On the cover: The neurosciences have taken off in the College of Medicine with dynamic new chairs in the departments of Neurology (John Greenfield, M.D., Ph.D., left) and Neurosurgery (J.D. Day, M.D., right) and the ongoing contributions of the Center for Translational Neuroscience, led by Edgar Garcia-Rill, Ph.D. (center). Our special coverage starts on page 2.
As you read this issue of *Medicine*, you may notice a common theme in all of the articles about our faculty members: the spirit of collaboration. The researchers and physicians scientists we’ve featured all share a strong conviction that they can get more done by working in partnership.

Our cover package, for example, showcases some of the collaborative efforts in both research and clinical care in the neurosciences. In 2010, we welcomed highly experienced, energetic new chairs in the departments of Neurology and Neurosurgery. Since then, John Greenfield, M.D., Ph.D., and J.D. Day, M.D., have worked not only to develop more comprehensive clinical programs, but also to build teams that place a high value on translational research. Along with the well-established Center for Translational Neuroscience, headed by Edgar Garcia-Rill, these new leaders are integral to our Neurosciences Magnet initiative.

As the old adage says, there is strength in numbers. We’ve launched several other magnet programs in the past couple of years, all with the aim of building on the clinical and research expertise that exists, sometimes in dispersed fashion, throughout the COM in thematic areas such as cardiovascular health, nanomedicine, trauma and inflammation. With the magnets, we’re fostering closer working partnerships to increase our ability to “connect the dots” across the spectrum of research and clinical care. We’re looking forward to sharing our progress with you.

Debra H. Fiser, M.D.

*Dean, College of Medicine*  
*Vice Chancellor, UAMS*
The neurosciences have taken off in the College of Medicine in the past year with dynamic new leaders in the departments of Neurosurgery and Neurology who are focused on building world-class programs in clinical care and research. Adding to the momentum is a multidisciplinary “magnet” initiative designed to help speed the translation of laboratory discoveries into better care for patients with neurological disorders.

For key leaders in the COM’s neurosciences efforts, the brain and its complex mechanisms present a tantalizing maze that begs to be explored. They also share a strong belief in the power of collaborative science to unlock many of the brain’s secrets.

Navigating the MAZE
Neurosurgery Chair J.D. Day brings world-class expertise to UAMS

The complexity of the brain and the challenge of performing intricate brain surgeries drew J.D. Day, M.D., to the specialty. But it’s the dramatic improvements in patients after those surgeries that have always amazed the skull-base surgeon who was recruited to UAMS to chair the Department of Neurosurgery last year.

“In medical school I thought the central nervous system was the most incredible thing to study,” said Day. “I liked the fact that there wasn’t as much known about it as some of the other organ systems. But the real eye opener was during my junior neurosurgery rotation, when we spent a lot of time in the OR and ICU with coma victims and other acutely ill patients.”

“Then I’d go to the outpatient clinic and see neurosurgical patients who were coming back for follow-up appointments, and I realized that people really do recover from these terrible problems,” said Day. “And that’s what convinced me that this was what I wanted to do. It’s not just the challenge of the operations. People really do get better because of the skills of a neurosurgeon. I was absolutely hooked.”
As an internationally known leader in skull-base surgery, Day performs some of the most intricate procedures on patients with brain tumors or vascular disorders. When a tumor occurs at the base of the skull, away from the cranium and surface of the brain, highly specialized techniques can be used to access and remove the tumor without disturbing the brain or the surrounding tangle of arteries and nerves. Day has authored four textbooks on skull-base surgery and published more than 80 articles on neurosurgical topics. He has lectured extensively and taught skull-base surgical techniques to physicians in the U.S. and abroad. Day is the only fellowship-trained skull-base surgeon in Arkansas.

He also specializes in Gamma knife surgery, which focuses 190 low-energy beams on a tumor to deliver an effective, high dose of radiation where the beams converge without affecting the healthy tissue surrounding the tumor. The procedure is often done in conjunction with skull-base surgery. UAMS is the only Gamma knife facility in the state.

Trained with the Best

Day’s expertise stems in part from his work with some of the pioneers of contemporary neurosurgery. He graduated from the University of Washington School of Medicine in Seattle in 1989 and completed an internship in surgery and a residency in neurological surgery at the University of Southern California (USC). Before his final year of residency, Day spent a year at the University of Vienna in Austria completing a research fellowship in cranial base surgery and anatomy under the tutelage of Wolfgang T. Koos, M.D., one Europe’s leading neurosurgeons. After residency, Day worked for a year with Takanori Fukushima, M.D., one of the world’s most renowned skull-base and cerebrovascular surgeons, in Pittsburgh.

Day brings a wealth of leadership experience as well as his surgical expertise to UAMS and the College of Medicine. Early in his career he was the director of cerebrovascular and skull-base surgery at the prestigious Lahey Clinic in Boston, followed by three years as director of neurological surgery at the House Ear Clinic in Los Angeles while also serving on the faculty of USC. He returned to Pittsburgh to become director of the Center for Cerebrovascular Surgery and Stroke at Allegheny General Hospital. In 2007 he was recruited to the University of Texas Health Science Center at San Antonio, where he was director of cranial base surgery as well as vice chairman for academic affairs and the associate residency program director in the Department of Neurosurgery.

It Takes a Team

Day saw the move to UAMS as an opportunity to build a department in an institution with collegial faculty and facilities that are second to none. “With top-quality operating room facilities, intensive care units and patient rooms only a few years old, the UAMS Medical Center hospital is ideal for caring for neurosurgical patients,” Day said. “And the Jackson T. Stephens Spine and Neurosciences Institute is exceptional. We have terrific laboratories and education spaces in addition to our clinical facilities.”

“Perhaps most importantly, everyone is eager to work together in collegial and collaborative teams,” he said. “This is happening both in clinical programs and in neurosciences research and ultimately results in unprecedented care for patients.”

Soon after his arrival, Day began forging stronger multidisciplinary clinical-care teams with the Department of Neurology and other departments and specialty areas. For example, the skull-base surgical expertise that Day brings to Arkansas dovetails with the expertise of physicians and surgeons in the College of Medicine’s Department of Otolaryngology-Head and Neck Surgery, led by longtime chair James Suen, M.D.

Physicians and surgeons in both departments, along with neuropathologists, neuroradiologists and other specialists, meet regularly to determine the best course of treatment for patients with head and neck cancers that affect the skull base. Multidisciplinary teams also tailor individual
recommendations for patients with non-malignant but painful conditions such as glomus tumors, and for patients with problems such as acoustic neuromas, which can cause deafness, tinnitus and balance problems.

“We follow the same team approach with metastatic brain tumors,” said Day. “A patient may be referred to a neurosurgeon, but neurosurgery isn’t always the best treatment option. Each case is jointly evaluated by our Gamma knife specialists, other neurosurgeons and radiation oncologists. We form a consensus recommendation for the patient on whether to proceed surgically, or with Gamma knife, whole-brain radiotherapy or a combination.”

Another multi-department team provides highly specialized care for patients with brain aneurysms or other critical cerebrovascular conditions. Day works with Salah J. Keyrouz, M.D., director of the Division of Neurocritical Care and Stroke in the Department of Neurology, and Eren Erdem, M.D., director of interventional neuroradiology in the Department of Radiology, and others to collectively plan evidence-based care for cerebrovascular patients.

The Department of Neurosurgery has long been home to an international icon, M. Gazi Yasargil, M.D., the founder of modern microneurosurgery who was dubbed “Neurosurgeon of the Century” by the Congress of Neurological Surgeons and the Journal of Neurosurgery in 1999. Yasargil developed several instruments used in microneurosurgery and specializes in treating epilepsy, brain tumors, arterial venous formations and other conditions. He is one of the world’s leading surgeons for limbic system, or deep brain, tumors.

Newcomers Add Expertise

An early clinical initiative for Day was to establish a program in functional and restorative neurosurgery. One of his first recruits was Erika Petersen, M.D., Arkansas’ only fellowship-trained neurosurgeon in functional neurosurgery, providing deep brain stimulation treatment for Parkinson’s disease, other movement disorders and pain. Petersen, who completed a fellowship in functional neurosurgery at the National Hospital for Neurology and Neurosurgery in London, also specializes in motor cortex, spinal cord and peripheral stimulation, and intrathecal therapy for spasticity. Her interests also include neurosurgery for pain, Gamma knife and minimally invasive neurosurgery.

With the development of Arkansas’ statewide trauma system and UAMS’ designation as a Level 1 trauma center, neurotrauma research and clinical care is another priority for Day. He has tapped Dongxia Feng, M.D., to direct the program. Feng led the neurosurgery department of a major hospital in China before coming to UAMS, where he recently completed a postdoctoral fellowship.

Day has been aggressively recruiting in other areas as well. Christopher Cifarelli, M.D., Ph.D., trained in neurological surgery at the University of Virginia and completed a fellowship at Auckland City Hospital and Starship Children’s Hospital in New Zealand. He specializes in neuro-oncology with a focus on neuro-endocrinology and tumors of the pituitary gland. An additional spine surgeon also is being recruited for UAMS’ well-established Comprehensive Spine Center, which is headed by T. Glenn Pait, M.D. Day also is recruiting an epilepsy surgeon.

Meanwhile, two pediatric neurosurgeons have signed on with Day to practice neurosurgery at Arkansas Children’s Hospital. Gregory Albert, M.D., M.P.H., trained in neurosurgery at the University of Iowa and recently completed his fellowship at the Hospital for Sick Children in Toronto. Eylem Ocal, M.D., who will start in September, completed her residency training at Yale University and a fellowship at the University of British Columbia.

“UAMS’ neurosurgery program will continue to grow in the months and years ahead,” Day said. “And we’ll continue to provide our patients with exceptional, specially tailored care through multidisciplinary teams of experts. That’s what sets us apart.”
Neurology Chair John Greenfield believes that in music and medicine, ensembles are the way to go.

“I can play on my own, but it’s more fun to play with a group,” Greenfield said at the end of an interview that focused, not surprisingly, on neurological specialties and his ongoing plans for developing his department.

The comment hints at more than Greenfield’s background in liberal arts. It’s also a pretty good way to...
summarize his professional approach. Greenfield places high value on multidisciplinary collaborations among clinicians and researchers, and he is a key leader in the College of Medicine’s efforts to build a magnet program in the neurosciences.

Greenfield is working closely with J.D. Day, M.D., who also was recruited to UAMS in 2010 to chair the Department of Neurosurgery.

“Our programs complement one another, and we’re working closely as we build our respective programs in the departments of Neurology and Neurosurgery,” said Greenfield. “We realize that we need to grow our programs, and we’re both recruiting not just with an eye toward ‘What do I need?’ but toward ‘What is going to help the neurosciences program at UAMS grow as a whole? What will help us to develop comprehensive treatment options for Arkansans with neurological conditions? And what can we do collectively to develop stronger translational research programs to move discoveries from the laboratory into clinical care?’”

A Mindful Approach to the Brain

Greenfield grew up in Oklahoma and Virginia and went to Yale University in New Haven, Conn., as a humanities major. A part-time job in an electron microscopy lab led to a summer job in a neuroscience laboratory in Richmond, Va., and Greenfield’s interest in research and the neurosciences grew.

“I thought that learning about the brain was the most interesting thing I could possibly do,” he said. “I came to it from a philosophical question: Where does the mind come from? How does the brain work? And the more I learned, the more intriguing the scientific aspects became.”

“I decided it would be far easier to read books on the side than to do science on the side,” said Greenfield, who decided to stick with the liberal arts major but also do pre-medical coursework and pursue a career in neurology and neurological research.

After graduating and doing additional preparatory studies, Greenfield entered the M.D./Ph.D. program at the University of Virginia in Charlottesville, where he received his Ph.D. in neuroscience in 1988 and his medical degree the following year. He completed a residency in neurology at the University of Michigan in Ann Arbor in 1993 and served on the faculty for six years. He also completed a fellowship in electroencephalography (EEG) and epilepsy at the University of Michigan Medical Center.

“The more epilepsy patients I saw, the more interesting that specialty became,” said Greenfield. “My experiences in the clinic dovetailed with my research interests.” Today, he is a nationally known expert in the cellular mechanisms of epilepsy, the mechanisms and actions of antiepileptic drugs, and the body’s regulation of sensitivity to those medications.

In 1999, Greenfield was recruited to the University of Toledo College of Medicine (then known as the Medical College of Ohio) as a faculty member in the departments of Neurology and Pharmacology. He served as associate director of the Comprehensive Epilepsy Center beginning in 2001 and as vice chairman for research in the Department of Neurology and as director of the school’s M.D./Ph.D. training program from 2005 until he was recruited to UAMS.

Strengths and Opportunities at UAMS

“I was impressed with what I saw here when I arrived, but I thought that there also were many opportunities for development,” said Greenfield. “The new leadership with Dr. Day in Neurosurgery was a plus, and it was clear that Dean [Debra H.] Fiser was taking this opportunity to bolster the neurosciences.” (Read about the COM’s Neuroscience Magnet on page 13.)

One of the department’s established areas of strength, he said, is the neuromuscular program and Muscular Dystrophy Association-certified Amyotrophic Lateral Sclerosis (ALS) Clinical Center headed by Stacy Rudnicki, M.D. She was joined in 2010 by Tawfiq Al-Lahham, M.D., a fellowship-trained neuromuscular specialist, who will help design and conduct clinical trials as well as care for ALS patients at UAMS. The team also grew with the addition of Betul Gundogdu, M.D., who moved to UAMS full time after several years at the Central Arkansas Veterans Healthcare System (CAVHS).

The neuromuscular clinicians are members of a comprehensive team of UAMS physicians, allied health professionals and researchers collaborating to address ALS on all levels, from basic research on underlying mechanisms to improved clinical care.
Greenfield also noted the Division of Neurocritical Care and Stroke led by Salah J. Keyrouz, M.D. As medical director of Arkansas SAVES (Stroke Assistance through Virtual Emergency Support), Keyrouz has helped to improve the odds for stroke victims throughout the state through telemedicine technology that links physicians and patients in distant emergency rooms with stroke-trained neurologists who can oversee the use of powerful clot-busting drugs when appropriate. UAMS was certified as an Advanced Primary Stroke Center in 2010. Archana Hinduja, M.D, who is fellowship-trained in neurocritical care, joined the department in 2010, and Dr. Nicolas Bianchi, an additional stroke neurologist, arrived in August 2011.

“UAMS’ epilepsy program also is exceptionally strong,” Greenfield said. “Since I arrived, we have had regular meetings of the multidisciplinary Refractory Epilepsy Group, which evaluates patients for epilepsy surgery.” The group includes neurologists, neurosurgeons, neuropsychologists, neuroradiologists, psychiatrists and others with an interest in epilepsy. “I have been very impressed with the commitment to research, and I can see us doing great things down the road.”

“Our department also has a few ‘rock stars,’” said Greenfield. “We’re very fortunate to have Dr. Lee Archer’s outstanding clinical services for Arkansans with multiple sclerosis.” Archer has repeatedly been named in the annual “Arkansas’s Best Doctors” list published by the Arkansas Times, and he was featured on the cover of the most recent edition last fall.

The department’s educational programs are enhanced by a good working relationship with the CAVHS and VA-based faculty members W. Steven Metzer, M.D., who directs the residency program, and John Schwankhaus, M.D., who directs the medical student clerkships. The VA Neurology service is led by Sarkis Nazarian, M.D., a neuro-ophthalmologist with expertise in eye and eye movement disorders, and Firas Bannout, M.D. provides expertise in EEG and epilepsy.

**More Growth on the Horizon**

The department is looking toward additional growth in the near future. Greenfield recently recruited neuro-oncologist Shirley Ong, M.D., who completed fellowship training at M.D. Anderson Hospital in Houston and joined the department in August.

“We are also actively recruiting a movement disorders specialist,” said Greenfield. The new recruit will join Sami Harik, M.D., who stepped down as the Department of Neurology’s chair last year, and Metzer in caring for patients with Parkinson’s disease. “Movement disorders is a high priority, since we are developing a comprehensive neurosurgical program in collaboration with one of Dr. Day’s recruits, Dr. Erika Petersen,” said Greenfield. Petersen specializes in the implantation of deep brain stimulators that can be used to treat Parkinson’s disease, tremors and other neurological conditions.

Another new direction is sleep neurology. “UAMS is developing our own sleep laboratory, and we are looking for a sleep neurologist to direct a multidisciplinary sleep medicine program,” said Greenfield. “While many sleep centers deal primarily with pulmonary problems like obstructive sleep apnea, sleep neurologists concentrate on unusual disorders such as narcolepsy and REM Sleep Behavior Disorder, a rare condition in which people act out their dreams.”

“We hope to recruit someone with translational neuroscience interests who could interact with the strong basic science sleep program of Dr. Edgar Garcia-Rill,” said Greenfield. Edgar Garcia-Rill, Ph.D., heads the Center for Translational Neuroscience (CTN). (Read more about Garcia-Rill and the CTN on page 10.)
Neuroscientist Edgar Garcia-Rill is helping UAMS researchers translate discoveries about the brain into better medicine.
After four decades of neuroscience research, the College of Medicine’s Edgar Garcia-Rill, Ph.D., can attest that the brain works more like an orchestra than a computer.

“When you’re watching TV, you might say it’s like playing Brahms,” said the professor of neurobiolgy and developmental sciences and director of UAMS’ innovative Center for Translational Neuroscience (CTN). “If you’re playing football, it’s Mozart. And when you’re taking your dog for a walk, you’re doing a Souza march. The sheet music differs, but the brain is using the same instruments.”

Like many of his colleagues in the neurosciences, Garcia-Rill was attracted to the field because of the intricacy of the brain. “But after all these years,” he said, “I’ve come to realize that the functioning of the brain is simpler than I thought. A lot of disorders are caused by common mechanisms.”

Just as an orchestra operates on frequencies of sound, Garcia-Rill explains, the brain works by frequencies of electrical activity. “Think of music as the emergent property of the orchestra,” he said. “Think of action and thought as the emergent properties of the brain.”

The musical observation stems in part from Garcia-Rill’s groundbreaking research into brain mechanisms that control sleep and wakefulness. Three years ago, he and his colleagues in the CTN discovered that cells in the reticular activating system, which regulates sleep and waking, are electrically coupled. The breakthrough, described as “seminal” by other experts in the field, opens the door to potential new stimulants and anesthetics and more effective treatments for sleep disorders such as narcolepsy and psychiatric conditions including schizophrenia.

Venezuela-born Garcia-Rill was raised in Canada, where he earned his doctorate in physiology from Montreal’s McGill University in 1973. He completed postdoctoral training in the Department of Anatomy at the University of California, Los Angeles and UCLA’s Neuropsychiatric Institute before coming to UAMS in 1978. Among many honors, he was chosen as the College of Medicine’s Distinguished Faculty Scholar in 2005.

Garcia-Rill’s research lab has been continuously funded by the National Institutes of Health (NIH) and other sources for more than 25 years, venturing into diverse areas including the control of voluntary movement and locomotion, spinal cord injury and motor disorders such as Parkinson's and Huntington's diseases, as well as his internationally recognized work in sleep science. He holds three patents for medical and research devices and techniques.

He attributes much of his success to the graduate students who have worked in his lab through the years. “I have been fortunate to attract top students like David Heister, M.D., Ph.D., who is now at the University of California at San Diego,” said Garcia-Rill. “Meijun Ye, Ph.D., is now at Yale University, and Christen Simon is headed to NIH as soon as she defends her thesis. We also have very talented current students, Neso Kezunovic and James Hyde.”

Beyond the Lab

Garcia-Rill’s extensive research experience is a boon to the Center for Translational Neuroscience, where the quest for new discoveries about the brain – basic science research – is only one facet of an overall goal to move neuroscientific findings beyond the laboratory and into new approaches for perception and are essential for attention, learning and memory. Their new findings suggest that it is the intrinsic membrane properties of these cells that regulate those frequencies.

UAMS College of Medicine
prevention, diagnosis and treatment of disease as swiftly as possible.

The CTN supports translational research at several other points in what’s often referred to as the “pipeline,” from pre-clinical studies to the evaluation of new medical treatments. The center also works with researchers who are seeking to improve access, coordinate systems of care and help clinicians and patients make more informed choices.

“Translational research isn’t a linear process that starts in the laboratory and ends at the patient’s bedside,” said Garcia-Rill. “It’s really a cyclical approach to research and continual work to improve health and medical care.”

Garcia-Rill established the CTN in the Department of Neurobiology and Developmental Sciences in 2003. The following year the center received its first $10 million, five-year grant to operate the CTN through the Center of Biomedical Research Excellence (COBRE) program at the NIH’s National Center for Research Resources (NCCR). The NCCR awarded the CTN its second $10 million grant in 2009 to continue its work for another five years. The center also has received upwards of $1 million in supplemental program funding.

One of the CTN’s primary strategies is to help College of Medicine departments recruit, mentor and support physicians who are interested in translational research with the goal of helping them become independently grant funded. To date, the CTN has helped researchers generate about $18 million in additional grants. As a group, CTN researchers now produce close to 75 research publications a year.

“A lot of clinicians want to work at academic health centers such as UAMS because of the opportunity to do research,” Garcia-Rill said. “But they need mentoring and career development guidance, and we provide that. The CTN helps them carve out protected (funded) time away from their clinical and teaching duties. We guide them through regulatory processes and can provide funding for pilot studies.”

The center has established seven core facilities that offer shared laboratory equipment and other resources.

The facilities provide expertise in focused areas such as human and animal electrophysiology and measurement, transcranial magnetic stimulation (TMS), molecular biology, neurological imaging and community-based research and education through telemedicine.

A Record of Success

The Transcranial Magnetic Stimulation Core yielded one of the CTN’s early success stories, a novel non-invasive treatment that works for many patients to alleviate tinnitus, the “ringing in the ears” that severely afflicts as many as 16 million Americans. The research was headed by neurotologist John Dornhoffer, M.D., a professor in the Department of Otolaryngology-Head and Neck Surgery, along with TMS Core Director Mark Mennemeier, Ph.D., a professor in the Department of Neurobiology and Developmental Sciences.

In a newer project, Mennemeier is working with UAMS College of Public Health researcher Christine Sheffer, Ph.D., to explore the use of TMS as a treatment for tobacco dependence. Mennemeier also developed an effective new treatment for the deficits produced by spatial neglect, a common side effect in stroke patients that makes them unaware of stimuli in one side of their visual or sensory field.

Many of the CTN’s projects benefit Arkansas’ infants and children. Some of the center’s original grant provided seed money for injury prevention community research programs headed by pediatrician Mary Aitken, M.D. (Read about Aitken’s work on page 14 of this issue.) The CTN also helped Jeffrey Kaiser, M.D., an associate professor of pediatrics, obtain major, long-term NIH funding for groundbreaking research into intraventricular hemorrhage, a leading cause of serious adverse effects in pre-term infants.

With CTN support, UAMS neonatologist Whit Hall, M.D., a professor of pediatrics, is leading new research into “kangaroo care,” exploring how close physical contact between premature infants and their mothers in the neonatal intensive care unit can

“Think of music as the emergent property of the orchestra, think of action and thought as the emergent properties of the brain.”
improve the babies’ neurological and physical development and also help decrease stress and pain from the many procedures they must endure each day. Hall is working with CTN partner Charlotte Yates, P.T., Ph.D., an assistant professor based at the University of Central Arkansas.

Earlier, the CTN and Hall partnered to develop the Pediatric Physician Learning and Collaborative Education program (PedsPLACE). A supplemental COBRE grant through the CTN funded 20 interactive telemedicine units in outlying hospital nurseries around the state. Since 2008, the system has been used for consultations to help stabilize fragile newborns and evaluate potential hospital transfers. PedsPLACE sponsors regular, well-attended conferences among neonatologists and other physicians to discuss cases, evidence-based guidelines and research into the effectiveness of the telemedicine endeavor in improving outcomes for premature, low birth weight infants.

More recently, the CTN provided telemedicine units and expertise to launch the Emergency Department Physician Learning and Collaborative Education program (EDsPLACE), which uses similar approaches to coordinate statewide education and research into trauma and emergency care.

Garcia-Rill noted another promising project that addresses methamphetamine abuse, with the goal of developing a new treatment to decrease relapse. That work is headed by Center for Addiction Research investigators Mike Mancino, M.D., an assistant professor in the Department of Psychiatry, along with CTN mentor Alison Oliveto, Ph.D., a professor in the department.

“Translational neuroscience takes us in many directions,” said Garcia-Rill. “It’s open-ended and not easily defined. But it’s a powerful approach for improving health.”

CONNECTING THE DOTS: COM Launches Neurosciences Magnet

In 2010, College of Medicine Dean Debra H. Fiser saw a unique opportunity to ramp up neuroscience research along with related clinical programs at UAMS.

The well-established Center for Translational Neuroscience (CTN) was a proven asset. And with dynamic new chairs in the departments of Neurosurgery and Neurology – both committed to bolstering research programs as well as patient services – the timing was right.

Fiser launched a Neurosciences Magnet last August, with the CTN’s Edgar Garcia-Rill, Ph.D., Neurology Chair John Greenfield, M.D., Ph.D., and Neurosurgery Chair J.D. Day, M.D., serving as co-directors.

The initiative is one of several recently developed magnet areas designed to build on existing research and clinical strengths to more effectively “connect the dots” on complex medical problems. Other initiatives focus on cardiovascular disorders, trauma medicine, nanomedicine, inflammation, and research into the comparative effectiveness of medical care options.

“Connecting the dots means helping faculty from multiple disciplines, departments and even institutions collaborate as effectively as possible,” said Fiser. “Our focused magnet programs bring faculty together to tackle medical disorders from multiple angles. Research to better understand the basic mechanisms of disease is one critical point. From there, our teams work to develop potential treatment options, and then evaluate them in clinical trials. The findings help our physicians and clinical care teams deliver better care, which is then evaluated and used to drive further research.”

The CTN is a key resource, providing infrastructure for collaborative research and assisting in the recruitment and support of translational researchers. Numerous other UAMS resources support the initiative, including advanced radiological imaging tools and expertise in the Department of Radiology, the UAMS Psychiatric Research Institute and many other departments.

Initial meetings of the Neuroscience Magnet have helped to identify diverse neuroscience interest areas and strengths on campus. They include amyotrophic lateral sclerosis (ALS), drug and alcohol abuse, epilepsy, movement disorders, neurodegenerative disorders, neuro-oncology, pain, sensory neurophysiology, sleep issues associated with obesity, neurotrauma, and stroke and vascular neurology. One of the magnet’s early projects was the development of a blog site to help faculty researchers coalesce into working groups and to facilitate communication among busy researchers and clinicians.
Injury prevention is no game, but it’s easy to draw baseball analogies when it comes to the work of pediatrician, researcher and College of Medicine professor Mary Aitken, M.D.

For the past 15 years, Aitken has been going to bat for Arkansas’ children through community-based research and outreach, legislative advocacy and other measures aimed at reducing preventable deaths and injuries from automobiles, all-terrain-vehicles (ATVs) and other causes.

And the solutions to some problems really are found close to home plate.

Aitken joined the faculty in 1996 and has been chief of the Center for Applied Research and Evaluation (CARE) in the UAMS Department of Pediatrics since 2006 and director of the Injury Prevention Center at Arkansas Children’s Hospital (ACH) since its formation in 2007.

She and her colleagues work with organizations and citizens throughout the state and beyond to determine the most effective ways of disseminating information about child car seats, booster seats and other prevention strategies, and getting Arkansans to adopt preventive practices. For example, Aitken has led a multi-state, U.S. Centers for Disease Control-funded research project called Strike Out Child Passenger Injury, which conducted outreach to families with booster seat-aged children through baseball programs in rural communities. The four-year project is winding down, and the results are positive.

“In Arkansas, the baseline use of booster seats has been low, but our data showed that we were effective in changing the proportion of kids who were properly restrained in a single baseball season,” said Aitken. “Thanks to the support of UAMS and ACH, we’re in a position now to go beyond our grant-supported project and disseminate evidence-based programs such as Strike Out to the rest of the state.”
First Base: Choosing Prevention

Aitken received her medical degree from the University of North Carolina in Chapel Hill in 1988. In 1991 she completed a residency in pediatrics at Johns Hopkins Hospital in Baltimore, where she particularly enjoyed working on the trauma team and in the emergency department. The next year she went to New Zealand to help develop a trauma program at a hospital, and she decided while working there to focus on injury prevention rather than critical management of injuries and acute illness.

“As skilled and vital as trauma surgeons are, once an injury occurs, it’s largely a matter of damage control,” Aitken said. “Surgeons can often return an injured child to some level of function, but all too often there is significant disability, or potential for re-injury, and in every case there’s pain and suffering that could have been avoided through prevention. So I wanted to focus on that.”

Aitken continued her training with a fellowship in the Division of General Pediatrics at the University of Washington in Seattle, while also earning a master’s in public health in epidemiology in the university’s School of Public Health in 1996. She was recruited to UAMS and ACH that year and began building an injury prevention research program.

Improving Arkansas’ Batting Average

Pediatric injury is a staggering problem nationwide, but in few places more so than in Arkansas. “There’s no doubt that we have a more severe burden of injury-related death and disability than most other states,” said Aitken. “For most injury mechanisms, we’re among the top few states if not the leader. For some subgroups, unfortunately we have rates that are nearly twice as high as the national average.”

While community ball fields are one front in the fight to improve the statistics, Aitken also has advocated aggressively for injury prevention policy in the Arkansas General Assembly. She testified in hearings leading to the enactment of the 2001 state law requiring children under age 6 who weigh less than 60 pounds to be secured in a child passenger safety seat or booster. In fact, Aitken would prefer a stronger requirement, because research shows that most children actually need a booster seat to properly restrain them until they’re around age 8.

In the 2009 general session, Aitken, who has a 13-year-old son and a 20-year-old stepdaughter, testified on behalf of the law that now requires teenagers to obtain their driver’s license in graduated steps. She supported legislation that strengthened enforcement of state’s seatbelt law by making it a primary law. Such policies have been very effective in reducing injury deaths when implemented in other states.

The session also saw creation and funding of Arkansas’ statewide trauma system, which is designed to better coordinate the efficient, speedy transport and treatment of injured Arkansans at the hospital most suited to meet their needs. Implementation is ongoing, with UAMS and ACH both designated in 2010 as Level 1 trauma centers.

“The 2009 legislative session was a watershed in terms of injury prevention-related policy in the state,” said Aitken. “Having laws in place that we know encourage safer behavioral choices helps to make all of the other work we do – outreach, education and research – more effective.”

The new trauma system includes an injury prevention component, and Aitken and her colleagues have received a grant from the Arkansas Department of Health to provide technical assistance across the state through the newly created Statewide Injury Prevention Program. Staff members have been hired to provide training in evidence-based injury prevention for trauma-related and health department personnel and to work with communities in several areas of injury prevention for all ages.

Another focus area for Aitken and her colleagues is ATV safety. They are studying barriers to helmet use among ATV riders to determine how to design interventions that may result in safer riding behaviors and fewer brain injuries from ATV crashes. Meanwhile, CARE researchers have begun working with engineers affiliated with the University of Arkansas in Fayetteville on crash simulations to better understand the physical implications and risks of young children riding on ATVs. Every year, more than 70 children are admitted to ACH for injuries sustained in ATV incidents.

Major League Advocate

Aitken has become nationally known in the field of injury prevention. She was an elected member of the Executive Committee of the American Academy of Pediatrics (AAP) Section on Injury, Violence and Poison Prevention in 2005 and continues to serve in that role. In 2006, she represented the AAP at hearings before the
U.S. Senate Commerce Committee’s Transportation Subcommittee on the perils of ATVs for children.

In Arkansas, Aitken has been recognized both for her injury prevention advocacy and her work in mentoring junior faculty members. The Arkansas Chapter of the American Academy of Pediatrics awarded her the Fellow Achievement Award in 2008 and the Gil Buchanan, M.D., Excellence in Child Advocacy and Community Service Award the following year. Also in 2009, the Arkansas Mothers Against Drunk Driving presented Aitken with the Community Champion Award. In 2010, she received the Outstanding Woman Faculty of the Year Award from the College of Medicine Women’s Faculty Development Caucus, which she served as president in 2007-2009.

“All of my work is done as part of a team,” said Aitken. “I have an excellent staff at the Injury Prevention Center who really give life to all of our programs in the community. There is also the tremendous effect of collaboration with other researchers here in Arkansas and across the country. Nothing I do would be effective or even possible without their creativity and energy.”

A Whole New Ballgame

This year, Aitken will collaborate with colleagues from other departments and colleges at UAMS and other institutions in a magnet program centered on trauma issues. Launched by College of Medicine Dean Debra H. Fiser, M.D., the initiative will put a greater focus on the entire spectrum of trauma from prevention to rehabilitation.

“Arkansas’ trauma and preventable injury statistics are bad, but they don’t have to stay that way,” said Aitken. “The state’s investment in the trauma system and UAMS and ACH’s commitments to these issues will make a difference. More people are getting involved – professionals and citizens in communities across the state – and I’m confident that we’re on the verge of some major improvements. We can turn this around.”

How Does Arkansas Compare?

- A child in Arkansas dies every two days from an unintentional injury
- Third highest unintentional injury death rate for children in the U.S.

Influential Educator Heads Undergraduate Medical Education

James Graham, M.D., a professor of pediatrics who has led the introductory clinical medicine course for College of Medicine (COM) freshmen for more than a decade, was named associate dean for undergraduate medical education in July 2010. Graham received his medical degree at UAMS in 1985, followed by a residency in pediatrics at UAMS and Arkansas Children’s Hospital (ACH). He joined the faculty after completing a fellowship in pediatric emergency medicine in 1991. Graham began directing the fellowship the following year and assumed leadership of the Introduction to Clinical Medicine I course in 1999. He served as chief of the Section of Pediatric Emergency Medicine from 2005 to 2010.

Among recent honors for his work as an educator, Graham was chosen by seniors to serve as a faculty hooder at Honors Convocation this year. He received the student-driven Gold Sash Award last year and has 11 Red Sash Awards to his credit. Graham has been active in many committees at UAMS and ACH, including the COM Curriculum Committee and the Undergraduate Medical Education Competencies Committee.

Graham also helped to establish Arkansas’ statewide trauma system as a member of the Governor’s Trauma Advisory Council, which he has chaired since 2008.

Pediatrics Leader Brings Broad Expertise to Northwest Campus

Chris Smith, M.D., a professor and clinician, educator and administrator in the Department of Pediatrics and Arkansas Children’s Hospital (ACH) for more than 20 years, began serving as the first regional associate dean for the College of Medicine at the UAMS Northwest Campus in January 2011.

Smith received his medical degree from the University of Mississippi in 1983 and completed his pediatric internship and residency at UAMS. He spent three years in private practice and joined the College of Medicine and the Division of General Pediatrics in 1989. He has served as director of ACH Pediatric Hospitalist Service, medical director of the ACH Express Care Unit and associate medical director at ACH.

Smith’s educational leadership of the Department of Pediatrics included service as associate director and then director of the Pediatrics Residency Program, followed by his appointment as vice chairman for education in 1997. He was on the College of Medicine’s Graduate Medical Education Committee for 12 years, including four as chairman. He also was medical director of the PULSE Center at ACH, leading the development of pediatric simulation education.

Among many educational honors, Smith received the College of Medicine’s Master Teacher Award and the Chancellor’s Faculty Teaching Award in 2009.

Pediatric Cardiology Chief Appointed Associated Dean and ACH Medical Director

W. Robert Morrow, M.D., who has led the Section of Pediatric Cardiology in the College of Medicine and Arkansas Children’s Hospital (ACH) since 1996, assumed the posts of associate dean for children’s affairs in the College of Medicine and senior vice president for medical affairs (medical director) at ACH in January 2011.

Morrow received his medical degree from the University of Alabama at Birmingham (UAB) School of Medicine in 1979. He completed an internship and residency in pediatrics at University of Washington and Children’s Orthopedic Hospital in Seattle and a fellowship in pediatric cardiology at Baylor College of Medicine and Texas Children’s Hospital in Houston.

From 1986 to 1990, Morrow was chief of cardiology and a pediatric intensivist at Wilford Hall USAF Medical Center and an adjunct staff scientist at the Southwest Foundation for
Biomedical Research in San Antonio. He went on to serve in faculty positions at the University of Texas Health Science Center in San Antonio, UAB, and Wayne State University School of Medicine in Detroit before being recruited to UAMS.

A professor of pediatrics, Morrow also holds the David and Stephanie Clark Chair in Pediatric Cardiology at ACH. Among many national leadership roles, he currently chairs the Section on Cardiology and Cardiac Surgery for the American Academy of Pediatrics.

UAMS Clinical Ethicist and Bioethics Expert to Head Medical Humanities

D. Micah Hester, Ph.D., an associate professor and previous associate director of the College of Medicine (COM) Division of Medical Humanities, began serving as chief of the division in July 2011.

Hester received his master’s degree and a doctorate in philosophy in 1998 at Vanderbilt University in Nashville, completing his dissertation on the ethics of physician-patient relationships. As a faculty member at the Mercer University School of Medicine, he taught bioethics to medical students and developed an interest in pediatric ethics.

He was recruited to Little Rock in 2004 as an assistant professor in Division of Medical Humanities and a clinical ethicist at UAMS and Arkansas Children’s Hospital. Hester has directed the sophomore medical ethics course since 2005, overseeing content expansion and doubling of the number of ethics sessions for students. He was promoted to associate professor and associate division director in 2008. Hester serves on a number of UAMS and COM committees that address curriculum and ethics issues.

A national leader in the field, Hester co-chairs the Program Committee for the American Society for Bioethics and Humanities annual meeting and coordinates the national Pediatric Ethics Consortium. He is the author of eight books and dozens of journal articles and lectures frequently on bioethical topics.

Noted Anatomic and Molecular Genetic Pathologist Appointed as Chair

Jennifer L. Hunt, M.D., M.Ed., an internationally recognized subspecialist in head and neck, endocrine and molecular anatomic pathology and a highly regarded medical educator, has been named chair of the Department of Pathology and Laboratory Services.

Hunt, who will join the College of Medicine (COM) in September, has served as an associate professor of pathology at Harvard Medical School since 2009. She also has been director of the Division of Quality and Safety at Massachusetts General Hospital in Boston since 2009 and associate chief of anatomic and molecular pathology at the hospital since earlier this year.

Hunt received her medical degree from the University of Pennsylvania School of Medicine in Philadelphia in 1997 and a master’s degree in education from the University of Pennsylvania Graduate School of Education the same year. She completed a residency in anatomic pathology and a fellowship in molecular genetic pathology at the Hospital of the University of Pennsylvania. She held faculty positions at the University of Pittsburgh and the Cleveland Clinic Lerner College of Medicine of Case Western Reserve University before her recruitment to Harvard.

Among many national leadership positions, Hunt recently was elected president-elect of the Association for Molecular Pathology. She lectures nationally and is the author of more than 110 publications in head and neck, endocrine and molecular pathology and in laboratory operations and quality assurance.
Paula M. Podrazik, M.D., was invested as the Magalene McKinnon Ingram Professor in Geriatric Education on Jan. 12, 2011. Since joining the faculty in July 2009, Podrazik has been active in teaching and serves as the geriatrics fellowship director as well as caring for patients in the Thomas and Lyon Longevity Clinic and the UAMS inpatient geriatrics service. She is a national authority on improving the quality of hospital care for older patients through education. The professorship was endowed by the children of Magalene McKinnon Ingram, who remained civically active in the West Memphis community after the death of her husband, state Sen. William Kent Ingram, in 1981.

Robert R. Wolfe, Ph.D., was invested as the Jane and Edward Warmack Chair in Nutritional Longevity on Jan. 12, 2011. Wolfe, who joined the faculty in August 2006, is a professor of geriatrics and director of the Center for Translational Research in Aging and Longevity in the Donald W. Reynolds Institute on Aging. A world leader in the fields of human metabolism and stable isotope tracer methodology, Wolfe is a member of several government and industry committees responsible for determining dietary protein requirements. The chair was funded by Jane and the late Ed Warmack, a business and civic leader in Fort Smith and Texarkana.

Jonathan A. Dranoff, M.D., joined the faculty in January 2011 as the Jerome S. Levy Chair in Gastroenterology and director of the Division of Gastroenterology and Hepatology. Dranoff received his medical degree from Drexel University in Philadelphia and completed a residency in internal medicine at Boston University. His fellowship in digestive diseases is from Yale University, where he was a faculty member from 2000 until his recruitment to UAMS. Dranoff’s clinical specialties include biliary cirrhosis and cholangiography, with research interests in biliary cirrhosis, liver fibrosis and other areas. The chair’s namesake began teaching at UAMS in 1929, established the gastroenterology program and served on the clinical faculty for 49 years.

Jeanne Y. Wei, M.D., Ph.D., was invested as the Jackson T. Stephens Chair in Geriatrics on May 11, 2011. A faculty member since 2002, Wei has served as professor and chair of the Donald W. Reynolds Department of Geriatrics and Executive Director of the Donald W. Reynolds Institute on Aging since January 2009. She is an internationally known geriatrician and cardiologist with more than 30 years experience developing academic programs and clinical initiatives, conducting gerontological research and mentoring. The late Jackson T. Stephens, one of Arkansas’ premier business leaders, funded the endowed chair in addition to providing substantial support for other UAMS programs and facilities.

Ann T. Riggs, M.D., was invested as the Alexa and William T. Dillard Chair in Geriatrics on May 11, 2011. Riggs is an associate professor and vice chair of the Donald W. Reynolds Department of Geriatrics and medical director of the Thomas and Lyon Longevity Clinic. Recruited to UAMS from the University of Rochester in 1997, Riggs developed the Long Term Care Division and was instrumental in developing the department’s robust clinical and educational programs. The endowment was funded with a gift from the children of Alexa and William T. Dillard, the Arkansas business icon who founded one of the nation’s largest apparel and home furnishings retailers.
Stephen Canon, M.D., became the first holder of the Arkansas Children’s Hospital Auxiliary and John F. Redman, M.D., Endowed Chair in Pediatric Urology on Dec. 7, 2010. Canon joined the College of Medicine faculty in November 2009 as an associate professor in the Department of Urology. He serves as chief of pediatric urology at ACH. Redman, the chair’s namesake, is a 1963 UAMS graduate who served for more than 26 years as the first chairman of the Department of Urology and also was chief of pediatric urology at ACH for 23 years. Redman retired in 2009 and is now a professor emeritus.

James Aronson, M.D., was invested as the inaugural holder of the Walter Selakovich, M.D., Endowed Chair in Pediatric Orthopaedics on Jan. 13, 2011. Aronson, who joined the faculty in 1984, is a professor in the departments of Orthopaedics and Pediatrics. He has served as chief of orthopaedic surgery at ACH and director of the Laboratory for Limb Regeneration at the Arkansas Children’s Hospital Research Institute since 1988. The chair’s namesake practiced orthopaedic surgery in Arkansas from 1958 to 2004. He mentored residents at UAMS and cared for children with club feet and other skeletal deformities at ACH. The endowment was funded by the ACH Allocation Committee.

Charles A. James, M.D., was invested as the inaugural recipient of the Lee Roy and Melba T. Beasley Endowed Chair in Pediatric Radiology on Feb. 22, 2011. James, who joined the faculty in 1991, is a professor in the Department of Radiology and has served as chief of the Division of Pediatric Radiology since 2005. He also holds an appointment in the Department of Pediatrics. Active nationally, James was elected as an inaugural board member of the international Society for Pediatric Radiology in 2005. The chair was endowed with a gift from the Lee Roy and Melba T. Beasley Foundation. The Beasleys were lifelong residents and civic leaders in El Dorado and southern Arkansas.

Timothy Martin, M.D., M.B.A., was invested as the inaugural recipient of the Cleveland C. Burton Endowed Chair in Pediatric Anesthesiology on March 1, 2011. Martin is a professor in the College of Medicine Department of Anesthesiology and chief of pediatric anesthesiology at ACH. A faculty member since 1993, he also serves as vice-chairman for education and administration in the department. The chair was funded by gifts from the estate of its namesake, an Arkansas native who practiced law and was an assistant state attorney general in Louisiana before retiring to Texarkana, Ark., as well as UAMS anesthesiology faculty members and the ACH Allocation Committee.

Michiaki Imamura, M.D., Ph.D., was invested as the Log a Load for Kids of Arkansas Endowed Chair in Pediatric and Congenital Cardiothoracic Surgery on May 3, 2011. Imamura joined the faculty in 2001 and has served as Director of the Division of Pediatric Cardiovascular Surgery in the College of Medicine and Chief of Pediatric and Congenital Cardiothoracic Surgery at Arkansas Children’s Hospital since September 2010. Log a Load for Kids is a national program to raise money for Children’s Miracle Network hospitals. Established in 1999, the Log a Load for Kids of Arkansas Endowed Chair in Pediatric Cardiovascular Surgery is sponsored by the Arkansas Forestry Association and the Arkansas Timber Producers Association.
UAMS researchers are ecstatic about new opportunities for collaboration and biomedical discovery since the opening this year of the Comprehensive Microscope Imaging Center.

Developed partly with funds from the Dean's Society, the center is a great example of how philanthropic contributions boost what the College of Medicine can do with other resources. Dean's Society gifts made it possible to build a 1,200-square-foot facility that not only met the special requirements of a new, ultra-sensitive electron microscope, but also provided room to consolidate other sophisticated microscopes and expertise in one location.

The centerpiece of the facility is a $1.49 million electron microscope, funded with a grant from the National Science Foundation (NSF), that enables UAMS researchers to conduct some of the most advanced microscopy in the world. Among many projects, researchers are using the new microscope to develop three-dimensional images and detailed models of proteins and other structures within cells. Abnormalities in protein trafficking and secretion have bearing on many diseases.

“This is an outstanding new capability that opens up many new possibilities for UAMS,” said Brian Storrie, Ph.D., a professor in the Department of Physiology and Biophysics and principal investigator on the NSF grant.

For information on the Dean’s Society and other ways to contribute to the College of Medicine, please contact Chasse Conque at 501-526-7399 (csconque@uams.edu).
The College of Medicine is dedicated to producing exemplary physicians – ones who not only master medical skills and biomedical knowledge, but who also embrace compassionate, patient-centered care. Our students come to us from many different places in life, but they share a common passion to improve the health of Arkansans and others. Each one has a story to tell. We’d like to introduce one of the many outstanding students in each of the classes during the last academic year.
Amanda Jones was one of six students who volunteered to do their junior rotations at UAMS Northwest when the regional campus opened in 2009 to provide much-needed clinical training sites for expanding enrollment.

It was a perfect fit for Jones, who relished the opportunity to work side by side with community physicians who serve as preceptors in Fayetteville and surrounding cities under an innovative curriculum.

“It was wonderful,” said Jones, who graduated from the College of Medicine in May. “You work one-on-one with your attendings for six months and develop incredible relationships. They were all eager to teach, and I was treated like a colleague.”

The feeling was mutual, judging from evaluations from Jones’ preceptors. “Working with Amanda was like working with a colleague because she had such a thorough knowledge base,” wrote one. Another said that Jones strives to gain “a global understanding of the clinical issues regarding each patient.” All concurred that she will be an excellent physician.

“I want to gain as much as I can from each patient,” said Jones. “You can learn something from each and every experience in medicine.”

The 29-year-old Kingsport, Tenn., native studied biology at Furman University in Greenville, S.C., and became interested in medicine while interning at the Centers for Disease Control after her junior year. Still, Jones wasn’t sure she was ready to give “150 percent” to medical school. After graduating she worked in London for a few months before returning to Tennessee and marrying someone from her hometown. She took a job as a chemist with a pharmaceutical company for two years.

“I thought the pharmaceutical job would bridge my interests in research and the medical field,” Jones said. “But it wasn’t satisfying. I needed a personal relationship with people and wanted to be on the front lines of medicine.”

After interviewing at several medical schools, UAMS stood out for Jones. Arkansas also was a good fit for her husband, Kevin, who decided to pursue a doctorate in comparative European and Middle Eastern history at the University of Arkansas at Fayetteville.

Jones was active as a class officer and in student groups at UAMS and served as co-president of the Honors Council.

Jones began serving her residency in pediatrics at Vanderbilt University in Nashville this summer. “I decided to go into pediatrics because I am passionate about preventive health,” she said. “Pediatricians are strong advocates, both in the clinic and the community, for their patients and their patients’ families and environment, and that is really important to me.”

"I want to gain as much as I can from each patient, you can learn something from each and every experience in medicine."
Christian Simmons grew up in Osceola with lots of pets – dogs, fish, salamanders, you name it. His family doctor piqued his interest in medicine by letting him take home small clinical supplies for play. By high school, Simmons was torn between becoming a veterinarian or a physician.

The matter was settled during Simmons’ senior year, when his dad died of a heart attack. “At that point I decided that if I could just prevent something like that from happening to one other family – that would be my life’s purpose,” said Simmons. “My father’s death tipped me over to human medicine completely.”

But Simmons’ interest in science presented another fork in the road while he was majoring in biology and Spanish and doing summer research as a McNair Scholar at the University of Arkansas at Little Rock. “I had this other nagging question – do I want to do medical research? Or was my future in the clinic?” he said.

As it turned out, he didn’t have to choose. Simmons, now 31, was admitted to the College of Medicine’s M.D./Ph.D. Program in 2005. Students complete their first two years of medical school and then pursue their doctoral degree before finishing the final two years of medical school. The program is an ideal training ground for people like Simmons who hope to improve the health of Arkansans through both patient care and research.

Simmons received his Ph.D. in physiology in August 2010 after working in the lab of Rosalia Simmen, Ph.D., a professor in the Department of Physiology and Biophysics. “Doing research and obtaining a Ph.D. was amenable to how I think and approach problems, but I couldn’t turn my back on medicine either,” said Simmons. “So the M.D./Ph.D. Program was the perfect mesh of both worlds.”

Simmen was impressed with Simmons’ work and lab citizenship. “Christian would do a great job orchestrating clinical and translational studies that move scientific findings into clinical care,” she said. “He shows leadership and has become a mentor to some of our younger students.”

During his third-year of medical school, Simmons particularly enjoyed his clinical rotations in cardiothoracic and general surgery, and he has decided to train in surgery after he graduates in 2012.

When he’s not at school or studying, Simmons devotes his time to his wife, Tracey, and their 6- and 3-year-old sons. “Having lost my own father, I want to participate as much as I possibly can in their lives,” he said.
Andreya Reed has spent a lot of time visiting loved ones in hospitals. When she was a youngster, a cousin was born severely premature and spent 18 months in the NICU. Then her grandfather battled cancer. And many relatives have struggled with kidney disease and other severe ailments through the years.

One thing stood out for Reed: how some physicians communicated especially well with their patients. Those are the ones that the 24-year-old from Malvern, who is beginning her junior year, wants to emulate.

She cites Hot Springs nephrologist Robert McCrary, M.D. ’75, who cared for her grandmother, as an example. “What struck me was how he cares about his patients’ whole health, not just their kidneys,” she said. “He makes sure they understand their treatment. That’s the kind of relationship I want to establish with my patients.”

An internship with Dylan Thaxton, M.D. ’05, in Malvern last summer increased Reed’s interest in family medicine. “We saw patients of all ages, and I loved how Dr. Thaxton interacted with them. He outlined options for his (adult) patients and allowed them to have a voice in their treatment.”

“I like the aspect of caring for patients throughout their lifetime,” Reed said. “You can learn so much by caring for siblings and parents as well. I think you’re in a position to identify family illnesses and be a better physician for them.”

“It was a pleasure working with Andreya,” said Thaxton. “She is very easygoing and personable and made our patients feel comfortable. I think her empathy and inquisitive nature will be a great asset to her patients in the future.”

At UAMS, Reed is co-president of the Edith Irby Jones Chapter of the Student National Medical Association. “Our goals are to raise awareness of the need for diversity in medicine and to increase the numbers of minority students going into medicine and other health professions,” she said. “We also participate in health screening events, and that has really helped me to see the disparities in health care in Arkansas.”

Reed also volunteers at College of Medicine events as one of two representatives from her class to the Alumni Association.

“It’s a full plate, but Reed’s large extended family keeps her motivated. “They always say, ‘We’re proud of you; you don’t have to do anything else.’ And of course that just makes me want to do even more,” she said.
Brandon Morshedi worked as a physical therapist for four years before realizing he had chosen the wrong profession. The epiphany came as the now 30-year-old debated two options for earning a little extra money on occasional weekends.

Picking up an extra shift in acute care physical therapy was the far more lucrative choice. But Morshedi realized that he’d much rather spend the time working as an EMT – a side job he had enjoyed since college. Ultimately, he realized that he wanted to become a physician and most likely practice emergency medicine.

“I enjoyed treating patients as a physical therapist, but as time went on I felt like I had hit a plateau,” said the Vilonia native, who had earned a bachelor’s degree in health science and a clinical doctorate in physical therapy from the University of Central Arkansas in Conway. “I wanted to learn more so that I could be more beneficial to patients. I just knew that I could do more.”

Morshedi entered the College of Medicine last fall and was elected president of his freshman class. About 70 of his classmates have taken a low-cost CPR course from him, joining hundreds of other medical students whom he has trained over the past five years as a certified CPR instructor.

“One of the things I am hoping to promote as class president is a sense of unity – that we’re all on this journey together and we’re going to help each other out,” said Morshedi.

He also has found time to help others who aspire to be physicians. Morshedi organized a group of 16 classmates who taught a two-week preparatory course for the tough Medical College Admission Test (MCAT) after classes ended in May. James Graham, M.D., the College of Medicine’s associate dean for undergraduate medical education, said Morshedi is doing a great job. “He is very committed to his peers,” Graham said. “He always seems concerned and attentive to their needs.”

When Morshedi contemplated entering medical school, he was concerned how it would affect his wife, Teresa, and their 4-year-old son and 2-year-old daughter. Fortunately, his brother, Richard Morshedi, M.D. ’08, convinced Brandon that he was up to the task.

The brothers were no strangers to hard work. Their father had worked many jobs to support their family and eventually to attend college to become a medical technologist. The sons often worked alongside him doing odd jobs on Saturday mornings.

“Our father taught us from an early age that anything worth having is worth working for, and medical school is no different,” Morshedi said. “Medical school is worth the effort, and I’m going to work hard enough at it to be successful.”
When David Crittenden, M.D. '71, finished his nephrology fellowship at UAMS he contemplated a career as a clinical investigator and educator. Instead, he worked for over 20 years as the only nephrologist in Northwest Arkansas before retiring in 2001. Now he has returned to work part time – and found an outlet for his desire to teach.

Since July 2009, Crittenden has served as one of the inaugural volunteer faculty members at UAMS Northwest. He works with College of Medicine juniors on their nephrology rotations at the Fayetteville VA hospital, where he had returned to practice earlier that year.

“I always wanted to be a teacher and this was an opportunity to get back into doing some teaching,” said Crittenden, who had taught sophomores physical diagnosis while a fellow and, early in his career, was a preceptor for residents at the UAMS AHEC in Fayetteville. “I really enjoy being around students.”

The regional campus is essential to the College of Medicine’s efforts to expand enrollment and produce the greater number of physicians Arkansans will need in the future. Third-year medical students at UAMS Northwest
Back to Class  ’71 grad teaches nephrology and more as a volunteer at UAMS Northwest

work one-on-one with preceptors in the community, and the 2009-2010 pilot group’s scores on national subject exams indicate that volunteer faculty members are doing an outstanding job. Crittenden has taken on additional responsibilities such as coordinating all of the specialty clinics at the VA for this past year’s juniors.

“Dr. Crittenden is one of those excellent physicians with strong teaching skills,” said Peter Kohler, M.D., UAMS vice chancellor for the Northwest Arkansas Region. “He showed an early interest in UAMS Northwest when the program was being launched and has continued to be an invaluable part of our Internal Medicine faculty.”

Crittenden hopes his students will learn more from him than clinical nephrology. “Probably the most important thing to teach a junior is to be comfortable communicating with their patients,” he said. “Patients obviously want technical competence, but they also want someone who will listen to them and be engaged in what happens to them.”

The Little Rock native majored in chemistry at Hendrix College in Conway, and the complexity of kidney physiology later drew him to nephrology. But he also was influenced by two pillars in College of Medicine history, former Internal Medicine chairman and nephrologist George Ackerman, M.D. ’54, and the late William J. “Pat” Flanigan, M.D. ’55, who had launched the kidney transplant program at UAMS. Like many who were mentored by Ackerman, Crittenden recalls a professorial, intellectual role model who taught students to respect and listen to their patients. “I probably went into the field because of him as much as anything else – because I wanted to be like him,” Crittenden said.

Crittenden remembers a sense of being on the “cutting edge” of nephrology while on rotations with Flanigan. One day stands out in particular, when Flanigan and a surgeon were discussing a patient who appeared to be near death. “The surgeon said, ‘You know, when God lays his hands on a patient I take my hands off,’” Crittenden recalled. “But Dr. Flanigan said, ‘Yes, well, when that happens I get right up there and hand-wrestle with him.’ And I kind of adopted that attitude.”

During his fellowship, Crittenden flew to Fayetteville once a month to treat kidney patients. He continued to travel there while in private practice briefly in Little Rock and then for a year in Fort Smith. When Crittenden and his wife, Marsha, moved to Fayetteville in 1979 to start a solo practice, there was a single dialysis unit serving a few patients under the care of an internist. Crittenden quickly gained referrals from throughout the area, and his practice grew. He started five dialysis units throughout his career.

“Nephrologists essentially become the primary caregiver for many of their patients, and you get to know them pretty well,” Crittenden said. “You’re involved in major decisions about their lives and how they’re going to handle medical issues. I found that being able to sit down and talk to my patients about their problems and the big picture about their illness was very fulfilling.”

These days, working and teaching three days a week has left time for his 11- and 10-year-old grandsons. Likewise, he finds time for community activities, serving on the Institutional Review Board at Washington Regional Medical Center and as a volunteer physician at the Northwest Arkansas Free Health Clinic. He also lends his insights to the College of Medicine as a member of the Dean’s Alumni Advisory Board.
The College of Medicine has achieved more than 130 years of phenomenal growth and success in teaching, clinical care, research and service since it was founded in 1879. A new website, developed by the UAMS Medical Alumni Association, celebrates the school’s evolution and its visionary founders, dedicated faculty and distinguished alumni.

Discover what it was like in the earliest years, when tuition was under $100. Read how the school adapted and supported national efforts during the first and second World Wars. Meet the pioneering women who blazed new trails in medicine. And so much more.

The College of Medicine History website was made possible with generous gifts from:
- Mrs. Virginia Henker
- Richard B. Clark, M.D.
- Dr. and Mrs. Richard Sundermann

Special thanks also to Amanda Saar, head of the UAMS Historical Research Center and History of Medicine Associates, and staff, for their time and knowledge of our great history.

www.uams.edu/com/history
Above:
Specialized training and Navy graduates, 1944. Near left: the first medical school building, 113 W. Second Street, was the college’s home from 1879 to 1890.

Directly above: Edith Irby Jones, M.D. ’52, was the first African-American student enrolled at what previously had been a segregated medical school. Back photo: the school’s baseball team, 1910. At right, John Wilson, M.D. ’60, with medical instruments.
Victor Samokyszyn, Ph.D., an associate professor in the Department of Pharmacology and Toxicology, died Oct. 28, 2010. Samokyszyn received a doctorate in chemistry from Wayne State University in 1987. He joined the UAMS faculty in 1991 after completing postdoctoral fellowships at Utah State University and the University of California San Francisco. Samokyszyn was an expert in lipid modifications of biological molecules that are responsible for the generation of free radicals. He directed the Introduction to Oncology course in the UAMS Graduate School.

Charles “Chuck” Winter, Ph.D., a researcher, educator and leader in the College of Medicine for over 40 years, died December 3, 2010. Winter joined the faculty in 1966 and served in numerous roles through the years, including acting chairman of the Department of Biochemistry and Molecular Biology in 1989-90. UAMS’ research enterprise grew significantly under his leadership, and he was integrally involved in planning and development of both the Biomedical Research I and Biomed II buildings. Winter served as associate dean for research from 1994 until his retirement in 2007.

Fred Kadlubar, Ph.D., a professor in the Division of Genetics since early 2010 and UAMS faculty member since 2006, died Dec. 4, 2010. Kadlubar came to UAMS after working for 30 years at the National Center for Toxicological Research (NCTR), where his leadership posts included directing the Division of Pharmacogenomics and Molecular Epidemiology. He chaired the Department of Epidemiology in the UAMS Fay W. Boozman College of Public Health and was director of research in the Winthrop P. Rockefeller Cancer Institute before accepting a primary appointment in the College of Medicine.

David Wennerstrom, Ph.D., a faculty member in the Department of Microbiology and Immunology for more than 30 years until his retirement in 2008, died Jan. 7, 2011. He received his doctorate in microbiology from the University of Tennessee in Knoxville and completed a postdoctoral fellowship at the Hormel Institute of the University of Minnesota. He joined the UAMS faculty in 1976 and directed the Medical Microbiology, Immunology and Parasitology course. As a longtime member of the Curriculum Committee, Wennerstrom helped to develop the organ systems curriculum that is used in the first two years of medical school.

John Emmett Peters, M.D., a pioneer in child psychiatry and former associate chairman of the Department of Psychiatry, died Jan. 22, 2011. Peters first joined the UAMS staff in 1954, but from 1962 to 1964 he co-directed the renowned Pavlovian Research Laboratory at Johns Hopkins University in Baltimore. After returning to UAMS he directed the psychiatry residency program and then became head of the Division of Child and Adolescent Psychiatry in 1967. Peters and his colleagues conducted research that confirmed a genetic and physiological connection to mental illness. Some of their other work led to recognition of attention deficit and hyperactivity disorder (ADHD).

Tom David Norman, M.D., professor and chair of the UAMS Department of Pathology from 1961 to 1966, died June 22, 2011. The Louisiana native received his medical degree at Tulane University in New Orleans in 1947. He trained in pathology at the University of Tennessee College of Medicine in Memphis and in neuropathology at Duke University School of Medicine in Durham, N.C., and the Mayo Clinic in Rochester, Minn.
Robert H. Fiser Jr., M.D., professor and chair of the Department of Pediatrics from 1975 to 1994, died July 20, 2011. The 1966 UAMS College of Medicine graduate served on the faculty at the University of California Los Angeles before returning to UAMS in 1973 and, two years later, becoming the youngest pediatric department chair in the nation at the age of 32. The department and Arkansas Children’s Hospital (ACH) experienced tremendous growth under his leadership. Fiser oversaw the department’s move to ACH in the late 1970s and also was instrumental in establishing the Arkansas Children’s Hospital Research Institute and highly regarded programs such as Kids First. Later, he served for six years as UAMS Assistant Vice Chancellor for Regional Programs.

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