Gray Areas
New Challenges for an Aging America
Cover Stories

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Dear Colleagues:

Aging is one of the central facts of life—happening to all of us who are so fortunate. And as the demographics of the American population assure a marked shift in median age, with dramatic increases in the number of our “old old” citizens, the medical profession will struggle to keep up with the accompanying increased requirements for geriatric services. The work of the UAB Center for Aging and the Division of Gerontology, Geriatrics, and Palliative Care, highlighted in this issue of UAB Medicine, represents an important response to the attendant challenges of an aging populace.

Geriatrics is first about patient care of a particularly sophisticated type—requiring teams of caregivers concerned about all aspects of health maintenance and life satisfaction. The physician specializing in care of elderly patients is both a specialist and a generalist, understanding the particulars of aging while maintaining the generalist’s expertise necessary to the care of the whole patient—often with multiple acute and chronic problems (and solutions) that overlap and complicate management. The UAB Center for Aging, however, is about more than improving care of the elderly; it’s also about understanding the fundamental biology of the aging process—and the problems that accompany it. Some problems relate to practical and logistic issues associated with physical decline and are best addressed at the level of the patient and his or her environment. Others address the biological basis of aging per se—presenting problems in cellular and molecular function that may be consequently amenable to cellular and molecular solutions. This issue describes a few of the many approaches that UAB physicians and scientists are taking to understand both the complex processes of aging and the improved management of those processes.

Finally, to effectively deal with the challenges of our aging population, it’s important to recognize the essential role of geriatricians in medical education. Needs for geriatric care currently outstrip the availability of caregivers, and this problem will surely be exacerbated unless we increase the numbers of dedicated physicians and other geriatric team members. Focused attention on geriatric medicine in our revised medical curriculum is one approach to the issue. And there is no more effective role model for young physicians, regardless of personal specialty interests, than a skilled, compassionate geriatrician. Enjoy.

Bob Rick

Top Honor for SOM Specialties

The School of Medicine is one of America’s best graduate schools, according to U.S. News & World Report’s latest rankings. Five specialties ranked in the nation’s top 20—AIDS, 5th; women’s health, 13th; internal medicine, 13th; geriatrics, 16th; and pediatrics, 20th—plus the school ranked 27th overall in research and 34th in primary care. The prestigious annual rankings are based on expert opinions on program quality and statistical indicators measuring the quality of a school’s faculty, research, and students.

A Revealing Look at the Brain

New technology and a new laboratory are giving UAB scientists a high-tech look at conditions such as autism, neurodevelopmental diseases, Alzheimer’s disease, Parkinson’s disease, and schizophrenia. Reserved for neuroscience research, the 3T (tesla) head-only fMRI (functional magnetic resonance imaging) scanner will provide scientists with detailed images of brain activity in response to stimulation; it is part of the new UAB Functional Neuroimaging Laboratory led by Shastry Akella, Ph.D. Harald Sontheimer, Ph.D., director of the Civitan International Research Center, says the new fMRI is one of only about 12 head-only 3T scanners nationwide.

New Director for Cancer Center

Edward Partridge, M.D., a UAB expert in gynecological cancer, has been named director of UAB’s Comprehensive Cancer Center. An SOM alumnus, Partridge is known for leading the Deep South Network for Cancer Control—a community-based education and prevention program—and a partnership with Morehouse School of Medicine and Tuskegee University to enhance cancer health disparity research. Partridge says he hopes to “positively impact the health of Alabamians” and help health care providers as “we strive to find improved ways to prevent, detect early, and treat cancer.”
Cancer Center Expansion Begins

UAB has broken ground on a facility that could break new ground in cancer treatment. Construction is now underway on the Haz尔rig-Salter Radiation Oncology Facility, a 50,000-square-foot building designed to accommodate the newest treatment technologies in a patient-friendly environment. Linked by overhead walkway to UAB Hospital, located across the street, the $22.5-million facility will also include a special waiting area for pediatric patients along with green space—the James Limbaugh Family Park of Hope—at its front door. Completion is expected in 2008.

Travelers Clinic Takes Off

Condé Nast Traveler magazine has ranked UAB’s Travelers’ Clinic among the best in the U.S. The high honor puts a national spotlight on the UAB clinic, the largest travel/tropical medicine clinic in Alabama; it also serves parts of Mississippi and Tennessee. Director David Freedman, M.D., says the clinic keeps up with disease situations in more than 230 countries and offers personalized pre- and post-travel consultations with a specialist, all CDC/WHO-recommended immunizations and medications, a 24-hour on-call service for patients, and a full on-site parasitology laboratory.

Surgery Program Scores Key Accreditation

UAB Hospital’s weight-loss surgery program has gained a key designation, becoming Alabama’s first Level 1A Bariatric Center of Excellence. The honor, the highest available level of accreditation offered by the American College of Surgeons (ACS), brings UAB into the ACS Bariatric Surgery Network Program, which currently consists of fewer than 30 institutions nationwide. Ronald Clements, M.D., director of the UAB bariatrics program, says the designation “tells the public and the professional community that we have met extremely high standards for physical resources, human resources, clinical standards, surgeon credentialing standards, data reporting standards, and verification/approvals processes.”

Blazing Trails in TS

A rare genetic disease is getting full attention from UAB physicians, who recently opened the first clinic in the Southeast to treat it. Tuberous sclerosis (TS), which causes tumors to form in different organs, affects an estimated 50,000 Americans. The multidisciplinary clinic, operated in collaboration with Children’s Hospital, will serve patients from Alabama, Arkansas, Louisiana, and Mississippi. “Because TS is a lifelong condition and can affect multiple family members and generations, we have structured the clinic to provide services throughout an individual’s life,” says Martina Bebin, M.D., clinic director and UAB associate professor of neurology.

Earning Points for Productivity

The SOM’s Department of Pharmacology and Toxicology ranks fifth in the nation in scholarly productivity, says Academic Analytics, which annually rates faculty output in more than 7,000 doctoral programs across the country. The report, published in The Chronicle of Higher Education, ordered its list by counting the books, journal articles, citations, federal-grant dollars, and honors and awards each faculty member produced in 2005. In the UAB toxicology doctoral program, 93 percent of faculty members produced peer-reviewed journal publications, and 53 percent earned new grant awards.

Student Wins National Research Awards

Kevin Nash took the triple crown at this year’s Medical Student National Research Forum in Galveston, Texas. A student in the Medical Scientist Training Program in the SOM’s Department of Microbiology, he won the Edwards S. Reynolds Memorial Award, which highlights excellence in pathology research; the UTMB Cancer Center Award for Oncologic Research, recognizing the best oral in the oncology category; and the AMA Award for Overall Excellence of Research, the conference’s top award. Nash won his trip to Texas through the SOM’s Medical Student Research Day competition last fall.

Making the Match

Match Day was a good day—for both the class of 2007 and the School of Medicine. On March 15, 97 percent of UAB’s 155 graduates matched to a residency position, topping the national average of 94 percent. The future residents will go to 65 hospitals in 27 states and the District of Columbia, with 43 percent remaining in Alabama. Top fields for residency training include primary care (internal medicine, family practice, pediatrics, obstetrics/gynecology) and surgery.
Landmark Findings about Memory Formation

UAB researchers have made a memorable discovery about memory formation, revealing the key role of a chemical reaction in cell DNA that was thought to be involved only in embryonic cell development and differentiation.

David Sweatt, Ph.D., UAB neurobiology chair, director of UAB’s Evelyn F. McKnight Brain Institute, and the lead author of the NIH-funded study, says that cells use gene methylation to determine the type of cell they will become, but instead of ending at the development stage, the process continues throughout life. “Our research is the first to show that DNA methylation also takes place in the neurons of adult brains in response to life experiences, allowing for memory formation based on learned behavior,” Sweatt explains. The findings, published in the journal Neuron, could lead to new therapies to boost memory function, and the research may shed new light on schizophrenia and other psychiatric disorders.

Body Composition Controls Cancer Risks

Body composition—being lean rather than obese—is the key to reducing cancer risks, say UAB researchers. In a study of transgenic mice predisposed to prostate cancer, lean animals had a much slower progression of the disease than heavier mice, suggesting that how the body handles calories is more important in controlling cancer risks than the number of calories consumed. Principal investigator and UAB nutrition sciences professor Tim Nagy, Ph.D., says the findings, published in Cancer Research, could have strong implications for preventing and treating cancer in humans. The study was supported by the National Cancer Institute.

A Patch for Parkinson’s Disease

A new drug and a new method to deliver it may significantly improve symptoms of Parkinson’s disease (PD). According to Ray Watts, M.D., UAB neurology chair and principal investigator on the multicenter study, rotigotine is both safe and effective; it is a dopamine agonist, mimicking the action of dopamine in the brain and compensating for the shortage of the neurotransmitter in the brains of PD patients. Additionally, rotigotine is delivered through a patch on the skin, allowing for “continuous delivery of the therapy, which avoids the abrupt ‘off’ state that can occur with other therapies,” says Watts. The findings appeared in the online edition of the journal Neurology.

Connecting Medical Training and Treatment

UAB has become a pioneer in adapting graduate medical training to speed the translation of basic science discoveries into new patient treatments. Supported by a $650,000 Howard Hughes Medical Institute award, the SOM, UAB’s schools of Health Professions and Public Health, and Southern Research Institute are collaborating to increase the number of physician-scientists and Ph.D. graduates who understand disease processes. Thomas Clemens, Ph.D., program director and head of UAB’s Division of Molecular and Cellular Pathology, plans to pair postgraduate fellows with mentors conducting cutting-edge, disease-based research and introduce the students to patient-oriented case-based topics, clinical research vocabulary, and an understanding of drug discovery. UAB is one of only 13 institutions nationwide—and the only one in the Deep South—to receive the HHMI grant.

Building Bone Density

UAB scientists have learned how to build bone density in mice, a discovery that could eventually lead to new treatments for osteoporosis and bone fracture in humans. Thomas Clemens, Ph.D., director of UAB’s Division of Molecular and Cellular Pathology, says he and his colleagues devised a way to manipulate the Pten gene, which suppresses tumors by contributing to the processes that cause cells to die. When they disrupted the gene in mice, they saw dramatic and increasing bone density. “Osteoblast cells survived longer and continued to make new bone long after they ordinarily would have died,” Clemens says. He adds that the research, sponsored by the NIH and published in the Proceedings of the National Academy of Sciences, is in its early stages; human treatments won’t be possible until scientists learn how to turn off Pten only in bone-making cells, since it is necessary for killing out-of-control cell lines.

Surviving Lung Cancer: Men vs. Women

The first study to use surgery, CT, and PET scans to accurately stage non-small-cell lung cancer has shed new light on survival. In the journal Chest, UAB scientists report that for certain types of lung cancer, women appear to have significantly better five-year survival rates than men—whether they were diagnosed at stages I, II, or III. Robert Cerfolio, M.D., UAB chief of thoracic surgery and the study’s designer and lead author, says that the possible causes for the difference “include biologic, hormonal, and molecular factors that differ between genders,” suggesting further research to understand those mechanisms. Lung cancer is the leading cause of cancer deaths in America.
Nighttime Heartburn a Serious Symptom

Heartburn and acid regurgitation that don't take a rest at night could signal a serious version of gastroesophageal reflux disease (GERD), says Lawrence Johnson, M.D., director of UAB Hospital's high-volume Gastrointestinal Laboratory. In a recent study presented to the American College of Gastroenterology, Johnson found that the odds of having severe GERD were eight times greater for patients with nocturnal symptoms. Overall, 14 to 20 percent of Americans have some form of GERD, and heartburn and regurgitation occur in 70 percent of those patients.

Faculty News

Oh Appointed Distinguished Professor

Shin Oh, M.D., is an internationally known clinician, researcher, author, and educator—and now he has been named a distinguished professor at UAB. A member of the faculty since 1970, Oh is professor of neurology and pathology and director of the Division of Neuromuscular Disease in the Department of Neurology; he also oversees UAB Hospital's muscle/nerve histopathology laboratory. In addition, he has written four textbooks on neuromuscular disease diagnosis.

McDonald Earns Endowed Pathology Chair

Jay McDonald, M.D., is a renowned expert on the role of calcium and calmodulin as an intracellular signal transducer, focusing on diabetes, bone disease, cancer, and AIDS pathogenesis. He has recently acquired a new role for himself, as the Robert and Ruth Anderson Endowed Chair in Pathology. McDonald also chairs the UAB pathology department and directs the universitywide interdisciplinary Center for Metabolic Bone Disease, one of five National Institutes of Health-funded centers in the country.

Naftel Named to Cardiovascular Research Chair

Widely known as an expert in outcomes research, David Naftel, Ph.D., has been named Cardiovascular Surgical Research Chair in UAB's Division of Cardiovascular and Thoracic Surgery. Naftel, already a professor of surgery at UAB, focuses on outcomes in heart transplantation, and his work has influenced research studies, databases, and standards of care nationwide.

Roberts Named Psychiatric Research Chair

One of UAB's newest medical experts has been appointed to the Kathy Ireland Endowed Chair for Psychiatric Research. Rosalinda Roberts, Ph.D., recently recruited from the University of Maryland School of Medicine, is an internationally recognized figure in schizophrenia research. She serves as a professor of psychiatry at UAB.

Rue Recognized as Surgery Chair

Loring Rue III, M.D., is a national authority on trauma and burn care—and a leader in the field at UAB. He was recently appointed to the John H. Blue Chair of General Surgery, adding to his key roles as chief of the Section of Trauma, Burns, and Surgical Critical Care in the Division of General Surgery and director of the UAB Center for Injury Sciences. He also serves as the surgery department's vice chair for clinical affairs.

Scarinci Honored for Community Outreach

Isabel Scarinci, Ph.D., has won UAB's Odessa Woolfolk Community Service Award—as a result of bringing attention to underserved people in communities across Alabama. A UAB associate professor of medicine and part of the Minority Health and Research Center, Scarinci uses behavioral science to motivate people to take responsibility for their health. She has developed a network of Latino and African-American community health advisors to promote disease prevention, healthy behaviors, and health resource development; she also established a program to provide breast and cervical cancer screenings and treatment for Hispanic women.

Meador-Woodruff Wins Mentoring Honor

James Meador-Woodruff, M.D., is known for his research on the neurochemical circuitry and gene expression of schizophrenia—but he has also earned national recognition for his work as a mentor. He recently received the prestigious Kempf Fund Award from the American Psychiatric Institute for Research and Education, which spotlights significant contributions to schizophrenia research through both scientific work and mentoring. Meador-Woodruff, chair of UAB's psychiatry and behavioral neurobiology department, mentors Robert McCallumsmith, M.D., Ph.D., who is examining the expression and function of glutamate transporters in corticothalamic circuitry in schizophrenia.

Korf Elected National Genetics Leader

Already a leader in the field of genetics, Bruce Korf, M.D., Ph.D., has taken a leading role in the American College of Medical Genetics. The organization of 1,400 geneticists recently voted him president-elect. After serving in that position for two years, he will assume the presidency in 2009. At UAB, Korf is professor and chair of the Department of Genetics.
The future, it seems, looks a lot like Florida. About 18 percent of the Sunshine State's population is 65 and older, according to the Census Bureau, and by 2030 the entire United States will surpass those figures, with a predicted geriatric population of 20 percent, or 73 million. It will be the age of aging—the heyday of gray—when baby boomers have become senior citizens and medical advances lead to longer lives. But as America grows older, it faces a growing problem: finding enough geriatricians to care for everyone.
It's sometimes said that geriatrics is not rocket science—and that's both a problem and advantage. Across the country, medical students and residents bypass it for “superspecialties” promising high-tech treatments, high-profile careers, and high pay, resulting in a shortage of geriatricians. But physicians who do enter the field soon discover the benefits of its big-picture approach to medicine, which emphasizes compassion and quality of life over cures and treating the whole patient instead of focusing on specific diseases.

“It’s stepping back and looking at the patient through a different set of glasses,” says UAB geriatrician Kellie Flood, M.D. Specialists in the field focus on each patient’s overall functional status, managing the multiple “geriatric syndromes”—chronic conditions ranging from arthritis and balance problems to diabetes and memory loss—that impact daily life and complicate acute illnesses.

“It’s utilizing the best standards of care for each organ system while paying attention to the patient’s geriatric issues and their goals and expectations,” says Flood. “We ask, ‘Is this patient’s goal to have an ejection fraction of 40 percent, or is it to be able to go to their grandson’s graduation? And how do we make that happen?’ Because if we get their ejection fraction up to 40 percent, but to do that, their blood pressure is 80, and they fall over every time they stand up, then they can’t go to their grandson’s graduation.”

The clinical challenges don’t end there. Elderly patients are often frail. They’re already taking several medicines and are more vulnerable to side effects. Their memories may not be what they used to be. They may not have a support network of family and friends. And often they won’t tell a doctor about their symptoms, believing they’re a natural part of aging—or, in the case of incontinence or depression, simply something you don’t discuss in public.

That’s a lot to consider, and it’s why interdisciplinary care is “essential,” says Kathryn Burgio, Ph.D., director of UAB’s Continence Program. She, along with Flood and 40 other physicians and scientists, is part of a comprehensive team in the UAB Division of Gerontology, Geriatrics, and Palliative Care working to enhance lives as they lengthen. “The care is coordinated,” explains Burgio. “We have managed to bring together a number of disciplines to communicate on a daily basis about what treatments we’re offering and what’s best for the patient.”

**Stop, Look, and Listen**

Most UAB geriatricians begin those treatments by doing nothing—and simply listening to their patients. “You have to keep your eyes open and apply simple medicine you learned in your first and second years of medical school,” says associate professor Ali Ahmed, M.D., who specializes in treating heart failure in older adults. He recalls an octogenarian patient who frequently visited the emergency room for dizziness and breathing problems, followed by hospitalizations and invasive tests. When she finally visited Ahmed’s geriatric heart failure clinic, she told him she had recently lost her husband of 50 years, sold her home, and moved to a new city to be close to her children. Ahmed realized that the source of the symptoms wasn’t physical, but emotional. The major life-changing events had led to depression, but the patient was not aware of it. After he treated her depression, “all her symptoms got completely better,” Ahmed says.

Burgio says that listening is the key to success in diagnosing and treating incontinence, which has many potential triggers and many potential solutions. You have to “really understand the exact condition the person has so that you can rule out some of the easily reversible causes,” including bladder infections and caffeine sensitivity, she says. “Are they leaking urine because the bladder is spasming when it shouldn’t? Are they losing control over bladder function? Or is it that they have a weak pelvic floor, where the opening to the bladder doesn’t stay closed tightly enough? If we understand the mechanism, we can figure out the best interventions.”

Daniel Marson, J.D., Ph.D., director of UAB’s neuropsychology division, which includes a geriatric clinic, adds that patience keeps his team from jumping to conclusions. “There are many reasons why an older adult might experience memory loss” aside from Alzheimer’s disease, he says. “They often present with a number of different issues that have to be sorted out.”

Flood agrees that a little extra time listening to geriatric patients can make a major difference. “It may take longer to get information,” she says. “But if you allow them to tell their story, you will get the information you need. And if they have memory impairment, you have to get the history from the family.” What she learns often leads her to prescribe nonpharmacological remedies, helping patients avoid the extra costs and side effects of additional medications.

**Medical Care without the Medicine**

These are the types of solutions geriatricians often prefer, because they are safe and effective without being invasive. “Many older patients are in a delicate balance, so we want to intervene as little as we can,” says Burgio. Consequently, UAB’s geriatrics specialists offer an arsenal of nonpharmacological options. For incontinence, which impacts a third of older adults, particularly women, Burgio says behavioral interventions have high rates of success. “We spend a lot of time teaching patients where their pelvic floor muscles are, how to contract them, how to exercise and strengthen them, and how to use them when they have an urge to go to the bathroom,” she explains. “We’ll have them keep a bladder diary so that we can become aware of what situations cause them difficulty, and we teach them what to do in those situations—how to contract those muscles to close the door of the bladder.” Instead of prescribing new medications, Burgio and her colleagues sometimes adjust the drugs patients take for other conditions, which may be prompting bladder-control problems.

Marson helps aging patients try to reduce their risk “or perhaps the timeline” for developing Alzheimer’s disease by promoting a healthy heart and brain. “We know that cerebrovascular and cardiovascular disease seem to accelerate the onset of Alzheimer’s disease,” he says. “Another thing that’s important is to engage in cognitively stimulating activities during your life—a hobby, playing a

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“You have to keep your eyes open and apply simple medicine you learned in your first and second years of medical school.” — Ali Ahmed
musical instrument, or playing card games with friends can all cumulatively reduce risk later on.

Ahmed says patients who have heart failure caused by hypertension, heart attacks, or valvular disease can help prevent further damage with proper therapy for those underlying causes and simple education. "I have a heart-failure patient who told me he did not know he needed to restrict his salt or fluid intake," he says. "Another patient who was chronically nonadherent to his blood-thinner medicine started religiously taking it once he learned its importance."

Two-Part Treatments

When older patients do require more extensive treatment, the approach often comes down to a two-pronged strategy: make patients feel good and help them live longer. "When you have constant fatigue and shortness of breath when you try to do usual things at home, such as walking to the restroom, that really affects quality of life and the psyche," Ahmed says. He first helps patients reduce the extra fluid building up in their bodies with medicine and education; then he prescribes other medications that help extend their lives. It's important to stabilize patients first because "if they are not feeling well, they may not use this medicine."

Innovative medications are beginning to help Marson and his colleagues as well. "For people who have developed significant memory loss, we now have a first generation of medications called cholinesterase inhibitors, including one by the name of Memantine," Marson says. "But these have modest efficacy in Alzheimer's and a condition called mild cognitive impairment, which is a transitional state to Alzheimer's."

We're a lot further along than we were 15 years ago, but we have a long way to go in terms of therapeutic interventions." And the need for them is growing fast: Marson says that by the middle of the century, America will see a threefold increase in the number of patients with Alzheimer's.

As for surgical solutions, elderly patients "should not be excluded just because they are old," says Burgio. "But it does introduce a higher level of risk." Women who don't respond to behavioral interventions for incontinence often find relief with a sling that supports the urethra, lifting it into proper position and preventing leakage during coughing or sneezing. For men, who most often experience incontinence after prostate removal, an artificial sphincter is an option.

Rethinking the Hospital

When surgery is prescribed, hospitalization provides a new set of challenges for elderly patients, who don't leave their geriatric syndromes at home—and run the risk of developing more in the hospital, says Flood. Put an older patient in bed, and "they lose functional status very quickly—some within 24 hours," she explains. After a few days of that, "a large percent of these patients can't go back home—they have to go to rehab or a nursing home. We have to keep patients as mobile as they can possibly be in the hospital." Also, the extra medications they receive can cause problems, including grogginess and falls. And some elderly patients, who may already be malnourished, must deal with the hospital's restricted diets and forced fasting before tests. "It doesn't take a lot for these older patients to develop a downhill spiral," says Flood. "We may fix their pneumonia, but all these other things may have happened to them, and then they're actually worse off when they leave than when they came in."

To address those problems, Flood is directing the development of an Acute Care for Elders (ACE) Unit at UAB Hospital. Planned to open in 2008 as a 15-bed inpatient unit, the ACE Unit will "make life easier" for patients as well as the doctors and nurses caring for them. Last year, 1,160 of UAB Hospital's general medicine patients were 75 years or age or older, and Flood explains that the future unit will provide patients like them with an interdisciplinary team approach; while their physicians treat their pneumonia or heart failure, an "extra layer of care" will focus on their geriatric syndromes from admission through discharge and transition of care.

Led by a geriatrician, these teams typically include a gerontological nurse specialist, physical and occupational therapists, nutritionists, social workers, pharmacists, and others who develop care plans to help physicians manage or prevent geriatric issues. "And when you do that every single day, you can intercept a lot of problems," Flood says.

ACE units also feature a different look and feel from the rest of the hospital. "A typical unit is a very geriatric-friendly floor," designed to promote mobility and cognitive stimulation, Flood notes. Areas are set aside for activity therapy and to

"The care is coordinated. We have managed to bring together a number of disciplines to communicate on a daily basis about what treatments we're offering and what's best for the patient." — Kathryn Burgio
encourage patients to interact, and meals are served at tables so that patients get to move out of their beds. Flood and her colleagues also plan to develop a walking program to help patients stay active and a nonpharmacologic sleep protocol to reduce medication use.

The approach has been successful worldwide. Surveys have shown that ACE patients have better functional status when they leave the hospital and are less likely to go to nursing homes or take high-risk medication. They’re more satisfied with their care and “bounce back” into the hospital less often than other patients. One study even showed reduced mortality following their stay. Flood hopes UAB’s ACE Unit will set an example. “We want to study every intervention that we do and demonstrate what works so that other people can implement it at their institutions.”

Caring for Illnesses without End

When illnesses advance to the point where they severely limit or threaten life, patients and physicians can turn to UAB’s strong clinical programs in palliative care, which include consultation services, an outpatient clinic, two homelike inpatient care units at UAB Hospital and the Birmingham Veterans Affairs Medical Center, and a home-based program. Christine Ritchie, M.D., director of UAB’s Center for Palliative Care, says many of their patients suffer from cancer or advanced organ failure, as well as other conditions that complicate care. “And we’re seeing more patients with a number of different conditions together causing significant problems, leading to poor nutrition and functional change and loss of muscle mass.”

Not all palliative care patients are elderly; Ritchie and Rodney Tucker, M.D., the medical director of the UAB Hospital unit, estimate that about half the population in the UAB Hospital unit is considered geriatric. But Ritchie sees a “natural intersection” between geriatrics and palliative care, since both fields focus on symptom management and quality of life and employ an interdisciplinary approach. In addition to Ritchie, who is a geriatrician, UAB’s palliative-care team includes nine physicians (including four others trained in geriatrics), nurses, psychologists, counselors, pastoral care staff—and even art, music, and pet therapists.

Tucker says palliative care addresses “the four domains of suffering: physical, emotional, psychological, and spiritual,” and services can shift to meet the changing needs of the patient and his or her family. A cancer patient undergoing treatment, Tucker explains, might need care for a high physical symptom burden at first, but later, as he becomes a survivor, he might develop more psychological symptoms from a feeling of anxiety that the disease will return. Care can last for years, since life-limiting illnesses aren’t necessarily end-stage illnesses. Tucker cites the example of HIV patients: “Just 20 years ago, HIV was a young person’s disease. In the next 10 years, you’re going to have your first patients moving into their 60s with a life-threatening illness that has become a chronic illness like diabetes.” Ritchie sees emerging technologies as key tools for providing coordinated palliative and geriatric care—and helping patients stay as independent as possible. She plans to develop programs using telemonitoring, Web-based interactive support, or perhaps even handheld digital devices to support patients with complicated medical issues.

Though elderly patients present many challenges and complications, UAB’s geriatricians find them inspiring. “We learn a lot about the beauty and pain that life brings by listening to and learning from our older patients,” says Ritchie. “They invite you to walk into their history. There’s always important lessons that come from that.”
Outer Limits

Explorers on Aging’s New Frontiers

By Matt Windsor

Have you heard the one about the elderly patient and his doctor? The patient says, “Doc, I’ve been golfing, and my right knee hurts.” The doctor says, “What do you expect? It’s 85 years old.” And the man replies, “So is my other knee, and it’s fine!”

As a geriatric researcher and advocate for the elderly, Richard Allman, M.D., loves this joke. “It makes the point that aging isn’t a disease,” he says. “The man’s knee doesn’t hurt because he’s old; it hurts because there is something wrong with the bone, or the cartilage, or the joint—and you might be able to fix it.”

Since 1900, medical advances have boosted the average American’s life expectancy from 45 into the high 70s and beyond. “There are people in their 90s going to work every day,” Allman says. But as we climb into uncharted territory, we’re only beginning to understand what happens to a body during a century on Earth: Muscles disappear, memory fails, and conditions such as heart disease, Alzheimer’s, and diabetes run rampant.

The rise in life expectancy has happened so fast that physicians don’t know enough about these new populations to figure out how to help them. In the words of Allman’s colleague Andrew Duxbury, M.D., “What we know about the physiology of a healthy 90-year-old can fit on the head of a pin.”

UAB’s Center for Aging is turning that pinhead into a beachhead. As director of the center and the Division of Gerontology, Geriatrics, and Palliative Care, Allman leads more than 185 faculty members with research interests ranging from incontinence to cell senescence. Their work is aggressively translational and squarely pragmatic—designed to quickly jump from lab to clinic to living room.

New Hope for Old Problems

Not all research begins in a lab, of course. Since 1999, Allman’s own work has focused on the UAB Study of Aging, which enrolled 1,000 older adults in rural and urban counties around Birmingham, divided equally between race and gender. Participants were initially surveyed on baseline socioeconomic, health, emotional, and cognitive status, with changes tracked every six months.

The study’s goal is to understand how aging impacts independent mobility—or “life-space”—which is an important aspect of quality of life. Results so far offer valuable lessons, explains Allman. Specific diseases, such as diabetes, have been shown to be key predictors of life-space decline—as have depression, low levels of cognitive function, and lack of transportation. This data will help tailor programs for the elderly to have maximum impact.

The Study of Aging has also identified 10 symptoms leading to life-space decline that are easily overlooked during doctor visits—embarrassing or seemingly inconsequential signs such as loss of appetite, incontinence, pain, and unsteadiness. “These are things we would consider geriatric syndromes,” Allman says. “Many of them, if identified, can be treated and prevented.”

Muscle Man

One way to prevent and even reverse life-space decline is regular physical activity. Walking is usually recommended, but Center for Aging scientist Marcas Bamman, Ph.D., says an appropriate weight-training regimen can help older adults maintain mobility, raise levels of good cholesterol in the blood, and improve bone density and normalize blood glucose.

As our bodies age, we lose muscle mass, reducing strength and power, which, along with a consequent loss of bone mass, causes unsteadiness, falls, and fractures. It’s a growing concern as people live longer, Bamman says. “When you’re 78 years old, losing 40 percent of your limb muscle is a real problem.”

His lab attacks this problem at all levels. Earlier studies proved that weight training is the best way to rebuild muscle in older adults, though the process is not as efficient as it is for younger people. That led Bamman to explore molecular changes in aging muscle, focusing on the components necessary to bulk up: new proteins and additional nuclei for the expanding cells. He says the solution appears to be in helping muscle cells recruit the extra nuclei they need to grow. Bamman also suspects the three-times-a-week training regimen for adults is too frequent to allow older bodies to recover; he is now conducting trials to determine the optimum routine for seniors.

Free and Clear

Like Bamman, investigators in the Center for Aging’s Atherosclerosis Research Unit (ARU) move from proteins to patients and back. Atherosclerosis is a leading contributor
to heart disease—the number-one cause of death for all geriatric patients—as well as stroke and even Alzheimer’s disease. But ARU scientists may be approaching several breakthroughs.

Most people are aware of cholesterol’s good and bad carriers: high- and low-density lipoprotein (HDL and LDL). Yet even atherosclerosis researchers don’t fully understand what HDL and LDL do as they ferry lipids out of the bloodstream. Statins, the widely prescribed class of cholesterol-lowering drugs, effectively reduce LDL levels, but “they probably only prevent half of heart disease, and that’s where HDL comes in,” says ARU director Jere Segrest, M.D., Ph.D.

More than 30 years ago, he discovered HDL’s elemental secret; to get water-hating fats to move through water-based blood plasma, it folds into a unique shape called the amphipathic helix.

Segrest, who also directs UAB’s Center for Computational and Structural Biology, specializes in unraveling the auto-origami of body proteins, which can morph into a dizzying array of shapes. “If you know a protein’s structure, you have the possibility of figuring out exactly how it interacts with other molecules,” Segrest explains. “Then you can design drugs to accelerate it, slow it down, or whatever else you want to do.”

Good Cholesterol Made Better

Building on Segrest’s discovery, ARU scientists G.M. Anantharamaiah, Ph.D., and David Garber, Ph.D., have designed two potentially revolutionary HDL-mimicking drugs. Oral HDL, a peptide developed with a UCLA research team and currently in phase-2 trials, has been shown to inhibit atherosclerosis, and animal tests suggest it could also correct several lipid-associated disorders—inhibiting Alzheimer’s disease and the flu virus, reducing inflammation, and improving cognitive function. “And we have shown that if you mix Oral HDL with statins, you can actually regress atherosclerosis in mice,” Anantharamaiah says. More recently, he and colleagues produced a second peptide that can lower plasma cholesterol levels by staggering margins and reduce lesions associated with lipid buildup in the arteries; laboratory tests are ongoing.

Other ARU scientists have proved that cholesterol is not just a heart problem. Researcher Ling Li, Ph.D., has demonstrated that a high-cholesterol diet and genetic hypercholesterolemia tend to exacerbate Alzheimer’s disease development in mice. But her early studies also show that statins can prevent Alzheimer’s disease and restore lost cognitive function. Even more significant, the same neuroprotective and neurorestorative effects were found in aging mice. “That means that statins may not only be useful in disease situations, but also in normal aging,” says Li. She is now trying to decipher what cellular or molecular mechanism produces these effects.

Li tests many of her hypotheses using computer simulations designed by Segrest. His detailed models rely on trillions of calculations to accurately reproduce the chaos of the human bloodstream, fully taxing UAB’s array of high-performance computers. But the university’s processing power recently jumped when Segrest and other researchers acquired the IBM Blue Gene computer cluster, which he says is among the world’s fastest machines.

Supercomputer modeling is a long way from house-to-house surveys, but Allman notes the Center for Aging must pursue every option. “There’s a lot to learn,” he says. “We know much more now than we did 10 years ago, but it’s much more important today—because 10 years from now, a flood of people will wash up in every doctor’s waiting room in America. And I’ll be there, so they better know how to take care of me!”

Incubator for Investigators

The next great innovation in aging research may already be at UAB. That’s why Center for Aging director Richard Allman, M.D., invests much of his time in mentoring junior faculty members and helping them start their own research careers. He is also co-director of the Southeast Center for Excellence in Geriatric Medicine, a joint project with Emory University that provides pilot grants, salary support, and encouraging ears to junior faculty and senior fellows committed to academic careers in geriatrics. Allman notes this investment has paid amazing dividends—offering a return of more than 1,000 percent. “Our funding since 1998 has been $2.3 million,” he says, “and with that our trainees and faculty have generated $36.7 million in external support.”

Online Extras:

Hear Richard Allman describe the joys of geriatrics and get his take on the anti-aging movement. Plus, read exclusive articles about the connection between muscle loss and diabetes, the secret lives of cholesterol particles, the magic of computer modeling, and a possible link between sodas and Alzheimer’s disease. www.uab.edu/ucasom
Picture yourself outside a windowless room. You face three switches, each connected to a lightbulb inside the room. If you can enter the room only once, how could you determine which switch activates which bulb?

Stumped? Ask a geriatrician. “Geriatrics is all about creative solutions to unsolvable problems,” says Andrew Duxbury, M.D. “The kind of people who love doing these weird lateral-thinking puzzles do very well in geriatrics.”

Duxbury, an associate professor in UAB’s Division of Gerontology, Geriatrics, and Palliative Care, spends much time thinking about how to attract future physicians to his specialty. He gives witty lectures on elder care to incoming students, teaches basic techniques of the trade to first-years, and offers his decades of experience to one and all. But he cheerfully admits that “the joys of the field are not readily apparent”—disease burdens are high, reimbursements are low, and the cachet in medicine’s subspecialty cliques is practically nonexistent.

Instead, Duxbury tells students, they’ll savor the thrill of successful improvisation and earn the rarest of rewards: self-fulfillment. In a 2002 Archives of Internal Medicine survey, geriatricians had the highest job satisfaction rating of any specialists.

Wash and Learn

One day when he was a second-year fellow, Duxbury was in the clinic when a concerned family brought in their beloved but “fairly significantly demented” matriarch. She was a vital part of their home, they explained, but she was also driving them crazy. “Grandma loved to do the laundry, but Grandma’s version of doing the laundry was to pick up every piece of cloth in the house that wasn’t nailed down and throw it in the washer with an entire box of Tide,” Duxbury recalls. “She had already ruined everyone’s clothes and flooded the laundry room three times; the family said, ‘Doc, you’ve got to help us!’

“I could have said, ‘Put Grandma in a home,’ but no one wanted that,” Duxbury continues. “I could have said, ‘Put a padlock on the laundry room,’ but that wouldn’t have helped Grandma in terms of her need to feel needed, which is one of the most basic human desires.” His solution to this real-world lateral thinking puzzle: Keep the detergent and clothes out of sight, replace

“I read the book, and I was so intrigued,” recalls Schell, who is completing her second year of residency at Johns Hopkins University and preparing for a fellowship in geriatric nephrology at Duke University. “I felt like I wanted to meet these people and figure out the secrets of why they were living so long, with such good quality of life.”

Before she entered medical school or even considered a practice in gerontology, 2005 School of Medicine alumna Jane Schell encountered a book that helped shape the course of her career. Titled The Okinawa Program, the book stems from the ongoing Okinawa Centenarian Study, which tracks the lifestyle habits of the Japanese island’s elderly population—known for its exceptional health and longevity.

“Now, I can guarantee that you can go through an entire shelf of medical textbooks and not find a solution to that one,” he says with a laugh. “But I had about three minutes to give them something—because that’s why we’re here . . . to figure out a solution.
“Anybody going into a primary care discipline these days is going to spend at least half their time with the geriatric population.” — Andrew Duxbury

By Rosalind S. Fournier

we wanted to figure out if Okinawans have a better life-space than Americans, as we would assume. And they did, but when it came down to figuring out the individual components of what makes them healthier, our study wasn’t large enough. But it was a great opportunity, and we presented the data in a couple of geriatric conferences last year.

Not surprisingly, by the time Schell began her residency at Johns Hopkins, she was fully committed to geriatrics—which, among her fellow first-year residents, put her in a minority of one. “A lot of aspects of geriatrics are not quite appealing to young doctors,” Schell acknowledges. “They’re ready to diagnose and treat. A lot of times with older folks, you’re not going to cure. You’re basically going to stabilize and try to improve their quality of life. So if you have that kind of mindset and those kinds of goals in your care, then geriatrics is the field for you.”

For Schell, geriatrics also represents an opportunity to employ a multifaceted treatment approach. “You have to think broadly about the patients,” she says. “Oftentimes you’re dealing with family members and different sorts of issues, such as home status, function status, and psychological status, that are outside the realm of the medical problem but might indirectly affect it.” Her experience studying life-space, she adds, is still fresh on her mind as she watches patients for signs of declining strength and mobility.

Meanwhile, Schell says she’s met many other patients are and what kinds of lives they lead,” he argues. “There is probably not a whole lot of difference between a 65-year-old who can run a marathon and an 85-year-old who can run a marathon—and there are a few of them out there who can do it. But there’s a huge difference between a 75-year-old who lives in a nursing home and the 75-year-old who is in front of you on the freeway in a Winnebago. Anybody going into a primary care discipline these days is going to spend at least half their time with the geriatric population. That’s just a simple demographic fact.”

Medical students are responding to these statistical trends. Attendance at the SOM’s geriatric student interest group meetings has climbed in recent years. This is partly because participants get supplemental lectures on topics not covered in the standard curriculum. But it is also because they hear from veterans like Duxbury, who share frontline observations that can elude even most practicing physicians—such as the fact that nighttime cold medications can trigger sudden Alzheimer-like symptoms in seniors.

Not everyone is suited to geriatrics, Duxbury notes. Teamwork and listening skills are essential. So is the temperament to be a generalist in a specialist’s world. “There are people who are much more comfortable knowing everything they can possibly know about a narrow area, and then there are people who are more comfortable knowing a little bit about a much wider area,” he explains. “That’s where geriatrics comes in. It envelops lots of areas at once.” In other words, in an age dominated by subspecialties, students have another option, says Duxbury: “We’re a supraspecialty.”

The trouble is, most medical students don’t get an accurate picture of that balance unless they have elderly relatives, says Duxbury. “Because the majority of the time a medical student spends in training is in the inpatient setting, they only see the very sick and the very frail,” he notes. “They think that’s what being 85 is all about.”

This year, the School of Medicine added a geriatric component to the Introduction to Clinical Medicine course. The program will match first-year students with vibrant, healthy elders in the community so the students can interview them about their interactions with the health-care system and their perceptions of their health-care needs.

This is invaluable experience, whether or not students plan to specialize in geriatrics, Duxbury says. “It is not possible to be a really good physician, particularly on the outpatient basis, without some understanding of who your patients are and what kinds of lives they lead.”

Tipping the Scales

To be a good geriatrician, you have to combine right-brain insight with the very scientific left-brain thinking you learn in medical school,” Duxbury explains. “What we really deal with in geriatrics is an imbalance between the reality of who a patient is now, with their chronic disease burden, and the life that they have designed for themselves over many decades. So treatment needs to happen in such a way that balance can be restored.”

By the time Schell began her residency at Johns Hopkins, she was fully committed to geriatrics—which, among her fellow first-year residents, put her in a minority of one. “A lot of aspects of geriatrics are not quite appealing to young doctors,” Schell acknowledges. “They’re ready to diagnose and treat. A lot of times with older folks, you’re not going to

them with powdered milk and secondhand towels, and let a proud woman continue to feel she was making a contribution to family affairs.

“If you have that kind of mindset and those kinds of goals in your care, then geriatrics is the field for you.”

For Schell, geriatrics also represents an opportunity to employ a multifaceted treatment approach. “You have to think broadly about the patients,” she says. “Oftentimes you’re dealing with family members and different sorts of issues, such as home status, function status, and psychological status, that are outside the realm of the medical problem but might indirectly affect it.” Her experience studying life-space, she adds, is still fresh on her mind as she watches patients for signs of declining strength and mobility.

Meanwhile, Schell says she’s met many other young doctors who are interested in pairing geriatrics with other specialties, as she plans to do with nephrology. “There are not many geriatric nephrologists out there, but people are starting to see the use of that, especially in academics,” she says. “The need for research combining the aging population and certain subspecialties is growing.”
Under the Bloodless Knife

UAB’s Expanding Radiosurgery Program

By Kathleen Yount

UAB has one of the hardest-working knives in Alabama—yet it doesn’t make a single cut. The Leksell Gamma Knife, the main blade in UAB’s stereotactic radiosurgery program, has treated more than 2,500 patients since 1995, using 201 focused cobalt-radiation beams to destroy diseased tissues with a precision measured in millimeters.

This kind of detail is particularly important when working in the complex and delicate tissues of the brain—making the gamma knife a revolutionary therapy for benign and malignant brain tumors. But the work of UAB’s knife is never done: Neurosurgeons and radiation oncologists also use it to treat vascular malformations such as AVM (arteriovenous malformation), as well as certain brain disorders, and their list of therapeutic targets continues to grow.

Metastatic Options

Radiosurgery offers the benefit of bloodless surgeries, including decreased risk to patients and no overnight hospital stays; it also presents fewer side effects than traditional radiation therapy. But the gamma knife does more than reduce potential harms—outcomes studies show it can be an effective initial treatment for patients with metastatic brain cancers.

Metastasis was once considered outside the ken of radiosurgery, but the gamma knife’s precision makes it an ideal tool for targeting multiple sites. While open surgeries for brain cancers can address only a single tumor per procedure, the gamma knife can treat as many as 15 lesions in some instances. “Gamma knife technology significantly reduces neurological morbidity from systemic cancer,” says UAB gamma knife medical director Barton Guthrie, M.D. “It greatly reduces the possibility that brain metastases will cause the patient’s death.”

The gamma knife has also shown excellent results for conditions beyond the brain, from temporal bone tumors to trigeminal neuralgia, which can be difficult to treat. “The gamma knife decreases or eliminates pain in up to 80 percent of trigeminal neuralgia patients who have done well on medication but have stopped responding,” Guthrie says.

Immobilizing Possibilities

Stereotactic radiosurgery traditionally has been restricted to brain and other cranial tumors, mainly due to movement—the gamma knife measures to such a fine degree that any head movement can jeopardize both patient safety and the surgical outcome. However, the head is fairly easy to immobilize with lightweight frames that guarantee stillness. External immobilization methods for the body’s trunk are less feasible—but new technologies are prompting further exploration of radiosurgery for the spine and other sites.

Radiation oncologist John Fiveash, M.D., is leading clinical trials in spinal radiosurgery, employing the gamma knife’s sister tool: tomotherapy. UAB’s HI-ART tomotherapy system uses a modified linear accelerator to simultaneously scan tumors with computerized tomography and deliver fractionated stereotactic radiation. Recommended for patients with painful tumors near (but not in) the spinal column, this one- to three-day treatment brings patients faster relief from pain than open surgery, as well as fewer delays in other critical cancer treatments such as chemotherapy.

Fiveash says a sophisticated new technology called respiratory gating makes radiosurgery in the body a realistic possibility. Using an infrared camera and marker in the patient’s diaphragm to carefully monitor breathing cycles, a physician can pick the perfect moment to switch on radiation beams. “This technology allows us to compensate for movement,” Fiveash says, “so that we can deliver high-precision radiosurgical treatment to nonstationary tumors, such as lung cancer.”

Fiveash predicts that such advances will allow future testing of radiosurgery in lung, liver, and prostate tumors. He notes that the UAB radiation oncology program has increased its staff—doubling the number of doctoral-level physicists last year—to improve radiation treatment planning. This new focus, he says, will help sharpen the craft of radiosurgery, making it more precise as it finds broader applications.

Using sophisticated new technology, UAB surgeons can “deliver high-precision radiosurgical treatment to nonstationary tumors, such as lung cancer,” says John Fiveash.
Rapid Response
BREMSS Accelerates Emergency Care
By Laura Freeman

In the flashing red lights beside a lonely stretch of Alabama interstate, rescuers work quickly, knowing that every minute they spend on the scene is eating into the “golden hour.” If they get injured victims to the hospital after that hour has elapsed, the chances of survival fall dramatically. But before 1996, Alabama rescuers spent much of that precious time in transport to the nearest hospital—and many times, that facility was unequipped to handle certain kinds of trauma or didn’t even have an available bed.

Today, however, trauma victims have a much better chance of survival, thanks in part to the Birmingham Regional Emergency Medical Services System (BREMSS) based at UAB. “BREMSS is the only system of its kind in the United States,” says director Joe Acker. As a result, it has become a national model for routing trauma victims and stroke and burn patients, in addition to dealing with bioterrorism and mass casualties.

Staying Connected
An intranet and radio system link BREMSS emergency teams, ambulances, and area hospitals. From its Trauma Communications Center, the system provides air and ground ambulance routing; it considers the type and severity of each patient’s condition, transport time, plus minute-by-minute updates on which hospitals are full, where burn beds are available, and who can take trauma, stroke, and respiratory distress cases.

“If the first choice is unavailable, we stabilize them at the next hospital on the list,” says Acker. “Even before 9/11, the system could alert us to symptoms related to bioterrorism or a fast-spreading emergent infection. For example, if hospitals go on diversion due to an unusual number of patients with respiratory distress, we know to look into it.”

Last year, BREMSS won the Harvard Mitretek Innovations Award in Homeland Security. “The judges looked at 100 nominees, including large federal programs,” Acker says. “They were impressed with the sophistication of BREMSS and how it can be used on a daily basis or ramped up for a disaster,” such as an F5 tornado in 1998 or an I-65 bus crash, in which 60 pediatric patients required transport. “The judges were also surprised at seeing so many municipalities, emergency services, and hospitals willing to work together in a voluntary system with no legislative mandate. It was built with local brainpower, local software, and local people working together and putting the money down to develop it,” Acker adds.

The Power of Experience
Before BREMSS, 60 percent of adult trauma patients and 50 percent of children were not taken directly to the facility best equipped to treat them. Today, however, “Severe injuries go to the UAB trauma center, and pediatric traumas go to Children’s Hospital,” says Loring Rue, M.D., UAB’s chief of trauma, burns, and surgical critical care. “This can make a difference because the more you work with traumas, the more skilled and efficient you become. Since we see so many serious injuries, we have the resources and specialized equipment in place and an experienced trauma team ready to do everything possible to help them survive.”

Acker adds, “Having Dr. Rue as our trauma champion and so many other people who were willing to speak up, think creatively, and put patient care first was a major factor in making BREMSS such an effective system.”

The system, which is directed by a board representing local governments, health-care providers, and emergency medical services in Jefferson County and five surrounding central Alabama counties, is now expanding to include 11 counties spanning north Alabama. “Huntsville also has a level I trauma center, and we’ll be coordinating with level I centers in Chattanooga and Memphis and a level II center in Tupelo,” says Acker.

BREMSS will be the template for expanding trauma care statewide and responding to cardiac and other time-sensitive conditions. “We get calls from cities saying they can’t get municipalities, hospitals, and emergency services pulling together,” Acker says. “I tell them, ‘If you put patients first, you can get it done.’ Everyone wins, and people live.”

“[BREMSS] was built with local brainpower, local software, and local people working together.” — Joe Acker
Community Rounds

Avondale

By Charles Buchanan

Buzzing saws and pounding hammers echo down Avondale’s tree-shaded streets as recent arrivals restore grand houses built a century ago. But gaps and cracks of another kind are under repair as well—thanks to new neighbors from the School of Medicine at UAB.

In February, SOM students opened the Equal Access Clinic for uninsured patients—primarily members of the Hispanic community and the homeless—in this Birmingham neighborhood. “They’re a class of citizens overlooked by our social services,” says Leah Rankine, a fourth-year student from Birmingham who helped establish the facility. Without a local address or American citizenship, “you can’t go to Cooper Green Hospital, you often can’t afford to have a regular doctor if you’re uninsured, you can’t apply for Medicaid, and you often can’t afford to have someone who gives you regular medicine.” But at the SOM clinic, “we give free care and free medicine. . . . We’re not going to deny you.”

Persistence and Partnership

Avondale owes the SOM’s arrival to the students and “their initiative and dogged persistence and refusal to quit bringing this up” over several years, says faculty advisor and associate professor Craig Hoesley, M.D. After coming up with the idea, they “looked under every rock in Jefferson County to find a way to do this,” applying for grants and even selling cookbooks to raise money, he says. Rankine recalls that she and other students got a crash course in accounting and legal issues as they crafted a business plan. “I feel like I have a master’s in public health and a master’s in business after all this,” she says. Then there was the challenge of finding the right location.

The students considered sites throughout metropolitan Birmingham before discovering the M-Power Clinic, which has operated in Avondale since 2000. The free facility, supported by local churches and staffed by volunteer physicians, was open only two nights a week, but looking to expand. “They said, ‘You can take over our clinic one night a week. We will help you get started,’” Rankine recounts. “M-Power is an amazing group of people who want nothing but to help the uninsured and the poor.”

Urban Medicine

With its own main street and a forested, hillside park, Avondale resembles a small town, but it faces the same big-city issues as the rest of the Birmingham area. The community is located near homeless shelters, yet it is far enough from primary-care centers to cause difficulties for people without transportation. Also, Avondale’s population is socioeconomically and ethnically diverse, with a growing number of Hispanic and Latino immigrants. As a result, the SOM students face medical challenges they wouldn’t normally encounter in their training. “You don’t see this population in the hospital because they don’t go to the hospital,” says Rankine.

Set up as an urgent-care facility, the clinic allows patients to come in three times a year for the same complaint. Basic tests and referrals are available, and the students provide free medicine instead of prescriptions, which “means we have to be very conscientious . . . because nothing we give them can cost a lot in case they ever need a prescription,” she explains. “Everything is easy to get. For example, we rarely give anything other than hydrochlorothiazide for blood pressure.” Likewise, instructions for long-term care are simple to follow.

Volunteer translators help the students break through language and cultural barriers with the immigrant population. Rankine says many in that group haven’t seen a physician in a long time or hold different beliefs about disease and medicine—or simply distrust the medical system and fear that a doctor will turn them in to immigration authorities.

Naturally, not every problem can be solved in three hours. “Many of these patients have substance abuse issues,” says Hoesley. “Several people we saw the first night have baseline psychiatric disorders.” But while the clinic is not designed for continuing care, he says it can serve as a “bridge” to more formal, long-term treatment—and a better understanding of primary care and prevention. In addition, the
“The talking part of medicine is often underemphasized, and this is a good way to learn that. To hear what patients go through day to day is incredible.” — Craig Hoesley

The clinic helps patients learn “that it’s possible to have a good relationship with a health-care provider and see that someone actually cares about them,” Hoesley says. “Maybe in the future, they won’t be intimidated, and they’ll want to pursue care.”

Benefits on Both Sides

What do the patients think about the clinic? “They love it. They like to talk,” Hoesley says. “They like the fact there’s a lot of young people around. You’ve got a group of smiling, enthusiastic young people who will sit there and talk to you as long as you want and listen to your problems.” And he believes the students also gain something from that direct contact. “The talking part of medicine is often underemphasized, and this is a good way to learn that. To hear what patients go through day to day is incredible. Their stories are eye-opening.”

The students learn other key lessons, too. First- and second-years get an early opportunity to see patients in clinical settings, take histories, conduct physicals, identify very sick patients—and observe older students and attending physicians in action. And every student quickly discovers how a clinic runs. “In the hospital we just prescribe things or give out drugs,” explains Rankine, “but in the clinic, we think about how much money we have spent from the pharmacy today. Do we really want to give Zantac, a $45 prescription? Can we substitute this antipsychotic for that antipsychotic because it’s cheaper and effective? What’s the research? Those are very good lessons at a very early place in our medical career—where we have time to think about them.”

Hoesley adds that in their practices, today’s students will face rising numbers of uninsured patients due to rising health-care costs. “Being exposed to it today can only help them develop a better understanding of the problem, and maybe some of them will work to solve it.” Rankine, who plans to be an orthopedic surgeon, says the clinic has sparked her interest in health-care management; she wants to become “a force for change” to help everyone access care.

Hoesley says strong student and faculty support may allow the clinic to become a weekly event in the near future, adding more energy to a reviving community. The progress shows that students are “pursuing medicine as a career for the right reasons. I don’t know how you could look at what they’ve done in setting this up and not be impressed by their efforts and their spirit. It says a lot about the future of medicine.” And perhaps much about the future of Avondale as well.

Help Out

For more information on how to contribute to the Equal Access Clinic, contact Erica Hollins at (205) 996-6839 or ehollins@uab.edu, or see the envelope enclosed in this issue. Visit the clinic online at www.uab.edu/freeclinic.
Reducing the Transplant Wait

By Tara Hulen

It may be a newspaper article or a television program, or word of a person at church anxiously waiting for a kidney. Whatever the inspiration, some people selflessly volunteer to donate their organs to a complete stranger—one someone they will likely never meet.

With growing public knowledge about organ donation and advances in minimally invasive laparoscopic surgery, kidney donation has become less daunting, leading to a growing number of “altruistic donors.” In the past, a few people had offered altruistic donations to UAB’s kidney transplant program, but there was no system to specifically handle and screen those atypical living donors, explains transplant surgeon and associate professor of surgery Carlton Young, M.D. Now UAB has adopted a new altruistic donor program to address this need.

“You are people who are just extremely giving, and they have a great desire to help people,” says Young. “There are people who don’t have anybody in their family or friends who need a kidney, yet they want to give.”

UAB’s new protocol protects the interests of all parties, but especially the donors, says Young, who headed the effort to create the program. UAB took existing models from institutions such as the University of Minnesota, which has a long-standing altruistic donor program, and adjusted them to suit UAB’s already strict standards.

Gift of Life

“We put people through a lot of hoops they have to jump through,” Young says. “It’s a wonderful gift . . . but we want to make sure that they are physically and psychologically prepared. It’s one thing to hear about someone needing a kidney, and think, ‘Boy, that would be a great idea,’ versus going through the entire process. So we want to make sure those people know absolutely everything that they’re getting themselves into.’”

Along with the usual health assessments and informed consent session with surgeons, altruistic donor candidates go through a four-hour neuropsychological evaluation. The neuropsychologist is considered the patient’s advocate and can veto any donor.

“We’ve always been our own donor advocates; we’re very conservative and very stringent,” Young says. “But since this is a different type of donor, we wanted to make sure that all our bases were covered and that we had that person’s interest at heart.”

Meeting the Need

A handful of people became donors in the first eight months of the program. Unlike cadaveric donations, which enter the national transplant database and may help recipients in other cities, kidneys from altruistic donations at UAB are used exclusively for UAB recipients. The physicians behind the program hope it will help address two problems: the shortage of organs and the long wait for transplants. “There is a critical need for organ donors,” says Young. And while UAB averages about 330 kidney transplants from living donors and cadaveric donors each year, he says, “the problem is we have close to 2,500 people on our waiting list.”

For more information on kidney donation, call (205) 975-9287.

First Steps

Women and Infants Facility Takes Shape

By Laura Freeman

Look across 18th Street just west of UAB Hospital’s North Pavilion, and you’ll see a long-anticipated dream turning into reality. After years of planning, UAB’s new women and infants facility is being built with innovative design ideas contributed by many of the people who will actually work there.

David Hoidal, CEO of the UAB Health System, says the 10-story facility, scheduled for completion in late 2009, will be a tremendous resource in meeting growing care needs. “With so many people in the state and surrounding areas relying on us, we’re seeing a rapid increase in demand in our regional referral center for newborn intensive care, maternal-fetal medicine, and women’s oncology,” Hoidal explains.

“In the past, we’ve had to spread out to find more room, but the new facility will give us the space to bring everything related to women’s reproductive health and neonatology together in one location, where it’s more accessible for patients.”

John Hauth, M.D., obstetrics and gynecology chair, says the facility will offer the best in maternal-fetal medicine in one location, “from preventive care to diagnosing and treating gynecological and endocrine disorders to dealing with infertility and high-risk pregnancies.”

He adds, “Our reproductive oncology services will be able to assess malignancies and provide surgical, radiation, or chemotherapy treatment. We’ll also have support services on site, from wigs to appliances, to make coping with the challenge of cancer a little easier.”

For the youngest patients, the facility will bring a much-needed expansion in capacity. Since 2004, deliveries at UAB have increased from 2,600 to 4,200 per year. The building will house 17 new labor and delivery rooms, four operating rooms, 120 neonatal intensive care unit (NICU) beds, and 15 intensive care beds for infants needing specialized cardiac and pulmonary support.

Functional Design

Wally Carlo, M.D., director of perinatal neonatology, says design innovations will benefit infants and their families. “Each OR opens into
A career in medicine can be bad for your health. Just ask UAB pulmonologist Waid Shelton, M.D. “There’s no question that physicians are affected by the work they do, and if they’re not, there’s something wrong with them,” he says. “One of the things about medicine is you see difficult things every day—people with serious illnesses, or discomfort, and death. If we don’t have a way to process that information, I don’t think it’s healthy.”

That’s why Shelton was intrigued when his friend and colleague Fred Griffin, M.D., introduced him to the concept of narrative medicine—an approach to patient care that encourages doctors to listen closely to the stories patients tell, and also to write about their experiences with patients.

Griffin, an associate professor in UAB’s Department of Psychiatry and Behavioral Neurobiology, is a longtime champion of narrative medicine, a movement founded by Rita Charon, M.D., Ph.D., an internist at New York’s Columbia University and author of a new book titled Narrative Medicine: Honoring the Stories of Illness. Charon, who spoke at UAB in March at Griffin’s behest, says she has seen an explosion of interest in the topic. “My group is being asked to give workshops and lectures in Israel, Australia, British Columbia, Puerto Rico, Finland . . . really all over the world,” she says.

**Restoring the Intimacy**

Charon says that doctors, as well as nurses and social workers, are turning to narrative medicine as a way to strengthen the patient-caregiver relationship. “The practice of medicine has become so fragmented and bloodless that we all have found ourselves having to make room in our practices to restore what has been lost, which is the intimacy, the fact that doctors are supposed to recognize what is positively unique in each of their patients.”

Griffin, who teaches UAB medical students about narrative medicine and helps lead a monthly discussion group for SOM faculty physicians, says narrative methods help doctors put both their patients’ experiences and their own feelings into context. “In writing creative works of nonfiction and fiction, physicians are engaging their minds in an act of containment—holding, shaping, naming, and working over their experience—in which the impact of the patient’s distress upon the mind of the physician is metabolized,” he says.

**Disease in Context**

Griffin echoes Charon’s sentiment that practicing narrative medicine improves doctors’ sense of connection to their patients. And that, he notes, improves the satisfaction doctors take in their work, while ultimately resulting in better patient care. “It helps the doctor to put the patient’s disease in the context of the unique human being who’s sitting there,” he says. “The more comprehensive the story you get—about the social, interpersonal, and psychological characteristics of this person’s life—the better you can interpret what they’re telling you, and the more precisely you can prescribe treatment.”

For his part, Shelton says he isn’t “inherently a writer,” but he has benefited tremendously from learning to write about his work, especially on hard days. He jokes that even his wife has taken notice. “When I come home and have had a really frustrating, difficult time, she’ll say, ‘You need to go write.”’

The NICU, and the unit is designed with appropriate space for patient care and support services,” explains Carlo. “The family-centered design will have individual rooms for babies in the NICU and step-down unit, with space for parents to stay with their babies. There will also be a common area where families can share kitchen and laundry facilities and rest in the lounge and library.”

Sergio Stagno, M.D., chair of pediatrics, agrees that this new approach could have great value in helping tiny newborns get to know their families. “Some of these babies weigh only a pound and may be in the NICU for months,” he says. “To help families bond, and provide privacy for counseling and breastfeeding, individual NICU rooms will allow more family time. We’ll even have rooms where twins and triplets can stay together.”

As actual end users, nurses and support staff have contributed ideas on the layout of their work areas to make them more effective. “The units are designed to keep nurses as close to the patients as possible,” says Madonna Nichols, R.N., M.S.N., administrative director of Women’s and Infants Services. “Each pod contains about 12 to 16 beds and all supplies, small equipment, nourishment, medications, and support space.

“In the intensive care nursery rooms, a silent telephone and a television with headphones minimize noise in the baby’s environment,” she explains. “There will also be a family den with computer access, a comfortable seating area, and a glassed-in play area.”

**Major Undertaking**

Jim Garland, UAB associate vice president for financial affairs and facilities, has coordinated the project through planning, site acquisition, bidding, and now construction, which began in early spring. “The first eight stories will be hospital services, and the top two floors will be professional offices,” explains Garland. “Phase one will open 600,000 gross square feet on a full city block, and our master plan allows another 200,000 to 300,000 square feet for expansion.

“A public bridge on the second floor will connect to the North Pavilion, one on the third floor will provide support, and another on the fifth floor is for moving patients. A bridge is also planned to connect to the new Children’s Hospital construction,” Garland adds. In addition, “we’ll have 90 parking spaces under the building for pregnant patients, oncology patients, and valet parking.”

That all adds up to a great advance in care for women and infants in Alabama. “We’re very excited,” says Hoidal. “This facility will be a tremendous addition for the medical center, and it will help us meet a critical need for the community and the whole state.”
Physicians’ Forum

Mentoring

Doctors need to know more than what medicines to prescribe or how to make a proper diagnosis. There’s a whole continuum of professional understanding that comes not from books or classes, but from the experiences of other medical practitioners. That’s where mentoring becomes a vital part of a physician’s training.

The School of Medicine’s Medical Student Mentor Program connects learners to teachers who can help students deal with important issues, both in their practices and careers. The program provides ongoing support for students until they graduate. But that’s just a fraction of the benefits students can derive.

This edition of Physicians’ Forum looks at mentoring—both formal and informal—with two alumni who benefited from the process. Nathan Smith, M.D. (class of 1985), is a clinical psychiatrist and School of Medicine faculty member. T. Brooks Vaughan, M.D. (class of 2000, fellowship in 2006), practices adult endocrinology at The Kirklin Clinic and pediatric endocrinology, with an emphasis on adolescents, at Children’s Hospital; he also teaches at the School of Medicine.
Is mentoring mandatory? Should it be?

Brooks Vaughan: When I participated in the program, it was largely voluntary; it now has an initial component that is mandatory but becomes voluntary as medical students become more senior. I do feel that initially it should be mandatory. The danger early in medical school is that you can become completely consumed by what you are going through. Although the mentoring process may seem like just another time commitment at first, it can help balance out some of the more formal aspects of medical school.

Nathan Smith: The Medical Student Mentor Program that Dr. Steve Smith heads is an organized program of mentoring, but there’s other mentoring that is less formal and less organized.

If you think of mentoring as a mutual relationship that is focused on learning, I think that it may be, in the loosest sense, essential to any kind of learning community. So I’m not sure that it’s possible to learn effectively without mentoring in that sense. Any sort of relationship that has learning as its primary purpose probably has some aspect of mentoring.

Do some students benefit more than others?

Vaughan: Clearly, some students struggle more than others in charting their career paths, with not all students benefit in the same way from mentoring, and not all students benefit in the same way from the same mentor. Different mentees may find that some people are not nearly as effective as others as mentors or teachers.

Who mentored you?

Vaughan: Michael Fallon, M.D., a professor in the Department of Medicine’s Division of Gastroenterology. The most important aspect of the program is that it is a relatively informal relationship. One challenge of medical school is the feeling of being constantly evaluated. Often a student may find it difficult to ask candid questions to an attending physician due to the fact that a “grade” is always coming. It is nice to be able to ask more difficult questions about lifestyle, income, or day-to-day life that may seem inappropriate in the formal setting of a rotation. If the mentor doesn’t have the answers to the questions, he or she can put the student in touch with someone who does, also outside the formal rotation structure.

Smith: I can remember the person who taught me Introduction to Clinical Medicine being a significant mentor in terms of developing skills that are essential for being an effective physician, particularly history-taking skills and physical diagnosis skills. That was Dr. Frank Griffin, who was an attending here for many years. He had a very intense approach that hooked me. And I remember wanting to work very hard in that course.

He was very skilled and very knowledgeable in the art of being a physician. That kind of intensity and thirst or desire to engage us as students was very appealing to me. I remember having a tremendous amount of energy—not so much in terms of emulating him, but in taking advantage of his teaching and desire to help us improve our knowledge and skills.

Is there a way that both students and mentors benefit?

Vaughan: The mentoring meetings are held in groups, and when I was a student it was always interesting to hear the concerns of others. They would often have important questions that had never occurred to me.

The benefits to the mentor are obvious once you step in the room with these students. They are diverse in background, personality, and in their motivation to go into medicine. Their goals vary tremendously.

Smith: In some ways what’s at stake is the truth. Not in some revelatory way but in a sense of shared experience of benevolence and beneficence, both for the mentor and the mentee and those who benefit from the product of that relationship—patients in the case of doctor training or medical education. So ultimately what’s at stake here is the truth about what’s good for patient care.

Dr. Smith, what are some good reasons why experienced physicians should mentor students?

Smith: I think it depends on different factors. There are incidental sorts of mentoring relationships that develop between attendings and students, and physicians in training and their teachers. For the mentor, I think it reflects a developmental stage, the evolving development of being an adult. One of the stages we hopefully move toward as we age and gather experience is being generative in the sense of reproducing ourselves—at least our abilities and passions—in those who follow us.
Medical school has never been cheap. But the soaring cost of higher education continues to raise questions about the impact this financial burden will have on future generations of physicians.

At the School of Medicine at UAB, most students receive financial aid of some kind, with 79 percent benefiting from scholarships, loans, or grants. In this edition of Student Rounds, three scholarship recipients describe how their awards—and the price of a medical degree—have affected their education and professional plans. All three students say that financial constraints or incentives won’t influence their specialty choices, but that finances did affect where they went to medical school. They also agree that the burden of student loans, currently averaging around $115,000 for public medical schools and $150,000 for private, is never completely forgotten.

SCHOLARSHIPS AND THE COST OF MEDICAL EDUCATION

Last year, Holley Jeter (left) received the Frances Bell and Mannie Corman Medical Scholarship, a one-year award for incoming medical students, along with a renewable unrestricted medical scholarship. A Georgia native, Jeter says scholarships made attending UAB—her first choice for medical school—possible.

Rob McDonald, now a fourth-year, received the John Isaac Samuel Holt Memorial Endowed Scholarship, as well as the Hudson Turner Memorial Scholarship. He also received support through the Medical Student Enrichment Program (MSEP) toward work in Zambia between his first and second years. McDonald plans to return to Zambia to help that country fight HIV, tuberculosis, and other infectious diseases.

Deidre Downs (right), a second-year student, received the four-year Earl Drennen Memorial Scholarship. As Miss America 2005, Downs received a scholarship to support her medical education, and she says pageants have helped her finance her education since undergraduate school.
How much weight did you give to costs when you were selecting a medical school?

McDonald: I was an Alabama resident when I applied. I was hoping for UAB first, and any Alabama school second. I was ready to accept a non-Alabama school, but I knew the financial sacrifices would be much greater.

I am a father and husband; we have a house and the bills that come with that, so my financial circumstances are different from most medical students. My wife and I talked about whether to keep the house in light of school costs, but we decided to keep it. We are now taking out loans to pay for our loans—which is a little ridiculous, but that’s the price of an education these days.

Downs: I applied to a number of medical schools without regard to cost and tuition. However, when it came to choosing among schools where I was accepted, UAB’s reputation combined with my eligibility for in-state tuition made the final choice very easy.

What difference has your scholarship made in your progression through medical school?

Jeter: With the additional costs associated with being an out-of-state applicant, this scholarship made it possible for me to attend UAB.

Downs: My scholarship has been a tremendous help financially; it enables me to focus on academics without having to worry so much about student loan debt. Anything that reduces the stress of medical school is a great thing.

McDonald: I didn’t receive any scholarships my first or second year, so these two were quite a pleasant surprise. They gave me the breathing room to get through exams without having to worry about bills. I could focus better and set aside my worries.

Does scholarship assistance affect the likelihood that a medical student will pursue research and outreach activities, or international and away rotations?

Downs: I definitely think so. Without having to work and earn income during breaks or even during school, a student is much more likely to spend this time in scholarly or charitable pursuits that benefit the entire community.

Jeter: With more aid, students can allocate funds for such activities as medical mission trips or studying abroad that they otherwise might not be able to afford.

McDonald: MSEP helped with going to Zambia, but I bore 5/6ths of the cost—I was determined to do it whether I received support or not. I think determination drives research and outreach activities more than financial support. However, the economist in me says that if you provide an economic incentive, people will do the activity.

How much does your financial future—particularly loan repayment—influence your selection of a specialty for residency?

Jeter: Although financial issues are important, I do not believe my choice of specialty will be dependent upon salary. I hope to pursue a career in pediatrics; if I pursue a different field after completing my degree, it will be based on my passion for practicing in that particular area.

McDonald: I decided to specialize in infectious disease before I started medical school. My prior experiences were quite strong in shaping the kind of doctor I want to be. I understand that ID is not the most lucrative field, but I wouldn’t change my mind regardless of remuneration.

Downs: I have always been interested in pediatrics, which is one of the lower-paying specialties. I doubt my choice would be affected by my financial future, even without the benefit of my scholarship, but I am thankful that the scholarship is reducing my debt load so I can choose a specialty without regard to finances.

For medical students without a strong preference for any particular specialty, the amount of loans they incur may well influence their decision, especially if they already have significant undergraduate student loan debt. The fact remains that primary-care fields do not pay as much, and this no doubt has contributed to the current shortage of primary-care physicians.

Does the cost of medical school significantly affect the makeup of the health-care workforce? Does it ultimately affect patient care?

Jeter: Medical school costs do factor into the decision to pursue a health-care career. I believe that increasing scholarship aid to prospective disadvantaged students could boost the health-care workforce in underserved areas around the country, significantly improving the standard of patient care.

McDonald: I do think the cost of medical school, and higher education in general, is amazingly high. I do not know how I will be able to pay for my daughter’s college education—and I appreciate the education that my parents provided for me more than ever.

I do believe that to make money as a physician, time must be managed closely. I get a sense that the typical medical visit is rushed due to time constraints, which are in place because medicine is a business.

Hard numbers

More than 85 percent of graduates carry educational debt, says a recent American Association of Medical Colleges (AAMC) report, and medical education debt was 4.5 times as high in 2003 as it was in 1984, growing well beyond the consumer price index. In a 2002 AAMC graduate questionnaire, 32 percent of students reported that debt level influenced their specialty choice.

The AAMC also reports that with current figures on income and debt burden, a starting primary-care doctor could pay between 8 and 15 percent of income solely to manage debt.
Wayne Finley had just graduated from the School of Medicine in 1961 when Joseph Volker, D.D.S., Ph.D., asked him a life-changing question.

At the time, Volker, later the first president of an autonomous UAB, was director of research and graduate studies for the city’s University of Alabama Medical Center.

“He called me and said, ‘Would you like to go to Sweden next year?’” Finley recalls. Volker had international connections and knew of a Swedish doctor who was conducting pioneering studies in genetics, an area of interest for Finley. “He told me I had to make up my mind by the next morning. I was married, and I had a 19-month-old and a four-year-old at home.”

Despite those obligations, Finley said yes to Volker’s question and embarked on what would be a three-decade career in the study of genetics. “What opened up in the ’60s was the observation of chromosomes. It was discovered that an extra chromosome was associated with Down syndrome,” Finley says. “Dr. Volker didn’t have funding to recruit physicians, but he was told he could train his own. So a lot of us young doctors benefited from that. He was always looking for a way to help young people.”

Finley was not the only young Birmingham physician to benefit from that research experience overseas. His wife, Sara Crews Finley, M.D. (SOM class of 1955), trained with him in Sweden, and the couple conducted research together for 35 years, studying abnormal chromosome patterns as they relate to birth defects. “Someone questioned Dr. Volker about that once. They asked why a husband and wife were working together,” Wayne Finley says. “Dr. Volker told them, ‘They take their problems home with them, and they work on them.’”

Historian of Medicine

After his retirement in 1996, Finley’s love of research found a new object. Ten years ago, Finley founded the 811 Breakfast Club, a group of local doctors who meet monthly to dissect the history of the SOM, UAB, and medical practice throughout Jefferson County.

In the beginning, the club had no planned agenda. But after a few years, Finley began inviting speakers and tape-recording sessions. “I look on it as an oral history project,” he says. “And firsthand information is the best kind. We transcribe the tapes and place them in the UAB Archives and the Jefferson County Medical Society archives. We try to cover as much history as we can.”

The club’s name comes from the building at 811 20th Street South, where many of Birmingham’s doctors of the 1950s began their practices. It is now the home of the University of Alabama Medical Alumni Association.

“Dr. R.C. Green, a surgeon, owned the building,” Finley explains. “Banks were not kind to doctors in those days. They didn’t want to give them loans. Dr. Green provided space and secretarial support for many young doctors to establish their practices.”

Many of those doctors contributed to UAB’s phenomenal growth, helping transform an impoverished training facility into an internationally known research center. From the late 1940s through the 1960s, the SOM had to rely heavily on private physicians volunteering their time as teachers, Finley notes.

The transcripts of Breakfast Club meetings that Finley produces serve as institutional memory banks for this time of great change at the SOM and UAB. The wide-ranging discussions often shift rapidly between serious scientific debate and humorous anecdotes about notable figures such as Tinsley Harrison, Champ Lyons, John Kirklin, and Roy Kracke—told by the physicians who once served as their students and residents.

Finley serves as moderator, but he is also an active participant. “It’s amazing to me the amount of history that Dr. Finley remembers,” says Martha Wise, executive director of the Jefferson County Medical Society. “He knows who came when, when they left, and where they went.”

The 811 Breakfast Club meets on the third Tuesday of each month at the offices of the Jefferson County Medical Society, with a break during the summer. The next meeting will be held in September. Open discussions follow speaker presentations. The club is open to all who are interested in the history of medicine in Jefferson County. For more information, call Martha Wise at (205) 933-8601.
Since graduating from the School of Medicine in 1994, Russell Read, M.D., has continued his pursuit of learning. Now, however, he is both student and teacher, sharing his growing knowledge with ophthalmologists and ophthalmologists in training—and gaining valuable insights from them at the same time.

As a UAB associate professor of ophthalmology, Read enjoys “the challenges provided by residents and medical students, in that they bring new perspectives to the field of ophthalmology and constantly question and challenge the status quo of why we do what we do the way we do it,” he says. “The constant need to rethink existing dogma and determine if it is really the best way to go about caring for patients is exciting and rewarding.” He adds that the most gratifying aspect of his work as a medical educator is “seeing those same residents go from incredibly bright but inexperienced medical doctors to competent, confident ophthalmologists in the space of only three years.”

**Involvement at All Levels**

Read has expanded the continuous interchange of knowledge from UAB classrooms to a national audience, impacting the practice of ophthalmology through his extensive involvement with the American Academy of Ophthalmology (AAO). In appreciation of his volunteer work, the AAO presented Read with its 2006 Achievement Award at its annual meeting in Las Vegas. He was among more than 100 ophthalmologists across the country who received the prestigious honor.

“The AAO Achievement Award signifies the cumulative efforts of the awardee in the service of the academy and ophthalmology in general,” Read says. “The award is earned by participating in the educational and advocacy efforts of the academy. I participated by writing articles for various academy publications, serving on academy committees, and participating in educational courses and meetings sponsored by the academy.”

Read also received a certificate from the AAO recognizing his work in the development of the Practicing Ophthalmologists Curriculum (POC), a new comprehensive database of ophthalmic knowledge that will be used by the American Board of Ophthalmology as a basis for questions in the board recertification process. The AAO also will employ the POC as a source for teaching professionals who are preparing for board recertification. In addition to serving on the POC committee, Read works on the Specialty Interest Team committee and as an editorial board member for the academy’s new monthly publication, *EyeNet*.

**Eye on the Future**

For Read, maintaining involvement in the AAO is crucial for the future of his specialty. “These national organizations are the voice and face of organized medicine and generally speak for us in any dealings with regulatory agencies, third-party payors, and others outside of medicine who seem to control our practice,” Read says. “Organizations like the American Medical Association attempt to speak for all of medicine, but specialty-specific organizations are also vital, as each medical specialty has certain unique aspects to it that might otherwise be lost in the debate. In addition, and especially pronounced with our AAO, these organizations are frequently a primary source for continuing medical education in one’s particular field.”

As for the future, Read hopes to continue both learning and teaching. “My goal is always first and foremost to be the best ophthalmologist and advocate for my patients that I can be,” he says. “Following that, my goals as an academician are to advance knowledge in my field and then both apply and distribute that knowledge, both to my patients and to others in my field, including currently practicing ophthalmologists as well as our residents currently in training, so that they can apply it to their own patients.”

Russell Read’s contributions to the American Academy of Ophthalmology benefit current and future practitioners across the country.

“The constant need to rethink existing dogma and determine if it is really the best way to go about caring for patients is exciting and rewarding.” — Russell Read
On May 20, the School of Medicine held its annual commencement ceremony at the Birmingham-Jefferson Civic Center, followed by a reception hosted by the dean's office and Medical Student Services. The keynote address was delivered by Craig J. Hoesley, M.D., an associate professor of medicine at UAB and director of the medicine clerkship. At the ceremony, students were presented with their academic hoods and given the opportunity to sign their names for the first times as medical doctors.
If you would like to receive a copy of these or other photos from the commencement reception, please contact Meredith Murdock at meredith@uab.edu or call (205) 975-7341.
The temperature kept dropping during an unexpected cold snap on April 9, but that didn’t keep spirits from rising as 60 golfers took to the links at Birmingham’s Ross Bridge Golf Resort and raised more than $30,000 for the Comprehensive Diabetes Center at UAB.

For the third year in a row, members of the Mountain Brook High School Key Club hosted the event with the help of community leaders Benny LaRussa Jr., David Silverstein, and Robin Sparks. Key Club president Allen King, event co-chairs Peyton Falkenburg and Jonathan Jernigan, and committee members Wil Bromberg, Koula Callahan, Brigid Carey, Reaves Crabtree, Callie Davis, John Harbert, Cody Nall, Mary Riley Ogilvie, and Carter Sparks organized the friendly competition.

The high-school students initiated the annual fund-raiser in 2005 to support diabetes research. Many of the club’s members have friends with diabetes, and they are “eager to help raise money” not only to fight this life-threatening disease, but also to find a cure. Many organizations contributed to the success of this year’s event, including “Signature” sponsors B.L. Harbert International; Bayer Properties; Marathon Corporation; Sellers, Richardson, Watson, Haley & Logan LLP; Sterling Capital Management Inc.; and UAB.
The UAB Center for Low Vision Rehabilitation
Open House Celebrates Newly Renovated Facility

The UAB Department of Ophthalmology and the UAB School of Optometry hosted an open house on June 13 to celebrate the newly renovated UAB Center for Low Vision Rehabilitation, on the fourth floor of the Callahan Eye Foundation Hospital. The 3,300-square-foot facility, which is the first fully integrated, university-based low-vision rehabilitation center in the United States, provides clinic and office space for faculty and staff from ophthalmology and optometry, as well as occupational therapy and psychology. This enables health-care providers from all four disciplines to easily and efficiently combine their expertise in offering patients the best available treatment for visual impairments not correctable by standard glasses, contact lenses, medicine, or surgery.

The $300,000 renovation enlarged and updated the center, which opened in October 2002. Center director Dawn K. DeCarlo, O.D., associate professor of ophthalmology, points out that the remodeled and expanded facility will not only enhance patient care but also facilitate research initiatives. The center houses the only scanning laser ophthalmoscope capable of microperimetry in Alabama, and it offers high-tech tools, including state-of-the-art portable video magnifiers and computer-assisted imaging equipment.

“This center is a prime example of the interdisciplinary collaboration that keeps UAB on the leading edge of research and clinical care,” noted UAB president Carol Z. Garrison, Ph.D., as she welcomed donors, faculty, and staff to the open house. “The center treats about 700 patients a year, and the expanded services will have an even greater impact on their health and quality of life. This renovation was made possible not only by collaboration within UAB, but also by partnership with our community and state, notably with the EyeSight Foundation and members of the School of Optometry Dean’s Advisory Committee.”

Dinner in D.C.
Alumni Enjoy Surgery Reception

The Department of Surgery hosted a dinner for UAB alumni during the American Association of Neurological Surgeons meeting in Washington, D.C., in April. UAB faculty member Patrick R. Pritchard, M.D., arranged for the group to meet at the exclusive, 122-year-old Army and Navy Club.

“My son and I had a great time with the other alumni at the dinner,” says James (Jim) Argires, M.D. “It was a wonderful event. Alumni are the fiber of any organization, and we need to get together often to enjoy our camaraderie, resurrect memories, and share funny stories. I hope we can reach out to more alumni in the future.”

“The other faculty members and I always look forward to seeing past residents and thanking them for their ongoing involvement with and support of the Division of Neurosurgery,” says division director James Markert, M.D. “We enjoy hearing about their experiences at UAB and sharing with them how the division continues to make progress in education, research, and patient care.”
Senior Leadership

Luncheon Honors Outstanding Birmingham Campus Graduates

Dean Robert R. Rich, M.D., welcomed students and their family members, faculty, and guests to the Birmingham Campus Awards Luncheon held at the Summit Club on May 2. The annual event recognizes the accomplishments of the School of Medicine’s top graduating students.

Hughes Evans, M.D., the SOM’s senior associate dean for academic affairs, joined Dean Rich in announcing the recipients of the 2007 Merck Manual Awards. These honors are given by Merck & Company Inc. for excellence in medical studies; this year, awards went to Niru Putcha and Deepak Palakshappa at the Birmingham campus, Shannon A. Novosad at the Huntsville campus, and Ashley Dan Coleman at the Tuscaloosa campus.

Dean Rich also presented awards to the students in the top 10 percent of the class in recognition of their superior achievement in the clinical curriculum on the Birmingham campus. Recipients included Russell Allman, Melanie Barnhart, Matthew Dobbs, Dawn Engelkemier, Meg Gilmer, Randall “Lee” Murphy, Niru Putcha, and Ruth Yeilding. Steven Sheils received the Dean’s Award for the best performance in the clinical clerkships at the Birmingham campus.

The Huntsville and Tuscaloosa branches of the School of Medicine held individual awards banquets for their students. In Tuscaloosa, the Scholastic Achievement Award was presented to Tatum McArthur and the Dean’s Award to Deannah Maxwell. In Huntsville, the Dean’s Award for Academic Excellence was presented to Christin Nell Collier, the Exemplary Academic Performance award went to Stacey Tatum, and the Dean’s Leadership Award was given to Lorie Dawson and Ami Shah.

In addition, there were four schoolwide awards presented at the School of Medicine Commencement Ceremony on May 20 at the BJCC Concert Hall (see pages 26 and 34). The Hugh J. Dempsey Memorial Award for the highest academic achievement during the entire four years was presented to Lyndon Byong-Keun Lee. The Leonard Tow Humanism in Medicine Awards, presented by the Arnold P. Gold Foundation for a student and faculty member, went to Hussein Abdullahatif, M.D., and Deepak Palakshappa. The Medical Assurance Award for Excellence in Patient Communications was presented to Deannah Maxwell of the Tuscaloosa campus and Trenton Wilson of the Birmingham campus. Laurie Dawson of the Huntsville campus was the recipient of the Alumni Association Leadership Award.
For more than a half-century, Holt Andrews McDowell Jr., M.D., was a constant presence at the School of Medicine. Thanks to the generous support of his friends and colleagues, his legacy will continue to shape the future of health care in Birmingham. Mr. and Mrs. Don Logan, Mr. and Mrs. C. Lee Walls Sr., and the UAB Department of Surgery have chosen to honor the professor emeritus by establishing an endowed chair in vascular surgery in his memory.

Holt McDowell, who was born and raised in Birmingham, graduated from the School of Medicine in 1956 and completed his surgical training at UAB under Champ Lyons, M.D. Lyons invited McDowell to join the Department of Surgery as an instructor in 1963, and his distinguished 36-year career at UAB continued with his promotions to assistant professor in 1970, associate professor in 1975, and professor in 1980. He served with distinction as chief of the Section of Vascular Surgery until 1996, when he returned to full-time teaching until his retirement in 1999. He passed away on July 4, 2005.

Professor Emeritus Arnold G. Diethelm, M.D., met McDowell when he came to Birmingham in 1967, and they shared a clinical practice for many years. “Holt was always a great advisor to me after I became chairman of the Department of Surgery in 1982 and remained so until I retired as chair in 2000,” Diethelm recalls. “He was clearly the most popular faculty member year in and year out in the department.” Diethelm notes that the endowed chair will be enthusiastically received by all of the medical students and residents who remember McDowell’s faithful dedication to his patients and his steadfast professional standards.

In addition to honoring the lifetime achievements of McDowell, the endowed chair will help UAB attract and retain a top-level surgeon/researcher who will work to move innovative surgical techniques more rapidly from the laboratory to the operating theater. Well-known and widely respected vascular surgeon William D. Jordan Jr., M.D., is the first holder of the Holt A. McDowell Jr., M.D., Endowed Chair of Vascular Surgery.
Socrates Nicholas Rumpanos, class of 1935, died March 23, 2007. He graduated from the University of Alabama and Duke University Medical School, then completed his internship at City Hospital in Baltimore, Maryland, and finished his residency at the University of Maryland Hospital and the U.S. Navy Hospital in Bethesda, Maryland. During World War II, Rumpanos was trained in biological warfare in Philadelphia, Pennsylvania. After his discharge, he remained in the U.S. Navy Medical Corps Reserve until 1951. Rumpanos was a member of the International College of Surgeons and past president of the Mobile Medical Society. Rumpanos also served as chief of surgery at Mobile Infirmary and on the staffs of six Mobile hospitals. He retired in 1993.

Ralph B. Burroughs, M.D., a 1948 resident, passed away on April 3, 2007. Born in Swift Current, Saskatchewan, Canada, he received his undergraduate degree at the University of Saskatchewan in 1939 and his medical degree at the University of Manitoba in 1944 before coming to the School of Medicine for his residency. He also received his postgraduate degree in ophthalmology from Washington University.

Ralph was a dedicated and respected physician who made significant contributions to the medical community. He is remembered for his outstanding service and dedicated work.

In Memoriam
University in St. Louis. He practiced ophthalmology in Birmingham's Five Points West area for 14 years. At the time of his death he was living in Troy, New York, with his wife.

Benjamin Franklin Hinton, class of 1953, died April 7, 2007. He was a retired naval captain who specialized in pediatric allergies and lived in Huntsville, Alabama.

Harold J. Hall, class of 1954, died March 28, 2007. He served in the U.S. Army from 1942 to 1946. He completed his internship at Jacksonville, Florida, and then received his doctorate of medicine. Hall opened a medical practice in Center Point, Alabama, and after three years he moved to Columbusia, Alabama, where he established a practice that lasted 30 years. He was a member of the board that established the Shelby Memorial Hospital (now Shelby Baptist Medical Center) and donated property to the Shelby Shores Medical Association that was dedicated as Hall Park.

John W. (Bill) Benton, class of 1955, died April 3, 2007. Through his teaching and pioneering work in pediatric neurology, he trained and inspired generations of pediatricians. As chair of UAB's Department of Pediatrics from 1969 to 1983 and physician in chief of Children's Hospital from 1976 to 1983, he helped lead the pediatric residency program to national acclaim. He earned many honors, including the SOM's Most Distinguished Alumnus award and the Wallace Alexander Clyde Distinguished Service Award for Excellence in Pediatrics. An endowed chair in general pediatrics was also created in his honor.

Charles Fredrick Veaey, class of 1955, died December 21, 2006. He lived in Guntersville, Alabama, and specialized in public health, general preventive medicine, and general surgery.

Charles Marion Upchuch, a 1966 resident, died February 20, 2007. He graduated from the University of the South in Sewance, Tennessee, and the Bowman Gray School of Medicine in Winston Salem, North Carolina. He completed his pediatric residency at University Hospital and Children's Hospital in Birmingham. Upchurch served four years in the U.S. Air Force as a pediatrician in Japan and Alabama. He practiced for 35 years, serving as Huntsville Hospital chief of pediatrics and chief of the medical staff.


Richard Haskell Jones, class of 1973, died February 21, 2007. He practiced at Cartaway Hospital for 18 years. Jones lived in Parrish, Alabama, and specialized in emergency medicine.

Karl Frederick Kesmodel Jr. died February 24, 2007. He graduated from Stetson University and Tulane Medical School. He served during the Korean War as a captain and chief of radiology at Alabama's Fort McClellan. Kesmodel practiced at various hospitals in the Birmingham area and at St. Vincent's Hospital for 35 years, including a term as chief of radiology and a year as chief of the medical staff.

T. Joseph Reeves, former chair of the Department of Medicine and physician in chief at University Hospital, died April 21, 2007. After receiving his medical degree from the Baylor College of Medicine and his discharge from the U.S. Naval Reserve, Reeves came to the School of Medicine for a cardiology research fellowship. As a member of the faculty during the early years of the school, he served as assistant professor of medicine, associate professor of medicine, associate professor of physiology, and professor of medicine. He also left his mark by founding the school’s cardiovascular research and training center. One of his most distinguished achievements was to co-author the textbook Principles and Problems of Ischemic Heart Disease with his mentor, Tinsley R. Harrison, M.D. Look for an appreciation of Reeves in the next issue of UAB Medicine.
The graduates of the class of 2007 were recognized on Sunday, May 20, at the annual commencement ceremony held at the Birmingham-Jefferson Civic Center. Robert R. Rich, M.D., senior vice president and dean of the School of Medicine, presided.

Betty Ruth Speir, M.D., president of the University of Alabama Medical Alumni Association, welcomed the graduates into the Alumni Association, presenting each of them with a certificate of membership. Speir also presented the Alumni Association Award for Leadership and Community Service, which includes a check for $500 from the Medical Alumni Association to the recipient. Richard E. Brown, M.D., president of the Caduceus Club of the Medical Alumni Association, presented the faculty awards sponsored by the Caduceus Club, each of which included a check for $1,000.

THE CADUCEUS CLUB AWARDS
Best Clinical Professor
Hussein D. Abdullatif, M.D.

Best Basic Science Professor
E. George Saler Jr., Ph.D.

SCHOOLWIDE ACADEMIC AWARDS
Hugh J. Dempsey Memorial Award
Lyndon Byong-Keun Lee
A remembrance of the late Hugh J. Dempsey, M.D., professor of medicine, this plaque and prize are presented annually as the highest award to a member of the graduating class. The award is based on cumulative academic achievements during the entire four years as a student at the School of Medicine.

The Leonard Tow Humanism in Medicine Awards for a Student and Faculty Member
Presented by the Arnold P. Gold Foundation
Deepak Palakshappa (student), Hussein D. Abdullatif, M.D.
This award is presented in recognition of the value of humanism in the delivery of care to patients and their families.

Medical Assurance Award for Excellence in Patient Communications
Deannah Darnell Maxwell, Trenton Jacob Wilson
Consisting of a prize and plaque, this award acknowledges excellence in patient communication for a senior completing postgraduate medical education in the state of Alabama.

Alumni Award for Leadership and Community Service
Lorie Glover Dawson
This prize and plaque are presented to acknowledge outstanding leadership and community service.

The Merck Manual Award
Presented by Merck and Company, Inc.
Ashley Dan Coleman, Shannon Armstrong Novosad, Deepak Palakshappa, Nirupama Putcha
This award is presented to four outstanding students in medical studies.

William Boyd Medal
Presented by the Alabama Association of Pathologists
Brit Sherrill Shackley
This award is presented for exceptional performance in pathology.

The Stuart Graves Pathology Award
Deepak Palakshappa, Steven Guy Sheils
This award is presented for excellence in pathology during the sophomore year.

The J. Garber Galbraith Memorial Award in Human Anatomy
Albert Jameson Savage IV
This award is presented for excellence in human anatomy during the freshman year.

MEDICAL STUDENT RESEARCH DAY PRESENTERS
Prize Winners, Class of 2007
Rizwan SMEER AKHTAR, Alissa Renee Carver, Barrett Patrick Cary, James George Chambers IV, Elizabeth Lynn Hanson, Dien Huong Thi Hoang, Christin Nell Collier Hurt, Thomas Edard Lyles III, Gregory Ryan Mehaffey, Bhavik Natvar Patel, Sophia Shahintaj Sheikh, Trenton Jacob Wilson, Ruth Hill Yielding

SCHOOLWIDE ACHIEVEMENTS
ALPHA OMEGA ALPHA
A national medical honor society recognizing scholarship and high professional qualifications.

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SCHOOLWIDE ACHIEVEMENTS
ALPHA OMEGA ALPHA
A national medical honor society recognizing scholarship and high professional qualifications.

The Dean’s Award
Steven Guy Sheils
This award consists of a prize and plaque for the most outstanding performance in the clinical clerkships.

ACHIEVEMENT AWARDS
Certificates were presented to the following...
exceptional members of the class of 2007, in recognition of superior achievements in the clinical curriculum.

Melanie Rose Barnhart, Russell Elbey Allman Jr., Matthew David Dobbs, Dawn Renae Engelkemier, Mary Elizabeth Gilmer, Randall Lee Murphy Jr., Nirupama Putcha, Ruth Hill Yielding

**Battle S. Searcy Memorial Award**
Kevin Jackson Whiteley
This certificate and prize for the demonstration of the highest performance in psychiatry is presented on behalf of the Department of Psychiatry.

**Bruce A. Harris Jr., Award**
Shannon Alise Bryant
The Department of Obstetrics and Gynecology presents this award for outstanding abilities in OB/GYN.

**American Academy of Neurology Prize**
Rizwan Smeer Akhtar
This prize is presented for outstanding performance in neurology.

**Samuel Clemens Little Award**
Sharman Ringland Sanders
This certificate and prize are given to a student who demonstrates superior achievement in neurology.

**Garber Galbraith Medical Student Award**
Virginia Kathleen Speeker
This award is presented for excellence in surgery.

**G. Gayle Stephens Award**
Jason Thomas Cook
This award is presented to a student who has demonstrated excellence in family medicine.

**Paul A. Palmisano Award**
Jason Thomas Cook
The Palmisano Award is given to a student who demonstrates excellence in pediatrics, a passion for learning, a desire to share knowledge through example, and a compassion for the needs of children and their families.

**Tinsley R. Harrison Award**
Ellen Florence Eaton
This award is presented for academic excellence in internal medicine.

**Robert Goodloe McGahey Prize**
David Thomas Corbett
An award presented for the most outstanding performance in anesthesiology in memory of Robert Goodloe McGahey, M.D., one of the first physicians to practice anesthesiology in Alabama.

**Excellence in Emergency Medicine Award**
John Clinton Jacobs V
This award is presented to a student for excellence in emergency medicine.

**Robert J. Stanley Award for Excellence in Radiology**
Russell Elbey Allman Jr.
This award is presented for outstanding performance in radiology.

**Tinsley R. Harrison Medical Student Society**
This society is dedicated to the pursuit of excellence through scholarly exchange and research.

**HUNTSVILLE CAMPUS AWARDS**

**Dean’s Award for Academic Excellence**
Christin Nell Collier Hurt
This award is presented for the highest academic performance in the clinical clerkships.

**Dean’s Leadership Award**
Lorie Glover Dawson, Ami Ashvin Shah
This award is presented for exhibiting the most outstanding academic and leadership qualities.

**Exemplary Academic Performance**
Stacey Davis Tatum
This award is presented for the second-highest academic performance in the clinical clerkships.

**G. Gayle Stephens Award**
Samantha Page Clark
This award is presented for outstanding ability in family medicine.

**J. Ellis Sparks Award in Internal Medicine**
Christin Nell Collier Hurt
This award is presented for outstanding ability in internal medicine.

**John Di Placido Award in Obstetrics and Gynecology**
Karen Leigh Samples
This award is presented for outstanding ability in obstetrics and gynecology.

**John R. Montgomery Award in Pediatrics**
Lorie Glover Dawson
This award is presented for outstanding ability in pediatrics.

**Charles Selah Award in Surgery**
Rodney Paul Bensley Jr., Ami Ashvin Shah
This award is presented for outstanding ability in surgery.

**Award for Excellence in Psychiatry**
David Cheney Novosad
This award is presented for outstanding ability in psychiatry.

**Award for Excellence in Neurology**
Shannon Armstrong Novosad
This award is presented for outstanding ability in neurology.

**TUSCALOOSA CAMPUS AWARDS**

**Scholastic Achievement Award**
Tatum Adams McArthur
This award is presented for the highest academic performance in the clinical years.

**William R. Willard Award (Dean’s Award)**
Alissa Renee Carver
This singular recognition is awarded annually for outstanding contribution to the goals and missions of the College of Community Health Sciences.

**James H. Akers Memorial Award**
Michael Weston Luther
This award is presented annually to the senior who best personifies both the art and the science of the practice of medicine as chosen by the graduating class.

**Robert F. Gloor Award**
Tatum Adams McArthur, Renee Christine Morales
This award is presented for excellent performance in community and rural medicine.

**Family Medicine Award**
Tatum Adams McArthur
This award is presented for excellence in family medicine.

**William W. Winternitz Award**
Alissa Renee Carver
This award is presented for excellent performance in internal medicine.

**Finney/Akers Memorial Award**
Renee Christine Morales
The Finney/Akers Award is presented for outstanding ability in obstetrics and gynecology.

**Pediatric Recognition Award**
Carrie Lynn Freeman
This award is presented for excellent performance in pediatrics.

**Peter Bryce Award in Psychiatry**
Tatum Adams McArthur
This award recognizes the highest performance in psychiatry.

**William R. Shamblin Surgery Award**
David Christian Gerhardt
This award is presented for excellent performance in surgery.

**Neurology Award**
David Christian Gerhardt, Joseph Ryan Turner
This award is presented for excellence in neurology.

**Student Research Award**
Bhavik Natvar Patel
This award is presented for excellence in student research.
School of Medicine graduates take with them knowledge and memories that last a lifetime. For two graduates of the 1960s, those memories include recollections of life in Birmingham during the Civil Rights era, as well as the latest medical advances of the time. They also share fond memories of a great doctor and teacher, Tinsley Harrison, M.D.

Turmoil and Ties

Betty Ruth Speir, M.D., class of 1963, is a retired OB/GYN now living in Point Clear, Alabama. She served on the University of South Alabama faculty and is the new president of the University of Alabama Medical Alumni Association. Speir says she is amazed at the growth of UAB, which didn’t exist when she was in school. When she thinks of her medical school days, she remembers the momentous events taking place in Birmingham. "It was a very historic time," Speir recalls. "I was in the ER at the time of the church bombings." She says the hospital was segregated then, with separate labor and delivery rooms for whites and blacks. "I’m so happy to see the progress we have made," she says.

She also remembers, with a laugh, the early days of the women’s liberation movement in Birmingham. Once, at a meeting of the female medical students, Speir was surprised at the subject of discussion. "I walked in the meeting late," she says. "They were voting on whether or not to wear ties to class. Can you imagine that? They were all into the women’s lib bit—it was just getting started in the ‘60s.”

Speir recalls that open heart surgery was just beginning to become accepted, and in her field, amniocentesis was a new procedure. "Drawing fluid from the amniotic sac, we could tell what the sex of the baby was and look for possible developmental problems," she says. "That was also the beginning of the study of genetics."

One year, Speir says, there was a snowstorm. She and some other students decided to walk to the hospital from their homes in Homewood to prove to medicine chair Tinsley Harrison, M.D., how dedicated they were. "We got up at about 3:00 in the morning to make it by 6:30. We trudged all the way over the mountain," she recounts. "We never thought we would see Dr. Harrison, but he had walked in from Mountain Brook. When he saw us, he was disgusted. He said, ‘The only reason I came in today was so I could complain about how lazy the younger generation is!’"

Black Skies Over Red Mountain

Edward Crouch, M.D., class of 1968, also recalls Harrison as a big influence on students of the ‘60s and ‘70s. "He was kind of a godlike figure to us," Crouch says. An ophthalmologist, he has lived and practiced in Anchorage, Alaska, since the early 1980s. Like Speir, he has many memories of Birmingham in the Civil Rights era. "Bull" Connor, the infamous police chief, taught Sunday school at the church Crouch’s wife attended.

"Another thing I remember about Birmingham in those days was the pollution from the steel mills," he says. "You would drive over Red Mountain, and there was a black cloud hanging over the city. When we performed autopsies, everybody’s lungs were black as coal. It was an unhealthy atmosphere. It is much cleaner now."

Crouch says operation microscopes were being used for the first time when he was in medical school; for him, laser surgery is one of the biggest technological innovations since then. "We can create vision for people now without the use of glasses or contact lenses," he explains. "We can also use intraocular lenses for people recovering from cataract surgery. That was unimaginable when I was in school. People used to have to wear those thick ‘Coke bottle’ glasses following cataract surgery."

Crouch says most of his circle of students were married. One favorite pastime was for couples to get together for dinner. "Of course nobody had any money," he says. "When you went to somebody’s house for dinner, you brought your own food. After medical school, when we were invited to dinner, we would ask, ‘What do you want us to bring?’ People would say, ‘Oh, we will have food—you don’t have to bring anything,’ and it was kind of a pleasant surprise.”

Crouch recalls that one of his professors taught students about more than medicine. "A hematologist named Hugh Dempsey stands out to me,” Crouch says. "He would tell us little things you needed to know in life—like what to eat with red or white wine.”

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Class of 1963

76 graduates
13 now deceased

Top Specialty Choices:
1. Family practice, pediatrics (7 graduates each)
2. General surgery, gynecology, internal medicine, orthopedic surgery (5 each)
3. Anesthesiology, dermatology, general practice, radiology, urology (3 each)

Class of 1988

155 graduates
2 now deceased

Top Specialty Choices:
1. Internal medicine (22 graduates)
2. Anesthesiology (19)
3. Family practice (18)
Family Tradition

For Lucian Newman III, M.D., class of 1988, the historical context of his medical school days was much different from that of Speir and Crouch. Newman’s family, however, has its own unique history. His father, Lucian Newman Jr., M.D., is a fellow SOM graduate; he served as president of the Caduceus Club, a group that supports the medical school. This year Newman will follow in his footsteps as president-elect of that organization.

“My grandfather and great-grandfather were both doctors as well,” Newman explains. “They went to medical school in Tennessee. But there has been a Dr. Newman practicing in Alabama for 110 years.”

Newman is a general surgeon in Gadsden. A little more than two years ago, he lost his left arm from the elbow down in a hunting accident. He operates now with an advanced prosthetic arm and hand. “I have five associates, so if it is a complicated surgery, I have assistance. But I am able to perform most general surgeries,” he says. “As far as I know, I am the only arm amputee in the United States that performs surgery. I never seriously considered quitting. I knew somehow I would make it back.”

Newman says he was “in the right place at the right time” during his medical school days. He attended school when laparoscopic surgery, a noninvasive technique using cameras and monitors, was introduced. “As a result I have been all over the world lecturing and teaching,” he says. “I have written textbook chapters and published over 30 papers.”

MORE MEMORIES

Betty Ruth Speir, class of 1963
On attending a conference in San Francisco during her medical school days:
“There were these women holding a banner that had the letters ‘AID.’ When I inquired what it meant, I was told it stood for ‘artificial insemination donors.’”

Edward Crouch, class of 1968
On what the campus was like in the late 1960s:
“Hillman Hospital was the largest building around. There were large open spaces all over the place where people would play with their dogs or toss a football between classes.”

Lucian Newman III, class of 1988
On his most vivid memories of medical school:
“It’s hard to forget those all-night study sessions in those little cubicles at Volker Hall.”

Class of 1968
70 graduates
2 now deceased

Top Specialty Choices:
1. Internal medicine (7 graduates)
2. General surgery, obstetrics and gynecology, orthopedic surgery, pediatrics (5 each)
3. Family practice, ophthalmology, urology (4 each)
Feeding even a healthy infant or toddler can be a constant struggle. But Virginia Stallings, M.D. (class of 1979), has based her career on the much greater challenge of trying to keep children with serious illnesses well nourished and thriving.

Stallings, an Alabama native, is a pediatrics professor at the University of Pennsylvania School of Medicine, director of the Nutrition Center at the Children’s Hospital of Philadelphia, and director of the Office of Faculty Development for the hospital’s Joseph Stokes Jr. Research Center. Recently she was elected to the prestigious Institute of Medicine, the National Academy of Sciences organization of scientists, engineers, and doctors who serve as advisors to the federal government.

The Path to Pediatrics

Though she had an early interest in nutrition and earned bachelor’s and master’s degrees in the field, Stallings did not initially plan to attend medical school. She wanted to return to Alabama for a summer and wrote to Charles Butterworth Jr., M.D., founder of the UAB Department of Nutrition Sciences, asking him for a job. “Around that time, he and a colleague published a famous article, ‘The Skeleton in the Hospital Closet,’ about nutrition in a hospital setting,” she recalls. “That summer changed everything for me, from wanting to be a Ph.D. in nutrition to wanting to do human nutrition and have the medical background for that.”

After studying under Butterworth and graduating from the School of Medicine, Stallings completed an internship and residency at the University of Virginia and a clinical/research fellowship at Toronto’s Hospital for Sick Children before settling in at the Children’s Hospital of Philadelphia, where she holds the Jean A. Cornter Endowed Chair in Pediatric Gastroenterology. Consistently ranked among the nation’s top three pediatric research programs, the hospital receives more than $120 million each year for scientific studies. Consequently, Stallings has been able to help develop nutrition clinical and support services, including outpatient care for children requiring intravenous feeding at home and a preventative cardiology clinic for children with lipid disorders.

Nutrition for Prevention

Her research focuses on nutrition-related growth failure in children and adolescents with chronic medical conditions, including cerebral palsy, cystic fibrosis, sickle-cell disease, obesity, and osteoporosis. She adds that the latter two conditions historically would not have been considered pediatric chronic diseases, but that view is changing.

“The key to osteoporosis prevention in later life is that you have peak bone mass as an adolescent adult—from about ages 16 to 18 for women and 17 to 23 for men,” Stallings says. “We put that into a pediatric framework and try to help children gain as much bone mass as they can throughout childhood and particularly puberty.” To treat childhood obesity, she helped launch the Healthy Weight Initiative program.

Stallings has most recently concentrated on supplementation trials with fat-soluble vitamins. Currently she is studying low levels of vitamin A in children with sickle-cell disease and the importance of vitamin D in immune function in children with HIV/AIDS, sickle-cell, and cystic fibrosis. “We’re interested not only in how much food and how many calories children with these diseases are ingesting, but in asking specific questions about their nutritional needs,” she explains.

In the future, Stallings hopes to see increased prevention of otherwise avoidable diseases in children, such as childhood obesity, and osteoporosis later in life. “We need to ask what we can do for otherwise healthy children, to be sure they have the best nutrition they can and normal growth, which means avoiding obesity as well as fostering healthy bones,” she says. “In pediatrics our successes mean many children who once died in their teens are now thriving and surviving.” — Virginia Stallings
Battle of the Wits

Remembering the Harrison-Lyons Grand Rounds

By Laura Freeman

It was the best show in town—a weekly clash of titans that had students and residents getting up early to nab a front-row seat. At the old Hillman auditorium in the 1950s, Tinsley Harrison, M.D., chair of the Department of Medicine, and Champ Lyons, M.D., chair of the Department of Surgery, would square off in joint medical and surgical grand rounds that came to be known as the Clinical Pathology Conference.

“It started as a traditional grand rounds, with students and residents following along. But after a while, there were so many people that those in the back couldn’t hear, so they moved it to the auditorium,” says Wayne Finley, M.D., Ph.D., a longtime UAB genetics professor and a 1960 graduate of the School of Medicine (then known as the Medical College of Alabama).

“Dr. Harrison was small, but he had a quick wit and a voice that would fill the room,” Finley recalls. “Dr. Lyons was larger, and with a glance or a single word, he could strike terror into the hearts of students and residents. They loved to outdo each other.”

Operating Theater

The enjoyment that Lyons and Harrison found in their verbal battles was transmitted to the medical students and faculty members in the packed auditorium. “If Dr. Harrison was going to talk, everyone ran to be there,” says Sara Crews Finley, M.D., a graduate of the class of 1955. “Harrison and Lyons were competitive, but they respected each other. Sometimes we suspected they played up the rivalry for the sake of showmanship, but we learned a lot. It was always entertaining.”

James Pittman, M.D., the SOM’s fourth dean, was a chief resident under Harrison and has written about that time. “As the case was presented, Harrison and Lyons would listen to the physical findings and history,” Pittman explains. “Harrison would sometimes predict the lab findings, and he was usually right. He would discuss the likely diagnosis and approaches to confirming and treating the condition.

“Then Dr. Lyons would give his opinion, which often brought up other possibilities. If a diagnosis was in question, Dr. Joseph MacManus would step in with pathology findings. This approach helped students to broaden their thinking. Harrison wanted to show that there could be divergent views based on the same symptoms.”

Master Class in Medicine

At the time, Alabama physicians were seeing illnesses that are rare today, including tuberculosis, brucellosis, and late-stage syphilis. “A lot depended on judgment,” notes Wayne Finley. “We didn’t have a lot of diagnostic tools. We had our stethoscopes, black-and-white X rays, a few labs that usually took a while, our hands, and our ears.”

Harrison put a great emphasis on getting a good history, says Sara Finley. “He said, ‘If you listen to a patient, he’ll tell you what’s wrong with him.’”

The friendly rivalry between Harrison and Lyons kept the sessions lively, punctuated by quick comebacks and debates about the natural superiority of internal medicine or surgery. Both men were acknowledged leaders in their fields. Lyons had been one of the first physicians to use penicillin during World War II, and he helped to establish the cardiovascular surgery program at UAB.

Harrison, a seventh-generation physician known for his frequent quotations from Shakespeare, changed medical education by editing and helping to author the landmark textbook *Principles of Internal Medicine*. Organized by the patient’s presenting symptoms rather than by disease, it was more functional in helping physicians make a diagnosis, and quickly became the Bible of medical textbooks.

A brain tumor cut short Lyons’s career in 1965. Harrison suffered a heart attack the same year at his getaway on Lake Martin, dubbed Coronary Seclusion. He recovered and managed to use his downtime to continue to educate future physicians.

“He loved to water-ski, and often invited students down,” says Pittman. “They’d discuss cases over lunch. He seemed to look for opportunities to pick a fight, so students with different opinions would hit the books and start digging to support their views.

“It was one reason he was such a great teacher. He was so good at motivating students to want to learn.”

Capacity crowds gathered to watch the fireworks whenever surgery chair Champ Lyons (above) and medicine chair Tinsley Harrison (left) faced off during Grand Rounds at Hillman auditorium in the 1950s. Artist Max Heldman captured the scene in his book *The First Forty Years: University of Alabama School of Medicine*. (Photos and original artwork courtesy of UAB Archives.)
From the Archives
Emergency Medicine at UAB
By Tim L. Pennycuff • Photos courtesy of UAB Archives

As the BREMSS network prepares to expand state-of-the-art emergency medical service coverage throughout northern Alabama (see page 15) this installment of “From the Archives” takes a look back at more than a century of urgent care in Birmingham.

Emergency medical service has been available in the city’s Southside neighborhood since Hillman Hospital opened in 1903. When Abraham Flexner toured the hospital in 1909 as part of his review of the adjacent Birmingham Medical College, he noted that Hillman was “largely given over to surgical patients—gunshot and other wounds being decidedly abundant.” Fifty years later, the administrator of Jefferson-Hillman Hospital reported that more than 32,108 emergencies had been treated during the 1958-1959 year. And almost another half-century after that, the UAB Health System reported 56,447 emergency department visits at UAB Hospital for the 2006 fiscal year.

A horse-drawn ambulance wagon would have been the norm when Hillman opened at the turn of the 20th century. And only a relatively few patients—those within the immediate vicinity of the building—would have been taken to the hospital’s emergency clinic for treatment. Today, seriously ill patients are regularly brought to UAB Hospital from around the globe in a multimillion-dollar fleet of land and air vehicles operated by UAB’s Critical Care Transport team.


Above: The UAB Critical Care Transport (CCT) program was initiated in June 1983. Inside the CCT ambulance in 1986 are (left to right) Laura Lee Dyer, Steve Hunt, M.D., and Vicki Atkinson.

Above: A patient arrives at the University Hospital Emergency Department, circa 1966.


Above: Hillman Hospital’s ambulance, circa 1930.

Left: An ambulance waits outside the University Hospital Emergency Clinic, circa 1960.

Above: Doug Gardenhire and Heather Raniger show off the new $450,000 Critical Care Transport ambulance in 1998.
The S. Richardson Hill Society was established to honor the legacy of S. Richardson Hill Jr, M.D., former dean of the School of Medicine, vice president for health affairs and UAB’s second president. Dr. Hill was committed to the advancement of UAB’s educational, research, and patient care missions and believed that greatness came from the efforts of loyal alumni, community leaders, faculty, and staff who recognize the tremendous impact their combined strength can have in supporting the UAB enterprise.

Dr. Hill’s Secret to Success:

“Select the best and brightest talent”

“Give them the freedom to perform”

“Acquire needed resources while removing roadblocks”

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

Live Courses

September 14-15, 2007
“19th Annual Occupational Medicine Update”; Sandestin, Florida; sponsored by the Deep South Center for Occupational Health and Safety; 9.25 AMA credits.

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“UAB Specialty Update”; Spain Auditorium, Birmingham, Alabama; sponsored by the UAB Health System Benefit; 8 AMA credits.

September 20-21, 2007
“2007 Update in Liver & Biliary Disease”; Birmingham, Alabama; sponsored by the UAB Division of Gastroenterology/Hepatology and the UAB Liver Center; 7 AMA credits.

November 10, 2007
“Movement Disorder Review Course Series”; Las Vegas, Nevada; sponsored by the UAB Department of Neurology; 6.5 AMA credits.

Online Courses

“Hepatitis C Virus Infection”; co-sponsored by the Division of Continuing Medical Education and the Alabama Quality Assurance Foundation; 1 AMA credit.

“A Guide to Working with Latino Patients in Alabama”; co-sponsored by the Division of Continuing Medical Education, the Division of Preventive Medicine, and the Department of Medicine; for details, call (866) 915-7676 or visit www.dopm.uab.edu/sowingtheseeds.

“Ophthalmology Cases for Primary Care Physicians: A Case of Red Eye”; sponsored by the Division of Continuing Medical Education; 0.25 AMA credit.

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