country with a \$1.2-million grant from the

Bachmann-Strauss Dystonia and Parkinson Foundation; its goal is to strengthen UAB's clinical care and research while providing new avenues for collaboration among centers. **David G. Standaert, M.D., Ph.D.**, the John N. Whitaker Endowed Chair in Neurology and chair of the UAB Department of Neurology, adds that the center will help UAB recruit additional dystonia specialists and accelerate studies aimed at developing treatments and cures. In addition, a dystonia navigator will coordinate clinical care for patients with the disease, a movement disorder with several potential causes but no cure. At the center, patients will benefit from an integrated, coordinated approach to multidisciplinary care that will involve movement disorder specialists as well as physical, occupational, and speech therapy; neurosurgery and genetic counseling will also be available.

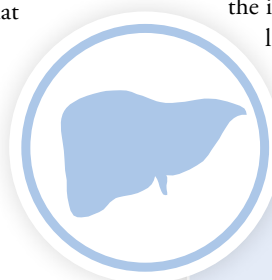
Common Sense Solutions for Common Conditions

Up to 9 percent of the U.S. population has abnormal levels of liver enzymes. And an estimated 40 percent of people over 65 experience chronic constipation. But that's no cause for alarm, say UAB experts working with the Deep South Continuing Medical Education (CME) Network who are helping primary care physicians recognize and respond to the conditions without referral to a specialist.

"By following a few basic steps, any primary care doctor can identify the principal causes of elevated liver enzymes," says **Donald Marks, M.D., Ph.D.**, assistant professor in the UAB Department of Medicine, who developed an educational module that walks physicians through the process. He lists fatty liver, alcohol use, viral infections, and common medications for high blood pressure, diabetes, heart disease, and other issues among the potential triggers. Marks also offers suggestions about enzyme levels to look for when deciding whether to refer a patient to a gastroenterologist. Caring for patients at the primary care level is preferable, Marks says, because it can "save a lot of people a lot of time and money"

and help patients avoid invasive biopsies. While all physicians can benefit from his CME module, Marks notes that doctors of patients with high rates of diabetes or obesity are likely to see patients with minor elevations of liver enzymes. In addition, baby boomers often present the same problem because they rank as the highest percentage of the population with a chronic hepatitis virus.

Chronic constipation is one of the most frequent gastrointestinal disorders that physicians see in patients—particularly the elderly—says **Alayne D. Markland, D.O., M.Sc.**, associate professor in the UAB Division of Geriatric Medicine and Gerontology. "However, patients and physicians should take a step-wise approach to treatment and not rely on the newest or most expensive medications without trying other treatments first," she explains. With **Patricia S. Goode, M.S.N., M.D.**, the Gwen McWhorter Professor of Medicine in



the Division of Gerontology, Geriatrics, and Palliative Care, and geriatric medicine fellow **Tyler D. Stracener, M.D.**, Markland developed a CME module that highlights common approaches to constipation, both pharmacologic and nonpharmacologic. She notes that the issue is one of growing importance in light of America's aging population and the fact that many older adults have high rates of out-of-pocket spending on treatments.

Take the online courses and join the Deep South CME Network:

My Patient Has Abnormal Liver Enzymes. What Should I Do?

www.alabamacme.uab.edu/courses/Abnormal_Liver_Enzymes/ID0484.asp

The Management of Chronic Constipation in Older Adults

www.alabamacme.uab.edu/courses/Geriatric_Constipation_in_Older_Adults/ID0498.asp

BRIDGING GAPS WITH TECHNOLOGY

New Tool to Help Patients and Doctors Compare Treatments

Jasvinder Singh, M.D., is using technology to take on health disparities with the help of a \$1.5-million, three-year award from the Patient-Centered Outcomes Research Institute. The associate professor in the Division of Clinical Immunology and Rheumatology will develop a computer tool to help doctors and their African-American and Hispanic lupus patients with kidney disease choose the best individual treatment options. Lupus occurs more frequently in minority women; they also have more severe disease and are more likely to die of lupus compared with Caucasian women. Kidney disease caused by lupus can lead to kidney failure and the need for dialysis if not treated early with strong medications.

Singh's team will compare all published studies on the available treatments and use statistical analysis to estimate the risks and benefits for lupus medications. The resulting computerized decision aid will incorporate input from lupus patients at all stages to ensure that the information is helpful, practical, and relevant. "Our long-term goal is to make sure that minority patients with lupus have the information they need to make informed decisions, at the right time, so they may actively participate in their health care," Singh says.

A HOME FOR MYELOMA CARE

Comprehensive Clinic Opens

Treatment options for myeloma, a blood cancer developing in the bone marrow, have improved significantly with the development of novel agents that target malignant cell growth. UAB's new Multiple Myeloma Clinic, the first and only clinic of its kind in Alabama, will help patients benefit from new and developing treatment options. Established by the Division of Hematology and Oncology and the Bone Marrow Transplant Program, the clinic provides specialized, team-based care for the multiple organ systems affected by the disease from the time of diagnosis through the course of treatment. Patients also may be eligible for clinical trials of new therapies and disease-specific interventions developed by UAB researchers. Clinicians, supported by UAB Comprehensive Cancer Center resources, also will collaborate with local physicians to offer patients updated treatment recommendations and access to cutting-edge research.

New Recruits Explore Cardio-Renal Connections

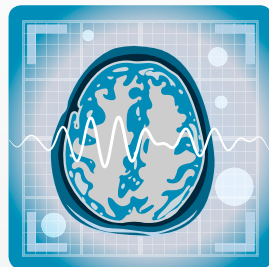
When **David Pollock, Ph.D.**, and **Jennifer Pollock, Ph.D.**, join the UAB faculty early in 2014 as a result of the AMC21 strategic plan, they will add their expertise in kidney function and hypertension, \$10 million in current NIH research funding, and an entire new section in the Division of Nephrology. Together, the Pollocks have investigated endothelial cells lining blood vessels in the kidney, helping to explain its role in controlling sodium balance. At UAB, they will create the new section of Translational Cardio-Renal Research, which David will direct and Jennifer will co-direct. David, who is president-elect of the American Physiological Society, also will be an endowed professor in the Nephrology Research and Training Center; Jennifer will be an endowed scholar. "It came down to the opportunities at UAB to move our science and collaborations in a much more translational direction," says Jennifer: UAB's "reputation of a highly collaborative work environment with scientists, basic or clinical, was an opportunity we could not pass up." Previously, the Pollocks were on the faculty of Georgia Regents University.

IN BRIEF

- **Anne W. Alexandrov, Ph.D., R.N., CCRN, FAAN**, a neurology professor in UAB's Comprehensive Stroke Center; has received the Flame of Excellence Award from the American Association of Critical-Care Nurses. The honor highlights sustained contributions to acute and critical care nursing.
- **Peter G. Anderson, D.V.M., Ph.D.**, director of pathology undergraduate education, has been selected for a Fulbright Specialists project. He will lead faculty development programs and hands-on workshops focusing on curriculum and student assessment at the Tzu-Chi University College of Medicine in Taiwan.
- **Richard A. Allman, M.D.**, director of the Comprehensive Center for Healthy Aging and the Emmett G. and Beverly S. Parrish Endowed Professor; has won the Gerontological Society of America's Donald P. Kent Award, honoring his leadership through teaching, service, and interpretation of gerontology to the public.
- **Martina Bebin, M.D.**, associate professor of neurology and pediatrics, has won the Manuel R. Gomez, M.D., Award from the Tuberosclerosis Alliance for her breakthrough research and clinical care for the rare genetic disease.
- **Etty (Tika) Benveniste, Ph.D.**, chair of the Department of Cell, Integrative, and Developmental Biology and the Alma B. Maxwell-UAHSF Endowed Chair in Biomedical Research, has been elected president of the American Society of Neurochemistry, which includes 1,200 members in the United States and Latin America.
- **S. Louis Bridges Jr., M.D., Ph.D.**, the Marguerite Jones Harbert-Gene V. Ball, M.D., Professor of Medicine, is the new director of UAB's Comprehensive Arthritis, Musculoskeletal, and Autoimmunity Center.
- **John F. Kearney, Ph.D.**, a professor of microbiology and an international expert on monoclonal antibodies, was named the 2013 Distinguished Faculty Lecturer; UAB's most prestigious faculty award.
- **James K. Kirklin, M.D.**, holder of the John W. Kirklin Chair of Cardiovascular Surgery and director of cardiothoracic surgery, has been elected to serve as an officer on the American Heart Association's Greater Southeast Affiliate Board of Directors.
- **Bruce R. Korf, M.D., Ph.D.**, the Wayne H. and Sara Crews Finley Chair of Medical Genetics and chair of the Department of Genetics, received the Children's Humanitarian Award from the Children's Tumor Foundation for his contributions to treating neurofibromatosis.
- **Toni R. Leeth, M.P.H.**, has been appointed assistant dean for strategic planning. She will work with departments throughout the School of Medicine and the UAB Health System to meet growth goals outlined in the AMC21 strategic plan.

(continued on page 7)

Neurosurgery's New Title



UAB's Division of Neurosurgery has been elevated to the Department of Neurosurgery, reflecting its faculty's internationally renowned contributions to patient care, research, and education. The program has grown steadily in recent years, with 19 faculty performing more than 4,000 surgeries, plus 21 residents. The new department will build on UAB's existing strengths in neuroscience and cancer research, says its inaugural chair, James M. Markert, M.D., the James Garber Galbraith Chair in Neurosurgery. "We will continue to provide world-class neurological care to citizens of Alabama and the surrounding region," he says. "We will also attract energetic, talented faculty to our already stellar group in order to explore and produce new avenues of treatment; expand our current cutting-edge research into brain tumors, clinical outcomes, and surgical anatomy; and create fruitful new collaborations with colleagues in UAB's other clinical and basic science departments."

EXPANDING RESEARCH FOR A DISEASE

ON THE RISE

A joint effort to understand acute kidney injury has won a five-year, \$5.64-million renewal grant from the NIH—and it's needed now more than ever, says **Anupam Agarwal, M.D.**, Division of Nephrology director and the Marie S. Ingalls Endowed Chair in Nephrology Leadership. "It's a disease that's getting worse," he explains, tying the increase to growing numbers of patients who are older, diabetic, obese, and hypertensive. Currently, 70 to 80 percent of patients in intensive care units who develop the disease will die from it. The funds will extend support to the O'Brien Center for Acute Kidney Injury Research, which links UAB with the University of California, San Diego, to foster collaborations and promote research into the disease, with the goal of improving outcomes for patients. Agarwal, who leads the center, plans new initiatives to find genetic determinants for early disease detection and to expand an international registry.

Stagno Steps Down

After 25 years as chair of UAB's Department of Pediatrics and physician-in-chief of Children's of Alabama, **Sergio B. Stagno, M.D.**, will step down from those positions once a successor is named. He plans to remain at both hospitals, teaching students and residents and caring for patients. Stagno arrived at UAB as a perinatal infectious diseases fellow in 1971. He joined the faculty two years later, becoming a world leader in the research and treatment of pediatric infectious diseases. Stagno also held the Katharine Reynolds Ireland Chair of Pediatrics and served as president of the University of Alabama Health Services Foundation. A national search has begun for Stagno's successor as chair.



INNOVATION in Action

Hard-Headed Solution Makes Lung Transplant Possible

A 29-year-old cystic fibrosis patient received a life-saving lung transplant thanks to bright ideas from UAB medical professionals, who blended new technology with an \$80 plastic mountain-climbing helmet.



When Brandon Rylant's lungs could no longer expel carbon dioxide, UAB specialists turned to a portable ECMO (extracorporeal membrane oxygenation) machine. UAB was the first medical center in Alabama—and one of only a few nationwide—to use the miniature device to keep a transplant candidate alive while awaiting new lungs. The portable device enabled Rylant to walk down the hall to build strength and prove he was healthy enough for the transplant.

UAB perfusionist **Mat Tyndal** combined his own climbing helmet (see photo) with Velcro to help secure the connections between Rylant and the ECMO cart. With assistance from medical staff, Rylant could walk daily. Eventually, the UAB team came up with an even more inventive solution, replacing the helmet with the frame of a surgeon's headlamp.

A year after his transplant, Rylant is breathing better and walking everywhere. And the climbing helmet has inspired UAB's orthotics specialists to design a custom-fitted helmet that Tyndal and a fellow perfusionist are using with another portable-ECMO lung patient.

Watch a video about this story on [UAB Medicine's iPad app](#).

PUTTING PAIN TO BED

Could a night of tossing and turning add to the pain of osteoarthritis? UAB researchers are examining the relationship in a new study of the chronic disease, which commonly causes pain, though the experience can vary, regardless of the disease's progression.

*Growing evidence points to poor sleep as the trigger for physiological issues that can increase pain, says **Megan Ruiter, Ph.D.**, a postdoctoral fellow in the Division of Clinical Immunology and Rheumatology. She is focusing her study on patients with osteoarthritis of the knee, and her findings could lead to new solutions. "Treating sleep to modify pain may allow more options than simply treating pain at the source, which is often extremely difficult," she says.*

African Americans are more likely than whites to have knee osteoarthritis and report greater severity of pain and disability from the disease, and ethnic differences in measures of objective sleep and pain processes in the central nervous system may represent important contributors, Ruiter notes. "We hope the study will shed light on the clinical usefulness of pain measures and sleep measures" in addition to suggesting new therapies, she says.



"Mobility is a sort of barometer for how well an older person ages. A decline in mobility seems to quickly lead to an across-the-board decline, including the routine activities of daily living. Any modification of a task such as climbing 10 steps raises a red flag."

—Associate professor **Cynthia J. Brown, M.D.**, describes the results of the clinical review she conducted with fellow UAB geriatrician **Kellie L. Flood, M.D.**, focusing on links between increased physical activity and healthy aging. Based on the findings, Brown and Flood suggest that primary care physicians ask senior patients if they have difficulty climbing 10 steps or walking a quarter of a mile—and if they have modified the way they do those activities because of health or physical reasons. A positive answer to either question could provide an early sign of mobility limitations, prompting physicians to identify and address related physical, social, or environmental factors.

IN BRIEF

(continued from page 5)

- **Klaus E. Mönkemüller, M.D., Ph.D., FASGE**, director of the Basil I. Hirschowitz Endoscopic Center of Excellence at UAB, has been elected co-chair of the International Committee of the American Society of Gastrointestinal Endoscopy.

- **Edward E. Partridge, M.D.**, director of the UAB Comprehensive Cancer Center and the Evalina B. Spencer Chair in Oncology, has received the American Cancer Society's 2013 national Humanitarian Award. The accolade honors individuals who have helped to improve human welfare and social reform, particularly in improving care for medically underserved populations.

- **Jane R. Schwabke, M.D.**, professor of infectious diseases, received the American Sexually Transmitted Diseases Association Achievement Award for her accomplishments in research and prevention.

- **Jerzy P. Szaflarski, M.D., Ph.D.**, professor of neurology, has been named to the American Epilepsy Society/National Institute of Neurological Disorders and Stroke Research Benchmarks Stewards committee.

- **Rodney O. Tucker, M.D.**, has been named director of the UAB Center for Palliative and Supportive Care and the Palliative and Supportive Care section within the Division of Gerontology, Geriatrics, and Palliative Care. He joined UAB's faculty in 2002.

- **Richard W. Waguespack, M.D.**, clinical professor of surgery, is the new president of the American Academy of Otolaryngology—Head and Neck Surgery and its foundation, which represents around 12,000 health professionals.

- **Richard J. Whitley, M.D.**, the Loeb Eminent Scholar Chair of Pediatrics, has been appointed to the NIH Recombinant DNA Advisory Committee, which helps to oversee federally funded research on topics such as human-gene transfer and the potential of transferring genetic material to other organisms.

- Several faculty members have joined Center of Scientific Review study sections, where they will review NIH grant applications and make recommendations. **Mohammad Athar, Ph.D.**, vice chair of basic research in the Department of Dermatology, has been named to the Molecular Oncogenesis Study Section. **William J. Britt, M.D.**, professor of pediatrics, is chairing the Clinical Research and Field Studies of Infectious Diseases Study Section. **Paul A. Goepfert, M.D.**, professor in the Division of Infectious Diseases, is chair of the HIV/AIDS Vaccines Study Section. **Lalita Shevde-Samant, Ph.D.**, associate professor in the Division of Molecular and Cellular Pathology, has been elected to the Chemo/Dietary Prevention Study Section.



Starting FROM HOME

Dean Vickers Shares a Vision of Transformation

By Charles Buchanan

Selwyn M. Vickers, M.D., F.A.C.S., was prepared for the inevitable question about the weather: “Although it’s a great city and great people, it’s snowing in Minneapolis tonight,” said the new senior vice president and dean of the School of Medicine at UAB, just a few days after his official October 15 start date. “We’re excited to be back home at UAB and in a warm climate.”

After seven years at the University of Minnesota Medical School, where he chaired the Department of Surgery, served as associate director of the Masonic Cancer Center, and was named to the Institute of Medicine, Vickers has come home to a warm welcome indeed. Born in Demopolis, he grew up in Tuscaloosa and Huntsville, where he met his wife, Janice, an Alabama native herself. Vickers also treads familiar ground at the School of Medicine. Here he became a nationally known surgeon and expert in the research and treatment of pancreatic cancer after

arriving in 1994 as a young investigator and clinician.

“I came to UAB when it had reached academic and clinical heights,” says Vickers. “It had tremendous aspirations and growth, and it was an exciting time.” He eventually became the John Blue Professor of Surgery and director of UAB’s Section of Gastrointestinal Surgery and was named a Robert Wood Johnson Research Fellow. Vickers also co-directed UAB’s Minority Health and Health Disparities Research Center, was a senior scientist in the Comprehensive Cancer

Center, and received numerous honors from medical students and colleagues.

Now, Vickers says, he returns to a UAB that is rising once more. He credits the “tremendous alignment” among the School of Medicine, the UAB Health System (UABHS), the UA Health Services Foundation (UAHSF), and the UAB president’s office for setting the stage for growth. In **Ray L. Watts, M.D.**, UAB’s president and the school’s former dean, “you have someone who understands the current world of medicine and the growth that is necessary to meet our academic challenges.

There is an overall desire to help Alabama grow and to make a significant impact on a national level in health care, research, education, economics, and leadership.”

The new dean is eager to contribute to those efforts. Vickers, his wife, and their four children “are proud to be Alabamians,” he says. “And we’re happy to be back here to truly make a difference.”

Transformative Medicine

Vickers’s vision for the future encompasses not only the School of Medicine, but all of Birmingham and Alabama as well. He cites the example of the Mayo Clinic, which is working to redevelop its hometown of Rochester, Minn., into more than a destination for health care, but a thriving, economically and culturally diverse city for citizens of the upper Midwest. “It’s an example of what an institution can do to its environment if it seeks to lead and be transformative for the entire community,” Vickers says.

In UAB’s case, the AMC21 Strategic Plan lays the groundwork for that transformation. “AMC21 is consistent with what I think UAB should be doing,” Vickers says. “It focuses on transformative research, quality, patient and employee satisfaction, innovation, and great clinical care. Its emphasis on investment in research and education is fundamental for increasing our National Institutes of Health rankings and defining ourselves as a national leader in quality benchmarks. We want to be the country’s preferred academic medical center.”

Right now it’s crucial for the School of Medicine, as it builds partnerships with the UAHSF, the UABHS through UAB Medicine, and with providers throughout the state—the Comprehensive Cancer Center’s Cancer Care Network is one example—to concentrate on population health, Vickers says. In part, that shift reflects changes in health care under the Affordable Care Act. “America has become a great place for managing acute care—if you get a heart attack, we can fix it; if you get a broken leg, we can pin it,” Vickers explains. “But we don’t do well in managing health for individuals before they get sick, and that has

put the cost of health care in America on an unsustainable trajectory.” Moving forward, academic medical centers must develop platforms to engage communities and their health challenges, he says. “UAB will need to participate in RCOs—regional care organizations—with the goal of providing high-level care for individuals that helps prevent costly episodic care at major hospitals. If we are preemptive in our planning and management of their overall health care, then there is the potential for improved health along with significant cost savings.”

A New World of Care

Vickers emphasizes that the school will continue to explore the frontiers of medical research and care. In particular, he is excited by the possibilities of personalized medicine, bioinformatics, and regenerative medicine. “These areas have direct research streams that the NIH is funding because they cover the spectrum of what a true academic medical center should do: Foster new ideas in basic science, create new environments for translational research, and develop new protocols for patients,” Vickers says.

“Personalized medicine will help us begin to tailor health care to the individual so

that we can prevent, treat, and even predict outcomes,” Vickers says. Bioinformatics will help make that possible by collecting patient data and genomic information across a spectrum of diseases and putting it into a format that helps clinicians apply the results to each patient’s treatment.

As for regenerative medicine, UAB faces an “evolving opportunity” to harness stem cells with the potential to restore function to a number of organs, Vickers says. While UAB’s **Tim Townes, Ph.D.**, the James C. and Elizabeth T. Lee Chair of Biochemistry, has shown that induced pluripotent stem cells can play a significant role in treating sickle cell disease, they may also be able to help treat diabetes, cardiac disease, and neurological deficits. That, in turn, could lead to a revolution in transplantation, Vickers notes. He describes how scientists in other parts of the United States are perfecting bioprinting machines that produce 3-D scaffolds of collagen; one group recently “printed” a trachea. “The dream is that one day we could develop the scaffolding for a kidney, for example, and populate it with stem cells that could turn into nephrons and develop the excretion and detoxification



Vickers meets with Health Services Foundation President Jim Bonner (left) and UAB Health System CEO Will Ferniany (right).

“We must display the willingness to reach new heights of achievement in spite of limitations.”

—Selwyn Vickers, M.D.



Above: The new dean enjoys a moment with medical students in Volker Hall. Right: Vickers will continue to perform pancreatic cancer surgeries as dean.



systems in order to replace an entire organ,” Vickers says. “That’s in the future, but it’s where medicine is going, and it’s where we need to be.

“UAB has always taken great pride in providing the most sophisticated care to the people in its own backyard,” Vickers notes. “When the trends of health care led toward cardiac disease in the 1970s, UAB became a world leader. In the ’80s, when transplantation was coming into its own, the people of Alabama didn’t have to go to Boston or Baltimore. In the ’90s, when cancer was the focus of health care, patients could get everything they needed in Birmingham. The translation of new ideas from the bench to the bedside was occurring right here. The things we’re talking about now—personalized medicine, regenerative medicine, bioinformatics, health disparities, population-based care—are key areas of focus for the new world of health care. And you won’t have to leave Alabama to find a leader in those areas, because it will be UAB.”

Leadership Lessons in the OR

Vickers is used to taking on big challenges. It’s something he does every day

in the operating room and in the research laboratory, helping patients to fight pancreatic cancer—one of the most formidable types of the disease—and working to reduce health disparities among populations.

He became interested in pancreatic cancer at Johns Hopkins University, where he earned his baccalaureate and medical degrees and served as chief resident in surgery. “I had the good fortune to train with John Cameron, the longtime chair of surgery at Johns Hopkins and one of the fathers of successful surgical treatment of pancreatic cancer,” Vickers says. “He inspired me to seek out things that appear to be insurmountable, with the commitment to do them as well as, if not better than, anybody else.”

Following postgraduate research fellowships at the National Institutes of Health and additional medical training at Oxford University in England, Vickers served as an instructor of surgery at Johns Hopkins for a year. Coming to UAB “further developed my passion for pancreatic cancer,” he says. It also prepared him for leadership by immersing him in academic medicine’s

triple mission of research, clinical care, and the training of future specialists.

He picked up a key administrative strategy from his clinical work: “To have a chance of treating pancreatic cancer successfully, you have to build teams,” he says. In fact, Vickers continued to build teams with UAB colleagues even after moving to Minnesota in 2006. He and UAB radiation oncology professor **Donald Buchsbaum, Ph.D.**, are co-principal investigators for the UAB Comprehensive Cancer Center’s prestigious Specialized Program of Research Excellence in pancreatic cancer.

Vickers also has established collaborations to address health disparities—a national problem that is acutely felt across his home state of Alabama. With **James Shikany, Dr.P.H.**, a UAB professor of preventive medicine, Vickers is the lead prin-

cipal investigator of a \$13.5-million grant to create the National Transdisciplinary Collaborative Center for African-American Men’s Health. The collaborative effort—involving 100 Black Men of America Inc., the National USA Foundation, and the National Football League—will create community partnerships to design, deliver, and evaluate interventions targeting the four most significant causes of death and disease for African-American men and boys: unintentional and violence-related injury, cardiovascular disease, cancer, and stroke. The goal is to help narrow the gap in life expectancy between African-American men (72.1 years) and Caucasian men (76.6 years).

Vickers will continue to see patients and conduct research as dean. In addition to health disparities, his scientific investigations focus on gene therapy for pancreaticobiliary tumors and the role of HSP70 and Minnelide in pancreatic cancer oncogenesis, the assessment of clinical outcomes in surgical treatment of pancreaticobiliary tumors, and the role of death receptors in pancreatic cancer treatment. He also is following the progress of Minnelide, a novel therapy for pancreatic cancer that he and Ashok Saluja, Ph.D., in Minnesota were instrumental in developing. It entered a phase 1 clinical trial in September 2013.

Cultivating Leadership

The school’s strides toward national leadership are bound to attract the attention of the best and brightest minds from around the world. Vickers says he originally chose UAB as a place to work because it was ambitious, opportunistic, and collaborative. Now he is encouraging departments to spread that message and continue efforts to recruit outstanding new investigators. UAB should be synonymous with excitement and discovery, he says. “This is the place you need to consider because it’s where you can be successful.”

He also wants to fulfill that promise for faculty who are already excelling in the school’s clinics, labs, and classrooms. “I want to see more endowed professorships and chairs because we need to recognize the great people we have and highlight

their accomplishments,” Vickers says. With changes to health care and reductions in federal research dollars, “we are asking our faculty, more than ever, to be leaders—to display the willingness and ability to reach new heights of achievement in spite of limitations.” Endowments provide resources to help UAB’s faculty meet those challenges, explore new avenues of investigation, protect the research gains they have made, and position them to compete for NIH grants.

Pieces in Place

Thanks to the milestones that AMC21 has already reached, UAB has a head start on achieving the goals on the new dean’s to-do list. “We have all the pieces in place,” he notes. “In personalized medicine, for instance, we have some of the best genomic leaders here, including Dr. **Bruce Korf**, and a wonderful partnership with Rick Myers of HudsonAlpha, along with Dr. **Kevin Roth**, who chairs our Department of Pathology, and Dr. **Ed Partridge**, director of the UAB Comprehensive Cancer Center.

“The other head start we have is simply our collaborative leadership at UAB—Dr. **Will Ferniany**, the Health Services Foundation president; President Watts; and myself. It creates an environment that, as a shared vision comes forth, aligns all parts of the enterprise to make it happen.”

A head start doesn’t always guarantee success, however, and Vickers encourages the community—and particularly alumni—to invest in the School of Medicine and help it move toward its goals. “Our alumni attended a school that

has a national presence and international respect,” Vickers says. “Their investments allow us to recruit the best and brightest students—including Alabama students who might otherwise look outside the state for their training—and give us the ability to recruit and retain the best faculty.” Each gift, Vickers adds, helps the school transform the environment for medical education, research, and patient care in Alabama.

“I value our strong partnership with alumni, and I want them to be excited,” Vickers says. “We are positioned and committed to be a national leader. We have aligned our leadership and resources for growth, accountability, and success. We want to raise our rankings. We want to be a top hospital and health system. We want to make them proud of their school—and proud to be part of its growth.”

To-Do List

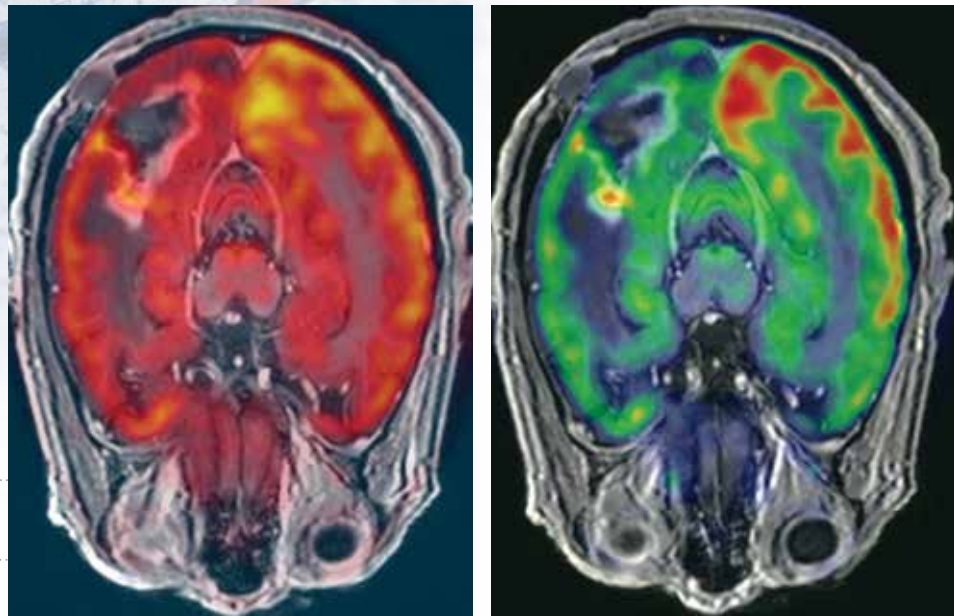
Vickers is committed to fulfilling the School of Medicine’s AMC21 Strategic Plan, which calls for building and sustaining key areas of strength, including cancer, neuroscience, diabetes, cardiovascular medicine, transplantation, infectious diseases/global health, and immunology, as well as primary care and medical education. He also wants to see the school pursue additional goals that will support each AMC21 area and undergird the evolution of American health care:

- Faculty recruitment and retention
- Population-based care
- Bioinformatics
- Personalized medicine
- Regenerative medicine
- Partnerships with providers across Alabama
- Economic development opportunities involving technology transfer

Brain Trust

Exploring the Edges of Neuroscience

By Cary Estes



The most mysterious, unexplained part of the universe is the portion of it within our heads.



“The human brain is one of the last great frontiers in biomedicine,” says **David Sweatt, Ph.D.**, the Evelyn F. McKnight Endowed Chair for Learning and Memory in Aging at UAB. “It’s the most complicated thing known to exist.” While scientists and physicians have an intricate understanding of the heart, lungs, kidneys, and other

internal organs, the best minds still don’t know everything about the brain. That’s what makes neuroscience both challenging and fascinating, says Sweatt, who also chairs the Department of Neurobiology.

“We understand a lot about brain anatomy, circuitry, and connections. What we don’t know is how that functions to create thoughts, behaviors, and symptoms,” explains **Barton Guthrie, M.D.**, a UAB neurosurgery professor specializing in neuromodulation. “We know what parts of the brain control speech, emotion, and memory, but we don’t know how it works and how to manage and improve it.”

Deepening knowledge is the primary goal of the proposed federal BRAIN (Brain Research through Advancing Innovative Neurotechnologies) initiative, which aims to help researchers find new ways to treat, cure, and prevent brain disorders. And while the exact scope of the initiative has not yet been defined, Sweatt, Guthrie, and other UAB neuroscientists already are pursuing discoveries with the potential to reshape our understanding of the brain and its countless connections. Here are some of the latest breakthroughs:

Imaging New Approaches: UAB recently installed a 61,000-pound TR24 cyclotron, part of a new \$20-million Advanced Imaging Facility, in the Wallace Tumor Institute. The cyclotron, a particle accelerator that is most powerful of its kind at any academic facility

in the country, will provide researchers with better images of the brain as it functions. This could lead to breakthroughs in research for Alzheimer’s and Parkinson’s disease, says **David G. Standaert, M.D., Ph.D.**, the John N. Whitaker Endowed Chair in Neurology and chair of the Department of Neurology.

“This moves UAB into the cutting edge of neuroscience,” Standaert explains. “The cyclotron lets us image different chemicals and signaling systems in the brain. More than just the structure of the brain, we’re actually imaging the function and chemistry, which is a tremendously powerful approach. We can start to get a handle on what’s happening with the brain. How is the wiring affected in a disease state? How is the brain compensating? That’s very much in the spirit of the BRAIN initiative.”

Drug Discovery: At the annual meeting of the Society for Neuroscience, **Harald Sontheimer, Ph.D.**, a UAB neurobiology professor and director of both the Center for Glial Biology in Medicine and the Civitan International Research Center, presented his research showing that the FDA-approved drug sulfasalazine can block a transporter in glioma cells that causes seizures. **Adrienne Lahti, M.D.**, director of the UAB’s Division of Behavioral Neurobiology and a psychiatry professor, is now building on this discovery, studying sulfasalazine to see if it can help treat schizophrenia.

“In glioma cells, this transporter releases glutamate, causing hyperexcitability in the surrounding neurons,” says **Lori McMahon, Ph.D.**, director of the UAB Comprehensive Neuroscience Center. “One of the things Dr. Lahti examines in her patients is glutamate levels. Her idea is to use sulfasalazine to see if it can relieve seizures.”

“Dr. Lahti feels that the brain is completely miswired in schizophrenia. It’s not a single brain region; instead, it’s how the brain works in total. That’s the next big thing that we really need to understand and solve. We’re doing a lot of that kind of research at UAB.”



Attractive Solution: **Jerzy Szaflarski, M.D., Ph.D.**, director of the UAB Epilepsy Center, is conducting a National Institutes of Health study that uses MRIs to examine the brain functions of patients experiencing language problems after strokes. He then employs a technique called transcranial magnetic stimulation in an attempt to improve patient recovery.

“He checks to see which areas of the brain are functioning abnormally. Then he induces a magnetic current that can stimulate the brain and actually induce changes,” Standaert says. “So he’s using advanced imaging to sort out not only where the structure is wrong, but also where the function of the brain is wrong, and applying an electrical magnetic approach to try to intervene and correct this.”

Saving Lives on the Front Line: The UAB Department of Psychiatry recently partnered with the UAB Department of Emergency Medicine to study patients who entered the emergency room with severe mood disorders and suicidal thoughts. Some of the patients were given a low dosage of the drug ketamine, an anesthesia medication, while others were given a placebo. Many of the patients who received ketamine began feeling better as quickly as 30 minutes after taking the drug.



“The results were dramatic,” says **James H. Meador-Woodruff, M.D.**, the Heman E. Drummond Endowed Chair of Psychiatry and chair of the UAB Department of Psychiatry. “So we’re researching how this works and looking for drugs that can preserve this effect. It has the potential to revolutionize psychiatric care.”

“We were the first institution to do this in an inner-city emergency room, and there are still only a couple of other places doing it now. It’s the kind of translational science that I think would fit into the BRAIN initiative. It combines scientists with clinicians on the front line. It’s big science, and it takes a collaborative place like UAB in order to do it.”

Brain Boosters:

A Birmingham couple paves the way for a new Parkinson’s drug with neurology gifts. [Read the story on page 30.](#)

From Science to Solutions

NEUROSCIENCE DISCOVERIES POINT TO FUTURE TREATMENTS

- UAB neurobiology researchers have discovered a “second layer” of nerve signal transmission that doesn’t rely on conventional nerve pathways, where nerve cells are wired into defined routes. Instead, transmission depends on how close a nerve cell is to a signaling pathway. The unusual circuit fine-tunes the brain’s control over movement and incoming sensory information, and the finding could lead to new treatments for some movement disorders and autism, researchers say.

- A UAB study has identified how the brain remembers pleasure: Chemical changes influencing memory-related genes in nerve cells within the ventral tegmental region of the brain create “reward memories.” The molecular events behind these memories appear to differ from those created by drug addiction, despite the popular theory that addiction hijacks normal reward pathways. The results may one day help patients suffering from drug abuse or mental illness.

- The mechanism allowing the immune system to mount a massive attack against invading bacteria also contributes to the destruction of brain cells in Parkinson’s disease, says a UAB study. Researchers found that blocking production of key immune proteins protected animal models displaying a “human version” of Parkinson’s from related nerve cell death. Additional research into the relationship could inform future drug design efforts.

- UAB scientists have identified a molecular pathway that seems to help enable malignant glioma cells to spread and invade healthy brain tissue, identifying a potential target for new drugs. A separate study also has found that an overactive enzyme, cytochrome c oxidase, may shorten the survival of patients with glioblastoma multiforme, the most deadly form of brain cancer—offering a more accurate prognostic tool and a better basis for treatment recommendations.

Presence of Mind

Telemedicine Strengthens Care Statewide

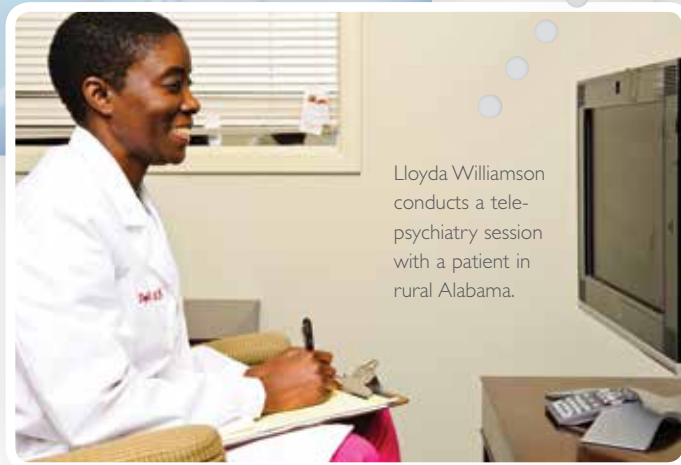
By Nancy Mann Jackson



It looked like science fiction, but actually it was medical history. UAB orthopedic surgeon **Brent A. Ponce, M.D.**, recently performed a shoulder replacement surgery in Birmingham, assisted by Phani Dantuluri, M.D., who was in Atlanta at the time. Google Glass, a head-mounted computer, allowed Dantuluri to observe what Ponce saw in the operating room. At the same time, VIPAAR's virtual augmented reality system enabled Ponce to see Dantuluri's hands and instruments in his field of view. The procedure was one of the first surgeries to use the combination of pioneering telemedicine technologies.

Growing numbers of School of Medicine physicians use telemedicine to connect with health professionals and patients in communities that lack specialty care. Through digital distribution of images or live videoconferencing, UAB specialists can share their expertise across the state and region in an instant.

The trend of telemedicine will continue to grow because it "provides improved access to specialists that some patients otherwise would not have," says **Lloyda Williamson, M.D.**, an associate professor in psychiatry and behavioral medicine at the School of Medicine's Tuscaloosa regional campus, located at the University of Alabama's College of Community Health Sciences. She also is the lead faculty for the University Medical Center's telemedicine program. "Telemedicine reduces travel time for individuals or specialists to get to locations for delivery of services, and it is a means for providing effective clinical care."



Lloyda Williamson conducts a telepsychiatry session with a patient in rural Alabama.

For instance, the VIPAAR system, developed by UAB neurosurgery professor **Barton L. Guthrie, M.D.**, and licensed to a Birmingham start-up company, combines video streams from both local and remote sites. Physicians can interact on procedures, giving far-flung specialists a virtual hand in live surgeries. While it may be the most sophisticated example of telemedicine at UAB, it is just one way that physicians are answering the call to serve patients.

Psychiatry Solution

The Tuscaloosa campus launched its telemedicine initiative with telepsychiatry. "There is a significant demand for it due to a critical shortage of psychiatrists, not only in Alabama but worldwide," Williamson says.

Partnerships with the West Alabama Mental Health Center, the DeKalb Youth Service Center, and the DeKalb County Juvenile Court System enable School of Medicine physicians to provide psychiatric services to patients in DeKalb,

Greene, Hale, Marengo, Sumter, and Choctaw counties. Patients in these rural areas have increased access to board-certified specialists in adult, child, and adolescent psychiatry.

High-quality videoconferencing equipment provides the link. The service is cost-effective and very efficient, Williamson adds.

In addition to psychiatry, the Tuscaloosa medical campus began a telemedicine program for diabetes patients last year. With a financial gift from Verizon, the family medicine department's Diabetic Self Education Program brings

together a family physician, diabetes case manager, nutritionist, pharmacist, social worker, and kinesiologist to educate individuals in Sumter County via videoconferencing. Based upon the program's success, it could serve as a template for teaching patients with other chronic diseases. "We are in the early stages of evaluation and development of a strategic plan to expand telemedicine to other specialties and services," Williamson says.

Retail Therapy

Driven by a glaucoma epidemic across Alabama, UAB's Department of Ophthalmology has partnered with Walmart Vision Centers in Homewood and Tuscaloosa to bring care to at-risk populations. With a two-year, \$1.9-million grant from the Centers for Disease Control and Prevention, UAB installed sophisticated imaging technology in the offices of optometrists Dan Box, O.D., and Frank LaRussa, O.D., who are located by the two Walmart locations, as well as a centralized image reading center at UAB.

Using these optical coherence tomography machines, the optometrists can send high-resolution images of the back of the eye to UAB ophthalmologists, who study them to detect the early stages of glaucoma before symptoms appear. If signs of the disease are discovered, the UAB team can work with the local optometrists to confirm a diagnosis and begin appropriate treatment.

"The delivery of care for any chronic disease is difficult, but when you serve rural, impoverished communities, the barriers can become insurmountable," says **Christopher A. Girkin, M.D.**, the EyeSight Foundation of Alabama Endowed Chair of Ophthalmology. "The populations at greatest risk are the ones least likely to seek the care they need. But everyone in those communities goes to Walmart, so this program puts the technology where they are and



Christopher Girkin reviews eye images taken by local optometrists for early indications of glaucoma.

allows us to serve many people who otherwise would not get any care."

Girkin says that in the past, optometrists in the program's communities frequently referred patients to UAB for evaluations, "but the no-show rate is extremely high among these populations," he says. "Now, we can help with disease management without the patient having to drive to UAB. Patients can get their glaucoma managed locally by their doctors, and we can just review it annually."

UAB's ophthalmology department currently is gathering data on other populations at risk for glaucoma and is in discussions with Walmart about bringing the program to other sites. "It's an expandable model," Girkin says.

Echo Effects

UAB pediatric cardiologists are telemedicine pioneers. In the 1990s, they installed an ISDN (integrated services digital network) system so that they could read echocardiograms sent from Montgomery, says **Yung R. Lau, M.D.**, professor of pediatric cardiology. At the time, the Internet was not secure enough nor the signal broad enough to make the program effective.

However, the specialists kept trying new tactics, and since 2008, UAB pediatric cardiologists have been using telemedicine to read

echocardiograms from two Tuscaloosa hospitals and two Dothan hospitals. In some cases, the outlying hospitals upload images to a secure server, and UAB physicians download them to their own computers. Other partner hospitals have given UAB team members access to their secure online systems to view images. "We have not invested in any technology," Lau says. "We simply review their images, and if we find any abnormality, then we discuss the appropriate action."

In an example scenario, a baby born in Dothan may have breathing problems and look blue. In the past, Dothan physicians would send the baby to UAB for evaluation. While that in-person evaluation may be necessary, in some cases the patients' breathing problems would resolve spontaneously on the way to UAB, with an echocardiogram showing no cardiac abnormalities upon arrival. That would be "a wasted trip" for the family, Lau says. With telemedicine, "we can read the echo [from outlying hospitals] in almost real time and let the local doctors know if the patient needs to come to UAB or not," Lau says. "We can also determine what kind of intervention they will need, so we can tell them exactly which unit to go to when they get to Birmingham and whether or not they need to start medication immediately."



“This is frontier medicine. The team members will be pushing their knowledge and expertise to the limit.”
—Gustavo Heudebert, M.D.

Disease Detectives

In Search of Solutions for Mystery Illnesses

By Tara Hulen

“When you hear hoofbeats, think horses, not zebras” is usually sound advice for medical students eager to treat an exotic disease when a patient more likely has a less interesting, more common illness. But what happens when those metaphorical zebras do come along? Sometimes a patient can present with something so unusual that physicians have never seen anything like it. Even the best specialists can be stumped, leaving the patient with no answers or solutions.

UAB’s new Undiagnosed Diseases Program, modeled after a groundbreaking initiative at the National Institutes of Health, aims to help patients solve the most baffling medical mysteries. These illnesses may be so rare that only a handful of people in the world have them; sometimes no other cases have been discovered. These patients are unlikely to get a diagnosis or even a clue about what is wrong without the intense scrutiny and expertise available through a specialized program like UAB’s.

“One thing that distinguishes an academic medical center is that we exist to do the hard things that are not always going to be feasible in the course of day-to-day medical care,” says **Bruce R. Korf, M.D.**, the Wayne H. and Sara Crews Finley Chair of Medical Genetics and chair of the UAB Department of Genetics. “That’s part of our mission.”

Korf was inspired by the possibilities of what UAB could do with the concept after he served as chair of the advisory board for the NIH initiative and attended some patient care conferences. UAB’s program, launched last fall as part of the AMC21 strategic plan, pilots the concept in the academic environment, he says.

Delta Force for Disease

Gustavo R. Heudebert, M.D., program co-director and an internal medicine professor, has convened a panel of UAB specialists to serve as medical Sherlocks. Each week, the group examines a few carefully prescreened and condensed case files. The program expects to see approximately 50 patients per year; several have already enrolled based on word of mouth before the program has been widely publicized.

Sequencing the patient’s genome is part of the examination process, with a level of expert analysis not usually available to physicians in other settings, Korf explains. To save time, however, Heudebert says that they will zero in on the exome—the part of the genome with richer information about diseases, including proteins the patient might lack—in an effort to explain symptoms.

Co-director and clinical geneticist **Maria Descartes, M.D.**, says in cases where a potentially inherited genetic disorder is discovered, family members also can undergo genetic testing. Genetic counseling will be available to help everyone involved better understand what the results mean to them and their children.

The number of cases the team will see is small and selective, Heudebert explains, because the program wants to use its advanced genetic testing and other resources on cases most likely to lead to new medical discoveries that could provide patients with answers. In the NIH program, some of the mystery illnesses turned out to be diseases “known to medicine, but they were presenting themselves in extraordinarily unusual ways,” Heudebert says. Neurological disorders, such as a variant of multiple sclerosis, and metabolic disorders were most common.

For internal medicine physicians on the front lines of initial diagnoses, the program “is a dream come true,” Heudebert says. “I can have a four-hour visit with a patient, asking questions we wouldn’t even imagine asking in a 15- or 30-minute visit. On top of that, I’ll have basically every diagnostic and imaging test at my disposal. Then I’ll have the undivided attention of my handpicked, preferred doctors—more than 1,300 in the system. It’s like having Delta Force or Navy SEALs.”

At UAB, as at the NIH, not every patient is guaranteed to receive a diagnosis or a treatment plan, but the intensive review process will provide “a tremendous amount of reassurance that everything that could be done has been done,” Heudebert says. In those cases, patients could be referred to specialists at UAB or elsewhere so that they don’t go home without guidance.

Persistence of Symptoms

Referring physicians need to know this is not a place to send any patient who is difficult to diagnose, Descartes stresses. “There has to be evidence of persistence of symptoms for at least six months, along with substantial evidence of organ dysfunction, constitutional symptoms, or loss of function.” For children, there should be loss of milestones or loss of function of one or more organs. Patients should have seen at least one expert in the field that their symptoms seem to fall under, and “there has to be evidence of treatments and medications that have been tried and their outcomes.” Because most of the Undiagnosed Diseases Program will operate in an outpatient setting, patients also should be clinically stable and preferably ambulatory.

To the Limit

UAB’s quest to unlock the secrets of mystery diseases bears similarities to the exploration of outer space. Korf, Descartes, and Heudebert talk about finding previously unknown diseases with the enthusiasm of an astronomer searching for a new star or planet. “Ultimately, this

is what we train for—to tell people what is wrong and try to help if we can, Descartes says. “Hopefully we can touch some people who have gone through a lot.”

Also like the space program, discoveries and advances from the new initiative could benefit countless people—in this case, patients beyond the few that the panel of experts will see. “There is already spinoff from the NIH research,” Heudebert notes. The understanding they gained from identifying new diseases “has already been applicable to other, known diseases.

“This is frontier medicine in terms of how challenging it’s going to be,” Heudebert says. “The team members will be pushing their knowledge and expertise to the limit.”

Best of Two Worlds

Patients and physicians alike have shared a “great frustration that specialists are in a position to do things that our predecessors were unable to do—to sort out these hard problems—but it didn’t always translate immediately to something that could help a particular patient,” Korf says. “There wasn’t really any organized effort to solve the problem.”

Now, UAB’s Undiagnosed Diseases Program offers “cutting-edge genome sequencing alongside the ability to take time, sit down, listen to the patient, and read through a mound of records,” Korf explains. “It’s the best of modern and traditional medicine wrapped together, which offers powerful possibilities.”

(Left to right) Gustavo Heudebert, Maria Descartes, and Bruce Korf aim to solve medical mysteries through a mix of genetic testing, extended patient visits, and specialized expertise.



Specialists in Sync

New Center Coordinates Digestive Disease Care

By Clair McLafferty



John Christein (left) and C. Mel Wilcox (right) are bringing together digestive-health specialists to improve patients' quality of life.

The Digestive Health Center sees patients with all types of benign and malignant GI diseases, including esophageal, stomach, gallbladder and bile duct, small intestine, colon, anorectal, pancreatic, and liver disorders, as well as tumors of the GI tract. The center offers the newest treatments, from GI endoscopy and novel laparoscopic surgical techniques to state-of-the-art medical therapy for irritable bowel disease. See a video about the new center on UAB Medicine's iPad app. To refer a patient, call 1-800-UAB-MIST (1-800-822-6478).

They treat the same diseases and often refer patients to one another. Now, for the first time, UAB gastroenterologists and gastrointestinal surgeons are sharing the same space in the new Digestive Health Center, located at The Kirklin Clinic.

The close collaboration allows the specialists to diagnose disease and formulate a coordinated, comprehensive treatment plan quickly and efficiently. Each day at the center is devoted to a specific medical subspecialty, such as inflammatory bowel disease or pancreatitis, enabling patients to schedule appointments with multiple physicians on the same day.

"A lot of gastrointestinal patients have issues that require surgery," says **C. Mel Wilcox, M.D.**, center co-director and director of UAB's Division of Gastroenterology and Hepatology. "If a patient might need surgery, he or she can be seen by a surgeon on the same day." The setup also accommodates unexpected changes in care, giving surgical

patients the chance to explore nonsurgical options or vice versa.

But many patients also have needs that are not purely medical or surgical, says **John Christein, M.D.**, center co-director and associate professor of surgery. The new facility provides a single, convenient location to access a number of clinical specialties in one visit.

Ranging from nutritional counseling to pain management and psychology, these programs help patients learn to manage their lifestyles as part of treating chronic diseases. The center can address a patient's every medical need, says Wilcox. "We can improve their quality of life by improving quality of care."

Research Hub

One of the center's goals is to foster collaborative research to formulate and explore novel treatment protocols for different diseases. The combination of experts from different areas of digestive health in one place within a major academic medical center is a setup unique to UAB, Christein says. Ultimately, that cooperation benefits patients by giving them the opportunity to participate in clinical trials for breakthrough therapies.

Philanthropic support is essential to the center's success, Christein says, noting that community contributions "let us continue working on cutting-edge research to bring new products and treatment patterns to patients." With declines in NIH funding making research projects more difficult to sustain, and with further cutbacks projected, external philanthropy is becoming increasingly important, he notes.

One Contact for Care

Beyond the clinic's doors, the centralization of medical resources will streamline patient referrals. After being referred once, patients have access to the Digestive Health Center's complete surgical and medical staff. Records sent to one physician within the center are available to all members of the patient's care team. Concentrating care in the center also will reduce potential confusion in scheduling and communication between the patient and referring physician's office.

"Whether the patient needs a specialist from gastroenterology, hepatology, surgery, nutrition, or medical oncology with chemotherapy or a procedure like a scope, our resources are all on the same floor," says Christein.

Macro VISION

Engineering New Approaches to Glaucoma

By Matt Windsor

UAB researchers used 3-D printing to create a model of the lamina cribrosa in an effort to understand glaucoma.



Glaucoma, the world's second leading cause of blindness after cataracts, manifests as a slow fade to black. The disease occurs when "the optic nerve deteriorates over time, causing an increasing disconnection of the eye from the brain that is experienced as increasing vision loss," explains **Christopher A. Girkin, M.D.**, the EyeSight Foundation of Alabama Endowed Chair of Ophthalmology and an international expert in glaucoma diagnosis and treatment.

The underlying causes of this nerve deterioration remain a mystery, despite a century of debate. But a pioneering group of researchers and clinicians in UAB's Department of Ophthalmology, led by Girkin and **Crawford Downs, Ph.D.**, are exploring a fresh paradigm that could offer new insights on glaucoma development—and prevention.

Zooming In on Glaucoma

The approach, known as ocular biomechanics, applies engineering principles to the inner workings of the eye. Downs, a biomedical engineer recruited to UAB in November 2012 from Oregon's Devers Eye Institute, is one of the young field's preeminent researchers. By creating detailed models of key eye structures, then stress-testing them in computer simulations, the researchers aim to identify weak points that lead to glaucoma. They

also hope to shed light on a troubling racial disparity: African Americans get glaucoma at twice the rate of Caucasians. The research has attracted the attention of the National Eye Institute, which awarded Girkin and Downs a \$1.125-million grant in early 2013.

Downs currently focuses on the lamina cribrosa, which acts as a seal around the optic nerve as it passes through the back of the eye on its way to the brain. "The optic nerve goes through pores in that structure," Downs explains. "It's also where the nerve gets damaged in glaucoma. We want to understand the mechanics of the lamina cribrosa and what it looks like in three dimensions."

Downs built his own machine to do the job—a device that slices away tissue 1.5 micrometers at a time (about 1/100th the diameter of a human hair), snapping a picture before making each cut. Downs's first 3-D rendering of the lamina, built from around 1,500 individual images, is just the beginning. He is now building a library of digitized models of laminas from a wide variety of patients. "We can put the models in a computer, apply pressure to them, and simulate what happens mechanically," Downs says.

Team Approach

Downs has already recruited fellow bioengineers to tackle complex problems in glaucoma and other eye diseases, including myopia, keratoconus, and age-related macular

degeneration. **Raphael Grytz, Ph.D.**, studies the growth and remodeling of the sclera and lamina cribrosa; **Massimo Fazio, Ph.D.**, develops new, ultra-precise tools to measure scleral deformations with pressure; and **Vincent Libertaux, Ph.D.**, simulates how the optic nerve head reacts to different pressures. "Right now, we're the biggest group in the world," Downs says.

This basic research complements UAB's glaucoma service, which is among the nation's busiest, Girkin notes. In addition to evaluating new treatment options, including laser therapy and minimally invasive surgeries, "a lot of our clinical research is looking at detection methods to allow us to find glaucoma earlier than ever," Girkin says.

The close cooperation between basic scientists and clinicians is a perfect match for ophthalmology, where practitioners often make their diagnosis at the tissue level, Girkin notes. "I like to say that ophthalmologists are *in vivo* histopathologists," he says. "You can't separate basic from clinical research here."

The ultimate goal is to develop a noninvasive, image-based test "that a clinician can do in five minutes," Downs says. A human trial is at least a decade away, he predicts, but success would bring dramatic benefits: "You could cut the costs of treating glaucoma in half," saving billions of dollars per year.

Student Rounds

I Know What You Did Last Summer

Journeys of Discovery from Alabama to Africa

By Charles Buchanan

Summer is not a slow, relaxing season for School of Medicine students. Many fill the break with intensive research experiences designed to inspire new insights when they return to the classroom and clinic. Below, three students discuss where they followed their curiosity in the summer of 2013.

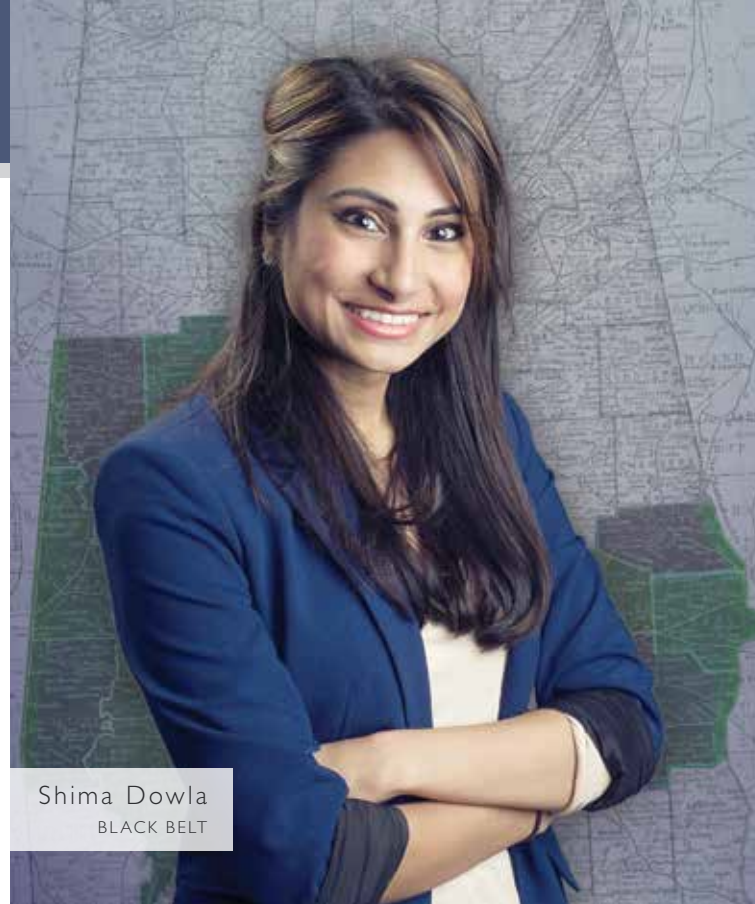
Gauging Barriers to Care

Somewhere between Haiti, Tanzania, and Bangladesh, **Shima Dowla** discovered that the most rewarding aspect of her international health research wasn't the international part. Helping people in poverty was what really satisfied her—and that led the Kentucky native to Alabama.

"I've always been interested in cardiovascular disease, obesity, and hypertension, so it made sense to come to a place like Alabama, which has the highest rates of those diseases and the specific populations they afflict the most," she says. Last summer, Dowla, with the guidance of **Monika Safford, M.D.**, holder of the Endowed Professorship in Diabetes Prevention and Control in the UAB Division of Preventive Medicine, conducted a study that examined barriers to improvement of cardiovascular health in the Black Belt. Specifically, she analyzed responses from primary care providers, patients, and peer advisors, who include community health care workers, about the challenges in following "Life's Simple 7," the American Heart Association's recommendations for living a heart-healthy lifestyle, including control of blood pressure, cholesterol, and blood glucose levels, as well as lifestyle changes such as diet, exercise, and quitting smoking. Dowla also reviewed literature from sociological and anthropological studies, which added "a new dimension" to her research, she says.

Surprising Result

The data showed that patients tend to emphasize personal barriers such as lack of motivation, medication issues, and difficulty in changing habits, while peer advisors focused more on



Shima Dowla
BLACK BELT

structural barriers including transportation accessibility, education, and costs. Physicians, who cited both personal and structural barriers, "matched up a lot more with the patients than the peer advisors, which was a surprise because peer advisors work with patients the most," Dowla explains. "The physicians had a more holistic understanding of the barriers."

That result does not translate into optimism that patients can overcome barriers, however. Dowla notes that primary care providers rated the barriers as highly difficult to conquer, while patients and peer advisors were much more positive. "That could suggest physician burnout" when it comes to improving patients' cardiovascular health, she says.

Greatest Need

Dowla's study helps to lay the groundwork for developing interventions with the potential to help physicians, patients, and peer advisors in the Black Belt overcome their challenges. At the end of last summer, she presented her findings at a symposium in Nashville. Now she plans to pursue more targeted research with the same population—and add a master's degree or Ph.D. in public health to her future M.D.

The passage of time and generations brings "new influences and perspectives from the culture" that can affect health in rural areas, Dowla says. Ongoing research is necessary to keep medical practices up to date, she adds.

She encourages other medical students to get involved in research designed to help rural and underserved communities in Alabama. "They are a large part of the population we serve, and they are the people in greatest need," Dowla says. "A third of the population in the Black Belt is below the poverty line, and it's more difficult for them to access healthier food options, health care facilities, and even electricity," she says. "It's very similar to rural Bangladesh. It's like the developing world, just an hour away."

In the Margins

Swaroop Vitta's summer research project took him all the way to downtown Birmingham. There, just blocks from UAB, he entered the world of the homeless to learn how they receive health care and the difficulties they face in accessing treatment.

"Standing behind the gate at a soup kitchen is completely different from talking with these individuals," says Vitta, a second-year student from Hoover who had previously worked with the National Alliance to End Homelessness. His survey asked homeless men and women of all ages about the local services they use for primary and specialty care and dental and mental health, and which providers they seek out, from government-funded entities and nonprofits to private hospitals.

Reassessing Everything

Vitta's project, funded by the Arnold P. Gold Foundation, follows a similar survey completed three years ago by **Stefan Kertesz, M.D.**, a UAB associate professor of preventive medicine, and medical student **Whitney McNeil**. Since then, however, Jefferson County has shut down many services at its Cooper Green hospital, and the economy has suffered. More positive developments include the opening of Equal Access Birmingham's downtown clinic, where UAB medical students care for uninsured patients.

"We want to reassess everything," Vitta says. "It's important to not let a part of society fall through the cracks in health care. We can work for homelessness in a number of ways—education and housing, for example—but as long as people face health problems, particularly chronic or harder-to-treat issues, they're not going to be able to progress as far as settling down. Nobody is fully functioning when his or her health is deteriorating."

To conduct the survey, Vitta visited four local homeless shelters to talk with residents—an intimidating experience at first, he says. "They may not like it in the shelter, but they are comfortable there and wary of what we're doing," he explains. "You have to build a level of trust with a population that has been lied to, pushed away, and marginalized." To smooth the introduction, Vitta spent a week walking around each shelter and meeting residents before discussing their health care. He soon became a familiar face; after a few weeks, "there were a few people who thought I was just one of the residents."

Confusion and Challenges

Early analysis of the survey results yielded a major concern about Cooper Green. "While plenty of services are still offered there, they are not being utilized because people are confused about what is available," Vitta says. "People who were eligible and enrolled have no idea if they can go back. They're not going back to clinics even if they have a primary care provider."

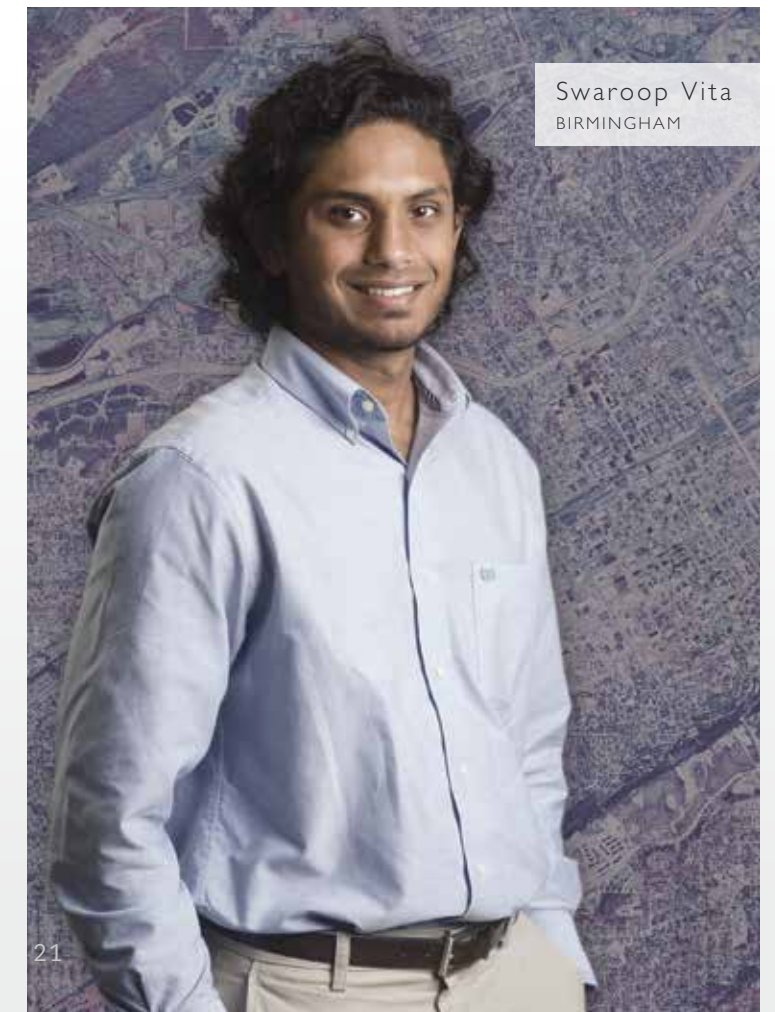
Other results outlined the challenge that homeless individuals face in finding dental care—something that surprised Vitta. Few

providers accept uninsured patients, and some clinics claiming they do simply pull teeth instead of treating them, he says. The problem is an important one to address "because people who haven't taken care of their teeth in so long can get bad abscesses that can lead to bad infections, heart problems, and sepsis."

Vitta hopes to take the key findings from his survey to policy-makers who can help strengthen Birmingham's health care safety net. The current environment of change presents new opportunities, he explains. "If there are things we can change immediately, we want to push for them."

The summer research project also could make a lasting impact on his future career as a primary care physician. Vitta says he has gained the confidence and skills to develop relationships with "all the different types of people in the community at an intimate level, and with that knowledge, I can be an advocate for them."

In addition, "exposure to a marginalized community helps us to understand ourselves and our own perspectives, biases, and stereotypes before we get into a clinical setting and those become barriers to forming patient relationships," Vitta says. "A patient may be in a situation for reasons we may not know, and we can't be judgmental about it."



Swaroop Vitta
BIRMINGHAM

(continued from page 21)

Encountering an Epidemic



Jennifer Rowland
SOUTH AFRICA

UAB microbiology graduate student **Jennifer Rowland** knows a lot about *Mycobacterium tuberculosis* and the disease it causes. In fact, she is the first to identify an enzyme that enables the bacteria to resist copper, released by the host immune system in an effort to kill the invader, and is determining if the same enzyme is required for virulence. But to truly understand the disease, Rowland journeyed to the heart of Africa's TB epidemic.

Last summer, Rowland, along with UAB M.D./Ph.D. student **Nicholas Eustace**, completed a prestigious UAB research internship at the new KwaZulu-Natal Research Institute for Tuberculosis and HIV (K-RITH), in Durban, South Africa. The groundbreaking center is a collaboration between the Howard Hughes Medical Institute and the University of KwaZulu-Natal, with support from the South African government, and its investigators include **Adrie Steyn, Ph.D.**, a UAB microbiology faculty member splitting his time between Africa and Alabama. Here, Rowland shares some insights from her experience:

What did you research at K-RITH?

I worked with discarded lung tissue from patients to determine if copper resistance proteins of *M. tuberculosis* are present during infections. We also looked for copper transporters that cells use to increase copper concentration at the infection site. Understanding the role of copper in amplifying the host immune response, as well as the mechanisms that *M. tuberculosis* uses to fight copper toxicity, may lead to improvements in treatment of TB and other diseases.

Did you gain any unique insights from studying in Africa?

K-RITH is uniquely situated in an area of high TB and HIV prevalence, allowing better access to clinical samples. This means we can study the diseases where they are having the greatest effects. I've been able to meet with patients and see how TB and HIV get treated in South Africa firsthand.

It is important to get a sense of the numbers and types of people affected by TB and HIV, something that is very hard to do in the United States. Even at UAB, where we have a long history of studying these diseases, it can be rare to see a TB patient. Coming to Durban has given me a much better sense of the costs to individuals with these diseases and what innovations might help them.

Did you learn things that could potentially help Alabama patients?

Any advances we make in diagnosis, treatment, and prevention of HIV and TB will make a big difference globally. Many people don't know that TB still exists, and educating them that it is still a burden and that drug resistance is rising will help make people aware of how they can prevent the disease. The best we can do, for now, is to increase access to and ease of testing, and shorten time to results as much as possible. Additionally, working to remove stigma associated with HIV will go a long way toward increasing people's willingness to get tested.

How will this internship shape your research career?

My work at K-RITH has helped me think about integrating basic biological research with clinical research. It has taught me to talk with a greater variety of scientists and clinicians to get the most out of my work.

How did you adjust to living in South Africa?

Living in Durban is similar to living in Birmingham in many ways. Durban has a lot of interesting, fun things to do and good restaurants. I met a lot of friendly people who also helped to smooth the transition.

Nation Builder

Hinkle Joins AAFP Directors

By Clinton Colmenares



Even before he graduates from the School of Medicine, fourth-year student **Tate Hinkle** is shaping national health care policies. He recently was elected to the board of directors for the American Academy of Family Physicians (AAFP) as a student member, representing more than 1,000 medical students belonging to the 110,600-member organization during his one-year term. The board develops policy and position papers on issues concerning family physicians.

"It's exciting to be an active participant on the board of an academy that has such a big influence on health care," Hinkle says. "The AAFP has always been very supportive of student issues and student leadership development. I'm expected to give my input as a student while keeping in mind the fiduciary responsibilities of the board."

Hinkle says he is drawn to family medicine by the continuity of care—and the comprehensive approach to care—that primary care physicians provide. "I enjoy forming relationships with people," says the Lanett, Ala., native. "I enjoy taking care of the whole family—kids, teens, adults, grandparents."

A student at the School of Medicine's Huntsville Regional Medical Campus, Hinkle is part of the Rural Medicine Program. He says the program has given him valuable experience in two medical environments—Birmingham's major academic medical center and Huntsville's community care-based

model—that has shaped how he relates to patients. "If I'm treating a patient in Huntsville, and they have to go to Birmingham, I know what they're going to experience there," Hinkle says. "Also, if I see a patient in Birmingham, and they've come from a smaller area, I know their environment."

Hinkle also has served as a student member of the Alabama Academy of Family Physicians board of directors, volunteered with UAB's Equal Access Birmingham clinic and the North Alabama Medical Reserve Corps, and worked as a diabetes educator for the UAB Diabetes Education Initiative.

Currently, Hinkle is a Larry A. Green Visiting Scholar with the Robert Graham Center for Policy Studies in Family Medicine and Primary Care in Washington, D.C. In January, he began a four-week health policy immersion program, working alongside Graham Center staff to develop original research for national publication and dissemination.

“It’s exciting to be an active participant on the board of an academy that has such a big influence on health care.”

—Tate Hinkle

Facing *the Future*

Training Begins for Tomorrow's Physicians

79 **106** **MEN**
Women

Average Age:

24

55

undergraduate schools represented

Average MCAT score: **30.0**

TOP MAJORS

BIOLOGY

BIOMEDICAL SCIENCE

Chemistry

FIRST-YEAR VOICES

“Being a doctor is not about the title or the degree, but about being able to see a person in the midst of their struggle, and letting them know they have someone who’s concerned about them and can relate to the struggle they’re going through.”

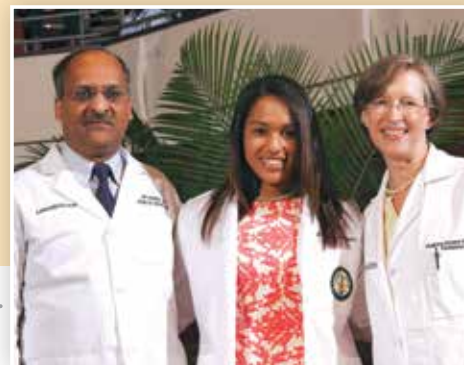
—**Nicole Davis, Pharm.D.**, was a full-time pharmacist in the Birmingham area for 12 years—and continues to work in a pharmacy part-time while she is in school. Her customers and their perspectives fueled her passion to pursue medical training, she says. Davis is the first recipient of the Herschell Lee Hamilton, M.D., Endowed Scholarship in Medicine. (Read more about the scholarship on page 29.)



19 students in **rural medicine** programs

15 states represented

The journey through medical school began for the 185 members of the Class of 2017 at the White Coat Ceremony on August 18. School of Medicine leaders and alumni presented each student with his or her white coat, a symbol of professional competence provided by the Medical Alumni Association, in front of proud family members and friends. Students also received pins symbolizing humanism in medicine from the Arnold P. Gold Foundation and recited a class mission statement, written as a group, promising to uphold the highest values of professionalism and the highest quality of care.



FIRST-YEAR VOICES

“I want to go into academic medicine and be in an environment that promotes teaching future medical students and have a research-heavy focus.”

—As an undergraduate, **Tim Fernandez**, of Gadsden, was one of UAB's first ever Beckman Scholars, receiving \$19,300 from the prestigious national award program to support his cancer research. Fernandez became interested in research during his freshman year, when he began following cell signal pathways in HIV in the lab of his mentor, microbiologist **Jamil Saad, Ph.D.**



7 M.D./Ph.D. students

6 M.D./M.P.H. students

FIRST-YEAR VOICES

“America is becoming more diverse, so having increased cultural awareness will be helpful as a physician, since I will be seeing patients from a variety of backgrounds.”



—**Ynhi Thai** earned a master's degree in medical anthropology at the University of Oxford and completed the nine-month Coro Fellows Program in Public Affairs. The Long Beach, Miss., resident is planning a career in primary care and would like to work in health care policy. She is one of 40 students nationwide to receive the 2013 Tylenol Future Care Scholarship; through the REAL Change Scholarship program, she also lobbied Congress to support funding for AIDS, tuberculosis, and malaria treatment.

—Kendra Carter

State of Health



TUSCALOOSA New Residency Director Anticipates Growth



Richard Friend

Richard Friend, M.D., the newly appointed director of the Tuscaloosa Family Medicine Residency, says the program has the potential for major growth and is moving forward, expanding from 36 to 44 slots. The residency is part of the University of Alabama College of Community Health Sciences (CCHS), which is the School of Medicine's Tuscaloosa regional campus.

"We have a real opportunity to become the preeminent family medicine residency in the country," he says.

Friend directed the LSU Rural Family Medicine Residency in Bogalusa, La., before joining the CCHS. Raised in New Orleans, he was influenced to become a physician by his uncle, a pediatrician in the city who was among the first in the country to use penicillin with children. Friend graduated from medical school at LSU and completed a family medicine

residency in Shreveport, La. He was in private practice in Raceland, La., and Ocean Springs, Miss., before joining the LSU faculty.

Friend's drive to increase the number of primary-care physicians and his passion for teaching fuels his love of working with residents. "The aging population is really going to put a stress on health care delivery, so we have to turn out as many competent, well-trained family physicians as possible," he says.

Teaming Up for Community Health

CCHS faculty are part of a research team awarded nearly \$900,000 by the National Institutes of Health to develop collaborative projects with Alabama communities disproportionately impacted by poor health.

Project UNITED: Using New Interventions Together to Eliminate Disparities is a partnership of the CCHS, the University of Alabama College of Communication and Information Sciences, and the nonprofit Black Belt Community Foundation. The three-year grant focuses on reducing obesity in Black Belt counties, where rates can range between 39 and 47 percent, which is above the 27 percent national average. The high rates put residents at risk for diabetes and heart disease, according to the Centers for Disease Control and Prevention.

Project UNITED will create a community-based participatory research (CBPR) training program for researchers and communities, an incubator to guide research projects, and a community advisory board to provide oversight.

CBPR is research conducted as an equal partnership between scientists and community members, explains **John C. Higginbotham, Ph.D.**, CCHS associate dean for research and a principal investigator on the project. "Communities have lots of great ideas, but they do not always have the resources to put those ideas into action," he says. "We hope to create an infrastructure that will bring together the expertise of the community with academic partners."

MONTGOMERY New Academic Leader Named



Ramona Hart Hicks, Ed.D.

has been appointed director of student and academic affairs for the Montgomery Regional Medical Campus. Her responsibilities include counseling, student services, and curriculum development. Previously, Hicks held admissions coordinator or program management roles for UAB's academic programs in physical therapy, occupational therapy, neuroscience research, and vision science.

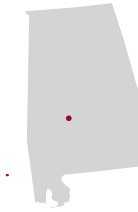


Ramona Hart Hicks

A History of Helping

The oldest continuous charity in Montgomery has made a gift to help UAB patients face current, pressing medical challenges. The Working Woman's Home Association, founded in 1881, recently presented a \$10,000 grant to the UAB Montgomery Family Clinic, a collaboration between UAB Health Center Montgomery and the UAB Division of Pediatric Infectious Diseases that focuses on providing comprehensive care to women with HIV and their affected families. Originally formed by 39 women to organize a home and assistance for working women and the helpless, the Working Woman's Home Association now awards grants from its foundation to help women and children in Montgomery.

SELMA Support Base



Everyone came out a winner when the UAB Selma Family Medicine Residency Program hosted two charitable softball games last spring and summer. The funds raised supported two local, not-for-profit organizations: the Selma Branch of Alabama Teen Challenge, a drug rehabilitation group, and the SABRA Sanctuary, a support agency for women who are victims of domestic and sexual violence.

The Selma program's lineup—the "Scrubs"—consisted of resident physicians, office staff, and even Program Director **Boyd L. Bailey Jr., M.D.** The team's first game pitted players against Alabama Teen Challenge, with the profits going to their cause. In the second game, the Scrubs faced Vaughan Regional Medical Center, the hospital affiliate for the Selma Family Medicine Residency Program, with proceeds supporting SABRA Sanctuary. The funds came from entrance fees and the concession stand, which was operated by the Selma program's office staff and family members, with food donated by local individuals and companies.

Not only did the games rally enthusiasm and support for local charities, but they also gave the community a fresh look at the Selma program, say residents, who primarily promoted and led the events. "The tournaments give UAB exposure, and they help us connect with the community," **Kamran Ahmad, M.D.**, says. Above all, adds **Navnit Mehta, M.D.**, "it was fun interacting with other people and helping out in the community."

The Scrubs, who were victorious in both matches, may make charitable softball games an annual event. "It's always a pleasure to be part of a team with a purpose," says resident **Subbaraju Raju, M.D.**



UAB residents, faculty, and staff in Selma teamed up to support community charities.



HUNTSVILLE Setting an Example for Success



Even in 2014, students in some of Alabama's rural high schools still hear the message that "Kids from around here don't become doctors." The message often results from a simple lack of information when no one is available to explain how students can begin to prepare themselves for medical school admission.

The UAB Huntsville Regional Medical Campus has established a program, My Path to Medical School, to provide answers and new directions for potential physicians. Recent graduates **B.J. Patel, M.D.**, and **Chad Williamson, M.D.**, designed the program when they were Rural Medicine Program students in Huntsville. Initially, they visited seven rural high schools in north Alabama, giving presentations about their personal journeys to medical school, including their experiences shadowing physicians and volunteering at hospitals while in high school.

Pre- and post-presentation surveys determined that high-school students' knowledge of what is required to become a physician increased by 61 percent. Ideally, say Patel and Williamson, every high school in each of Alabama's 51 rural counties would hear from a School of Medicine student every year.

Today, My Path to Medical School is a Special Topics course that confers one week of graduation credit. All Rural Medicine Program students are required to make a presentation, though the course is open to any School of Medicine student who wants to offer advice and encouragement to students at their high school alma maters. Since May 2011, more than 300 students in 12 high schools—in the communities of Geraldine, Grant, Guntersville, Ider, Jasper, Opelika, Scottsboro, Sylvania, and Winfield—have seen the presentations.



Huntsville student Mary Kate Bryant talks with high-school students about her journey to medical school.

Investing in Innovation

The First Challenge

Helping Students Fund Their Dreams of Becoming Doctors

By Jo Lynn Orr

Decades before Mingchun Liu entered the School of Medicine, Doris Sturgis Phillips, M.D., helped to pave the way for her. Phillips was one of only four women admitted to the Class of 1950, and she immediately faced a challenge familiar to many students today: finding the funds to support her goal of becoming a physician.

Phillips secured a loan that enabled her to attend medical school. "Practicing medicine has been a rewarding and fulfilling career for me," she says, reflecting upon her 35 years as a private-practice pediatric allergist in the Birmingham area.

She also made her own investment in the next generation of physicians, establishing a need-based scholarship at the School of Medicine to help other struggling Alabama students. "Because I personally needed financial support when I started medical school, I know there are potential students who may need assistance," Phillips says.

First-year student Liu is the first recipient of the Doris Sturgis Phillips Scholarship in Medicine. She says she dreamed of becoming a doctor when she was a young girl in China's Shandong Province. "My first memories of medicine were when my maternal grandfather had a stroke and was hospitalized. I remember visiting him and bringing him food," she recalls. "I was fascinated with physicians because they help other people."



A scholarship created by alumna Doris Sturgis Phillips (left) made it possible for Mingchun Liu (above) to attend medical school.

After immigrating to the United States with her parents at age 10, Liu faced the difficulty of adapting to American customs. But she dedicated herself to her studies and soon became fluent in English. She says she "fell in love with the medical profession" when she volunteered at UAB and Children's hospitals as a Vestavia Hills High School student. Liu eventually won a coveted spot in UAB's Early Medical School Acceptance Program, which provides an enriched undergraduate experience that prepares students to attend medical school. Last spring, she graduated from UAB with a degree in molecular biology.

Like Phillips before her, Liu knew she would need financial assistance in order to complete her medical training. The need-based Doris Sturgis Phillips Scholarship pays full tuition for all four years of medical school, enabling Liu to begin her studies—one of 79 women in the Class of 2017.

"It was definitely wonderful to receive this scholarship," Liu says. "I was able to send Dr. Phillips a note and short video expressing my sincere gratitude for her generosity. Now I look forward to meeting her and personally telling her how thankful I am."

Phillips adds that she is "so pleased to assist Mingchun as she begins her medical education."

SOCIETY OF SUPPORT

The Jefferson County Medical Society (JCMS) has established an endowed scholarship to benefit deserving School of Medicine students from Jefferson County with financial need and academic merit. The school matched the funds raised by the society's approximately 2,300 members at an August 2012 event, doubling the impact of their donations. The JCMS directed its gifts toward the principal of its endowed scholarship as well as a sponsored scholarship, enabling five students to receive support for the 2013-14 year while making an investment in generations of future students.

The goal for the scholarship is to support students as they gain medical knowledge and skills for the benefit of their future patients. The society plans to raise additional funds to increase the scholarship endowment, and the school will continue to match all current-use scholarship gifts made by alumni through 2014.

In the Footsteps of a Fighter



Fifty years ago, the late Herschell Lee Hamilton, M.D., fought for civil rights in Birmingham by providing free medical care to sick and injured activists. His patients included Dr. Martin Luther King Jr., the Rev. Fred Shuttlesworth, and participants in the 1965 Selma-to-Montgomery march. Hamilton, known as the "Battle Surgeon" and "Dog-Bite Doctor," arrived in 1958 as Birmingham's first board-certified African-American general surgeon, serving on the staffs of University Hospital and other local medical centers. Throughout his four-decade career, he never turned away a patient who was unable to pay.

Thanks to Hamilton's family, his name will continue to champion opportunities for new generations of African Americans through the Herschell Lee Hamilton, M.D., Endowed Scholarship in Medicine. Funds from the Hamilton family's gift, matched by the School of Medicine, will support deserving African-American medical students demonstrating academic promise and financial need—a fitting tribute to a courageous, compassionate leader who used his gifts for the betterment of others.

To create or contribute to a scholarship, contact **Jessica Brooks Lane**
• 205-975-4452 • jblane@uab.edu

FUNDING THE FUTURE

Five Things to Know about Creating a Scholarship

1. You can create a new endowed (exist in perpetuity) or sponsored (current-use) scholarship or give to an existing scholarship. You can name a new scholarship in honor or memory of a loved one.

2. You can fund a scholarship in several ways, including outright cash gifts or pledges (which can be spread across five years), planned gifts, or a combination of methods.

3. Planned gifts offer significant tax and estate benefits to donors and heirs while establishing a legacy. Planned gifts include bequests, beneficiary designations (life insurance or retirement plan assets), a charitable IRA rollover, appreciated stocks/securities, donor advised funds, charitable gift annuities, and charitable lead trusts/charitable remainder trusts.

4. Alumni donations made directly to the School of Medicine or Medical Alumni Association for current-use medical student scholarships will be matched dollar for dollar through 2014.

5. All gifts for School of Medicine scholarships are tax-deductible to the extent allowed by law.

Learn how you can support the school and its students at UAB.edu/medicine/giving



Example of Excellence

William B. Deal, M.D., made a lasting impact on the School of Medicine as its dean from 1997 to 2004, laying the groundwork for its current and future growth. He recruited key faculty who have become school and university leaders, expanded UAB's research footprint with facilities devoted to genetics and biomedical research, initiated strategic planning, and helped to push NIH funding for UAB studies beyond \$200 million for the first time. Deal also was a strong advocate for the growth of UAB's Huntsville Regional Medical Campus. On a personal level, he was known among colleagues for his warmth, encouragement, professionalism, and accessibility.

Though Deal passed away in March 2013, the new William B. Deal, M.D., Endowed Medical Scholarship both honors and extends his legacy by benefiting students who will carry on his tradition of excellence in medical education and patient care. Friends, family, and other admirers generously provided the gifts to establish the scholarship, with the ultimate goal of making a positive impact on the health and well-being of future generations of Alabamians.

A Helping Hand from Hollywood

Remembering S. Rexford Kenamer

By Charles Buchanan

S. Rexford Kenamer, M.D., was a cardiologist to the stars. Gary Cooper, Frank Sinatra, and Rock Hudson were among his patients, and Elizabeth Taylor famously flew him to England to care for her during the filming of *Cleopatra*. But the Beverly Hills physician never forgot his Alabama roots. Over the years, Kenamer, who passed away in September at the age of 93, helped to grow the School of Medicine's education programs in Montgomery through his generous philanthropy.

"His endowment provides us with educational resources for residents and faculty," says **W.J. Many Jr., M.D.**, regional dean for the Montgomery Regional Medical Campus and the Virginia Loeb Weil Professor of Medical Education. For example, "Dr.

Kenamer's gifts helped us restart our long-running Distinguished Lecture Series, which is now named for him. Without those resources, that lecture series would have died. Now it will continue in perpetuity." The 2014 Kenamer Distinguished Lecture features Ardis Dee Hoven, M.D., president of the American Medical Association.

Kenamer maintained a keen interest in UAB's Montgomery program because he grew up in the city, Many says. A 1943 alumnus of the two-year School of Medicine, Kenamer earned his medical degree at Philadelphia's Jefferson Medical College. In addition to his private cardiology practice, he was clinical chief of cardiology at Cedars Sinai Medical Center and authored more than 50 medical articles, including the



S. Rexford Kenamer escorts Elizabeth Taylor from the grave of her late husband Mike Todd in 1959.

initial description of Prinzmetal's angina. Kenamer also founded and led the Western Cardiac Foundation, which funds cardiac research and biomedical education.

About five years ago, Kenamer moved back to Montgomery, and Many became his physician. He got to know his patient as "Uncle Rex," the name that his nephews and caregivers, Richard and Seaborne Kenamer, used. Many recalls Kenamer as a benevolent man whose low-key demeanor concealed a trove of incredible Hollywood stories—and someone who kept his mind and memories sharp until the end. "He was a man in control of his own destiny," Many says.

More information: **Jessica Brooks Lane** • (205) 975-4452 • jb lane@uab.edu

Breakthroughs on the Brain

Gifts Pave the Way for Parkinson's Drug

By Charles Buchanan

Within a couple of years, some UAB patients may be the first to benefit from a landmark drug designed to treat Parkinson's disease. Years of work from a team of neu-

rology researchers led by **Andrew B. West, Ph.D.**, are leading up to that milestone. But the breakthrough will also owe its existence to farsighted investments by a Huntsville businessman and his wife.

Nearly a decade ago, John and Ruth Jurenko set the wheels of discovery in motion with a generous gift to establish the John A. Jurenko Parkinson's Disease Research Laboratory at UAB. That facility led directly to the recruitment of West, who is "one of the best and brightest Parkinson's researchers," according to **David G. Standaert, M.D., Ph.D.**, the John N. Whitaker Endowed Chair in Neurology and chair of the Department of Neurology. West is a leading expert on the LRRK2 protein,

among the most common genetic causes of Parkinson's and one of the most promising targets for potential treatments, Standaert explains. "Andy's big initiative has been to develop a drug that would modify LRRK2 as a treatment for Parkinson's." That could give physicians and patients a way to reduce inflammation and nerve cell death, slowing or even stopping disease progression.

West, in partnership with Southern Research Institute, currently is developing second- and third-generation compounds with a goal of producing a drug that could soon reach patients through clinical trials. West also has landed a National Institutes of Health grant to investigate biomarkers that could lead to new methods of diagnosing Parkinson's and gauging treatment effectiveness.

Maintaining Momentum

To sustain that momentum, the Jurenkos recently established the John A. and Ruth R. Jurenko Endowed Professorship in Neurology to help accelerate West's research and retain his invaluable expertise. The couple also has

Development Digest

Faculty Receive Endowment Honors

- **Louise Chow, Ph.D.:** the Anderson Family Chair in Medical Education, Research, and Patient Care in the School of Medicine
- **Robert S. Gaston, M.D.:** the Robert G. Luke, M.D., Endowed Chair in Transplant Nephrology
- **Christine Skibola, Ph.D.:** the Caldwell Marks Endowed Chair in Cancer Oncology in the UAB Comprehensive Cancer Center
- **Jeffrey R. Curtis, M.D.:** the William J. Koopman Endowed Professorship in Rheumatology and Immunology
- **Gorman Robinson Jones III, M.D.:** the Eleanor E. Kidd Endowed Chair in Primary Care Medicine
- **Paul W. Sanders, M.D.:** the Thomas E. Andreoli, M.D., Endowed Chair in the Division of Nephrology
- **Yogesh Dwivedi, Ph.D.:** the Elesabeth Ridgely Shook Endowed Chair in the UAB Department of Psychiatry
- **Jean-Francois Pittet, M.D.:** the David Hill Chestnut Endowed Professorship in Anesthesiology
- **Steven M. Theiss, M.D.:** the John D. Sherrill Chair of Orthopaedic Surgery

Changes for the Better

MAKING A DIFFERENCE FOR PATIENTS, RESIDENTS, RESEARCHERS, AND MORE

Cancer: The new Sylvia Aaron Endowed Support Fund for Cancer Patients will help offset the cost of treatment for Comprehensive Cancer Center patients facing demonstrable financial hardship.

Cardiovascular Disease: Gifts from Dr. and Mrs. **Robert C. Bourge**, Dr. and Mrs. **James K. Kirklin**, and Dr. **David McGiffin** and Dr. **Allison McGiffin** have established two new endowed support funds in the Division of Cardiovascular Disease. The Bourge-Kirklin fund supports research in mechanical circulatory support, while the Bourge-McGiffin fund focuses on research in heart transplantation.

Infectious Diseases: The newly established

C. Glenn Cobbs Endowed Support Fund in Infectious Diseases will help the Division of Infectious Diseases recruit and retain premier educators, clinicians, and researchers. It is named for the division's founding director.

Nephrology: Dr. and Mrs. **Robert C. Bourge** are establishing the Bourge-Detraz Endowed Support Fund in Polycystic Kidney Disease in the Division of Nephrology. Associate professor **Michal Mrug, M.D.**, will use the proceeds from the endowment to support his research efforts focusing on the hereditary disease, which often leads to the need for a kidney transplant.

Neurosurgery: Julie and Jim Stephens have presented UAB with a gift for the Clinical

Research Scholars program to support the work of residents in the new Department of Neurosurgery. Kacy and Guy Mitchell, Lloyd and Sherry Wilson, and Peter and Sally Worthen also have made contributions to support resident research in neurosurgery.

Pathology:

• Dr. and Mrs. Robert Barry Adams of Montgomery have provided a contribution—along with a generous planned gift—to endow a chair for a faculty member in the Department of Pathology.

• Dr. Catherine Listinsky also has made a gift to endow a lecture in the Department of Pathology in memory of her husband, Dr. Jay John Listinsky.

supported other Parkinson's projects, including a joint project with HudsonAlpha and Standaert's laboratory to use genomic technology for genetic sequencing and potential treatments.

"John Jurenko is a businessman, and he feels that UAB can give him the return on investment that he wants, which is real progress against Parkinson's disease," Standaert says. "Creating the laboratory and endowing the professorship were two critical moves" in UAB's journey toward a new Parkinson's drug, Standaert says. "It's a perfect trajectory."

National Leadership

The Jurenkos are among many community leaders who are laying the groundwork for major neurology advances at UAB. Standaert notes that Birmingham businessman Charles Collat and his wife, Patsy, the namesakes for UAB's Collat School of Business, made the substantial gift toward Alzheimer's research that brought **David S. Geldmacher, M.D.**, to UAB as the Patsy W. and Charles A. Collat Scholar in Neuroscience and the director of the Division of Memory Disorders and

Behavioral Neurology. Geldmacher is an expert clinician who oversees patient care for Alzheimer's, and his efforts are helping UAB to become a national leader in Alzheimer's disease research.

Gifts such as these provide UAB with the resources to make a difference—and change the outlook for patients by offering new services and treatment options. "They allow us to have both the research and clinical sides working together, which is what UAB does well," Standaert says. "They help us fill in the gaps and inspire us to work harder."

More information: **Kate Tully** • 205-934-0792 • ktully@uab.edu



(Left to right) David Geldmacher and Andrew West

Meet the Dean

Alumni Greet Vickers at Birmingham Reception

By Charles Buchanan

Selwyn M. Vickers, M.D., F.A.C.S., the new senior vice president and dean, received a warm welcome at a Medical Alumni Association reception at Volker Hall on October 28. There, he met with approximately 150 alumni and friends, including MAA President Norman F. McGowin III, M.D., FACS; UAB President **Ray L. Watts, M.D.**; and several MAA board members and past presidents.

Vickers described his excitement about returning to UAB and highlighted the School of Medicine's strengths in research, clinical care, and education. He encouraged alumni to connect with current students and help the school prepare them for future success.

The event also celebrated the opening of the MAA's new home on the second floor of Volker Hall. Alumni toured the newly renovated space,



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Association at (205) 934-4463.

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Pioneer Woman

Mary Jean Herden | Alumni Profile

By Javacia Harris Bowser

On a wall of her Virginia home, Captain Mary Jean Herden, M.D., has a plaque outlining her 30 years of service in the United States Navy Medical Corps, which she received upon her retirement. The impressive list of titles and ranks, however, only hints at Herden's career of groundbreaking accomplishments.

In 2001, Herden, a 1983 School of Medicine graduate, became the first female battle group surgeon and the first female officer to lead a Fleet Surgical Team, which provides specialty expertise, resources, personnel, and plans for hospitals aboard the largest amphibious ships. "When you go out—to the fleet especially—and do your job well, you make a point about the credibility of women in those positions," Herden says.

Herden's fleet surgical team was being configured when the Sept. 11, 2001, terrorist attacks changed its course. She deployed for both Operation Enduring Freedom and Operation Iraqi Freedom, becoming the battle group commander's senior medical advisor and devising plans for treating casualties and for preventive care.

Herden and her team also served aboard the USS Kearsarge when it supported President George W. Bush's 2003 visits to Egypt and Jordan. "We were prepared to treat any medical problems for the president or his party around the clock," Herden says. "The planning was intense and exciting. The ship's company personnel and Marines worked side by side with us to prepare for this important medical mission."

Pediatrician on Patrol

The Huntsville, Ala., native believes her UAB medical education helped her excel in her Navy roles. "The grounding I received in primary care medicine was perfect to maintain the career I wanted and build on it over time," she says.

In medical school, Herden discovered her love for pediatrics, which she put into practice in the Navy. "Pediatricians are trained to care for patients from birth through college, and pediatric training is strong in infectious disease medicine, preventive medicine, and nutrition," Herden says. "All these aspects apply very well in a military environment, where the majority of the force is between the ages of 18 to 22, and where a rampant, contagious infectious disease could kill as many or more service members as are killed in combat."



Above: Mary Jean Herden (standing, third from left) at a ceremony for USS Kearsarge sailors receiving Enlisted Surface Warfare Specialist qualifications.

Left: Herden provides humanitarian assistance in Djibouti during her first wartime deployment.

Providing Comfort

Herden added another first to her resume during her time as executive officer of the USNS Comfort, the Navy ship providing medical and surgical care for deployed forces and functioning as a full-service hospital for disaster relief and humanitarian efforts. As the Comfort's acting commanding officer from Dec. 2006 to April 2007, Herden led the medical planning for the inaugural, presidentially directed Partnership for the Americas Humanitarian Assistance Mission. Comfort teams served more than 386,000 patients in Latin America and the Caribbean and trained medical professionals, law enforcement, and fire personnel in the host nations.

In 2008, Herden was chosen to serve at Joint Task Force, National Capital Region, Medical (JTF CAPMED) with two missions: planning the Congressionally mandated closure of Walter Reed Army Medical Center, National Naval Medical Center, and DeWitt Army Community Hospital, and opening two joint hospitals staffed by Navy, Army and Air Force medical personnel—Walter Reed National Military Medical Center and Fort Belvoir Community Hospital.

Later, Herden became JTF CAPMED inspector general, which she describes as the "extended eyes, ears, and conscience of the commander." She handled inquiries for everyone from patients, their families, and hospital staff to the president, his cabinet, and members of Congress. She stayed in that post until her retirement last June.

Service to Others

In addition to her plaque, Herden has a collection of awards, including the Defense Superior Service Medal, the Legion of Merit, four Meritorious Service Medals, two Navy Commendation Medals, and a Navy Achievement Medal. Those honors, however, don't shine as brightly as her memories of the men and women she has mentored in her career.

"It's the best thing in the world to see those young doctors, administrators, and corpsmen succeed," Herden says. "It's one of the biggest presents I can get being a physician, an officer, and a mentor."



Voice of Experience

Mark Ricketts | Alumni Profile

By Jo Lynn Orr

Mark Ricketts, M.D., didn't go into internal medicine with the goal of becoming a sports radio personality. Yet if you tune into Birmingham's WJOX 94.5 on Wednesdays at 12:20 p.m., you can hear "Doc on JOX," his 30-minute health segment, which has been airing during *The Roundtable* once a week for five years.

"Lance Taylor and Ian Fitzsimmons, originally *The Roundtable's* hosts, were patients of mine as students when I practiced and taught in Tuscaloosa," says Ricketts, a 1987 graduate of the School of Medicine at UAB. "They had heard me field health questions from listeners on a Sunday morning program on Alabama Public Radio and asked, 'Why don't you do that on our show?'"

Tuning Into Information

Ricketts saw the JOX segment as a great opportunity to use his UAB training and years of clinical and managerial experience to reach a broad range of people, including some without health insurance or access to care. He opens each segment with a brief discussion of a topical concern—high blood pressure or diabetes, for instance—that might affect many listeners, and then takes listener calls.

"I'm not paid, so it frees me up as to what I talk about," says Ricketts, who also earned a dual M.B.A./M.P.H. degree from UAB in 1997, helped to create Tuscaloosa's University Internal Medicine Group, and continues to serve in the Air Force Reserve. "The segment and calls are all spontaneous. Usually the *Roundtable* guys haven't seen the topic I'm going to talk about. I try to address problems I see in the field and bring that information to the airwaves."

The show has earned him new patients and even may have helped save a few lives. Follow-up appointments with some callers



Each Wednesday, Mark Ricketts brings health information and answers to sports radio listeners across central Alabama as the "Doc on JOX."

have led to the discovery of treatable conditions that could have been serious without medical care, Ricketts says.

Putting Creativity Into Practice

The "Doc on JOX" has found a few other creative ways to break down barriers between physician and patient. When he opened his Vestavia practice, Ricketts designed the facility to appeal to patients, down to the paint on the exam room walls. "I knew the research on colors that patients consider calming, and for years, I had listened to patients describe what they did and didn't like about doctors' offices."

Ricketts also uses pagers like the ones in restaurants, which tell customers when their table is ready. "If patients want to come in early and have lunch next door, they can take a beeper, and we will buzz when it's time for their appointment," he explains.

Principle Inspiration

He may have inventive approaches to interacting with patients, but Ricketts says he

is an internist in the time-honored tradition of Tinsley R. Harrison, M.D., one of School of Medicine's pioneering medical giants. "I keep Dr. Harrison's principles framed in my office to remind me daily of what I am doing here and of our goals when it comes to treating patients," says Ricketts.

His practice and the radio show feed off each other, he says. "The better job that I do at the office, then the more experienced I become—I've been at this for 23 years—and the better my expertise is in knowing what's going on with patients and in the community. All of that makes me better when I'm at the microphone. There, I can't be thinking that I am talking to 100,000 to 200,000 people. During that 30 minutes, I try to concentrate on each caller and his or her question."

It all boils down to another teaching concept that Tinsley Harrison always stressed, says Ricketts: If you listen to patients, they will tell you what's wrong.

Steps Forward

50 Years of Milestones at Spain Rehabilitation Center

By Tim L. Pennycuff • Images courtesy of UAB Archives

Fifty years ago, on April 26, 1964, a formal dedication ceremony marked the opening of the Spain Rehabilitation Center, a new facility for inpatient physical therapy on the Medical Center campus. Ground had been broken on July 3, 1962, for the three-story facility, which was made possible in part by a \$500,000 gift from Frank E. and Margaret Cameron Spain.

Dr. Howard A. Rusk, director of the Institute of Physical Medicine and Rehabilitation, delivered the dedication address. A scientific program the day before featured speakers Mary Elizabeth Kolb, president of the American Physical Therapy Association, and Dr. A. B. C. Knudsen, director of physical medicine and surgery for the Veterans Administration. In 1969, a two-story addition expanded the original building.

Members of the Spain family have been longtime supporters of UAB. In addition to the Spain Rehabilitation Center, their contributions are recognized on campus in the Margaret Cameron Spain Auditorium, the Spain Heart Bed Tower in the Spain-Wallace Building, and in the Spain McDonald Clinic. Margaret Spain McDonald received an honorary degree from UAB in 1978, and the Margaret Cameron Spain Chair in Obstetrics and Gynecology was established in 1998. Additionally, UAB has an endowed chair in rehabilitation neurosciences research established by the Women's Committee of the Spain Rehabilitation Center.



Top left and right: Margaret Cameron, Frank E. Spain, Frances Spain Hodges, and Margaret Spain McDonald break ground, July 1962.



Above: Hospital Administrator Matthew F. McNulty Jr. (right) accompanies the Spains on a tour of the new facility, April 1964.



Right: A nurse demonstrates new equipment for dedication ceremony guests, April 1964.



Left and above: The center's original main entrance and adjacent parking, circa 1965



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When the family, friends, and colleagues of the late Stephen J. Kelly, M.D., established a scholarship honoring the UAB ophthalmology leader, they gave Justin Malek the freedom to change everything for patients in need. Thanks to their support, the second-year student shares his time and growing medical knowledge at UAB's Equal Access Birmingham clinic, which provides free primary care for underserved patients. For Justin, each hour at the clinic is an investment in a healthier community, a way to extend Dr. Kelly's legacy, and an opportunity to change someone's life for the better.

When you support School of Medicine students through scholarships, giving something changes everything. Call Jessica Brooks Lane at (205) 975-4452 today to learn more.

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For information on the 50th anniversary celebration on April 24, 2014, contact Leah Beth McNutt at (205) 975-8867 or lbmcnutt@uab.edu.