UAB MEDICINE

A Magazine for Alumni and Friends
of the School of Medicine

Volume 37 • Number 1 • Summer 2011

MOMENTS *of Truth*

Putting Preparedness to the Test

Meet the Future *of Medicine*

Senior vice president and dean Ray Watts with Tarannum Jaleel

I want to introduce you to Tarannum Jaleel, one of our many ambitious and motivated students. A Huntsville native, Tara came to us having already won a Fulbright scholarship to study at the European Institute for Women's Health in Ireland. Now she has finished year three with help from the W. Earle Drennen Endowed Scholarship, the Jane Knight Lowe Endowed Scholarship, and the W. Hudson Turner Endowed Scholarship. Her dermatology research has been published and presented at international conferences. Last year, Tara was an alternate for the Howard Hughes Medical Institute-National Institutes of Health Research Scholars Program, and this spring she volunteered in a hospital and free clinic in Hyderabad, India.

Tara tells me these experiences have helped her see medicine as a puzzle with many pieces. I am especially delighted to know that she plans an academic research career combining basic sciences with complex disease models. And I was equally delighted to hear her describe the first baby she helped deliver during her ob-gyn rotation this spring. It reminded me of my ob-gyn rotation many years ago and the awe I felt at helping a new life enter the world.

Students like Tara remind us of the importance of our role as medical school faculty. We must set a good example for our students as clinicians who are skilled and compassionate, scientists who are intellectually curious and undaunted by the challenge of finding novel treatments for diseases from which our patients suffer, educators who see teaching as both art and science, and men and women of integrity who demonstrate the value of contributing to our communities and our profession.

I invite you to get to know our students at events such as our Scholarship Dinner (page 28) and to join me in supporting them as they find their place in medicine.

Best regards,

Ray L. Watts

Get monthly updates from Dean Watts at www.uab.edu/deanwatts.

Connect with *UAB Medicine*

Facebook.com/uabmedicinemag
Twitter.com/uabmedicinemag

UAB MEDICINE

A Magazine for Alumni and Friends of the School of Medicine

Volume 37 • Number 1 • Summer 2011

Contents

Summer 2011

Cover Story

4

Moments of Truth

{ Putting Preparedness to the Test }

Experience helps shape UAB's response to emergencies.

Features

Departments

WEB EXCLUSIVE: Medicine.uab.edu/magazine

Alumni Profile: Frank Waldo, M.D.

A boy from Oklahoma becomes a pioneer and pediatrician in Alabama.

News Digest

National Rankings: *U.S. News & World Report* gave high marks to several School of Medicine programs in its latest edition of "America's Best Graduate Schools":

AIDS **#6** • Primary care **#10** • Geriatrics **#12** • Rural medicine **#15** • Internal medicine **#20** • Research **#30**

The Best Doctors database also includes 323 UAB physicians in its newest list, and UAB Hospital has won the National Research Corporation Consumer Choice Award for the 12th consecutive year. It is the only Birmingham hospital among more than 300 nationwide to receive the honor.

Preventive Care: UAB is bringing wellness programs to the heart of downtown Birmingham, opening a storefront that will offer free and easy access to preventive care for people living and working in the city. UAB HealthSmart, an initiative of the Minority Health and Health Disparities Research Center and the Division of Preventive Medicine, will provide screenings and evaluations, classes and discussion groups, and educational resources focusing on healthy lifestyles and disease prevention. MHRC and division director Mona Fouad, M.D., says that UAB HealthSmart could serve as a national model for preventive care.

Ophthalmology:

UAB's Callahan Eye Foundation Hospital draws patients from around the world, and now it has drawn the attention of the American Society of Ocular Trauma, which has designated the hospital as the nation's first—and for now, only—level I ocular trauma center.

"The eye trauma surgeons at the Eye Foundation Hospital have developed unprecedented expertise through the volume of patients treated," says Doug Witherspoon, M.D. (resident '81), director of the Ocular Trauma Center at the Eye Foundation Hospital. "New techniques and specialized tools have been created. Surgeons here have demonstrated that cases deemed hopeless by others may be at least partially repairable." Each year nearly 2,200 patients are treated for eye trauma at the Eye Foundation Hospital.

"In many cases of eye trauma, our surgeons have been able to prevent total blindness and help patients regain some useful vision that will allow them to continue to live their lives as normally as possible," adds hospital CEO Brian Spraberry.

Designated ocular trauma hospitals offer emergency services with physicians and nurses on site 24 hours a day, seven days a week, and the ability to perform emergency surgery within one hour of admission. The facility must provide all the necessary resources and services to treat all types of eye trauma around the clock, and other medical specialties, such as internal medicine and infectious diseases, must be accessible within an hour. Nurses must meet ophthalmic and eye-trauma-specific education requirements periodically, and hospitals must participate in research and education activities and serve as a community resource.

Radiology: As the Department of Radiology's new leader and holder of the Witten-Stanley Endowed Chair, Cheri L. Canon, M.D. (resident '98), plans to take imaging research and development at UAB to the next level. Canon, a professor of medicine who has been on faculty since 1998, will help develop the Advanced Imaging Facility, a collection of innovative technologies that will help UAB scientists detect diseases early and improve treatment monitoring for cancer, some neurologic conditions, and other diseases.

Ambassador Program: Nearly 1,000 physicians now participate in UAB's Ambassador Program, a Web-based tool enabling referring physicians to electronically view notes and reports on their patients' encounters throughout the UAB Health System. Communications specialist Christin Brown says that more than 15,500 patients have been linked to the secure online portal, which provides access to full electronic medical records for inpatient and outpatient visits, including lab results and procedure reports. Development of "Ambassador 2.0," offering additional resources, is under way. Register for the Ambassador Program with UAB Physician Services at (205) 934-6890.

Students, residents, and faculty revealed their creative sides at the 11th annual School of Medicine Art Show, featuring 33 photographs, paintings, drawings, 3-D constructs, and more. The event was presented by the Alpha Omega Alpha honor society and the Alabama Museum of the Health Sciences.

Above: Untitled pencil and charcoal drawing by resident Alicia Ballard, M.D.

Right: *Jazz on the Street*, photographic reconstruction with acrylic paint by student Christina Cooley

Bioengineering: School of Medicine student Ajay Tambralli is already making a name for himself in tissue engineering. As an undergraduate UAB engineering major, he collaborated on the development of a breakthrough 3-D nanoscaffold that facilitates cell and tissue growth in the laboratory more effectively and efficiently than current versions. The recently published research could lead to breakthroughs in regenerating organs and tissues damaged by disease or other causes.

Bowel Disease: What causes helpful bacteria—those that aid digestion—to turn on their hosts and trigger inflammatory bowel diseases such as Crohn's and colitis? Two UAB researchers suspect an abnormal immune response and have won a $6.8-million National Institutes of Health grant to extend their research for five years. Co-principal investigators Charles O. Elson, M.D., the Basil Hirschowitz Endowed Chair of Gastroenterology, and pathology professor Casey Weaver, M.D., are currently focusing on Th17, a subset of cells that are known to cause colitis.

Honors:

- Andrei Alexandrov, M.D., director of the UAB Comprehensive Stroke Research Center, has been named editor-in-chief of *Brain and Behavior*, a new open-access, peer-reviewed journal focusing on neurology, neuroscience, psychiatry, and psychology.

- Zelia Baugh was appointed state commissioner of mental health by Governor Robert Bentley. At UAB, Baugh was administrator of psychiatry at the Center for Psychiatric Medicine.

- Surgery professor William Carroll, M.D., was named to the George W. Barber Jr. Foundation Professorship in otolaryngology-head and neck surgery.

- V. Michael Darley-Usmar, Ph.D., director of the Center for Free Radical Biology, has been appointed to the Endowed Professorship in Mitochondrial Medicine and Pathology.

- Sadis Matalon, Ph.D., the Alice McNeal, M.D., Endowed Chair in Anesthesiology, has been appointed editor-in-chief of the *American Journal of Physiology-Lung, Cellular and Molecular Physiology*, the scientific journal of the American Physiological Society.

- Steven M. Pogwizd, M.D., director of the Center for Cardiovascular Biology, has been named to the Featheringill Endowed Chair in Cardiac Arrhythmia Research

- Keshav K. Singh, Ph.D., leader of the Cancer Genetics Program in the UAB Comprehensive Cancer Center, has been appointed to the Joy and Bill Harbert Endowed Chair in Cancer Genetics.

More News Now

Get the latest updates from the School of Medicine:
Medicine.uab.edu/magazine

MOMENTS *of Truth*

Putting Preparedness to the Test

By Dale Short and Emily Delzell

Expect the unexpected. That's the challenge—and the goal—for everyone working in the field of emergency preparedness.

A quick review of news headlines in recent months highlights a variety of unanticipated dangers: highly destructive tornadoes, an oil-rig explosion, earthquakes, a nuclear accident, and a mass shooting. Influenza outbreaks and a large-scale bioterrorist release of smallpox or anthrax also lie within the realm of possibility. Then there is the day-to-day reality of delivering emergency care that is, at its most fundamental level, about dealing with unplanned, life-threatening situations.

As a leading medical center, UAB plays a crucial role any time a disaster strikes in the state or region. Preparing an effective response requires a blend of skill, science, meticulous planning, and coordinated action.

Emergency Central

Ground zero for emergency preparedness is the UAB Department of Emergency Medicine. UAB is Alabama's only American College of Surgeons-accredited adult level 1 trauma center, meaning its physicians and nurses are trained and equipped with the technical resources to deliver the highest level of care to the sickest and most severely injured patients.

Approximately 80,000 people will come through the Department of Emergency Medicine this year. With that kind of volume, UAB Hospital's Emergency Department (ED) is always a hive of activity with exam rooms and beds filled almost to capacity. Its medical personnel provide 24-hour acute medical and surgical services, including specialty care for trauma and burns, spinal cord injury, chest pain, and stroke. They also help uninsured patients who need treatment they would otherwise get from a primary-care physician. Detailed planning is necessary to ensure that the department's resources aren't overwhelmed during a natural or manmade disaster.

The first move in a crisis, explains Janyce Sanford, M.D. (resident '91), chair of the UAB Department of Emergency Medicine, would be to activate the hospital disaster plan, which initially calls in extra emergency medicine personnel and clears the ED so that medical teams can receive large numbers of wounded people. "We would quickly move all patients in the ED to other areas of the hospital so that our beds would be open for victims," she says. "We would set up a triage center outside the ED with tents and flags indicating injury severity, and physicians would be tasked with assessing incoming casualties—deciding, for example, who needs to go straight to an operating room (OR), who needs more evaluation in the ED, and who needs immediate admission to the hospital."

UAB Critical Care Transport tends to a patient from a New Orleans neonatal intensive care unit following Hurricane Gustav in 2008.

Tornado Outbreak: April 2011

After multiple tornadoes pounded Alabama on April 27, it was "busy, controlled chaos" in UAB Hospital's ED, says Loring Rue, M.D., chief of trauma, burns, and surgical critical care. Many of the 134 patients treated had injuries consistent with high-speed motor vehicle accidents, Rue notes. To handle the influx, the hospital created an auxiliary ICU with 14 additional beds and postponed elective surgeries.

The wounded patients came from Anniston, Cullman, Tuscaloosa, and the Birmingham area, and Rue credits the BREMSS Trauma Communications Center and regional field paramedics for safely triaging and transporting them to the hospital despite the massive devastation. "It has been a team effort," Rue says of the physicians, nurses, and staff responding to the disaster. (Read about BREMSS on page 6.)

For the latest updates on UAB's tornado response, visit **www.uab.edu/tornadorelief**.

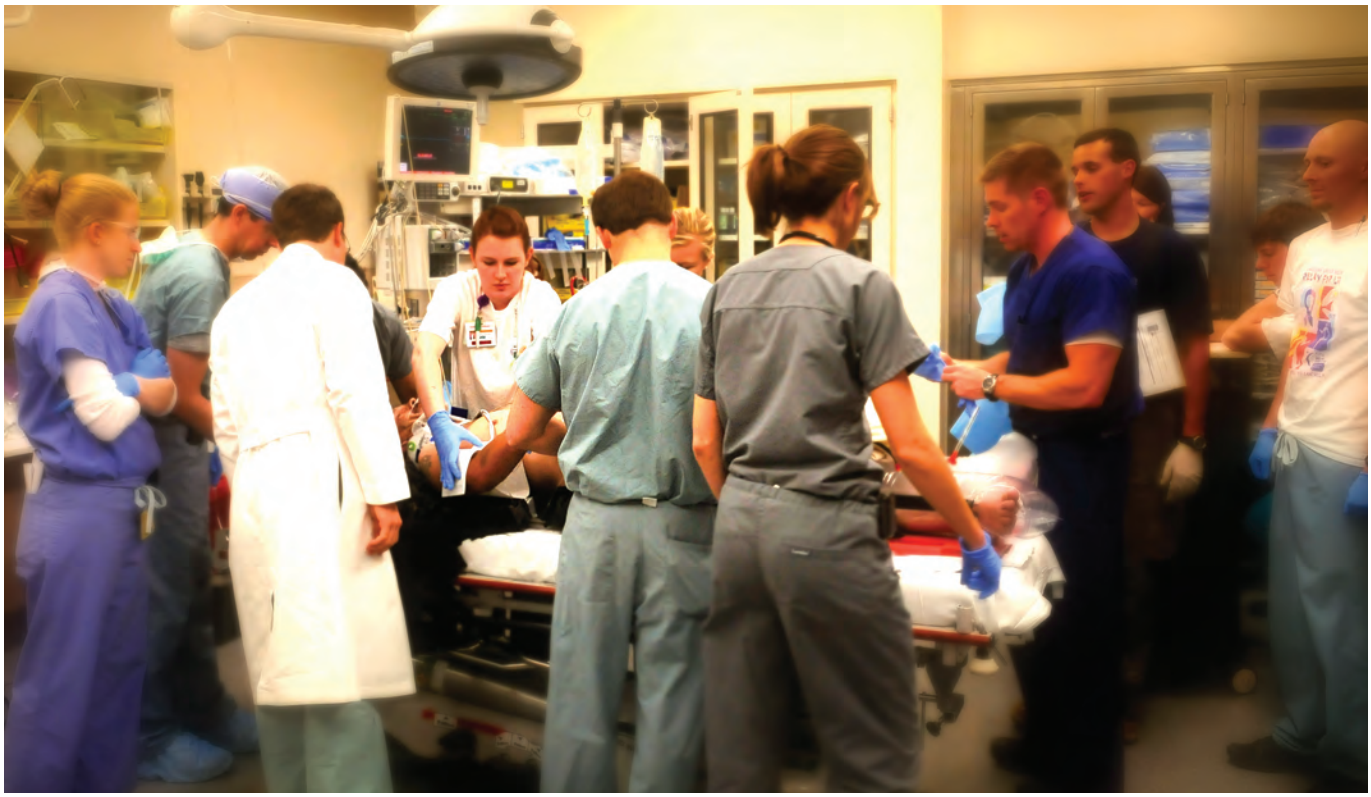
Gustav and Katrina: 2008 and 2005

It's a call that Laura Lee Demmons, R.N., M.B.A., will never forget. Hurricane Gustav had come ashore, and a neonatal intensive care unit in New Orleans had to be evacuated. "We were told to come because they feared their hospital would be flooded and the babies would die," recalls Demmons, director of the UAB Critical Care Transport (CCT) service.

Along with mobile intensive care units, the CCT fleet includes a state-of-the-art Cessna Citation Bravo jet custom-equipped for critically ill patients, which was making the circuit between New Orleans and Birmingham before the day was over. Though the jet's official capacity is two beds, one of the flights carried eight babies.

"We were really pushing the envelope," says Demmons of the modifications made to the Bravo so that it could evacuate more tiny patients. "We made it work for an extraordinary disaster situation, but it's not something we would ever want to do again."

Three years earlier—nearly to the day—CCT was among the first medical evacuation units to arrive in New Orleans after Hurricane Katrina flooded the city. In a letter published in *UAB Synopsis*, a UAB registered nurse who was part of the evacuation team sent to Oschner Medical Center described seeing destruction, water, uncontrolled fires, looters, and police and emergency personnel from the air. Oschner's heliport was underwater, so the team, flying in a helicopter to ferry patients to the airport, landed on a parking deck. The Oschner unit staff had set up a makeshift nursery and was "overjoyed" that help had arrived. They were even



more excited that CCT had the resources to transport multiple patients—and then come back for more.

CCT evacuated five infants and two adults within 48 hours of Katrina's passing, eventually bringing out a total of 21 patients. On subsequent trips, CCT, which has transported more than 37,000 patients in its 28-year history, brought food, water, clothes, and medical supplies to hospital personnel working under extreme conditions without power, water, or reliable communication with the outside world.

Back in Birmingham, Sanford says, UAB medical teams worked alongside doctors and nurses from other area hospitals at Birmingham's Air National Guard hangar, quickly assessing injuries and deciding which facility—a level 1, 2, or 3 trauma center or a community hospital—was the most appropriate destination for the patients from New Orleans. Medical personnel triaged patients to injury-related color-coded tarps and had them en route to area hospitals within 45 minutes of aircraft arrival.

All-Hazards Approach

Sarah Nafziger, M.D. '99, associate professor of emergency medicine, says that Hurricane Katrina helped reshape UAB's approach to emergency services. "We learned that there's just no way to plan for every kind of disaster," she says. "We still train for tornadoes and other specific events, but we've moved away from the idea of trying to anticipate each possible hazard. Now we take more of an 'all-hazards' approach, which has two basic elements: communications and redundancy in supply lines."

Thinking of a disaster in terms of the number of ambulances required is limiting, and a broader focus is important, Nafziger says. "Medicine is the most urgent piece of the puzzle, but it's far from the only one. We must consider food, water, gasoline, shelter. So many other factors complicate things."

> "The most important innovation is the concept of 'right patient, right place, right time, right care.'"
> —Loring Rue

Communication is undoubtedly one of the most vital parts of an effective emergency response system, says Loring Rue III, M.D. (resident '88), the John H. Blue Chair of General Surgery; chief of the Section of Trauma, Burns, and Surgical Critical Care; and director of the Center for Injury Sciences.

"Studies have shown that about 20 percent of trauma deaths are potentially preventable and that the most frequent cause of these deaths is a delay in getting the right kind of care," he says.

"The most important innovation in caring for trauma patients within a system involving multiple hospitals with a range of medical capabilities is a concept we call 'right patient, right place, right time, right care,'" Rue says. "Alabama is fortunate to have a system that matches hospital resources with the needs of individual patients."

F-5 Tornado: April 1998

In 1998, the Birmingham Regional Emergency Medical Services System (BREMSS), the trauma system that today coordinates emergency response in five of Alabama's six designated trauma regions, was less than two years old.

On April 8, a tornado cut a 17-mile swath of devastation through Jefferson and St. Clair counties. Thirty people died on the scene, and another 224 suffered injuries requiring hospital treatment.

UAB provides medical direction to BREMSS, which uses a software program called LifeTrac to poll trauma centers and assess their available resources in real time. The system allows BREMSS to route each patient to the facility best equipped to treat his or her injuries.

Then—and now—the BREMSS Trauma Communications Center (TCC) enables this matching of patients with hospital resources and capabilities. "During the tornado, the TCC, which for a time after the storm was our only means of communication, helped emergency responders make sure the most severely injured patients went to level 1 centers like UAB, and that people with less serious injuries were seen at other hospitals," Rue says. "This kept any one hospital from becoming overwhelmed with patients and probably saved lives."

Of the more than 200 people seen at hospitals after the 1998 tornado, only two died: Both had been correctly routed to level 1 trauma centers and were receiving the most advanced care available.

"The system worked as it was designed to," says Rue. Today, BREMSS is critical to making "right patient, right place, right time, right care" happen. "Having most of the state networked into a central system means that during a major disaster, patients are sent where they need to go," Rue explains. "Centers that can take care of the sickest or most injured patients aren't inundated with people who could be treated effectively elsewhere."

Resources for Response

BREMSS serves as a model for other states that need to improve their trauma care, says Rue. "It's an effective system, but it's not cheap. Neither is maintaining a level 1 trauma center like UAB.

"There are huge resource requirements associated with the level of care we provide. UAB has board-certified faculty surgeons who sleep in the hospital so they can be ready to provide care every hour of the day, every day of the year. That preparation saves lives," says Rue.

He notes that quick transport to a level 1 trauma center played a vital role in saving the life of U.S. Representative Gabrielle Giffords, who was shot through the brain in January during a gunman's rampage in Arizona in which six people died. "She was in an OR with a team of neurosurgeons within a half an hour of the shooting," Rue says. "A smaller hospital simply doesn't have that kind of expertise standing by, and delays in care can mean the patient doesn't survive."

Sanford, who hopes she never has to be proved right, says, "If we were to have a mass shooting like the one in Arizona, I'm confident our ED could handle it well. We have an expert on call for nearly every medical specialty. We're very fortunate to have an exceptional trauma system such as the one set up by people like Loring Rue and BREMSS Director Joe Acker, and we're lucky to have a trauma center like UAB that's prepared to respond to whatever comes. We're ready to serve 24 hours a day, seven days a week, 365 days a year."

Above and facing page: UAB's ED is designed to faciliate triage and patient flow, with 45 treatment rooms divided into five care areas.

Right: The BREMSS Trauma Communications Center matches patient needs with hospital resources across most of Alabama.

Defense Intelligence

The Science Behind the Safeguards

By Cary Estes

Some of the worst disasters strike with invisible force. Pandemics and plagues have afflicted the world for centuries, with viral strains such as SARS, avian flu, and H1N1 raising alarms in recent years. Mankind has created chemical devastation as well, from the use of weaponized chlorine gas in World War I to current threats of chemical terrorist attacks.

In response, School of Medicine scientists are leading a variety of emergency preparedness research initiatives in the lab and in the field. They collaborate with colleagues in UAB's School of Public Health and Birmingham's Southern Research Institute on many projects—a team approach researchers say is crucial for long-term success against common challenges.

"We can bring together the knowledge of screening on one side with medicinal chemistry on the other to have an aligned front to help the biomedical community," says Richard Whitley, M.D. (fellow '77), director of Pediatric Infectious Diseases; the Loeb Eminent Scholar Chair in Pediatrics; and a leader of UAB's Center for Emerging Infections and Emergency Preparedness (CEIEP).

Infection Protection

The CEIEP is an example of collaboration in action. In 2006, two centers—one focusing on emergency care and disaster preparedness and the other emphasizing biodefense and emerging infections—merged to form the current center. The goal, says Whitley, who co-directs the center with UAB emergency medicine physician Henry Wang, M.D., was to address the practical issues of emergency department logistics along with the theoretical issues of potential infectious disease outbreaks. The CEIEP's mission now includes research, training, and education along with service opportunities in the areas of biodefense, emerging infections, emergency medical care, and public health disaster preparedness in Alabama and across the world.

Much of the center's initial work focused on developing drugs to treat mammal-based orthopox viruses such as smallpox. After the terrorist attacks of September 11, 2001, the U.S. government identified the easily dispersed variola virus that causes smallpox as a possible bioterrorist weapon, leading to the vaccination of select

first responders and military personnel. Work has progressed steadily on new antiviral therapies, and the center scientists are beginning animal studies, Whitley says.

In recent years, CEIEP researchers have expanded their work and have developed emergency response plans for smallpox and anthrax attacks as well as pandemic influenza outbreaks. These plans were put to the test in 2009 when the sudden emergence of H1N1, popularly known as swine flu, panicked the public and stretched the government's ability to respond.

"I call 2009 H1N1 a dress rehearsal for the real deal," says Whitley, who served on the 2009 H1N1 influenza working group of the President's Council of Advisors on Science and Technology, which provided recommendations on federal flu response to President Barack Obama.

"We learned a lot of good lessons," he says. "There should have been a better mechanism for collecting the data. Antiviral medicines should have been more readily available. But overall, the state of Alabama did a good job handling the issues created by a new, potentially lethal strain of flu—a better job than many places—because we were prepared."

Protecting the Smallest Patients

UAB's role in preparation for the 2009 flu season, which was dominated by fears of H1N1, led directly to a critical breakthrough. The most common vaccine used to fight H1N1 is oseltamivir, which is sold under the name Tamiflu. Whitley says that before last year, the U.S. Food and Drug Administration (FDA) had not approved Tamiflu for children younger than 2 years.

David Kimberlin, M.D., UAB professor of pediatric infectious diseases, had been leading a study evaluating the safety of Tamiflu for use in children aged 6 months and older. In June 2009, the FDA requested their data and used the information to grant emergency-use authorization of the drug for young children. The Centers for Disease Control and Prevention (CDC) and the World Health Organization (WHO) also made use of UAB's data.

"Our goal now is to move the emergency-use authorization of oseltamivir to full licensure," Whitley says. "We'll be working with the National Institutes of Health (NIH), FDA, CDC, and WHO to get oseltamivir licensed for babies. We have to get the database to the point where it's acceptable for a new drug application. That involves a lot of nitty-gritty work in terms of making sure data match up with the case records."

Chlorine's Collateral Damage

A similar breakthrough could be on the horizon for Sadis Matalon, Ph.D., the Alice McNeal, M.D., Endowed Chair in Anesthesiology, and his research team, who are examining the effects of chlorine gas on the lungs. In 2008, UAB received a $3.4-million, three-year NIH grant to establish a Research Center of Excellence in conjunction with Yale University and Southern Research Institute. UAB already

> "We can bring together the knowledge of screening with medicinal chemistry to help the biomedical community."
> —Richard Whitley

is a member of the NIH-sponsored CounterACT Research Network, which aims to find treatments for toxic chemical exposure.

More than 25 million tons of chlorine are manufactured each year in the United States, and the gas is most often shipped by rail. Derailments and industrial explosions can expose people in the immediate vicinity to potentially lethal levels of fumes, and in 2006, authorities evacuated more than 17,000 residents of Apex, North Carolina, after an explosion at a local plant.

Soldiers and civilians in combat areas are also at risk; Iraqi insurgents have used chlorine gas in truck bombs targeting civilians and military personnel. Matalon says one of his team's key discoveries is that chlorine exposure can create damage in both healthy people and those with existing lung conditions that lasts long after people begin to recover from initial exposure.

"The idea is to develop antidotes," Matalon says. "People get sick, and then they feel better, but we have found that they don't really get better. They develop reactive airway disease syndrome, and the damage is worse 24 hours after exposure than it is after one hour. And it remains for at least six days. During this time people feel better, but their airwaves are supersensitive. This is a prelude to developing asthma."

Current research focuses on the physiological underpinnings of the syndrome, which will provide critical clues to its treatment. The solution might be as simple as an aerosol blast of ascorbic acid, better known as vitamin C. Matalon explains that vitamin C is a natural substance found inside the lungs, and his research has found that it's capable of detoxifying the free radicals in chlorine that destroy lung tissue. In theory, he says, a dose of vitamin C administered directly into the lungs could work as a treatment for otherwise fatal chlorine exposure.

Aerosolized vitamin C would serve as a "reinforcement" to the lungs' natural supply of the vitamin, Matalon says. "The antioxidants would be the first line of defense, detoxifying chlorine and preventing it from hitting important targets in the lungs. It is our hope to save lives and help people preserve and recover as much lung function as possible." His research has advanced successfully through the preclinical stage and trials for patients are set to begin this year.

Matalon and Whitley realize that research can't anticipate every problem created by bioterrorist threats, but each breakthrough is another step toward minimizing the impact of future disasters. "We're constantly learning lessons about how to do things better the next time around," Whitley says.

Siren Call

Riding Along with First Responders

By Glenny Brock

Though the wail of ambulance sirens can be frightening, there's something reassuring in the din. Those warning signals let people know that first responders—men and women who have undergone intensive training in emergency medical services (EMS)—are on their way to protect lives in danger.

First responders play a critical role in patient care, yet "EMS is one of the least understood aspects of medicine, even though it's the one that everyone thinks they know the most about," says Sarah Nafziger, M.D. '99. Through UAB's Office of Emergency Medical Services, which she directs, and UAB's Emergency Medicine Residency Training (EMRT) program, led by Andrew Edwards, M.D. '00, Nafziger has educated many of Alabama's first responders and emergency department physicians—and helped bridge the divide that often separates them.

Ambulance Observation

"Emergency medicine is protocol-driven," she says. "For example, there are explicit protocols for burn victims, gunshot wounds, and heart attacks." EMS providers must also decide on the best immediate care for a patient in crisis. Pre-hospital treatment affects not only the level of pain and suffering a patient endures but also the response of the doctors and nurses who receive the patient at the hospital.

"There's a huge human factor," Nafziger says. "Emergency medicine is not just about medical knowledge; we have to know how to interface with other physicians, with paramedics, with emergency medical technicians [EMTs], and with the patients themselves."

The three-year EMRT program teaches residents to think and act fast while always staying conscious of patients' medical, psychological, and social needs. Residents complete an "observership" with Birmingham Fire and Rescue, riding with ambulance crews responding to 911 calls. They also observe dispatch at the Alabama Trauma Communications Center.

One objective of this firsthand experience is exposing residents to the many challenges first responders face, Nafziger explains. "Medical residents often have unreasonable expectations of paramedics," she says. "Riding along can give them a sense of the kind of conditions under which paramedics and EMS providers must work. What seems like an unusual or extreme situation may be something that paramedics have already seen three times that day."

Sarah Nafziger, M.D. (center), gives emergency medicine residents a realistic view—and a better understanding—of the challenges of pre-hospital care.

Community Connections

Another objective is demonstrating how rewarding the work can be, despite—or perhaps because of—its intensity. "In other specialties, people's ability to pay can affect the kind of care they receive, but we don't have to deal with those concerns in emergency medicine," Nafziger says. "I take care of people from all walks of life.

"Everyone who practices emergency medicine has the opportunity to treat the sickest of the sick," Nafziger adds. "That's what the field is really about. No one goes into EMS for the money—first responders typically make about half of what nurses make. And they don't go into it for the status—a lot of times, doing their job requires going into unsafe situations. They have to have a passion for it," adds Nafziger, who describes herself as an "adrenaline junkie."

Through her teaching, Nafziger hopes to share that passion. One of her goals is to increase physician involvement with community-based EMS services, such as fire departments and volunteer rescue squads. She serves as EMS medical director for a number of local services, including Trussville Fire and Rescue and Hoover Fire.

"Historically, there has not been a lot of physician involvement in EMS," Nafziger says. "It has been limited to those who love the field, but I encourage every resident who comes through the EMRT program to find at least one local agency and get involved.

"EMS providers often have been wary of physicians, and physicians can have the same sort of feelings about paramedics, even though they're working toward common goals," Nafziger explains. "The big divide happens at the back door of the emergency department. Our programs help bridge that gap, which makes for better communication among health professionals and better care for patients."

Critical Minutes

UAB's Alabama Resuscitation Center is one of 10 sites participating in the Resuscitation Outcomes Consortium (ROC), a clinical research network studying early delivery of interventions for serious trauma and cardiac arrest by EMS teams. Jeffrey Kerby, M.D., Ph.D. (resident '95), an associate professor in the UAB section of Trauma, Burns, and Critical Care and an ROC principal investigator, says that determining the most effective resuscitation efforts and applying them in the first minutes after cardiac arrest or serious trauma could improve pre-hospital care for severely ill or injured patients and save lives.

Public Protector

A Growing Role in Disaster Response

By Rosalind Fournier

You never know when disaster will strike. But if you're Michael Fleenor, M.D., M.P.H., the health officer for the Jefferson County Department of Health, there's a more complicated problem: You never know what form the next disaster will take. You must prepare for all contingencies, from tornadoes to biological terrorism. This has led to an evolution in strategies for the health department in Alabama's most populous county.

"Until the mid-1990s, we focused on more traditional public-health issues, and much less on responding to disasters," explains Fleenor, a 1979 School of Medicine graduate. "Frankly, we didn't see ourselves as a critical part of the emergency response process."

Then officials at the local Emergency Management Association raised concerns about a lack of disaster response coordination among government agencies. In particular, officials wanted to bring public-health experts into the planning process. "Because there's not a natural interface among community partners and governmental agencies on a day-to-day basis, the challenge is preparing those agencies to synchronize an optimal response when disasters occur," Fleenor says.

To build those connections, Fleenor and other local government representatives traveled to a training center in Maryland specializing in emergency preparedness. They spent 24 hours navigating a scripted disaster scenario and coordinating a response. The exercise helped identify the team's strengths and weaknesses.

Just months later, "a category F-5 tornado blew through Jefferson County," Fleenor recalls. "It slapped us into thinking that we had better take this more seriously, because we're going to be called on more and more."

They were right. In 2001, the Jefferson County Department of Health dealt with a series of suspected anthrax attacks. When emergency response experts arrived at the scenes to evaluate the potential for high-risk exposure, they were "working in a much more advanced mode," Fleenor says. They played the same role early in 2010, when two men allegedly sent 15 letters filled with white powder to local government buildings in what proved to be a hoax.

The department's higher profile in emergency preparedness and response creates a demand for trained experts who can cope with the aftermath of disasters, Fleenor says. As part of the civil-service system, it is difficult for the department to hire additional staff, even in times of emergency, without a lengthy approval process. In response, Fleenor has emphasized cross-training for department personnel that prepares them to change roles rapidly as needed.

Michael Fleenor, M.D., M.P.H., and the Jefferson County Department of Health offer public-health expertise to emergency response efforts.

"We have to be able to 'flip a switch' from our routine business to 'wartime mode,'" he says. For example, following natural disasters such as tornadoes, or any event with massive power outages, his staff is prepared to inspect affected restaurants, grocery stores, and water processing stations to ensure that the public has access to a safe water supply and uncontaminated food.

Preparing natural and manmade emergencies is part of a larger shift in responsibilities that has taken the department beyond its "traditional, historic public-health role," Fleenor says. "We have retooled our efforts so that we can deliver a holistic view of community health and take on roles that plug critical gaps."

Research Focus

Making Sense Out of Gene Mutations

By Troy Goodman

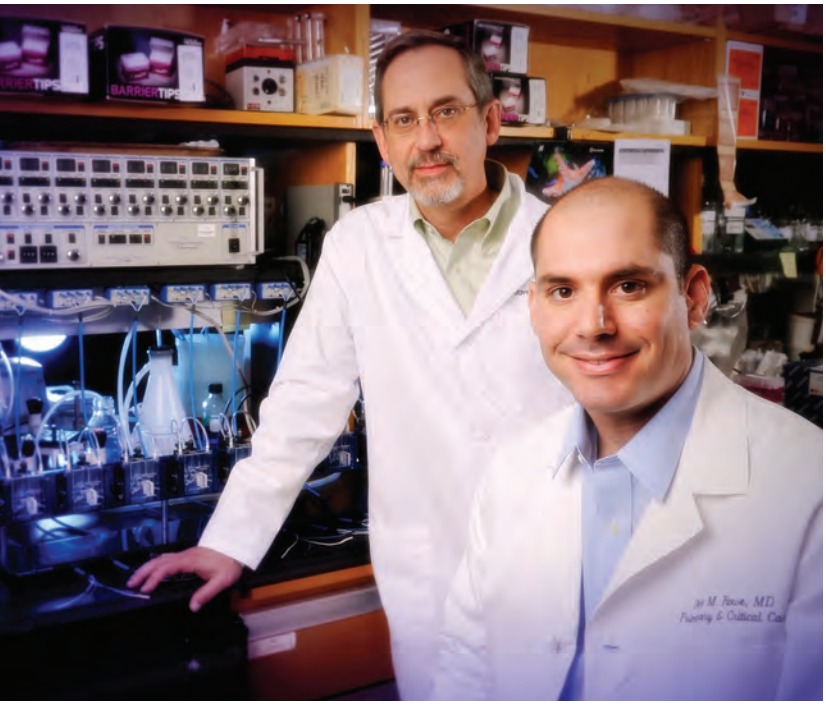
Genetic errors are at the root of a host of human diseases, including cystic fibrosis, hemophilia, muscular dystrophy, sickle cell disease, and many types of cancer. While scientists are adept at tracking down the mutated sections of code causing these conditions, they have been far less successful at finding a way to repair the damage. Now UAB researchers are testing experimental drugs that induce the body to skip over certain genetic errors and restore enough function to make a big difference in patients' lives.

Genetic mutations take a wide variety of forms and have multiple causes—including viruses, the sun's rays, and cell-division errors. "Nonsense" mutations prevent a gene from transmitting its full set of instructions, resulting in incomplete, and often useless, proteins. Depending on the protein's importance, there can be a cascade of downstream effects, from the benign to the catastrophic.

Ignoring the Nonsense

Roughly one-third of inherited diseases are caused by nonsense mutations. Approximately 10 percent of cystic fibrosis (CF) occurs when mutations affect the cystic fibrosis transmembrane conductance regulator (CFTR) gene, which helps regulate fluid production. As a result, thick layers of mucus build up in the lungs and digestive tract, causing fatal lung infections and digestive problems.

The ideal solution—eliminating the nonsense mutations and restoring the DNA to its natural state—has proved impossible so far. Instead, UAB microbiologist David Bedwell, Ph.D., and colleagues have spent several years testing an experimental compound called ataluren. The drug binds to the cell ribosome and induces it to ignore genetic errors, thereby restoring gene function.



David Bedwell, Ph.D. (left), and Steven Rowe, M.D., are testing drugs that help the body ignore genetic errors and restore function to cystic fibrosis patients.

Restoring Function

The drugs don't have to achieve complete restoration to bring about major improvements in patient function, explains Bedwell, a member of UAB's Gregory Fleming James Cystic Fibrosis Research Center. "It comes down to a numbers game," he says. "When you treat a genetic disease, how much of the missing protein do you need to restore to have a therapeutic benefit?" In one high-profile study using animal models of cystic fibrosis, Bedwell's lab reported that ataluren restored up to 29 percent of normal CFTR function.

An increase to 20 percent of normal protein activity would be "enough to change a severe case into a mild form of CF," explains Steven Rowe, M.D. (resident '02, fellow '05), assistant professor of medicine. "If we can achieve even greater protein activity, we believe we will have come a long way toward a cure in those patients."

Rowe is principal investigator on a trial of VX-770, another experimental drug that targets the locked CFTR channel, allowing it to function more normally. Patients taking VX-770 for 48 weeks had a marked improvement in key CF indicators, including lung function and the frequency of pulmonary exacerbations. Rowe says these findings provide a great deal of confidence that restoring CFTR activity can lead to meaningful improvements in the lives of CF patients.

Options for Other Diseases

Drugs like VX-770 and atalauren could be useful with many diseases resulting from nonsense mutations, says Rowe. PTC Therapeutics is now testing ataluren in humans for its effectiveness in hemophilia A, hemophilia B, and other conditions, and it has been tested as a therapy for Duchenne's muscular dystrophy.

Some diseases caused by nonsense mutations—such as Hurler syndrome—are even more sensitive to improvements in protein function than CF. Hurler patients usually die within their first decade after experiencing progressively worsening symptoms, including skeletal deformities, hearing loss, heart failure, and mental retardation. UAB's Kim Keeling, Ph.D., and colleagues in the Department of Microbiology are studying potential treatments such as ataluren in animal models.

Bedwell and other UAB investigators began their nonsense-mutation work at the most basic level, studying one-celled organisms. Now they are eager to see their hard-won knowledge translated into a patient-ready therapy. UAB is part of a large, multicenter study that is testing the effectiveness of ataluren as a CF treatment.

"This work is really about collaboration and years of breakthroughs from many UAB investigators," says Bedwell. "We're treating patients on a one-year trial to see if they get the health benefits and symptom control we hope for."

A Pill to Prevent Skin Cancer?

An arthritis drug could hold the key to preventing some skin cancers. UAB dermatology chair Craig Elmets, M.D., led a study showing that the COX-2 inhibitor celecoxib, branded as the NSAID Celebrex, was highly effective in preventing nonmelanoma skin cancers from developing in patients with precancerous actinic keratosis lesions who are at high risk for the disease. Future studies will determine if other NSAIDs have similar effects.

Pain Relief from Outer Space

Light technology developed by NASA to grow plants in space helped reduce and heal painful mouth sores and inflammation caused by traditional cancer treatments in a UAB clinical trial.

Nearly all patients undergoing high-dose radiation experience oral mucositis, a side effect causing pain, ulcers, loss of taste, and difficulty with eating and drinking. Nearly half develop such severe oral mucositis that their cancer treatment must be modified, potentially compromising their prognosis.

In the trial, cancer patients receiving bone-marrow and stem-cell transplants who had the light therapy reported that their pain was reduced by almost half. A nurse held the light near each patient's cheeks and neck for 88 seconds each day for 14 days at the beginning of the patient's transplant.

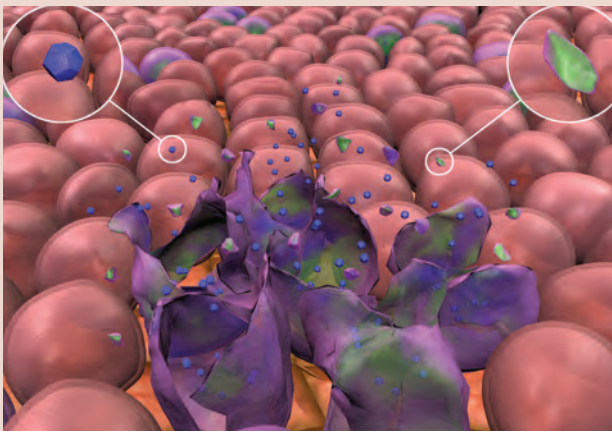
Donna Salzman, M.D., director of clinical services and education in the UAB Bone Marrow Transplant and Cellular Therapy Unit, says that patients at high risk for mucositis reported "as much as a 44 percent reduction in their pain scores and a statistically significant decrease in their mucositis" with no side effects. She adds that the light therapy could help improve nutrition for patients, decrease their need for narcotics, and shorten their hospital stays.

The Beginnings of Addiction

Even a few cigarettes can trigger a lifetime of predisposition to nicotine use. UAB neurobiology professor Robin Lester, Ph.D., reports that a short period of nicotine use may cause long-lasting changes to the hippocampus, meaning that learning and memory may be important factors that drive people to maintain nicotine use or to relapse by associating secondary sensory cues with smoking. Lester says the findings indicate two phases of nicotine withdrawal—and that preventing the second phase may be possible with medications to moderate stress during the early phase.

Starving Brain Cancer

UAB researchers may have found a way to contain the spread of gliomas, one of the most devastating types of brain tumor. Harald Sontheimer, Ph.D., director of the Center for Glial Biology in Medicine, and postdoctoral research assistant Vedrana Montana, Ph.D., found that glioma cells use bradykinin, a peptide that increases the size of blood vessels, to help them navigate to vessels that they can tap for nutrients. But a drug approved in Europe to treat hereditary angioedema, HOE 140, or Icatibant, was able to inhibit the B2R receptor that gliomas use to attract bradykinin. In fact, only 19 percent of malignant glioma cells could find a blood vessel when HOE 140 blocked B2R receptors. Sontheimer says that targeting the receptors is "an elegant and previously unexplored approach to treating gliomas" and that Icatibant offers a promising avenue for further investigation.



ECHO MEDICAL MEDIA

Breaking News on Breakthroughs

Get up to date on the School of Medicine's discoveries: **Medicine.uab.edu/magazine**

Physician in Chief

Partridge Leads National Cancer Fight

By Tyler Greer

Edward E. Partridge, M.D., joined the American Cancer Society (ACS) the day he graduated from the School of Medicine in 1973. Now, 37 years later, the director of the UAB Comprehensive Cancer Center and the holder of the Evalina B. Spencer Chair in Oncology is president of the ACS National Board of Directors.

Partridge has much to do in his one-year term, which began last November. The ACS is progressing through an 18-month plan to reinvent itself in order to increase the number of lives saved from cancer to 1,000 each day.

Partridge says that his UAB experience will help the ACS move toward that goal. He is co-director of the UAB Minority Health and Health Disparities Research Center and principal investigator for the Deep South Network for Cancer Control, a National Cancer Institute (NCI)-funded project focused on reducing race- and ethnicity-based cancer-survival disparities in rural and urban areas of Alabama and Mississippi. Partridge helped bring Alabama into the Breast and Cervical Cancer Early Detection Program, which allows women diagnosed with an abnormal mammogram to receive treatment regardless of financial means. He also chairs the cervical cancer-screening guidelines panel for the National Comprehensive Cancer Network.

Edward Partridge, M.D. (center), talks with Community Health Advisors who help lead UAB's efforts to reduce cancer disparities in underserved areas.

Dr. Partridge, what does it mean to you to be ACS president?

It's a privilege and honor to be part of an organization that—largely because of some work we've done at UAB—helps avert 340 cancer deaths each day. I'm proud of what we've accomplished and know there is much more we can do. We have enough knowledge. We need to look at our programs and how we deliver them to really make a difference in people's lives.

How will your high-profile position spotlight UAB cancer research and treatment?

UAB and the ACS have parallel research, outreach, and cancer-control programs. Being president will enhance the visibility of the UAB Comprehensive Cancer Center, which has existed for 40 years and was one of the original NCI-designated comprehensive cancer centers.

UAB distinguishes itself in two areas. One is translational research—we take a finding from the bench and get it into human clinical trials—and we have a number of success stories in which we've changed the standard of care worldwide.

The second is reducing cancer disparities, particularly among individuals with lower education, less income, and less access to care, who suffer disproportionately from cancer. Our geographic location makes it almost a moral imperative for our institution, and we have a history of developing programs that make a difference in underserved populations.

What are the key issues in cancer prevention and treatment?

The pandemic of obesity related to unhealthy eating and lack of physical activity is a major issue for the United States and other developed countries. Approximately 30 percent of cancer deaths are related to obesity as the cause for cancer. This epidemic must be brought under control and ultimately reversed.

Also, mapping the human genome has opened a new world of opportunity for understanding the underlying mechanisms for cancer development. We now understand that the carcinogenic process is very complex, with multiple signaling pathways affecting one another, genetic and epigenetic deviations, and a metastatic process that is more complicated than people had realized.

Can we eliminate cancer as a major public health problem?

We have the knowledge to prevent approximately 70 percent of U.S. cancer deaths by eliminating smoking or reducing rates to single digits, providing age-appropriate screening to our entire population, and assuring healthy diets and physical activity in a substantial portion of our population.

Technical advances also have provided tools to eventually unravel the complex pathways and will give us specific targets to modify and arrest or reverse the carcinogenic process. Targeted or personalized therapy will be based on the specific genetic, epigenetic, or pathway abnormality that has led to a person's cancer in the first place.

Cancer will be eliminated as a major public health problem this century—probably in the first 50 years. There's no question about it. How fast it occurs is limited only by the nation's investment in cancer programs.

Building on Breakthroughs

Shalev Leads Diabetes Center

By Tara Hulen

UAB's approach to diabetes research and treatment drew renowned scientist Anath Shalev, M.D., to become director of the Comprehensive Diabetes Center. However, she is equally excited about what can be done outside the lab to combat—and prevent—the disease.

"More than 30 percent of people in Alabama are obese, and another 30 percent are overweight," Shalev says. Because obesity is a leading cause of type 2 diabetes, UAB programs taken directly to people across the state could make meaningful and immediate differences in many lives, she explains.

Expansive View

Outreach is one aspect of Shalev's expansive view of diabetes research and care. "It's a complex disease that requires an interdisciplinary approach," she says. Shalev comes to UAB from the University of Wisconsin-Madison, where she directed endocrinology, diabetes, and metabolism research and conducted groundbreaking studies on cellular processes that lead to pancreatic beta cell death associated with diabetes. Now she heads a center with more than 150 faculty members dedicated to combining diabetes research, training, and clinical care—the result of collaborative efforts involving UAB, Children's Hospital, and the Birmingham community. Shalev also has been appointed to the Nancy R. and Eugene C. Gwaltney Family Endowed Chair in Juvenile Diabetes Research.

The Comprehensive Diabetes Center is only a few years old, Shalev says, so there is a lot of work to dive into immediately. In addition to focusing on innovative collaborative research, recruiting more scientific talent for the center, and expanding educational programs for the public and professionals, Shalev wants to expand existing therapeutic options for patients. She also wants to leverage opportunities available through the UAB Center for Clinical and Translational Science and the wealth of research data produced by the UAB Division of Preventive Medicine.

"Diabetes complications will be another major focus," Shalev notes. "They're a big problem for the community, they take a huge toll in terms of people suffering, and treating them builds on some of UAB's strengths." As an example, she points to the UAB Multidisciplinary Comprehensive Diabetes Clinic, the only clinic in the state offering patients one-stop care from experts including ophthalmologists, neurologists, and kidney specialists.

Targeting TXNIP

"In terms of research, beta cell biology will be one major aspect because it's so critical for both type 1 and type 2 diabetes," says Shalev, who earned her medical degree from the University of Basel, Switzerland, and completed research fellowships at Harvard and the National Institute of Diabetes and Digestive and Kidney Diseases. The connection between beta cell death and diabetes "has been well established, but, no one knows the exact factors that are involved," she explains.

However, in performing the first human pancreatic islet microarray study, Shalev identified thioredoxin-interacting protein (TXNIP) as a factor playing an important role in diabetic beta cell death. At Wisconsin, she further discovered that suppressing TXNIP protected pancreatic beta cells, in turn preventing the development of both types of diabetes."We're convinced this is a great target," she says.

Lowering TXNIP even prevented diabetes in severely obese lab mice, which is exciting because "it means that the reduction of TXNIP could unlink obesity from diabetes," Shalev says.

Shalev and her UAB colleagues are also keenly interested in studying the role TXNIP might play in other systemic effects of diabetes. For example, her team found significantly elevated TXNIP levels in the hearts of mice and humans with diabetes, which means that the protein may play a role in diabetic cardiomyopathy. She hopes that the research will one day lead to new drugs that could protect and promote a patient's own beta cells while preventing or treating diabetes complications.

Comprehensive Diabetes Center director Anath Shalev, M.D., is unlocking the secrets of pancreatic beta cells, which could lead to protective therapies.

Living Legacies

Do Dead Cancer Cells Fuel Metastasis?

By Caperton Gillett

Even after cancer has been defeated with chemotherapy, metastasis is a risk that cancer patients and their physicians must face. But could the dead cancer cells actually *encourage* metastasis? A team of UAB researchers led by Katri Selander, M.D., Ph.D., assistant professor of hematology-oncology, is investigating the possibility—and the potential for groundbreaking new cancer treatments that could result.

"When you kill cancer cells with commonly used cytotoxic drugs, the 'broken' DNA is released from those dead cells," Selander says. "We have discovered that when you feed the released, 'chopped-up' DNA back to living cells, this causes pro-invasive effects in the living cancer cells."

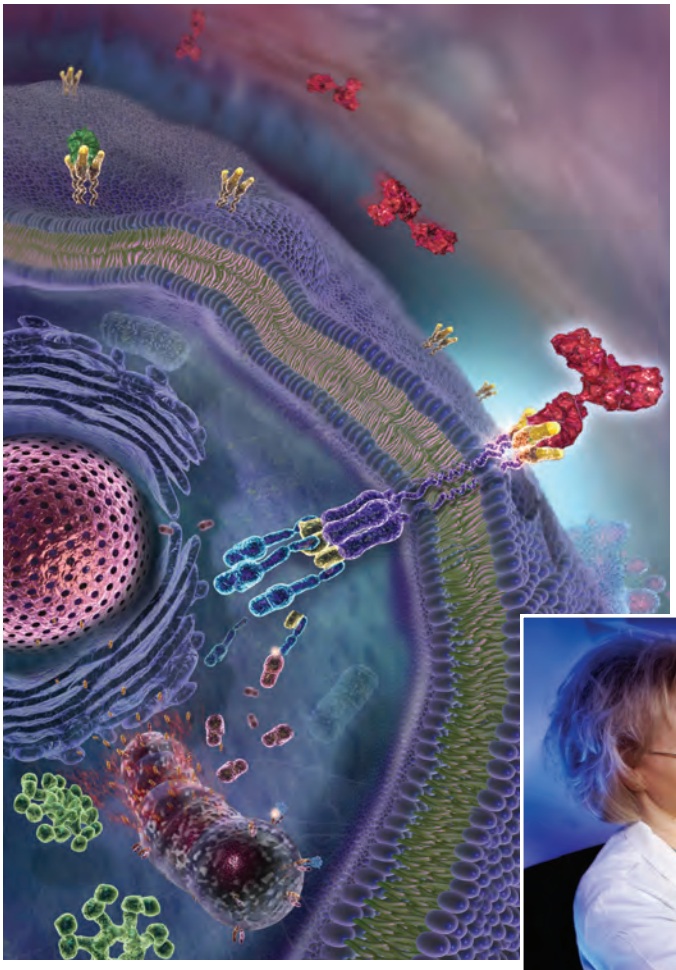
The initial discovery came in the course of testing an unrelated hypothesis. "Breast cancer cells expressed a protein called toll-like receptor 9, which was a surprise, because it wasn't supposed to be there—it's supposed to be in immune system cells," Selander explains. So she and her team began looking to see if the protein could be boosting metastasis—and if it's coming from dead cancer cells.

> "When you feed the released DNA back to living cells, this causes pro-invasive effects in the cancer cells."
>
> —Katri Selander

The research is a partnership between Selander's group and a team in the UAB Department of Chemistry led by chair David Graves, Ph.D. As Selander explores the mechanisms behind the new metastatic pathway, Graves and colleagues will study the structure of the pro-invasive DNA. "If this phenomenon occurs in patients, we need to know the DNA structure and how it binds to the target receptor so that we are able to inhibit the process," Selander says. The project recently won an $805,000 grant from the U.S. Department of Defense Breast Cancer Research Program.

Though the initial findings could raise questions about the unintended outcome of chemotherapy, Selander has great hope for the research. Results of the study could significantly impact patients, especially those with cancers that currently don't have any targeted therapies, she says. The findings also could help identify potentially beneficial drugs. "We already know that, for instance, the malaria drug chloroquine inhibits the action of dead DNA," she notes. "Could it help us get better treatment outcomes?"

While Selander cautions that the research is in an early phase, she says that upcoming preclinical studies hold great potential. "It's as if the cells in the culture or in the experiments are telling us, 'Come this way! Look this way!'" she says. "We're starting to get the full picture."



ECHO MEDICAL MEDIA

By tracking DNA from dead cancer cells, Katri Selander, M.D., Ph.D. (right), could shed light on metastasis and lay the groundwork for future cancer treatments.

Vision Quest

New Views Inside the Eye

By Tyler Greer

Fifteen years ago, Yuhua Zhang, Ph.D., was learning to design cameras, telescopes, and microscopes in his native China. Then his mother-in-law developed sudden, severe bleeding in her left eye, and his focus changed. After learning that doctors did not have the equipment to produce high-resolution images of the retina, he devoted his career to ocular imaging. Now, Zhang, a UAB assistant professor of ophthalmology, has developed a high-resolution imaging instrument that provides an unequaled view of the human eye.

"This is, to our knowledge, the fastest practical adaptive optics for the living human eye," Zhang says. "The development of this instrument has positioned UAB at the forefront of this emerging technology—available at only five other centers worldwide."

Adaptive optics is technology that was originally created to help high-powered telescopes see clearly through the turbulent atmosphere in deep space. Applied to vision, adaptive optics enables retinal imaging systems to compensate for the optical defects of the human eye's cornea and lens, offering the ability to visualize living cells within the eye.

UAB's adaptive-optics scanning-laser ophthalmoscope (AOSLO) will help ophthalmologists detect age-related macular degeneration, diabetic retinopathy, and glaucoma, allowing them to treat the diseases earlier and slow their progression.

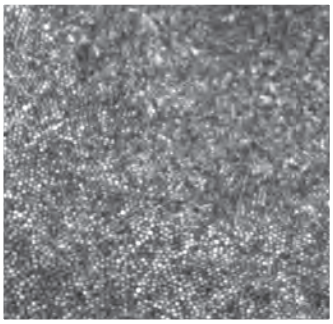
UAB's AOSLO is the third generation of the device. Zhang completed an earlier version while working at the University of California at Berkeley with optometry professor Austin Roorda, Ph.D., but its clinical use was limited. When Zhang set up his UAB lab in 2008, his goal was to develop a new AOSLO capable of high dynamic range, ocular-aberration compensation, and high-speed imaging acquisition.

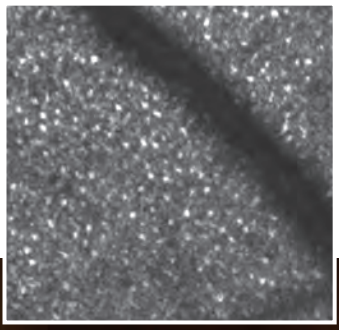
"The images are of unprecedented quality, enabling video images of the microscopic blood flow and photoreceptors for diagnosis of eye diseases," Zhang says. The device can show well-resolved cone photoreceptors in the macula, the retina's central region housing the densest pack of cones, the cells forming the fine and color vision. "In particular, it can image the rod photoreceptors in the living, awake human eye, a breakthrough that will improve our understanding of rod-mediated blinding diseases such as age-related macular degeneration, retinitis pigmentosa, and cone-rod dystrophy," Zhang says. "We are one of only three labs in the world that currently possess this ability."

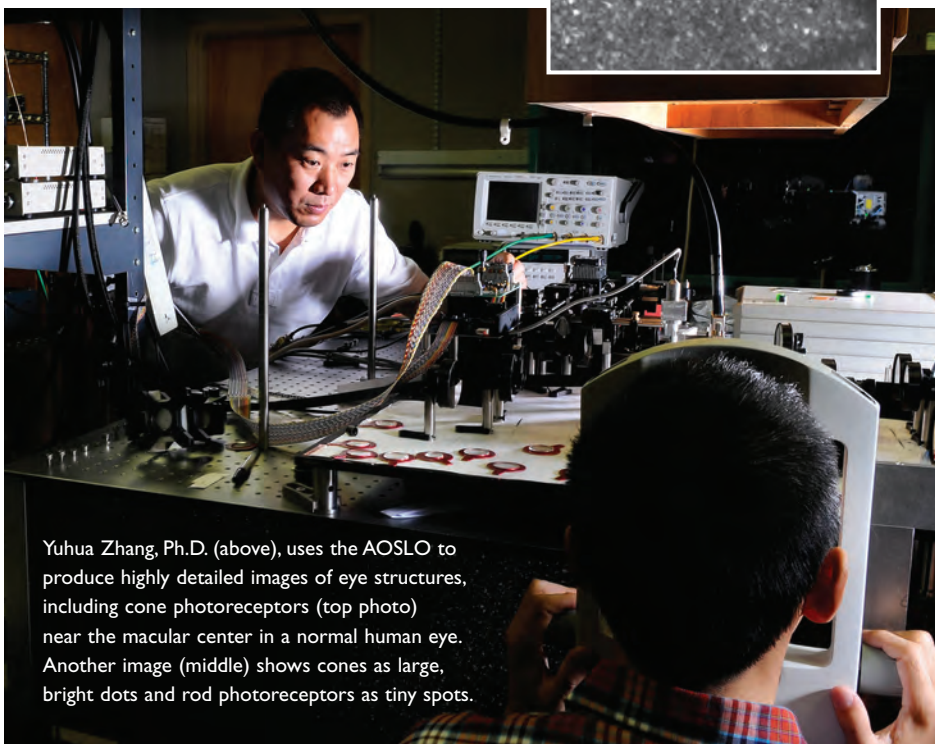
The AOSLO can even project clear visual stimuli onto the retina to facilitate testing of retinal function. "We will be able to diagnose diseases at an earlier stage and provide sensitive evaluation of the treatment efficacy at the cellular level," Zhang says.

> "This instrument has positioned UAB at the forefront of this emerging technology—available at only five other centers worldwide."
>
> —Yuhua Zhang

Initially, Zhang will use the AOSLO to study age-related macular degeneration and primary open-angle glaucoma with UAB ophthalmologists Cynthia Owsley, Ph.D.; Christopher Girkin, M.D.; Christine Curcio, Ph.D.; and Douglas Witherspoon, M.D. "We also will study other common medical and neurologic conditions, including hypertension, diabetes, multiple sclerosis, and Alzheimer's disease," Zhang says.







Yuhua Zhang, Ph.D. (above), uses the AOSLO to produce highly detailed images of eye structures, including cone photoreceptors (top photo) near the macular center in a normal human eye. Another image (middle) shows cones as large, bright dots and rod photoreceptors as tiny spots.

Senior Class

Elders Become Educational Mentors

By Susannah Felts

Last fall, Brittney Anderson and another School of Medicine student paid a visit to 79-year-old Birmingham resident Jeannine McElroy. As they sat in her living room, McElroy asked the two young students about their families and their educational progress. She also was eager to know if their medical school experience was anything like the popular television series *Grey's Anatomy*. "She's certainly up to date about things going on in the world," Anderson says.

The visit was not a clinical one or a neighborly act. McElroy matched with the students through the Senior Mentor Program, founded in 2002 and co-directed by associate professor of medicine Stan Massie, M.D. (resident '95), and geriatrics professor Richard Sims, M.D. Local seniors are paired with first- and second-year medical students, giving the future doctors a fresh perspective on the diversity of the geriatric population and helping them develop caregiving and communication skills.

Avoiding Assumptions

"We have concerns that our training encourages students to develop unhealthy attitudes about the elderly," Massie explains. In their third-year clinical rotations, students encounter many elderly patients in hospitals and nursing homes who are likely to have complicated and numerous health impairments. "The students begin to assume that they're all that way," Massie says. "We want to combat ageism by exposing them to people who are very functional." Each student visits his or her mentor six to seven times over two years, with each mentor serving two students.

Visits with senior mentors such as Jeannine McElroy (left) help Brittney Anderson and other medical students gain a better understanding of the geriatric population.

Such programs are appearing in medical schools nationwide in anticipation of the so-called "silver tsunami"—a population in which the elderly is the fastest growing portion. (The earliest baby boomers turn 65 this year.) "Doctors will need to be more cognizant of the issues that older people face," Massie says. "Whatever their specialty, they'll need to know how to care for them." The Donald W. Reynolds Foundation recently awarded UAB a $2-million grant for "a comprehensive program to strengthen physicians training in geriatrics," and the Senior Mentor Program is a key component of this project to help prepare students for the growing challenge of caring for older adults, Massie explains.

The Experience of Aging

UAB's diverse senior mentor group includes nursing home residents and seniors living on their own, like McElroy. The students do not treat or diagnose their mentors; instead, they "reconnect and discuss how things are going, building that relationship," Massie says. But each visit comes with specific educational goals.

"We give students clinically oriented tasks targeted to identifying problems in older adults," says Massie. At one visit, a student might practice reviewing her mentor's medications; at another, she'll interview the mentor about her most recent trip to the physician. The focus, Massie explains, is on the mentor's experience: "How long did they have to wait, were their concerns addressed, did they remember what the doctor told them, and were there any barriers to getting to the office?" The students also do assessments of memory, concentration, depression, and other conditions.

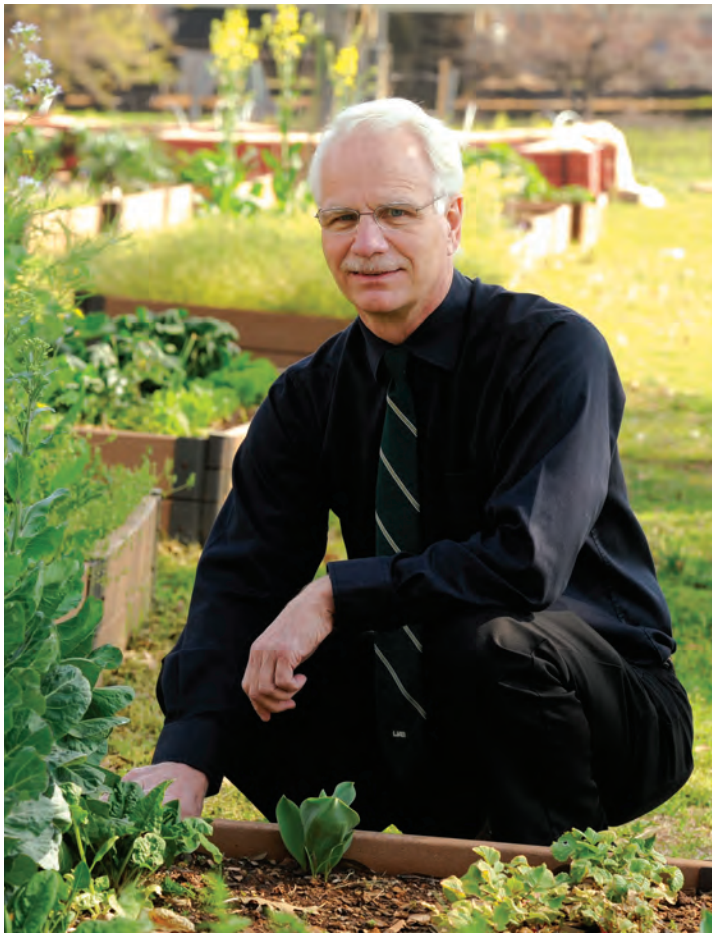
But the overarching goal is to give the student an eye-opening, longitudinal relationship with a senior—unlike the brief visits during rotations. "Many students are surprised at how busy their senior mentors are," Massie says. "When they call to set up a meeting, the mentors have trouble finding time in their schedules. For a young, busy doctor, it can be useful to discover that their elderly patients are, perhaps contrary to their assumptions, quite active as well."

Anderson says that visiting McElroy has helped her see another side to geriatric patients. "You might think a 79-year-old is going to be declining in her ability to do things," she reflects, but at her first visit, she learned that McElroy had just returned from driving to Nashville to visit her son and granddaughter. "She's really independent," Anderson says. "While we should take into consideration some obvious things that occur with aging, it's important to learn about the patient and not put her in a box with everyone in her age range."

Field Notes

A Strike Against Hunger

By Glenny Brock



Michael Wyss is collaborating with Norma-May Isakow, director of UAB's Office of Service Learning, and graduate students Kate Crawford and David Buys on a project to impact hunger and obesity-related health issues in Birmingham.

Michael Wyss, Ph.D., hopes to grow more than vegetables in the future UAB/Glen Iris School Community Garden. In a patch of ground near campus, he wants knowledge to take root—knowledge about food and nutrition that could make a lifelong impact on the health and education of Birmingham schoolchildren.

Wyss, a professor in the Department of Cell Biology and director of UAB's Center for Community OutReach Development (CORD) explains that the garden is part of the UAB Hunger and Food Security Initiative (HAFSI), a campuswide effort aiming to teach students and the community about food security. He notes that much of Birmingham is a "food desert"—an urban district whose residents lack access to fresh, healthy food. Through courses and extracurricular activities, HAFSI will emphasize food security, which the U.S. Department of Agriculture defines as "access by all people at all time to enough food for an active, healthy life."

The Science of Obesity

"I came at the question of food security from the perspective of applying science education to the critical obesity epidemic in this country," Wyss says. "Put simply, people all over the United States are making poor food choices, and there are serious health consequences, especially when those poor food choices impact youth."

In a survey of local middle school students, Wyss and other researchers found that obesity as indexed initially by body mass index (BMI) of 30+ is just as high as it is in much of the rest of urban America—approximately 40 percent of middle school girls. A healthy 13-year-old girl should have a BMI of about 19 +/- 5, Wyss says.

"Without intervention, we're looking at a generation of children who will be insulin-resistant by the time they are 20 and/or diabetic by the time they are 30," Wyss explains. "That's a serious and costly public-health issue nationwide. Many of them will not be able to enter and remain in the workforce, and the nation will bear the cost of caring for them. If better food choices by parents and children can avert the prevalence of obesity-related morbidity, this would provide great savings to the economy.

"In part, HAFSI is an economic initiative—making sure that the health of our youth will allow them to enter the workforce and contribute to the economy."

Ideal Learning Model

The new garden will be a collaborative effort. Wyss plans to involve both School of Medicine and Glen Iris Elementary students through CORD. Staff and volunteers from Birmingham's nonprofit Jones Valley Urban Farm will lend expertise.

"Jones Valley Urban Farm brings knowledge of food, of agriculture, and of growing vegetables as a method of community-building," Wyss says. "UAB brings the science and the mathematics. Most people know that there's a science to growing vegetables, but a lot of people don't realize math is involved."

The Glen Iris students will be challenged to figure out how much they need to plant, how much they can plant in the area they have, what the costs and yields will be, and how many people can they feed and for how long.

"We also ask them to write up their experiences, which brings English and writing skills into the process," Wyss says. "Through this garden project, we try to bundle everything—science, math, economics, language. It's almost an ideal learning model."

Seeds of Success

Wyss is eager to watch the garden grow and make an impact in UAB's neighborhood. "Students will be able to take vegetables home or use them in the school cafeteria," he says. "And if these children learn to grow food and learn to eat better, they can have better health, and they can help their parents have better health," he says. "That in turn will make them better students and better advocates for themselves, as well as making them advocates for this type of inquiry-based education to continue. It's a cycle we want to set in motion."

Community Ties

CORD's purpose is to build a pipeline to science and technology careers for central Alabama schoolchildren, says Wyss, the center's director. Its hands-on educational outreach programs, focusing on topics ranging from molecular biology and genetics to engineering, reach about 45,000 K-12 students—80 percent of which are minority or underserved children—and teachers each year. UAB faculty and students, including several in the School of Medicine, help lead the programs.

Physicians' Forum

THE MEDICAL HOME

By Charles Buchanan

While the "medical home" emerged in 1967 as an American Academy of Pediatrics proposal, the concept has grown in popularity in the past decade, advocated by states and professional organizations across the country. The 2010 health-care reform law encourages the development of medical homes to help improve primary-care delivery and coordination of care across the medical spectrum. Here, **Angela Powell, M.D. '93,** a Monroeville, Ala., family medicine physician, explains the concept's key components while **Stuart Cohen, M.D. '94,** UAB assistant professor of internal medicine, shares his experience with transforming a practice into a medical home.

Angela Powell, M.D.

Stuart Cohen, M.D.

ANGELA POWELL, M.D.

In 2007, several leading organizations of primary-care physicians released the "Joint Principles of the Patient-Centered Medical Home (PCMH)," which include:

- *a personal physician who provides the patient's first contact;*
- *a physician-directed medical practice;*
- *a whole-person orientation, in which the physician is responsible for providing or arranging all patient care;*
- *coordinated and/or integrated care across specialists and other care providers;*
- *quality and safety assured by measures including evidence-based medicine and information technology, among others;*
- *enhanced access to care, from open scheduling to expanded hours and communication options; and*
- *payment that incorporates the added value that patients receive from a PCMH.*

These principles are not new to primary-care providers. The way care is delivered changes over time—and this is our time. I think of it this way:

PCMH = Traditional Family Practice + Technology

The hope is that patients will lead healthier, happier lives as they take responsibility for self-management, and that physicians will find greater satisfaction and reward in delivery of coordinated care, treating the whole person—the whole family—in their medical home. The goal is for quality health care to be accessible and affordable for all Americans, now and in the future.

Who will lead your medical home? Primary-care physicians are well trained and able to assume the responsibility for overall well-being of patients and coordination of care.

STUART COHEN, M.D.

During the past year, the physicians and staff of the The Kirklin Clinic Internal Medicine-1 clinic have transitioned our practice into a PCMH. In February, we received official recognition as a PCMH from the National Council on Quality Assurance (NCQA). We are participating in two separate PCMH pilot projects funded by Viva Health and BlueCross Blue Shield of Alabama respectively.

Our practice consists of six internal medicine physicians and one full-time nurse practitioner. In addition to our regular office staff, we have added a care manager.

We have faced several challenges. A major PCMH concept is teamwork—allowing individuals to work at the top of their training level. For some staff, this meant taking on greater responsibilities or delegating previously performed tasks to others. Physicians and staff alike had to trust that others would do the job correctly. Also, because each physician had previously worked semi-independently, we had to standardize the workflow for the practice. Putting new processes in place and creating policies and protocols was time-consuming but essential to meeting the NCQA requirements.

Given that our clinic does not currently have an integrated electronic medical record (EMR), complying with many NCQA PCMH guidelines was difficult. To overcome this problem, we acquired and implemented three separate technologies:

- *a disease registry that tracks all preventive-care measures and chronic-disease quality indicators, offering evidence-based reminders at the point of care;*
- *a patient portal that allows patients to contact the office through secure messaging, enabling patients to ask clinical questions, request appointments and prescription refills, or perform a virtual symptom assessment; and*
- *an electronic prescribing system that is used for all medication refills as well as many point-of-care prescriptions.*

UAB is implementing a fully integrated EMR in all outpatient clinics, which will facilitate the PCMH transition process for other primary groups in The Kirklin Clinic.

Our transition efforts are continuing. We recently formed a partnership with the UAB School of Nursing to further develop the chronic-care model and improve care management within the primary-care setting.

Trailblazer

Cora Lewis

By Cary Estes

For much of the past two decades, UAB epidemiologist and professor of medicine Cora Lewis, M.D. (resident '90), has toiled behind the scenes, carefully analyzing reams of data in her role as a preventive-medicine researcher.

Every so often, however, Lewis's work is thrust upon the world, with findings—and consequences—that are not always anticipated.

A prime example occurred nearly 10 years ago, when Lewis was part of a nationwide study examining hormone therapy in postmenopausal women. Such therapy was common practice, because it was believed that hormones would help reduce cases of osteoporosis and heart disease. But the results surprised the researchers, who discovered that the treatment increased the risk of invasive breast cancer by approximately 25 percent. On the day the news was released, the stocks of drug companies that manufactured hormone pills plummeted, dragging down much of the market with them.

"My husband said, 'Congratulations, you sunk the stock market,'" Lewis recalls. "Just because an intervention is promising doesn't necessarily mean it will be proven. That's why we need to do clinical trials."

The Importance of Prevention

Lewis has played key roles in many trials encompassing a variety of medical specialties. Recently, she has studied obesity, bone density, cardiovascular risk factors, the impact of childbearing on a woman's risk of metabolic syndrome, and possible links between a treatment for gum disease and control of type 2 diabetes.

"The more we can accomplish on the front end with prevention, the better off we are" in caring for patients, says Lewis, the director of the multidisciplinary Preventive Medicine Clinic, who joined UAB's faculty in 1990. "We do spend a lot of time working on the data, collecting and analyzing it, but then we have incredibly important 'aha' moments where we discover something new that people need to know. It's been gratifying to be part of some big studies that have changed things and made a difference."

Testosterone and Aspirin

One of Lewis's current trials will determine if increasing testosterone levels in men age 65 and older can safely help them overcome a lack of energy, decreased muscle strength, and other conditions often associated with the elderly. "Most of the studies on testosterone replacement have focused on younger men, so we don't know if it really is a good thing in this age group," Lewis explains. "We know there is a potential downside in that testosterone may affect the prostate, and we're not certain if testosterone replacement will help with some symptoms that are very common in aging men." The study, a $45-million joint effort of UAB, 11 other academic research centers, and the National Institute on Aging, will involve more than 800 men.

Lewis also is helping to lead a new trial examining the effects of a low-dose aspirin regimen among people age 70 and older. Though taking one aspirin a day to help reduce the risk of heart disease is an accepted practice, Lewis says that most of the aspirin studies—like the testosterone replacement trials—have included middle-aged patients. "The data we have now come from trials in younger people or from observational studies, which aren't always right," she notes.

Cora Lewis, M.D., scientifically evaluates the effectiveness of preventive-medicine therapies ranging from aspirin to hormone replacement.

"We don't know about an elderly population," Lewis explains. "What we hope will happen is that heart attacks and strokes will decrease significantly, memory and cognitive function will improve, and cancer outcomes will decrease. We hope there will be a lot more of that benefit compared to potential harms like bleeding ulcers, where the risk is higher in an older population." The study links UAB with seven other sites in the United States and Australia and will involve up to 19,000 participants.

Lewis says that both trials are exciting, and she looks forward to the long hours of data analysis that could lead to significant findings. "If it's important enough to know the answer, it's important enough to do the trial," she says.

Student Rounds

FAMILY MATTERS

By Susannah Felts

Medical school is taxing enough on its own, with the hours of studying, the pressure to rise to the top of the class, and the long days and nights in the hospital during rotations. But students who also are raising young families face an additional challenge—a balancing act that's not for the faint of heart. Three School of Medicine students can attest that there's a lot of truth in that thinking. At the same time, they have no trouble seeing the bright side of their dual workload. Here, **Drew Cochran**, a third-year student with a seven-month-old son; **Ebony Davis**, a second-year student with a six-year-old daughter; and **Lydia Marcus**, a second-year student with a six-month-old daughter, offer insight into their lives as parents and physicians in training.

Is going to medical school while raising a family harder or easier than you anticipated?

COCHRAN: It's harder. I knew that I'd be drawn to my child and my family, but I didn't have a realistic understanding of the commitments and requirements I would have at the hospital and at school.

DAVIS: It's easier. I was a single parent as an undergraduate, so it wasn't a totally new experience. But my daughter started kindergarten the year I started medical school, and making sure she has her homework done and helping out in her class has been hard. I didn't have to worry about that while she was in daycare.

Ebony Davis says that her daughter, Hailey, is an inspiration—and sometimes a study partner.

MARCUS: I think it's easier. A lot depends on your baby, and I have a pretty easy baby. I was prepared to be exhausted, to have no free time, and to be stretched thin, but I still have some downtime. I also thought I would do worse in school, and that hasn't happened.

Do you ever feel jealous of your fellow students who aren't juggling family and school?

COCHRAN: No. There's a lot of joy that comes from having a family, and I anticipated having a child before I finished medical school.

MARCUS: Definitely. Last year, I could have lunch or dinner with my classmates. Now, I can do it, but not as much, and either my husband has to stay home, or we have to get a sitter, or I can't stay as late. I also don't exercise as much as I used to.

DAVIS: I can't miss what I never had. I've been a parent and a student for the last six years. But it would be fun not to have to pay for babysitting.

Drew Cochran with his son, Chase

Lydia Marcus with her daughter, Lola

What survival strategies help you get through the busiest days?

COCHRAN: I haven't really eaten much some weeks because I didn't have time. My family helps me with that, because when things are hectic at the hospital, I'm always reminded that I'm blessed at home.

MARCUS: I rely on my husband a lot. He's incredibly supportive and does most of the grocery shopping and cooking.

DAVIS: Taking a moment or day for myself is important. And I really like doing things with my daughter when I'm stressed. She's always happy and positive and sees the bright side of everything. She has always been my biggest support, my inspiration, and motivation. When I'm tired of studying, I remember why I'm doing this—so she can have a better life.

What is the toughest part of being in medical school with a young family?

MARCUS: It's the sleep deprivation—which is improving, but I'm still up with my daughter at least once a night. I had a test this morning, and I was up for an hour and a half in the middle of the night. Two months ago she was up every two hours, and I felt like I was going out of my mind.

DAVIS: Most people in my class can split the bill on an apartment, but no one wants to live with a six-year-old, so there's no one to help with the cost. Everything is more expensive.

COCHRAN: I don't have the free time to read and study that I would if I didn't have a family. I'm busy while I'm at the hospital, and at home, I'm helping my wife.

What is the most wonderful aspect?

COCHRAN: I know what it's like to have a family before I settle on my specialty. Now I have the insight to stay away from career paths that demand too much time.

MARCUS: It's very cool to have firsthand experience as we're learning about development in babies and in utero. I think I will feel the same way next year when I do my pediatric rotation.

DAVIS: My daughter will come over and ask questions when I'm studying. Because she sees me doing schoolwork, she's in love with school and likes to make good grades.

Has parenting changed your medical career path?

DAVIS: It has definitely been a factor. I want a job that will allow me to be with my daughter on holidays and weekends and her birthday, and to support her if she wants to be in sports or drama. There are only so many hours that I see myself working, because I don't want to miss those parts of her life.

COCHRAN: Definitely. Though I enjoyed my surgery rotation, I don't think the five-plus years of demanding training will be worth it if I miss out on that time with my family. I'm still interested in aspects of the operating room, such as anesthesia. It offers a better lifestyle.

MARCUS: Yes. Before medical school I was in a physics master's program, and I've been considering what is most important to me in a job. The lifestyle is a big factor. I don't want to miss my child's life, and as a doctor, it's easy to get into a position where you see your kids only on the weekends. I'm looking at working in family-friendly fields.

What will you remember about this time in your life in 20 years?

COCHRAN: The things that happen at home, such as seeing my son crawl for the first time, will stick with me longer than the things that happen in the hospital.

MARCUS: I will recall how lucky I have been. My husband and I have said that we will look back on these years as some of the happiest times in our lives.

DAVIS: I will remember how excited I am to be in medical school. I've met a lot of really interesting people and formed relationships that will last a lifetime. It's also important that my daughter is seeing me accomplish things. I like to think that I'm setting a good example for her, a good path for her to follow.

Student Profile

Swaroop Bommareddi

By Cory Bordonaro

In his third year of medical school at UAB, Swaroop Bommareddi got a promotion—to the Howard Hughes Medical Institute (HHMI). The Huntsville, Alabama, native was selected to be an HHMI-National Institutes of Health (NIH) Research Scholar, one of only 42 students selected for the prestigious program last year. In July 2010, Bommareddi moved to Bethesda, Maryland, and into "the Cloister," an old converted nunnery on the NIH campus that houses the scholars.

The yearlong HHMI-NIH program provides unique scientific opportunities for medical students intent on a research-based career path. "It's designed to sway students into the research track," Bommareddi says. "Twenty to 30 years from now, there will be a need for more physician-scientists who are able to convert basic science discoveries into potential therapeutics."

Abundance of Options

Upon arrival, Bommareddi and the other scholars were paired with advisors and given ample time to visit the NIH laboratories and choose a research focus that best fit their interests and backgrounds. Bommareddi met with nearly 20 lab investigators during the first two weeks before pinpointing endocrine oncology.

Now, halfway through his study, Bommareddi can see the impact of his work. "My research will hopefully help distinguish various groups of thyroid cancer patients," he says. "Women get thyroid cancer three to four times more than men do, and women's thyroid cancer is less aggressive and a little easier to treat. For men, it's a bit more aggressive and appears later. It's important to find out why this happens and to find biomarkers that help stratify patients based on treatment response, the need for further treatment, and so forth."

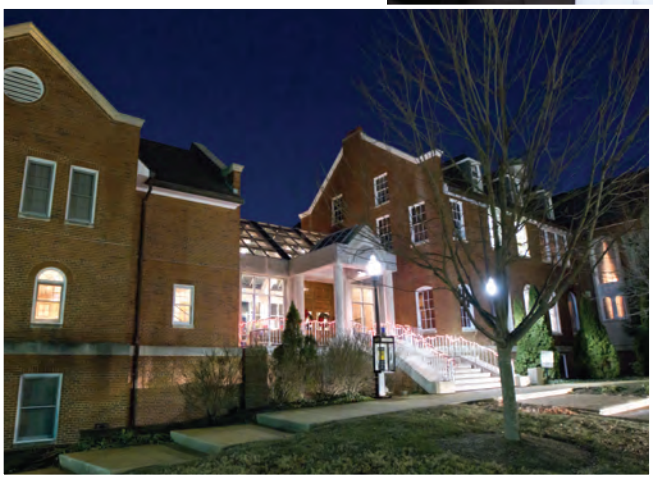
Bommareddi meets once a week with his supervising investigator, an endocrine surgeon, to discuss his individual progress. Other members of the lab staff are always available to answer questions about more technical aspects of his research. The scholars also are invited to attend Howard Hughes Scientific Meetings with top researchers who are doing "really innovative science." Bommareddi calls these meetings a highlight of his NIH experience—and an inspiration.

Growing up in Huntsville, Bommareddi had enjoyed opportunities for research with NASA, which led him to pursue a biochemistry degree at the University of Pennsylvania. After graduation, "I wanted to go on a research track, but I was hesitant, because I thought it was all that I'd seen in college," he says. But at the NIH, "I feel like I'm getting back the itch for doing science."

Life in the Cloister

The benefits to life in the program extend past the lab. The scholars live as a community and participate in weekly formal "science dinners" at the Cloister, where they hear speakers that Bommareddi calls "the who's who of research." They also host a Saturday Science Academy for a group of local middle school students, teaching them basic scientific principles. Scholars can even audit applicable courses at the NIH. Bommareddi takes a biostatistics class that has helped him to decipher relevant clinical research.

Though the program is designed to last a year, a student can choose to stay with the NIH for an additional year if his or her research progresses—or make a four-year commitment to earn a Ph.D. "Coming in, I thought that there was no way I'd want to do a second year," Bommareddi says, "but I'm open to it now. Before the year, I was leaning toward clinical medicine. I think right now, I'm more research oriented. It could change once I start residency, but no matter what, I want to integrate research into my career."



HADAR GOREN PHOTOGRAPHY

Swaroop Bommareddi (above, at left) has enjoyed opportunities to meet other scholars and renowned researchers inside the Cloister (left) on the NIH campus.

Match Day 2011

Meeting Their Match

By Bob Shepard

St. Patrick's Day may have brought some luck to the class of 2011. On March 17, on the most competitive Match Day ever, they exceeded the national average for matching to one of their top choices for residency training. All of the 168 members of the class matched to a residency, part of an estimated 16,000 U.S. medical school seniors and another 15,000 graduates of osteopathic or foreign medical schools participating in the Match.

UAB's medical graduates will conduct residencies at 69 hospitals in 29 states. A total of 41 percent of graduates in all specialties will remain in Alabama for residency training, and 74 percent will conduct their training in the Southeast.

The class of 2011 responded strongly to the growing need for more physicians in primary care and general surgery. Forty-three percent of the class will do residency training in one of the primary-care fields, and 10 percent will focus on general surgery.

Twenty-two percent of the graduates will go into a surgical field, while 6 percent will pursue emergency medicine, and 6 percent will train in obstetrics and gynecology.

Online Extra:

Visit Medicine.uab.edu/matchday to experience the excitement of Match Day through a video, additional photos, and the Match results.

Tuscaloosa Report

Ulzen Appointed Interim Dean

By Leslie Zganjar

Thaddeus Ulzen, M.D., says that supporting the growth of rural-medicine and family-medicine training is a key priority in his new role.

Thaddeus Ulzen, M.D., associate dean for academic affairs and professor and chair of the Department of Psychiatry and Behavioral Medicine at the University of Alabama College of Community Health Sciences, has been named interim dean of the college, which is the Tuscaloosa branch campus of the School of Medicine.

Ulzen takes over for E. Eugene Marsh, M.D., who accepted positions as senior associate dean at Pennsylvania State University College of Medicine and associate director of the Penn State Hershey Medical Group. He will lead the development of a new regional medical campus in State College, Pennsylvania.

Ulzen says that as interim dean, he plans to provide continued support for the strategic growth of the college's rural medical education and training programs, including the Rural Medical Scholars Program and the Tuscaloosa Experience in Rural Medicine Program. He also will seek to expand the number of rural sites available for family-medicine residency training.

"During my period of service as interim dean, I will be devoted to promoting and supporting the critical role of the college as a leader in the training of primary-care physicians for rural Alabama," Ulzen says. "To this end, we should be leaders in piloting and advancing evidence-based models of community-based care."

Psychiatry Leader

At the college, Ulzen has led an expansion of the Department of Psychiatry and Behavioral Medicine to include additional faculty and a new, statewide tele-psychiatry service that links numerous sites in five rural Alabama counties to psychiatrists at University Medical Center, which the college operates. The department also has introduced a fellowship in behavioral health for family physicians and a rural public psychiatry fellowship for psychiatrists.

Prior to joining the college in 2005, Ulzen was associate professor and interim chair of the Department of Psychiatric Medicine at the Brody School of Medicine at East Carolina University. He had previously been vice chair and director of the University Psychiatry Center. Before that post, Ulzen was a faculty member at the University of Toronto, where he also was appointed psychiatrist-in-chief of the George Hull Centre for Children and Families.

Ulzen graduated with distinction from the University of Ghana Medical School in 1978. He completed an internship and worked as a pediatric senior house officer for the Ministry of Health in Ghana, serving a rural population, before joining the University of Toronto psychiatry residency program in 1980. He obtained his specialist certificate in psychiatry from the Royal College of Physicians and Surgeons of Canada and a postgraduate diploma in child psychiatry from the University of Toronto. Ulzen also completed additional training in clinical psychopharmacology at the Clarke Institute of Psychiatry in Toronto.

Accolades and Interests

Ulzen is a fellow of the Royal College of Physicians of Canada, a Foundation Fellow of the Ghana College of Physicians and Surgeons, and a fellow of the American Psychiatric Association. In 2002, he was awarded the Nancy C.A. Roeske Certificate of Excellence in Medical Education by the American Psychiatric Association. He also received a Yale/Johnson & Johnson Award as a Physician Scholar in International Health in 2007. Ulzen is an annual visiting scholar at the University of Ghana Medical School and an annual visiting professor at the University of Cape Coast School of Medical Sciences in Ghana, and he has a faculty appointment at the University of Toronto.

Board-certified in psychiatry by the Royal College of Physicians and Surgeons of Canada, Ulzen is a member of the Canadian Psychiatry Association, the Canadian Academy of Child Psychiatry, and the American Academy of Child and Adolescent Psychiatry. He is past president of the Ghana Physicians and Surgeons Foundation of North America.

Ulzen has a particular interest in the integration of mental health and primary care in rural and underserved communities, both locally and internationally. His other academic interests include childhood disruptive-behavior disorders, mental health of incarcerated adolescents, paranoid spectrum disorders, mental retardation, and models of mental-health consultation to primary-care physicians.

Huntsville Report

Obstetrics Course Builds Skills and Bonds

By Melissa Behringer, M.D., Assistant Professor of Family Medicine

Intern "boot camp" is the time of year when new physicians entering residency receive information about their new jobs and roles. An important part of this process is becoming certified, for the first time as a physician, in one or more "life support" courses. Key among these is Advanced Life Support in Obstetrics (ALSO).

This education program, coordinated and administered by the American Academy of Family Physicians (AAFP), provides students with an organized, systematic method of addressing emergencies and urgencies during pregnancy, from first trimester vaginal bleeding to late postpartum hemorrhage. The course is designed for anyone who medically cares for pregnant patients, whether in the office, in the emergency department, or in the labor and delivery suite.

ALSO helps physicians and other health-care providers develop and maintain the knowledge and skills they need to effectively manage potential emergencies during the perinatal period. The program additionally serves as an aid for training residents in obstetrics as well as family medicine. In fact, ALSO receives support from the Alabama Family Practice Rural Health Board as part of its mission to meet the need for physicians in rural Alabama who are prepared to provide the full scope of family medicine, including obstetrics.

Every July since 2007, the UAB Huntsville Regional Medical Campus has hosted the two-day ALSO provider course for all intern family-medicine residents in the state. Other interested health-care providers, ranging from labor-and-delivery nurses in small and rural hospitals to nurse midwives to physicians working in acute-care settings who want to maintain their skills, participate in the course as well.

Instructors include family-medicine and obstetric faculty and staff from the UAB Huntsville Family Medicine Program, the Tuscaloosa Family Medicine Residency, St. Vincent's East Family Medicine Residency, and faculty from Arkansas and Indiana. Laura Satcher, M.D., assistant professor of family medicine in Huntsville, oversees the program, and Ross University's Allan Wilke, M.D., a former member of the ALSO Advisory Board, provides guidance in teaching and organization.

While emphasizing labor-and-delivery room emergencies, the course also covers prenatal risk assessment, first-trimester bleeding, consultant relationships, helping parents cope with a birth crisis, and information on reducing medical malpractice risk. Additional topics often include basic obstetric ultrasound skills and neonatal resuscitation. Most of the teaching occurs in small group workshops that cover estimation of blood loss in postpartum hemorrhage, reading and interpreting intrapartum monitoring strips, recognition and management of labor dystocia, and recognition and management of shoulder dystocia. The AAFP revises two to three chapters of the course each year based on the newest literature available, and all of the information is backed by peer-reviewed evidence with citations.

Because no "life support" course is complete without an assessment of the participant's skills, a written multiple-choice test and a "mega-delivery" (akin to a "mega-code") challenge each student to remember and apply what he or she has learned.

In addition to the skills and knowledge gained from this in-depth course, family-medicine intern residents and faculty from across the state are able to build camaraderie over the two days of ALSO. Those who practice family medicine in Alabama share a link to a past common experience that enables them to build future relationships.

The 2011 ALSO course will be held July 8-9. For more information, contact Paula Cothren at pdc@uab.edu.

Clockwise from top: ALSO faculty and staff for 2010; obstetrics fellow Sarah Thelen, M.D., prepares a mannequin for a lesson on assisted vaginal delivery; ALSO course director Laura Satcher, M.D., gives instructions for the mega-delivery and written test.

Nurturing Talents

Scholarship Dinner Honors Donors and Recipients

By Lisa C. Bailey

The fifth annual Scholarship Dinner highlighted the myriad talents of School of Medicine students and recognized the donors who help cultivate them through their support of scholarships.

"This is my first opportunity to formally thank you for your support," said Ray L. Watts, M.D., senior vice president and dean of the School of Medicine, welcoming guests to the March 7 event. "On behalf of our students, faculty, institution, and all of the patients whose lives are made better through the education provided here, thank you for the difference you are making." This year, 245 students received scholarship assistance totaling $2.6 million.

H. Hughes Evans, M.D. (resident '94, fellow '95), senior associate dean for medical education, introduced high-achieving students Brittany Richardson, recipient of the School of Medicine Scholarship; Eddie Hyatt, recipient of the W. Hudson Turner Endowed Scholarship; and Jennifer Eldredge, recipient of the W. Earle Drennen Scholarship, Charles O. King Scholarship, Dr. C.C. McLean Medical Scholarship, School of Medicine Scholarship, and State Board of Medical Scholarship. The students expressed their appreciation for the financial support and discussed how scholarships are enabling them to pursue careers in medicine.

Throughout the evening, guests enjoyed piano selections by fourth-year medical student Anand Iyer and performances by Susan May Wiltrakis, a first-year student and professional jazz singer. Watts highlighted the two artists as examples of the variety and level of talent in the student body.

"You support the academic pursuits of unique, talented individuals, and in doing so, you are changing lives," Watts told the donors. "The cost of attending medical school is high and rising. While the impact of your gift may begin with the student, it is felt many times over as these students use their educations to improve the quality of life for our families, friends, and neighbors. Your gift supports one of the finest academic health institutions in the world. Know that our leadership role magnifies the impact of every discovery, every approach to medical education, and every evolution in better patient care, and this allows us to honor the legacy and spirit of your gift."

Above: Jennifer Eldredge, Brittany Richardson, Ray Watts, Eddie Hyatt, Susan May Wiltrakis, and Anand Iyer

Above: Gerhard Boehm, Carol Garrison, Ray Watts, and Noble Anderson

Above: Shilpa Reddy, Allen and Ann Clark, Zsu Zsu Chen, Tim Stooksberry, and Emily Hunter

Right: Stephen Kelly, Susan May Wiltrakis, and Chris Kelly

Above: Henry and Virginia Hoffman with Devin Sanders

Above: Scott Bell, Mannie Corman, and Betty and Maurice Bell

Left: Alvin Stewart, Amanda Burns, and Hugh Comer Nabers

Above: The Chambless family with student Aimen Ismail

Leaders Inspiring Leaders

Lee Endowed Chair Supports Medicine Dean

By Lisa C. Bailey

James C. (Jimmy) Lee Jr. was a successful entrepreneur in the beverage industry, but he always kept an eye on the latest developments in medicine. His interest in the field and his generous support of UAB over the years inspired his family to honor him with the creation of the James C. Lee Jr. Endowed Chair for the Dean in the School of Medicine. The chair will ensure that the school benefits from the finest leadership to guide it in the coming decades and supports its education, clinical care, and research missions.

James C. (Jimbo) Lee III, chairman and CEO of Buffalo Rock Company, made a gift of $1.5 million toward the endowed chair, to which matching funds will be added to bring the total to $2 million. "It was a natural fit," says Jimbo Lee, who made the gift in memory of his father, who passed away in 2009. "Dad had given a lot of time, and Buffalo Rock had given financially to the School of Medicine," he says. "He was excited about medicine and supported it so passionately."

"It is a great honor to be the first holder of this chair named for James C. Lee Jr., who was a stalwart of our community throughout his lifetime," says Ray L. Watts, M.D., senior vice president and dean of the School of Medicine. "This generous gift comes to UAB in a unique and very exciting time for medicine. We have an opportunity to reshape and strengthen our ability to care for patients and accelerate research efforts that will lead to new treatments and cures. I am most appreciative to Mr. Lee and the Lee family for partnering with us to achieve our ambitious goal of increasing UAB's position as a leading medical institution."

Jimmy Lee led Buffalo Rock for decades as it became the country's largest single-family owned, privately held Pepsi-Cola operation, a status it retains today. The recipient of many

James (Jimbo) Lee with Ray Watts

industry and civic accolades, including induction into the Alabama Academy of Honor and Alabama Business Hall of Fame, Lee served as president of the Birmingham Chamber of Commerce and held many other community leadership and service positions. He served on the UAB President's Council and was a senior presidential advisor, and he was a member of the board of directors of the UA Health Services Foundation. His generosity benefited the UAB Comprehensive Cancer Center, UAB Hospital, and the Division of Neurosurgery, among other areas.

From the Heart

Endowed Fund Established for Cardiothoracic Surgery

By Lisa C. Bailey

The Dr. Charles W. Breaux Sr. and Ann K. Breaux Endowed Support Fund in Cardiothoracic Surgery was recently established with a generous commitment from Charles W. Breaux Sr., M.D., a retired Birmingham surgeon. The fund will support the UAB Division of Cardiothoracic Surgery and recruit visiting scholars who will present academic and/or scientific theories related to cardiothoracic surgery and/or surgery for indigent-care patients.

Breaux was a founding surgeon at Cooper Green Mercy Hospital and spent his career of more than 30 years treating indigent-care patients. His son, Charles Breaux Jr. '82, trained at UAB and is now a pediatric surgeon in Colorado.

"Out of deep and abiding respect for Dr. John W. Kirklin, my wife and I, with urging from our daughter, Ann-Marie, set up the endowed support fund," Breaux says. "Dr. Kirklin pioneered the development of safe, reliable open-heart surgery that has benefited people all over the world. My life was saved by a coronary artery bypass at UAB in 1986 that has held up without revision to this day."

"This fund will not only be a lasting tribute to Dr. and Mrs. Breaux and their shared commitment to the advancement of the field of cardiothoracic surgery, but it will also provide valuable support to UAB's Division of Cardiothoracic Surgery and its ongoing clinical, research, and teaching initiatives," says UAB president Carol Garrison. "We are

Charles W. Breaux Sr. (left) with James Kirklin, director of the UAB Division of Cardiothoracic Surgery and son of John Kirklin

grateful for their generosity and truly fortunate to have such wholehearted support from our valued donors."

Record Gift for Research

Breast Cancer Donation Honors Scientist and Advocates

By Clinton Colmenares

Above: BCRFA representatives present their donation to Ed Partridge (far right). Left: BCRFA president Dianne Mooney, Andres Forero, and Dolly O'Neal

Each year, the Breast Cancer Research Foundation of Alabama (BCRFA) makes a donation to the UAB Comprehensive Cancer Center from the proceeds of its yearly fund-raising efforts. This year, the Birmingham-based organization contributed its largest annual gift ever—$400,000—bringing its cumulative total of gifts to UAB to nearly $3 million.

"Our friends at the BCRFA have enabled our breast-cancer research program to become one of the most vigorous and well regarded in the nation," says Edward Partridge, M.D. '73, director of the UAB Comprehensive Cancer Center. "They are dedicated to saving lives every day, and we are grateful for their steadfast partnership in the fight against cancer."

Half of the gift will become the lead contribution in a fund-raising effort to establish an endowed chair honoring Andres Forero, M.D., a UAB Comprehensive Cancer Center senior scientist, BCRFA board member, and nationally recognized breast-cancer research expert. The foundation is designating the other half to support research in memory of three women who made significant contributions to the breast-cancer community: Violeta Caceres, O.D., known as the "Pink Lady" for her breast-cancer advocacy; Kathy Kemp, award-winning journalist with *The Birmingham News*; and Judith F. Todd, one of Alabama's top estate-planning and probate attorneys.

The BCRFA was established in 1996 by Dolly O'Neal, a two-time breast cancer survivor, and Bruce Sokol, whose wife, D.D., was undergoing breast-cancer treatment. Since then, the foundation has been a leader in raising critical research funds to support early projects that enabled the Cancer Center to receive additional high-profile grants and recruit and retain world-renowned breast-cancer researchers. The BCRFA provided pilot funding research that led to the receipt and renewal of the Cancer Center's Breast Cancer SPORE (Specialized Program of Research Excellence), a five-year, $11.5 million National Cancer Institute grant. The organization also supported important pre-clinical lab testing that led to a $6.4-million Promise Grant from Susan G. Komen for the Cure and the Triple Negative Breast Cancer Foundation in 2009.

A Drive to Fight Ovarian Cancer

Norma Livingston Foundation Makes Contribution

By Lisa C. Bailey

Ronald Alvarez (second from left) accepts a gift to support research from representatives of the Norma Livingston Ovarian Cancer Foundation.

The Norma Livingston Ovarian Cancer Foundation (NLOCF) has presented a check for $100,000 to the UAB Comprehensive Cancer Center for the Division of Gynecologic Oncology—which includes proceeds from the sales of the foundation's Drive Out Ovarian Cancer car tag and funds raised through the foundation's events, such as the Ovarian Cycle Ride to Change the Future. These funds will help Cancer Center investigators conduct cutting-edge research in hopes of designing new ways to screen for or to treat ovarian cancer.

"The support of the Norma Livingston Foundation has been instrumental in our efforts in fighting ovarian cancer," says Ronald Alvarez, M.D. (resident '87, fellow '88), director of the UAB Division of Gynecologic Oncology. "Its commitment and dedication has inspired so many patients, and we are grateful for all of the hard work to help us find a cure for this deadly disease."

The mission of the Birmingham-based NLOCF is to raise funds for ovarian cancer research and to increase awareness by educating women, their families, and the health-care community about the risks, symptoms, and treatments for the deadly disease. Over the past seven years, the foundation has raised approximately $500,000 for research.

Musical Vision

Concert Benefits Eye Research

By Shannon Thomason

Country music star Vince Gill and London-based a cappella group The Swingle Singers headlined the second Songs for Sight, a unique musical celebration benefiting people in Alabama with low vision. The event, held March 4 at UAB's Alys Robinson Stephens Performing Arts Center, raised $450,000.

Songs for Sight was imagined and organized by Alie B. Gorrie, 18, of Mountain Brook, who was diagnosed as an infant with optic nerve hypoplasia, a genetic form of vision impairment. Legally blind in one eye and with 20/80 vision in the other, Gorrie wanted to raise awareness and funds for the UAB Center for Low Vision Rehabilitation and support research efforts for the Optic Nerve Imaging Center through the event, which incorporates her love of musical theater.

"I am exceedingly grateful for all the hard work being done by the Low Vision Center, SightSavers, and the researchers at UAB," Gorrie says. "In the past year alone, I have seen so many lives changed by Songs for Sight programs like our support groups, and I cannot wait to continue these efforts."

Keith Cromwell, executive director of Red Mountain Theatre Company, directed the show. The event is a partnership among the UAB Department of Ophthalmology, the EyeSight Foundation of Alabama, and a group of community volunteers dedicated to supporting their mission.

Clockwise from top: The Swingle Singers; Alie B. Gorrie and Lauren McCartney; Vince Gill and Lanning Kline

Setting an Example

Endowed Chair Celebrates Nephrologist

By Lisa C. Bailey

Members of the Charles C. Anderson Sr. family have made a significant gift to establish the Hilda B. Anderson Endowed Chair in Nephrology in the School of Medicine. The endowment honors Hilda Anderson—wife of Charles C. Anderson Sr. and mother of their sons, Charles, Terry, Clyde, and Harold—and the outstanding care provided to her by David G. Warnock, M.D., a senior faculty member and former director of the Division of Nephrology.

"It is my great personal pleasure and honor to serve as the first Hilda B. Anderson Endowed Chair in Nephrology," Warnock says. "She is indeed a remarkable individual who has faced personal challenges with courage and determination, with the unstinting support of her husband and entire family. Fortunately, her medical condition has been stabilized. Her response has been delightful, with a full return to the activity level she had previously enjoyed. Her personal charm, warmth, and verve have carried her and her family through these challenges. Her generosity, and that of her entire family, is indeed notable and hugely appreciated by me, as well as our program and the entire institution."

The Anderson family has supported various UAB programs and efforts through personal gifts; gifts from their companies, Books-A-Million and Anderson & Anderson; and through the multiple Anderson family foundations. With their gift for nephrology, the family wanted to recognize Warnock as an example of an excellent, compassionate, and highly skilled physician-scientist.

Anupam Agarwal, M.D., director of the Division of Nephrology, adds, "We greatly appreciate the generosity of the Anderson family in establishing the Hilda B. Anderson Endowed Chair to recognize Dr. David Warnock for his outstanding leadership and visionary accomplishments at the national and international levels. Such gifts allow us to invest in further building our academic and research programs and training the next generation of nephrologists not only in the near future but also for the long-term growth of the nephrology programs."

Charles and Hilda Anderson with David Warnock

Alumni Weekend 2011

By Lisa C. Bailey and Charles Buchanan

Held February 18-19 at the Birmingham Marriott, the 38th annual Medical Alumni Weekend blended scientific education with opportunities to reconnect with friends and colleagues.

Clockwise from top: Scotty McCallum, Walter Gay Pittman, James Kirklin, and Kirby Bland; Theodis Buggs, Ray Watts, Gerhard Boehm, and Betty Ruth Speir; Governor Robert Bentley and UAB President Carol Garrison

James K. Kirklin, M.D. (resident '81), holder of the John W. Kirklin Chair of Cardiovascular Surgery at UAB, presented the 32nd annual Reynolds Historical Lecture, titled "The History of Heart Transplantation and Mechanical Circulatory Support: a Revolution of Evolution." A reception sponsored by the School of Medicine's Dean's Office followed the lecture.

Annual Alumni Awards

EDWARD E. PARTRIDGE JR., M.D.
Distinguished Service Award

Edward Partridge

For superior accomplishments and contributions to the School of Medicine

A Demopolis, Ala., native, Partridge graduated from the School of Medicine in 1973 and completed a UAB residency and fellowship in obstetrics and gynecology in 1977 and 1979, respectively. In 2010, Partridge, director of the UAB Comprehensive Cancer Center and the Evalina B. Spencer Endowed Chair in Oncology, was named president of the national board of directors of the American Cancer Society.

Partridge focuses on cancer control and prevention, cervical and ovarian cancer, community-based research, gynecologic oncology, and minority health disparities. His efforts helped gain Alabama participation in the Breast and Cervical Cancer Early Detection Program, which allows women diagnosed with an abnormal mammogram to receive treatment regardless of financial means. He has led the Alabama Black Belt Cancer Linkage Initiative to help men and women receive state-of-the-art cancer care, and he co-founded the Alabama Partnership for Cancer Control in the Underserved. Partridge is also principal investigator of the community-based Deep South Network for Cancer Control and a partnership linking the UAB Comprehensive Cancer Center, Morehouse School of Medicine, and Tuskegee University for cancer disparity research.

A member of the ACS national board of directors for 20 years, Partridge serves as chair of the Cervical Cancer Screening Guidelines Committee for the National Comprehensive Cancer Network and led the Commission on Cancer for the American College of Surgeons.

CHRISTOPHER D. TRUSS, M.D.
Hettie Butler Terry Community Service Award

For outstanding commitment to community service

Born in New York City, Truss graduated from the School of Medicine in 1975 and completed a pathology fellowship at UAB the following year. Later, he moved to Duke University for an internal medicine internship, a residency, and a gastroenterology fellowship. In 1981, he returned to Alabama to join the faculty of the UAB Division of Gastroenterology, and today he serves as professor of medicine and clinical director of gastroenterology/hepatology at The Kirklin Clinic. He also directs the Gastrointestinal Endoscopy Unit at both The Kirklin Clinic and UAB Hospital.

Christopher Truss

Since 1992, Truss has spent several summers working in Kenya's Tenwek Hospital. In 2004, the United States Navy invited him to serve on its hospital ships in the aftermath of the east Asian tsunami. Since then, he has worked in Indonesia, Vietnam, East Timor, Nicaragua, and Guyana on the U.S.S. Mercy and U.S.S. Comfort. Closer to home, he has assisted first-year School of Medicine students who work with Equal Access Birmingham's free M-Power clinic.

Clockwise from above: Marsha Raulerson, recipient of an honorary membership; Theodis Buggs and Ed Partridge; Theodis Buggs, Governor Robert Bentley, and Finis St. John; Phillip Tally

Finis E. St. John IV, president pro-tempore of the University of Alabama Board of Trustees, presented the 18th annual Constance S. and James A. Pittman Lecture. He discussed the history and evolution of Bryce Hospital in Tuscaloosa and the treatment of the mentally ill in Alabama. At one time, St. John says, Bryce patients operated a farm, grist mill, bakery, fishing operation, and even a newspaper and coal mine on the property. Read his speech at www.alabamamedicalalumni.org.

Exhibitors and supporters for Medical Alumni Weekend included ProAssurance, supporter of the Saturday Reception; Bradford Health Services; Varian; the Alys Stephens Center; the Alabama Army National Guard; Alcon Laboratories; Compass Bank; MASA; Sherlock, Smith & Adams; and UAB Medicine-Physician Services.

PHILIP W. TALLY, M.D.
Garber Galbraith Medical-Political Service Award

Philip Tally

For outstanding service to the medical profession

Inspired by his father, a physician and political leader, Tally enrolled in the School of Medicine, where J. Garber Galbraith, M.D., advised him on neurosurgery. Tally graduated in 1982 and trained at the Mayo Clinic in Rochester, Minn., where he became involved in medical politics, serving as a resident delegate to the American Medical Association (AMA). After starting a private practice in Bradenton-Sarasota, Florida, Tally became the inaugural neurosurgeon for the AMA's Young Physicians' Section and founded the National Young Neurosurgeons' Committee. He also has served as a hospital chief of staff, county medical society president, Florida Neurosurgery Society president, and National Neurosurgeons' Political Action Committee chair. For more than 20 years, he has represented all organized neurosurgeons at the AMA. He was recently elected chairman of the AMA's Specialty Section, its largest group, representing 110 societies across America.

Tally also has been a national leader in the transition to an electronic medical record (EMR), contributing to EMR development, implementation, and instruction and the standardization of CT and MRI data formats. Recently, Tally has worked for the National Governors Association on health information exchange (HIE) and serves on national health information technology advisory boards. He also is the founder and chair of a multicounty, nonprofit HIE corporation designed to help doctors improve their ability to transmit data in an efficient, secure format.

GOVERNOR ROBERT J. BENTLEY, M.D.
Distinguished Alumnus Award

In recognition of outstanding contributions in the field of medicine and demonstration of the high principles of the medical profession

Bentley, the newly inaugurated governor of Alabama, graduated from the School of Medicine in 1968. After completing an internship at Birmingham's Carraway Methodist Hospital, he was commissioned as a captain and served as a general medical officer in the United States Air Force during the Vietnam conflict. He was stationed at Fort Bragg, North Carolina, where he became hospital commander near the end of his tenure.

Robert Bentley

Following his military service, Bentley completed a dermatology residency at UAB in 1974. He and his family moved to Tuscaloosa, where he founded a number of small businesses, including Alabama Dermatology Associates, which has grown into one of the largest dermatology practices in the southeastern United States.

Bentley was elected to the Alabama House of Representatives in 2002 and served two terms. He declared his candidacy for governor in 2009 and was elected in November 2010.

Alumni Reunions

Members of the classes of 1947, 1951, 1956, 1958, 1961, 1962, 1965, 1966, 1971, 1981, 1986, 1991, and 2001 reunited for a reception and dinners during Medical Alumni Weekend in February. Class chairs included Robert Adams, M.D.; John Ashurst, M.D.; Michael Bivins, M.D.; Kenneth Bramlett, M.D.; Julius Dunn, M.D.; Cooper Hazelrig, M.D.; Ron Henderson, M.D.; John McCarley, M.D.; John Poynor, M.D.; Martha Pugh, M.D.; James Sawyer, M.D.; Katrina Skinner, M.D.; Darlene Traffanstedt, M.D.; and Frank Waldo, M.D.

The class of 1961 celebrated its 50th-year reunion at Medical Alumni Weekend in February.

The class of 1981 was among 13 classes that reunited for special events during the weekend.

Dr. President

Gerhard Boehm Elected MAA Leader

By Caperton Gillett

Gerhard A. W. Boehm

The new president of the Medical Alumni Association originally went to college with plans to become a lawyer. But Gerhard A. W. Boehm, M.D., soon discovered that he preferred interacting with people instead of writing papers. That change of heart brought him home to Alabama.

"When I graduated from Duke University, the medical school in my home state was one of the premier schools in the country, with names like Champ Lyons, John Kirklin, and Tinsley Harrison," Boehm says. "The faculty drew me back."

After graduating from the School of Medicine in 1971, Boehm specialized in surgery, completing an internship at the University of South Alabama and a residency at Emory University. He moved to Mobile in 1976 to teach surgery at the University of South Alabama College of Medicine and to open his own practice. Today, he continues to bridge academic and clinical medicine, teaching students and residents while performing endocrine and breast surgery.

As MAA president, Boehm "will vigorously promote the interests of the school" during his two-year term, he says. "It's a true resource in the Southeast." He also looks forward to working with senior vice president and School of Medicine dean Ray Watts, M.D. "I share his enthusiasm and his goals, such as promoting areas of strength for the school."

Boehm plans to emphasize the Medical Alumni Association's current priorities and programs. "We already have many fine programs supporting students in the medical school," he says, adding that his focus is "to increase membership and get people involved."

Class Notes and Memorials

Follow the lives and careers of your classmates in *Informal Rounds*, the newsletter of the Medical Alumni Association. Share your own accomplishments by sending updates to office@alabamamedicalalumni.org. You can also fax them to (205) 975-7299.

On the Road

Watts Meets Alumni Statewide

By Charles Buchanan

Alumni in Mobile, Huntsville, and Montgomery recently hosted receptions to welcome senior vice president and dean Ray L. Watts, M.D. At the events, Watts discussed the development of the School of Medicine's forthcoming strategic plans for research, education, and primary care. He emphasized the important role that alumni can play in ensuring the success of the plans and the growth of the school, inviting attendees to share their feedback.

Left: Ray Watts speaks to alumni in Montgomery.

Far left: Adil Khan, Jyoti Samant, Terrence Pugh, and Michael Yablick at the Montgomery event

Below: Jim Alford, Melanie Halvorson, Ray Watts, and Noble Anderson visit at the Montgomery reception.

Right: Ray Watts addresses alumni at the Mobile reception.

Below: Ray Watts with Linda and Gerhard Boehm at the Mobile event

Above: Ralph Samlowski and Lanita Carter meet Ray Watts at the Huntsville event.

Left: Betty Vaughan, past president of the Medical Alumni Association, with Ray Watts at the Huntsville reception

Find us on Facebook

Search for UASOM Medical Alumni Association

From the Archives

A Glimpse of the Great War

By Tim L. Pennycuff • Images courtesy of UAB Archives

Before Alabama-born Lawrence Reynolds, M.D., became a pioneering radiologist, he went to war.

Reynolds, a native of Dale County, was a medical student at Johns Hopkins University when World War I erupted across Europe. Following his graduation, he volunteered at the American Ambulance Hospital, housed in the Pasteur school in the Paris suburb of Neuilly-sur-Seine, sailing from New York City in March 1917. When the United States entered the war a month later, the privately financed facility became the American Military Hospital No. 1. The hospital also operated a facility closer to the front lines in a college building in the French village of Juilly. Reynolds worked at both hospitals until his tour of duty ended in May 1919.

The young physician documented his wartime experience in photographs—220 of which are now available online on the UAB Digital Collections site. The pictures offer a glimpse of another era, showing soldier patients and staff in the hospital wards along with the trenches and shell-damaged villages in the French countryside. There are also poignant images of a funeral procession and of wounded soldiers receiving awards during military exercises.

Most of the photos, sized from 4.5 x 7 centimeters to 23 x 16.5 centimeters, were not described by Reynolds. UAB Archives staff studied published histories of the war and a French Web site containing thousands of pre- and postwar postcards to identify many of the images.

After the war, Reynolds returned to Johns Hopkins and later became radiology chair at Wayne State University in Detroit. He also served as editor of the *American Journal of Roentgenology* for more than three decades. In 1952, Reynolds brought his collection of nearly 6,000 rare medical texts and manuscripts to his home state, donating them to the School of Medicine and forming the nucleus of the Reynolds Historical Library.

See more of the Reynolds World War I photographs at www.uab.edu/archives. Click Digital Collections in the sidebar and scroll down to find the photo link.

Left: Soldiers stand in front of a long line of ambulances as they await inspection.

Right: Patient beds occupy a hallway in the hospital.

Above: Dr. Lawrence Reynolds and a nurse on the rooftop terrace at the American Military Hospital No. 1 in Paris

Above: Soldiers carry a coffin to a cemetery.
Left: A soldier poses in front of a piece of artillery.

Right: Hospital staff and patients in a crowded ward

Left: Three soldiers pose in a trench.

Funny Business

By Charles Buchanan

Students took to the stage of the historic Alabama Theater in March for Skit Night, continuing a School of Medicine tradition that stretches back decades. The 2011 edition, an entertaining mix of comedy, musical acts, dance, and film, was hosted by the Student Senate and the class of 2013 and was sponsored by the Medical Alumni Association and the SOM dean's office. Funds raised at the performance—and through DVD sales—will help create an endowment for Equal Access Birmingham, the student-run non-profit organization that provides free health care to the underserved.

School of Medicine
FOT 1230 • 510 20th Street South
1530 3RD AVE S
BIRMINGHAM AL 35294-3412

Non-Profit Org.
U.S. Postage
PAID
Permit No. 1256
Birmingham, AL

ADDRESS SERVICE REQUESTED

CONTINUING MEDICAL EDUCATION

This is a sampling of the dozens of CME online courses and research opportunities available from the SOM Division of Continuing Medical Education. For a complete listing of all courses and studies, contact the Division of Continuing Medical Education at (205) 934-2687 or (800) UAB-MIST, or visit its Web site at www.cme.uab.edu.

E-Prescribing; sponsored by the Division of Continuing Medical Education; 1 AMA PRA Category 1 credit.

UAB Geriatric Education Center Community Modules: Frailty; sponsored by the Division of Continuing Medical Education; Division of Gerontology, Geriatrics, and Palliative Care; and Center for Aging; 1 AMA PRA Category 1 credit.

Evidence-Based Management of Otitis Media, Sinusitis, and Pharyngitis; sponsored by the Division of Continuing Medical Education; 1 Category 1 AMA credit.

Vitamin D Sufficiency—Assessment and Management; sponsored by the Division of Continuing Medical Education; 1 AMA PRA Category 1 credit.

The Evolution of *Staphylococcus Aureus*; sponsored by the Division of Continuing Medical Education; 1 AMA PRA Category 1 credit.

Physician Wellness: Prevalence and Prevention of Burnout; sponsored by the Division of Continuing Medical Education; 1 AMA PRA Category 1 credit.