

PHARMACY MATTERS

SPRING 2011



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A conference room in Faser Hall honors J. Keith Shelly's campaign gift.

'Promises to Keep' gifts all come from the heart

Gifts to the "Promises to Keep" campaign, together with two sizeable federal grants, have provided the School of Pharmacy with more than \$10 million to meet its goals of constructing a pharmacy building at the university's Medical Center and endowing scholarships and faculty support. Never has the school received so much in so short a time.

"It's been exciting," said Dean Barbara Wells, who announced the campaign in 2008, the school's 100th anniversary. "As gifts and pledges came in, we saw how much people love this school and care about its future."

Several milestones stand out, such as the campaign's lead gift, a pledge of more than \$350,000 from Medical Marketing Economics LLC of Oxford. When fulfilled, the pharmacy administration department will have a \$150,000 endowed fellowship bearing the company's

name, UM's Science Library will have \$50,000 for an online database for researchers on the Oxford campus, and the school will have \$150,000 to use in a variety of ways.

"Our company wouldn't be here if it weren't for the Ole Miss School of Pharmacy," said MME CEO and Managing Partner E.M. "Mick" Kolassa. "It is where many of us met, the source of many of our employees and a major source of pride for all of us. We see this gift as a way for us to give back."

Kolassa (PhD 95) and several MME partners earned their degrees from the school.

"The MME partners provided a wonderful example for us all—alumni, businesses, faculty and staff—to emulate," Wells said.

The first significant corporate gift, \$50,000, came from Walgreens. It was for pharmacy practice's new building going up on the Jackson campus. Two problem-based learning



Campaign donors Stan and Carol Williams

Dear Alumni and Friends

The past year was a challenging one for our country. The School of Pharmacy shared in the fiscal pain of an austere economy but rose to its challenges by working harder, being more innovative and entrepreneurial, and remaining focused on our goals. Those tactics enabled us to experience one of the most successful years in our school's history, yet remain dedicated to serving students, stimulating the economy and improving the health of citizens of Mississippi and the world.

Total School of Pharmacy funding last year exceeded \$56 million, a record high. The total includes \$11.6 million in state appropriations and more than \$41 million in external funds secured by our committed faculty and leadership. External funding provided nearly 73 percent of our budget, evidence that we have redoubled our efforts to continue, and even quicken, the pace of our progress, despite the economic downturn.

In 2010, we commissioned a study to measure the school's economic impact on our state. The study revealed the school's impact is \$84.1 million annually and that it generates 852 jobs and \$10 million in tax revenues each year. Even more surprising is the \$579.1 million annual impact of our state's practicing pharmacists who were educated at our school. Each year, these pharmacists generate 7,008 jobs and \$108 million in tax revenues.

Our new curriculum prepares students for the challenges of current and future practice in all pharmacy settings. The curriculum fully complies with new accreditation standards, enhances pre-professional preparation, adds skills labs and professional electives, and expands and strengthens introductory and advanced practice experiences. Our professional experience program not only provided 840 introductory and 632 advanced practice experiences last year but also oversaw development of more than 260 preceptors, 10 percent more than the previous year.

This past year, our students received a plethora of awards, including four Marcus Elvis Taylor Medals. Students on both our campuses are becoming more involved in professional and community activities, preparing them to be successful members of health care teams. Similarly, several of our graduate students won regional

and national awards for the quality of their research and presentations.

Our faculty and research scientists had an exceptional year in the research arena, as evidenced by their success in securing more competitive external funding than ever before. Notably, the COBRE (Center of Biomedical Research Excellence) research grant is in its fifth year and has funded critically important research and contributed immeasurably to developing many of our young faculty members.

I am proud of faculty members who are distinguishing themselves as educators, researchers, leaders, and professional and community servants. Brian Crabtree, for example, is president-elect of the American Association of Colleges of Pharmacy and becomes president of that august body in July. Ten faculty members are elected officers of Mississippi pharmacy associations, and many others are officers of their professional associations and members of editorial and governing boards and committees.

The National Center for Natural Products Research has established itself as a center of excellence for research into the discovery and development of new compounds to treat a spectrum of illnesses and the study of medicinal plants and botanical dietary supplements. The center's research productivity and national and international recognition continue to grow, as does its infrastructure.

The Delta Pharmacy Patient Care Management Project is our primary mechanism for supporting and developing community pharmacy in Mississippi. In its third year, the project facilitates delivery of top-notch medication therapy management services at 13 community pharmacies in nine counties. The program also enables students to learn in advanced community pharmacy practices in Mississippi and allowed us to establish a community pharmacy residency program. Community pharmacy development also is supported by the RxSync Pharmacy Network™ and RxSync for Pharmacies™ implementation kit developed and coordinated by our Center for Pharmaceutical Marketing and Management.

With more than \$31 million in grants from the U.S. Food and Drug Administration, Health Resources and Services Administration and National Institutes of Health, we will be con-

Dr. Barbara G. Wells
Dean

Dr. Marvin C. Wilson
*Associate Dean for Academic
and Student Affairs*

Dr. Leigh Ann Ross
*Associate Dean for Clinical Affairs
and Chair of Pharmacy Practice*

Dr. Charles D. Hufford
*Associate Dean for Research
and Graduate Programs*

Dr. Stephen J. Cutler
Chair of Medicinal Chemistry

Dr. Michael A. Repka
Chair of Pharmaceutics

Dr. Daneel Ferreira
Chair of Pharmacognosy

Dr. Anthony J. Verlangieri
Interim Chair of Pharmacology

Dr. Donna S. West-Strum
Chair of Pharmacy Administration

Dr. Benjamin F. Banahan III
*Director of Center for Pharmaceutical
Marketing and Management*

Dr. Larry A. Walker
*Director of National Center for
Natural Products Research*

Ms. Beverly M. Butts
Senior Business Manager

structing a 96,153-square-foot addition to the Thad Cochran Research Center on the Oxford campus. The NIH grant is likely the largest competitive award ever to come to the Oxford campus. The addition will provide critically needed research space and is targeted for completion in 2013.

We will soon conclude the School of Pharmacy's first capital campaign, which has increased the number and value of our scholarship and other endowments. Campaign gifts, coupled with federal and university funds, made it possible for us to construct our 29,500-square-foot education and research building on the health sciences campus. The structure will bring us into compliance with new accreditation standards, enhance student learning and student and faculty morale, and create more education and research collaborations between health professions. Heartfelt thanks are due to Leigh Ann Ross and Sarah Hollis for working with me to ensure the campaign's success.

We continuously monitor our progress in complying with new accreditation standards and in accomplishing our strategic goals. We are diligently compiling a self-study to prepare for our reaccreditation site visit in spring 2012. Our self-study and the accreditation team's findings will help us develop the school's next strategic plan, which will guide our progress into the next decade.

The accomplishments reported here would have been impossible without our extraordinary and distinguished faculty and research scientists; committed staff members; bright and competitive students; capable department, school and university leaders; and collaboration and support from many partners, including companies and institutions, granting agencies and foundations, loyal alumni and corporate pharmacy. All that we have accomplished together portends well for a bright future, and we are grateful to all for their broad-based support.

I am exceedingly proud of our achievements, and I hope you enjoy reading about some of them.

Barbara Wells

Dean Barbara Wells



Promises to Keep continued from page 1

Walgreens District Manager Tonya Shackelford (center right) presents a check to Dean Barbara Wells (center left). The gift is to help fund a new pharmacy practice building on the UM Medical Center campus.

classrooms there will be named for the pharmacy chain.

“Many Ole Miss pharmacy students intern with us through our summer internship program, then go to work for us full time,” said Walgreens District Manager Tonya Shackelford (BSPH 94). “They are an asset to our company and the profession.”

Faculty support and student scholarships also received donor attention. Sarah Hollis, the school’s development officer throughout the campaign, said all the contributions reflect how much people care about the school and each other.

“I saw alumni stepping forward to honor several of the school’s faculty members, and I helped several faculty members endow professorships or scholarships,” Hollis said. “Then others contributed to honor their friends and relatives. It was heartwarming to see the campaign bring out the best in people.”

“All of the school’s needs received some attention,” Wells said. “Words simply can’t express my gratitude for each and every gift and giver.”

Pharmacy Practice building

Two loyal pharmacy school graduates, Jim Ainsworth (BSPH 67) and Keith Shelly (BSPH

78), both committed \$50,000 to the campaign and let the school decide how to best use their gifts. Both contributions were applied to the Jackson building’s construction.

Ainsworth retired recently as a vice president for Baptist Memorial Health Care Corp. based in Memphis. His gift is also from his wife, Sarah (BA65, Med 66).

“We wanted to support the university because it laid the foundation for outstanding professional and personal careers,” he said. A large conference room in the new building will be named for the Ainsworths to honor their gift.

Shelly owns Donelson Drug Mart in Nashville and is director of pharmacy for Centerstone Community Mental Health Centers in middle Tennessee.

“The university is among the nation’s leaders in promoting excellence by providing quality instruction and prioritizing research,” Shelly said. “I am proud of that fact and recognize that maintaining this standard requires the emotional and financial support of those who have already benefited from this great institution.”

His gift was tied to a naming opportunity in Faser Hall, where a plaque already designates the J. Keith Shelly Conference Room.

Others contributing to the new building include John (BSPH 86) and Wendy McKinney

(BSPH 86), who gave \$20,000 to honor Associate Dean Emeritus H. Joseph Byrd and Assistant Dean Emeritus Jack P. Adams, two long-time employees who had a tremendous impact on the school. Because of the McKinney gift, two faculty offices will bear the two retirees’ names for decades to come.

Lt. Col. Rob Wall (BSPH 70) contributed \$10,000 to name yet another faculty office, and Leigh Ann Ross, associate dean and chair of pharmacy practice, gave \$20,000 to honor her father, Louis H. Ramsey (BSPH 51), and place his name on a conference room.

The Jackson building is expected to be completed this fall. Foundational to its construction were two grants from the Health Resources and Service Administration.

“Campaign gifts, coupled with university funds and the two grants, made construction of our department’s new home possible,” said Ross (BBA 93, PharmD 98). “People who go to school here don’t graduate and forget us. Their enthusiasm and devotion is truly gratifying, and it’s a hallmark of our school and our university.”

A few people might not look back after graduation, but Stan Williams (BSPH 95) of Fort Worth, Texas, isn’t one of them. “I have never really understood that,” he said. “Life is all about a strong family, good friends and never forget-

ting where you came from.”

In that spirit, he has not only served on the pharmacy school’s advisory board for a decade but also pledged a \$1 million life insurance policy to the school. Its proceeds are to be used at the dean’s discretion.

“I got a great education at Ole Miss. It helped launch my career,” said Williams, central U.S. sales director in Abbott Vascular’s Endovascular Group.

Scholarships for students

Allen Linton (BSN 75, MN 79) and her mother, Sara LeMaster Linton (BSPH 48) of Tupelo, gave \$25,000 to seed the Linton Family Pharmacy Scholarship Endowment, which honors the many “Lintons” who obtained pharmacy degrees from Ole Miss. The first was Allen’s grandfather, the late Anderson Maltraverse Linton Sr., who graduated in 1911, then Allen’s father, the late Anderson Maltraverse “A.M.” Linton Jr. (BSPH 48), and her mother, Sara.

They were followed by Allen’s cousin, Samuel Cook “Sandy” Sugg Jr. (BSPH 76), another cousin, Camille Shofner Roberts (BSPH 65), Camille’s son, Robert R. “Rob” Roberts III (BSPH 94), and Rob’s wife, Julie Giddings Roberts (BSPH 95).

“We have such pride in our family’s background, and Ole Miss is very dear to all of us,” Al-

len Linton said. “Having the gift of an Ole Miss education is a treasure, especially if passed on to future generations. My mother wanted to do this to help enrich the lives of others.”

“We made this a need-based scholarship, so it can be used to help students facing financial challenges or unexpected emergencies.”

PHARMACY AUMNI CHAPTER PRESIDENT
JAMES A. PITTMAN JR.

Henry Cecil Caldwell earned his pharmacy degree and master’s degree in pharmaceutical organic chemistry from Ole Miss in the early 1950s, then spent much of his career at SmithKline & French (now GlaxoSmithKline). His son, Brent, is a pharmaceutical chemist; his other son, Mark, often provides architectural services to pharmaceutical companies; and his daughter, Cecilia, a physician, once worked in the industry.

To honor this man they love and dearly miss, Cecilia, her mother, Bettye, and other family and friends created the Henry Cecil Caldwell Pharmacy Scholarship Endowment.

“Dad achieved great academic and professional success in his field, and we hope to make that level of success possible for future generations of deserving students,” Cecilia Caldwell said. “He believed strongly that all deserving students, even in the face of economic obstacles, should have access to higher education.”

The same philosophy prompted retired pharmacy professor Dewey Garner (BSPH 64, PhD 70) and his wife, Barbara, to create a scholarship endowment in their names.

“The idea of establishing a scholarship fund has always been appealing to Barbara and me,” he said. “Pharmacy education is a very invigorating, challenging academic environment, and creating a scholarship to help students pursuing this discipline seemed natural to us.”

Establishing the scholarship also stemmed from Garner’s pride in the school.

“The School of Pharmacy is extremely strong, and I have such respect for the faculty,” he said. “With the new pharmacy building being constructed in Jackson and the Thad Cochran Research Center being expanded on the Oxford campus, our teaching and research facilities will be the best in the nation.”

The Pharmacy Alumni Chapter also created a scholarship endowment and is funding it with proceeds from the group’s annual golf tournament.

“We made this a need-based scholarship, so it can be used to help students facing financial challenges or unexpected emergencies,” said James A. Pittman Jr. (BSPH 80) of Madison, the chapter’s president.

Last year’s tournament raised more than \$20,000. This year’s tournament raised nearly \$18,000.

“This endowment is our graduates’ way of expressing appreciation for the impact their pharmacy degrees have on their lives,” said Scott Thompson, assistant director of alumni affairs. “They simply feel that professionals who have been successful should support education

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Marty Beasley (left), a Caldwell family friend, Bettye Caldwell, Cecilia Caldwell and her husband, Paul Scavotto, enjoy a visit to the Oxford campus.

Promises to Keep continued from page 5

Barbara Wells and James Pittman Jr. create the Pharmacy Alumni Chapter's scholarship endowment.

to ensure that the next generation has the same opportunity.”

With the help of Rite Aid's college relations and professional recruitment director, J.T. Leatherwood, and Rite Aid's vice president of college relations and professional recruitment, Michele Belsey, the Rite Aid Corp. has pledged \$50,000 for an endowed scholarship and \$10,000 more for a “pass-through” scholarship.

Knowing four out of five pharmacy students graduate with nearly \$50,000 in debt, Pharmacy Student Body President Laura Luther of Hattiesburg said, “I think it's great that alumni and others are willing to give to ease the financial burden experienced by many students.”

Support for faculty

Baptist Memorial Hospital-North Mississippi in Oxford and North Mississippi Medical Center in Tupelo united to expand the school's faculty by each funding half of a full-time faculty member for six years. By matching the gifts, the school hired two pharmacy practice professors.

“The school has an outstanding record for producing pharmacists for the state's health care industry,” said Gerald Wages (BBA 67), executive vice president of North Mississippi Health Services. “We are excited about help-

ing in the school's growth and look forward to working with many of its graduates.”

Baptist North Mississippi “is happy to partner with the Ole Miss pharmacy program,” said its CEO Don Hutson (BBA 85). “We value our collaborative relationship and look forward to extending pharmacy education into the future.”

“Contributions for these purposes can have a remarkable and lasting impact on the quality of learning we provide our students and on our ability to retain the most capable faculty.”

DEAN BARBARA WELLS

The gifts from the hospitals, Wells said, “will allow us to grow our enrollment and better prepare our students to provide comprehensive medication management for patients through-

out Mississippi.”

The dean and her husband, Richard, a retired pharmacist, also created an endowed professorship in pharmacy practice to help recruit and retain outstanding faculty. A scholarship the couple established earlier will provide an annual grant to a student, but the professorship will impact both faculty and students.

“We wanted to do something that was significant and enduring to advance the School of Pharmacy,” Dean Wells said. “We hope this gift will inspire other faculty, alumni and friends to consider what they can do to support the teaching and research activities that have made the school one of the nation's best.”

Unfinished campaign business

The key to remaining a top-notch school is good faculty, good students and good facilities. That's why the “Promises to Keep” campaign had one goal: raise as much money as possible to endow scholarships and faculty support, and enhance facilities.

When asked what major gifts she would most like to see in the final months of the campaign, Dean Wells didn't hesitate.

“What is needed most are gifts for scholarships for our very deserving students and gifts for developing our outstanding faculty,” she said. “Contributions for these purposes can have a remarkable and lasting impact on the quality of learning we provide our students and on our ability to retain the most capable faculty.”

Through her campaign work, she learned one needn't be wealthy to make a gift with lasting impact. She and Richard created their professorship with a paid-up life insurance policy.

“If you start with a small endowment and make sure it gets regularly supplemented over time,” she said, “you can see it grow into a significant fund that can really make a difference.”

A variety of naming designations within the pharmacy practice building remain.

“Opportunities range from \$10,000 to place a donor's name on a faculty office to \$2.5 million to place a donor's name on the building,” Hollis said. “These opportunities are an ideal way to honor a loved one or beloved faculty member.” ■

News

Medicinal Plant Garden goes green to grow green

By design and by its very nature and purpose, the Maynard W. Quimby Medicinal Plant Garden at UM will undoubtedly be the “greenest” facility on campus.

The garden is being relocated to a new site on Intramural Road. When complete, the new six-acre site will include a 4,300-square-foot office and laboratory building, 4,200-square-foot horticulture building, 3,800-square-foot shade house, 1,800-square-foot greenhouse, 1,320-square-foot equipment shed and areas for growing medicinal plants outdoors.

Energy-efficient features of the new structures include natural lighting, a 20,000-gallon tank to collect rainwater running off the roofs and green “walls” of climbing medicinal plants to shade the laboratory building in summer.

“We can’t use tap water to germinate medicinal plant seeds for research, unless we remove the chemicals it contains, like chlorine and fluoride,” said Aruna Weerasooriya, a research scientist who manages the garden for UM’s National Center for Natural Products Research. “It is much better to use rainwater.”

Even the garden’s parking lots are “green,” said Donald Stanford, NCNPR’s technical services manager. “They are paved with a pervious pavement that absorbs rainwater, rather than dispelling it, to prevent erosion.”

More than 270 mature trees have been saved at the site to not only minimize the environmental impact of construction but also provide a canopy for a park-like area in which to grow shade-loving medicinal plants. Other areas for growing plants outdoors include terraced gardens and a small natural pond for aquatic plants.

Architects expect the project to receive a high rating in the Leadership in Energy and Environmental Design, or LEED, certification program, which promotes environmental stewardship through innovative building design and eco-friendly construction practices.

The new location and facilities provide space for greenhouses, labs, demonstration plots and education projects, said NCNPR Assistant Director Ikhlas Khan. “The facilities are important to the center’s drug-discovery efforts, because we collect, grow and provide plant mate-



These walls of wire mesh will soon be covered with climbing medicinal plants to provide shade for the Medicinal Plant Garden’s new office and laboratory building.

rial for those efforts.”

The facilities also are important to global conservation efforts.

“By maintaining a living collection and a seed bank, we’re conserving valuable medicinal plant germ plasm,” Weerasooriya said. “There are many botanical gardens in the world, but only a few are dedicated to medicinal plant conservation.”

Garden staff members
maintain one of
the nation’s largest
collections of medicinal
plants and provide
material to researchers
around the country and
the world

The administrative and laboratory building and equipment shed have already been constructed, and work on the horticulture building and shade house has begun.

The lab building contains a herbarium and

laboratory for plant identification and microscopy.

“This is where we maintain voucher specimens of the plants we grow, and a seed bank, so we have tissue for DNA extraction and can exchange seeds with collaborators,” said Weerasooriya, a plant taxonomist.

The horticulture areas provide a place to dry, grind and process plant material in compliance with Good Agricultural Practices, Stanford said.

Garden staff members maintain one of the nation’s largest collections of medicinal plants and provide material to researchers around the country and the world, in addition to those at NCNPR. They also provide educational opportunities to local residents and visitors, and the U.S. Food and Drug Administration uses the garden to train employees learning botanical supplement Good Manufacturing Practice enforcement.

“We have trained more than 200 FDA inspectors to go out and monitor the dietary supplement industry,” Weerasooriya said.

The Quimby Garden is being moved to its new site to make room for UM’s huge new Innovation Center going up at its old location.

A bronze bust of the late Maynard W. Quimby, a former UM pharmacognosy professor and one of the garden’s early developers, will be displayed in the laboratory building’s lobby. ■

News

Students, faculty look forward to pharmacy practice's new home



Architectural renderings show what the new pharmacy building at the university's Medical Center will look like.

For 38 years, pharmacy practice students and faculty have been learning and working at the University of Mississippi Medical Center in Jackson without a building of their own. That will change this fall, when the two-story structure going up on University Drive is complete.

The 29,500-square-foot 'L-shaped building includes 17 small classrooms, a student lounge, offices for faculty, and laboratory and clinical research space. An attached 160-seat auditorium will be equipped for lectures, seminars and sharing live video with the Oxford campus.

"This building will be a state-of-the-art educational facility for students that will place them

in the heart of UMMC's academic corridor on a daily basis and provide more interaction with students in the other health-related professions," said Leigh Ann Ross, associate dean for clinical affairs and chair of pharmacy practice.

Fourth-year pharmacy student Katie Sims of Athens, Ala., predicts her classmates will enjoy the new building because it will foster more interaction with one another, as well as faculty, who are spread across the campus.

"While attending pharmacy school on the Oxford campus, I practically lived in Faser Hall," Sims said. "I'd run into faculty in the hall, and if I had questions about something from a class, I could just ask them."

The School of Pharmacy's professional degree program is split between Oxford and Jackson. In Oxford, most classes take place in Faser. Without a building like Faser Hall in Jackson, the transition was "really strange," Sims said.

"I miss hanging out with other students and seeing people in the halls," she said. "The new building is going to be a huge improvement, and I'm very jealous of the next class."

As president of her class, Sims organizes study sessions for her classmates, but the task is difficult. With its conference rooms, small group rooms and other areas in which students can congregate, the new building will make the job easier, she said.

"I go to meetings with students in different schools, and they have a sense of community that we don't have right now," she said. "Students in other schools are excited for us."

Despite being scattered over two miles, the pharmacy practice faculty has developed strong clinical and translational research collaborations with Medical Center colleagues, which complement the pharmacy school's research efforts in

How you can help

State-of-the-art facilities are a must for competitive universities in today's marketplace. The School of Pharmacy is constructing a new pharmacy practice building in Jackson, but funds are needed for furnishings and equipment. Contributors can place their names, or those of a loved one or beloved faculty member, on a designated space within the building. To learn how you can help before the "Promises to Keep" campaign ends on June 30, contact Raina McClure at raina@umfoundation.com or 800-340-9542.

Oxford. They also are involved in patient care and, in partnership with the Medical Center, established pharmacist-run clinics that received a Best Practice Award from the American Society of Health-System Pharmacists for innovations in a model pharmacy practice program.

“Pharmacists are an integral part of the team that delivers health care in this state,” said Dr. James Keeton, UMMC vice chancellor for health affairs. “I speak with Dr. Wells (Pharmacy Dean Barbara G. Wells) regularly, and we are both excited about the building project and look forward to enhanced collaboration among the health professional schools at the Medical Center.”

Faculty also implemented a problem-based learning curriculum that has been replicated by other schools, and pharmacy students’ pass rates on the national licensure exam exceeded 98 percent over the past seven years. The rate was 100 percent four of those seven years.

“Faculty will appreciate being together and having a visible home,” Ross said. “The convenience will foster relationships and more collaboration between faculty, and I believe having a designated place will increase our visibility and heighten awareness of our nationally recognized programs.”

The push for the new building came after pharmacy’s accrediting body, the Accreditation Council for Pharmacy Education, encouraged

the school to narrow the gap between academic and research facilities in Jackson and those in Oxford. The ACPE’s concerns mirrored those of pharmacy administrators, who realized students and faculty were becoming increasingly isolated from the rest of the campus.

The school has secured some federal funding for construction, as well as a commitment from the university, but more funds are needed. They are being raised through ‘Promises to Keep,’ the pharmacy school’s first capital campaign.

“This new building, along with the \$31.7 million expansion of the Thad Cochran Research in Center in Oxford, will not only improve learning and student and faculty morale but also provide the foundation upon which to continue building our school’s legacy of excellence on two university campuses,” Dean Wells

said. “It will also provide abundant inter-professional opportunities for students and faculty, a requirement of new accreditation standards.”

Doctor of Pharmacy (Pharm.D.) students split their seven-year degree program between Oxford and Jackson. In Oxford, students spend three years in pre-pharmacy and two in the professional pharmacy program. Then they head to UMMC for a year of active learning and early practice experiences, followed by a year of advanced practice experiences. Most of their courses moved to the Jackson Medical Mall in 1998, when the school began offering the Pharm.D., which required students to spend more time in Jackson.

“There are many wonderful patient-care activities at the mall,” Ross said. “Our students participate in these activities during their clinical practice experiences, but for their classroom-based educational activities, it is vitally important that they become more a part of the UMMC student body on the main campus.”

With the pharmacy school’s plans for increasing enrollment, as many as 115 students will be learning in Jackson in their third professional year. A similar number will be enrolled for their fourth professional year in Jackson and at other clinical sites across Mississippi and in Tennessee. The new \$10 million building will amply accommodate these numbers.

The school has secured some federal funding for construction, as well as a commitment from the university, but more funds are needed. They are being raised through ‘Promises to Keep,’ the pharmacy school’s first capital campaign.

“We’re asking donors to show their support by naming a designated space within the building. Opportunities range from \$10,000 to place a donor’s name on a faculty office to \$2.5 million to name the building after a donor,” said former development officer Sarah Hollis. “Naming opportunities are an ideal way to publically show support or to honor a loved one or beloved faculty member.”

Alumni and corporate partners alike have committed to a variety of naming designations, but many opportunities are still available. For more information about them, contact Hollis at 662-915-1584 or shollis@olemiss.edu. ■



Construction on pharmacy practice’s new \$10 million building should be completed this fall.

News

Natural Products Research Center receives funds for new building



The \$31.7 million expansion of the Thad Cochran Research Center will add 96,000 square feet to the NCNPR complex. The addition is nestled behind Faser Hall (top center) and adjacent to the existing NCNPR structure (right).

The University of Mississippi has received \$31.7 million to expand the Thad Cochran Research Center, the primary research facility of the School of Pharmacy's National Center for Natural Products Research.

"It is exciting to see the achievement of this milestone for Ole Miss and the School of Pharmacy," said Larry Walker, NCNPR's director since 2001. "This is another major step toward a world-class natural products research center, as envisioned by the school's leaders over two decades ago."

The Health Resources and Services Administration and the U.S. Food and Drug Admin-

istration are providing \$17.8 million, and the National Institutes of Health is providing \$13.9 million.

Competition for the NIH funds was stiff, as each qualifying institution was allowed to submit up to three proposals to NIH's Extramural Research Facilities Improvement Program. Under this program to renovate or construct facilities supporting biomedical or behavioral research, NIH made 63 awards totaling \$675 million. UM's pharmacy school is the only Mississippi recipient and the nation's only pharmacy school to receive one of the awards.

Designed for research involving discovery of natural products for pharmaceutical and

agricultural commercialization, construction of NCNPR's first phase began in 1992 with U.S. Department of Agriculture funds appropriated by Congress. Personnel occupied the partially completed facility in 1995, and this 115,000-square-foot building was completed in 2000.

The existing facility includes auditoriums, a science library, vivarium and repository for botanical specimens, as well as sophisticated laboratories. All enabled the center's research programs to grow steadily and its scientists to build a reputation for advancing natural products research. It also opened doors to additional funding opportunities.

The second building will complete the NCNPR complex and enable researchers to translate basic research into clinical studies and commercial natural products. Its amenities will include a facility for clinical studies, an expanded specimen repository and laboratories for scaling-up extraction and synthesis of bulk natural products, determining a natural product's toxicity and mechanism of action at the cellular level, and discovering microbial and marine natural products. It also includes Good Laboratory Practice-compliant analytical facilities and Good Manufacturing Practice-compliant facilities for producing, formulating and characterizing active pharmaceutical agents.

"Completion of the center envisioned so long ago is finally within our grasp," said Barbara G. Wells, the school's dean. "This second research building will allow us to advance our research programs to the next level of accomplishment."

Secured by Wells and Charles Hufford, the



The expansion will complete the NCNPR complex and present an imposing southern facade.

school's associate dean, the HRSA grant was to begin Phase II of NCNPR in 2010 with a four-story superstructure with only one-and-a-half floors completed. But as time for construction began, President Barack Obama signed the American Recovery and Reinvestment Act, which provided NIH with \$5 billion to create jobs while expanding research. Since the Phase II design was already complete, Walker and Hufford submitted a proposal to NIH, describing how ARRA funding, coupled with the HRSA

funding, would enable the entire facility to be completed in a single construction project.

"We are especially grateful to Sen. Thad Cochran and his staff for their support throughout the years in obtaining funding for this building, and we are also grateful to our dedicated researchers who made the NIH proposal highly competitive," Walker said.

"This is another major step toward a world-class natural products research center, as envisioned by the school's leaders over two decades ago."

NCNPR DIRECTOR LARRY WALKER

Designed and engineered by Cook, Douglas, Farr and Lemons of Jackson, Phase II plans are undergoing thorough reviews by both HRSA and NIH. Construction is expected to begin in early fall.

"There are so many people to thank, in addition to Sen. Cochran and Drs. Walker and Hufford," Wells said. "Among them are Dr. Alice Clark (UM's chief research officer) and Dr. Leigh Ann Ross (Pharmacy's associate dean for clinical affairs), both of whom have been strong advocates for this facility. Without their tenacity and vision, this accomplishment would have been impossible." ■



Larry Walker and Barbara Wells discuss construction plans for expanding the Thad Cochran Research Center.

News

Management system helps pharmacists get back to patient care

Tyson Pharmacy in Holly Springs is an old-fashioned drugstore with a modern twist. Tyson offers RxSync Service™, a system developed by the School of Pharmacy to help patients better manage their medication therapies.

Tyson Drug Co. owner Bob Lomenick has been using RxSync for more than two years and says the system has “made a world of difference” to his business and his patients.

“Running three pharmacies—two in Holly Springs and one in Potts Camps—is chaotic,” Lomenick said. “I spent most of my time reacting to my patients’ needs.”

Lomenick said he had for years been thinking of a better way to manage patients’ medications when he was introduced to RxSync.

“I see the same patients every month, and sometimes twice a month,” he said. “I felt there had to be a way to keep patients from making multiple trips to the pharmacy month after month.”

“RxSync is a win-win for pharmacists and patients. With this service, patients not only have their doctors working to improve medication therapy but their pharmacists, too.”

CPMM DIRECTOR
BENJAMIN F. BANAHAN III

RxSync Service eliminates those multiple visits to the pharmacy and eliminates the need to call in monthly prescription refills before they run out, said Benjamin F. Banahan III, director of the Center for Pharmaceutical Marketing and Management.

“RxSync is a win-win for pharmacists and pa-



Ben Banahan (left), Ali Crawford and Bob Lomenick are all smiles over RxSync.

tients. With this service, patients not only have their doctors working to improve medication therapy but their pharmacists, too,” said Banahan, who developed the service model with colleague Erin R. Holmes, based on a business model used by PharmNet Inc. in Winona.

The service can also synchronize a patient’s prescriptions to allow the patient to get all their medications on the same day each month. If there is a problem with the prescription, RxSync helps identify it before the next scheduled refill.

“My elderly patients often worry about having someone pick up their meds for them, and it can be a hassle if the prescription refill has expired or there are insurance issues,” he said. “With RxSync, we are able to go above and beyond managing patients’ medications. We handle things two or three days before the medication is due, so we have time to handle problems.”

More important, Lomenick said, is having the time to talk with his patients to discover if they are having problems with the medications they are taking.

“It’s an old-fashioned way of doing business, but it works for me and my patients,” he said. “Because we’re contacting them before their

medications are due, we are able to ask pertinent questions. We are also able to ascertain whether patients are taking their medication correctly or if they are taking it at all.”

Having pharmacists take a proactive role in patient care is the system’s best feature, Banahan said. “Most people don’t realize that the No. 1 problem in treating illness today is patients’ failure to take prescription medications correctly, regardless of age.”

Lomenick deals with the problem regularly.

“Not taking medications properly is the main reason why many of my elderly patients go into nursing homes, but it is not just my elderly patients who mismanage prescriptions,” he said. “I have many middle-aged people on high blood pressure medications that simply stop taking them. With the service, I’m able to provide patient counseling on minor medication issues and to contact their doctor on major management problems.”

RxSync Service is being used in seven pharmacies in Mississippi and other states.

Lomenick, Holmes and Banahan will make a presentation about the service at the Mississippi Pharmacists Association’s annual meeting in June. ■

News

Oil spill's environmental consequences to outlast Katrina's

The university's graduate program in environmental toxicology began just four years ago, but last summer's massive oil spill in the Gulf of Mexico promises to provide research opportunities to keep faculty and students busy for decades.

Several researchers are studying the region's fish, shellfish and plant life. The work has serious implications for tourism, fishing and other activities across the Gulf Coast region, said Kristine Willett, associate professor of pharmacology and graduate program coordinator for the Environmental Toxicology Research Program.

Environmental toxicology is the study of how chemicals affect plants, animals and their ecosystems. The work spans many fields, so the research program includes chemists, biologists, pharmaceutical scientists and others.

The group generally has about a half-dozen research projects going at any given time, said Marc Slattery, pharmacognosy professor and the program's director. Recent projects include efforts to measure the effects of pesticides and pharmaceutical residues on the environment and a study of diseases affecting coral and other reef organisms.

Willett's specialty is studying the effects of polycyclic aromatic hydrocarbons, chemicals that occur naturally in fossil fuels. PAHs are also present in products made from coal or crude oil, including asphalt and creosote.

Besides simply measuring the concentrations of potentially harmful chemicals in the water, the UM studies focus on several biological effects.

In one project, researchers place fish in seawater collected from the Gulf to measure toxicity. If the samples contain toxins in high concentrations, the fish may develop birth defects and be unable to survive. Another study examines the effects of PAHs and oxygen levels in the water on oysters.

A third project, funded by an award to the National Institute for Undersea Science and Technology at UM by the Northern Gulf Institute at Mississippi State University, focuses on determining the spill's effects on coastal sea grasses.

Willett has been conducting toxicology studies in the Gulf since the mid-1990s. Ten years ago, she received funding through NIUST to study environmental stressors in the region. NIUST, which includes the Ocean Biotechnology Center and Repository, has an interest in the environmental health of the Gulf Coast, said Ray Highsmith, the institute's executive director.



Kristine Willett is leading a group of studies into the biological effects of the oil spill on fish, shellfish and plant life along the Gulf Coast.

After Hurricane Katrina cut through the Gulf Coast in 2005, Willett and her colleagues began collecting monthly water and sediment samples within 10 days of the storm's landfall.

"When Katrina occurred, it was clearly going to impact water quality along the coast," Highsmith said. "We were lucky that Dr. Willett had been doing this kind of research and was able to respond immediately. Many recognized the importance of Katrina but weren't prepared or didn't have the funding to respond. We had the right combination, which has ultimately led to important publications and a leadership role at meetings and symposia."

Data from those samples—collected from 10 sites along the coast from Gulfport to Mobile, Ala.—provide a benchmark against which to

measure post-spill samples. Levels of PAHs in coastal waters increased only slightly after Katrina, but researchers expect to see more significant increases in samples taken since the spill.

"So far, we have not seen any overt toxicity, and by that I mean death of fish and oysters in the waters we're sampling," Willett said. "However, that's not to say you won't see greater effects this year. If it's reproduction that is compromised, for example, then it's this year's babies that will be affected."

Another priority is determining the damage caused by dispersants used to break up the oil slicks.

"That's the big controversy in the regulatory field," Willett said. "BP sprayed millions of gallons of dispersant in the Gulf, and we don't really know the effects all that dispersant will have on the environment. Did it increase the toxicity of the oil by making some chemicals in it more soluble? It may take a long time to answer these questions."

Because of the spill's magnitude, the UM research is vital to help engineers, policy-makers and members of the general public understand the potential environmental dangers.

"It is critical that we learn as much as possible about this spill and how oil and oil-plus-dispersant behave and what impacts they have," Highsmith said. "Dr. Willett's work will contribute to that."

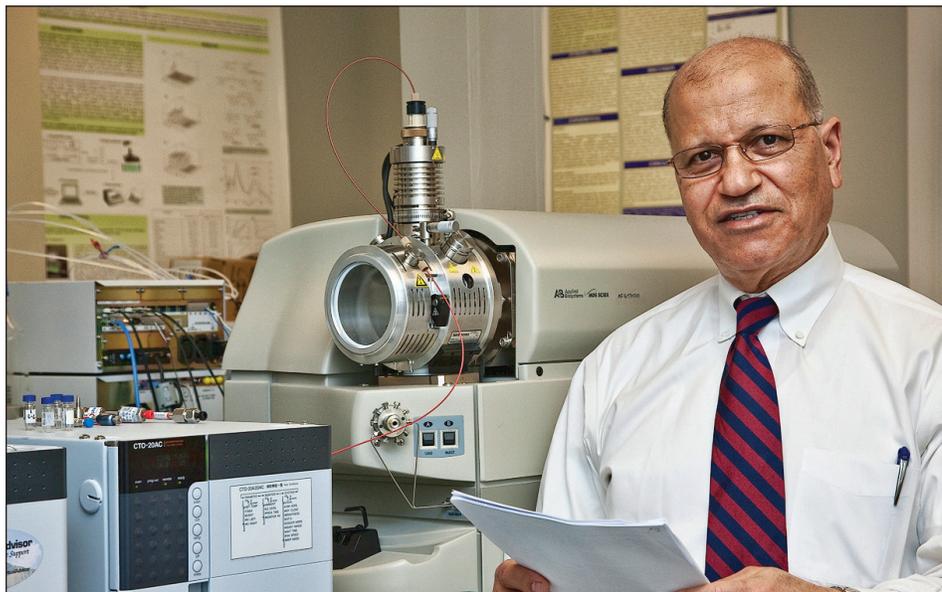
The work also is providing opportunities for several of the program's six graduate students, who are helping with sampling and analysis. Program leaders are trying to get training grants to fund more student positions.

"In many ways, this event is going to stretch our imagination and our abilities to deal with it," Slattery said. "We're going to be dealing with the effects for a long time, and we're going to need people who are interested and qualified to take this on."

Students, Willett said, "can come in here and start work that could carry them through their professional career right here in Mississippi, monitoring how the environment has been affected by this spill. This could literally be their life's work." ■

News

Researchers putting the brakes on poison ivy rash



Mahmoud A. ElSohly is the mastermind behind a product to desensitize people to poison ivy.

Each year nearly 50 million Americans develop that irksome skin rash poison ivy causes. UM researchers are working on a pharmaceutical product to rein in the allergic reaction in people already sensitive to the plants and prevent the reaction in those who aren't. The product contains chemical derivatives of urushiol (u-ROO-she-ol), the oily substance in poison ivy, oak and sumac that causes dermatitis.

"It certainly works in guinea pigs, the closest model you can find to humans," said Mohammad K. Ashfaq, a veterinarian and senior scientist in the National Center for Natural Products Research at the School of Pharmacy.

The mastermind behind the product is an NCNPR research professor, Mahmoud A. ElSohly, who is also president and director of ElSohly Laboratories Inc. of Oxford. The compounds were produced by ELI's synthetic

chemist, Waseem Gul, and development studies were conducted at ELI and NCNPR with more than \$800,000 from the National Institutes of Health Small Business Technology Transfer Program, or STTR.

ElSohly worked on a similar product in the 1980s, when he and two other UM scientists developed an oil-based prophylactic treatment. It, too, worked in guinea pigs and was licensed to a pharmaceutical company but hit a snag.

"The problem we ran into," ElSohly said, "was that the licensee wanted to use an oral route for delivery, and the compounds didn't work well when administered orally."

ElSohly recently went back to the drawing board and came up with the idea for the new urushiol derivatives, which are water-soluble, and the university filed for a new patent and licensed the technology to a company for development.

Two of the new derivatives have been selected for continued development at NCNPR, ElSohly said. They have good long-term stability in aqueous solution, and they will be administered intramuscularly, like a flu shot.

"Stability is an important factor," he said. "The material must have a long shelf life to become a marketable product. We project our product will be stable for at least two years."

The next step, he said, is to determine the minimum dose that produces desensitization in humans and, in conjunction with the company that licensed the technology, complete required preclinical studies, then move on to clinical trials.

"The material must have a long shelf life to become a marketable product. We project our product will be stable for at least two years."

NCNPR RESEARCH PROFESSOR
MAHMOUD A. ELSOHLY

The derivatives made at ELI were sent to NCNPR scientists, who proved their efficacy in guinea pigs. In addition to determining the drug's minimum effective dose, they are also unraveling their mechanism of action with the help of Mohamed Abdel-Bakky, a postdoctoral research associate.

Hypersensitivity to poison ivy develops with repeated exposure to the plants, Ashfaq said.

"The first time people are exposed, there is no reaction," he said. "The second time they are exposed, they get the flared reaction typical of poison ivy dermatitis—the redness and blistering."

Susan P. Manly, NCNPR's drug-discovery screening program manager, worked with ElSohly to renew center work on the project.

"This is an exciting product," Manly said. "We hope to soon be in a clinical trial." ■

How you can help

Private support is essential to maintaining the School of Pharmacy's commitment to excellence and its ranking as one of America's finest. Unrestricted gifts enable us to address the school's greatest, and sometimes unexpected, needs and opportunities. Providing an unrestricted gift to the School of Pharmacy before the **"Promises to Keep"** campaign ends on June 30 will help ensure that the school remains one of the nation's best. Contact Raina McClure at raina@umfoundation.com or 800-340-9542 to learn how you can help.

News

Collaborative improving health of Delta diabetics

Diabetes is more prevalent and causes more deaths in the Mississippi Delta than anywhere else in the nation. In response to the epidemic, the pharmacy school is providing medication therapy management services and disease-specific education to the region's high-risk diabetes patients through the Health Resources and Services Administration's Patient Safety and Clinical Pharmacy Services Collaborative.

The collaborative is a national effort to transform health care by teaching teams of providers to integrate clinical pharmacy services into the primary health care home of populations with poor health status and high medication risk. More than 100 teams across the country are participating.

Through the collaborative, the pharmacy school is partnered with the G.A. Carmichael Family Health Center in Yazoo City and the Delta Health Alliance 21st Century Good Samaritan Health Center in Greenville. The school is also working with the Family Health Center in Laurel.

The work in Yazoo City and Greenville received three national awards in October, when teams from around the country gathered in Dallas to kick off the collaborative's third year. The Health Outcome Management and Clinical

Pharmacy Services Improvement awards were earned by the team at the Carmichael clinic. The Outstanding Performance Award went to the team at Good Samaritan.

"At these sites, pharmacists are enrolling 25 patients with uncontrolled diabetes," said Lauren Bloodworth, clinical assistant professor and program administrator. We help them set their own health care goals. If short-term goals have been met, we help them add new targets. If goals are not met, we discuss what was difficult to achieve and develop a new plan to improve their health care status."

Managing patients with uncontrolled diabetes is complex. Pharmacists review all prescription and nonprescription medications, herbal products and dietary supplements patients are taking. After assessing the presence of any medication-related problems, pharmacists work with patients, physicians or other health care professionals to resolve them.

"We also address lifestyle issues such as diet, exercise, psychological concerns and education," said Pharmacist Lorelei Farr, who helps care for patients in Yazoo City. "We measure health indicators such as hemoglobin A1c, blood pressure, body mass index and lipid levels, as well as adherence to medication regimens by tracking refill records and recommen-

dations made to patients' providers."

The collaborative is part of a larger pharmacy school effort in the region, the Delta Pharmacy Patient Care Management Project. This year, the program's third, faculty members are providing medication therapy management services and education related to diabetes and asthma in 13 pharmacies in 10 counties. The project has expanded to address childhood obesity and added an employer-based diabetes prevention and management program at the Viking Range Corp.

"We will continue the existing therapy management arm aimed at achieving outcomes through the effective use of medications, patient education and prevention of drug complications or interactions."

ASSOCIATE DEAN
AND CHAIR OF PHARMACY PRACTICE
LEIGH ANN ROSS

"We will continue the existing therapy management arm aimed at achieving outcomes through the effective use of medications, patient education and prevention of drug complications or interactions," said Leigh Ann Ross, associate dean and chair of pharmacy practice. "Plus, we will further develop clinical pharmacy services by placing pharmacists in clinic settings to participate on patients' primary health care teams."

The Delta Pharmacy Patient Care Management Project is funded by HRSA through the Delta Health Alliance, which funds projects aimed at coordinating health efforts in the region. ■



Pharmacist Sarah Fontenot proudly displays one of three national awards the Delta Collaborative received for its work.

News

School creates new residencies for pharmacy graduates

Because of the growing number of pharmacy graduates seeking opportunities to further develop their practice skills, the school has created a Community Pharmacy Residency Program. The one-year training program focuses on advancing direct patient care skills, developing patient care services and practice management.

Program residents provide services in Webb's Pharmacy and the G.A. Carmichael Family Health Center in Yazoo City, Walgreens in Brandon and Clinton, and the Cardiometabolic and Family Medicine clinics at the UM Medical Center in Jackson. The UMMC clinics combat chronic diseases, and residents work with clinical pharmacists and physicians to improve patient outcomes.

"Our program offers unique opportunities for conducting research, precepting Doctor of Pharmacy students, educating patients with chronic diseases and providing individualized medication therapy management in a commu-

nity pharmacy setting," said Leigh Ann Ross, associate dean for clinical affairs and chair of pharmacy practice.

"I expect to come out of this residency with increased confidence, knowledge and skills to manage patients in outpatient and community settings."

RESIDENT COURTNEY DAVIS

"Through this program, residents develop and refine their skills, positioning them to practice in ambulatory care clinics or community pharmacy settings, or even to establish their

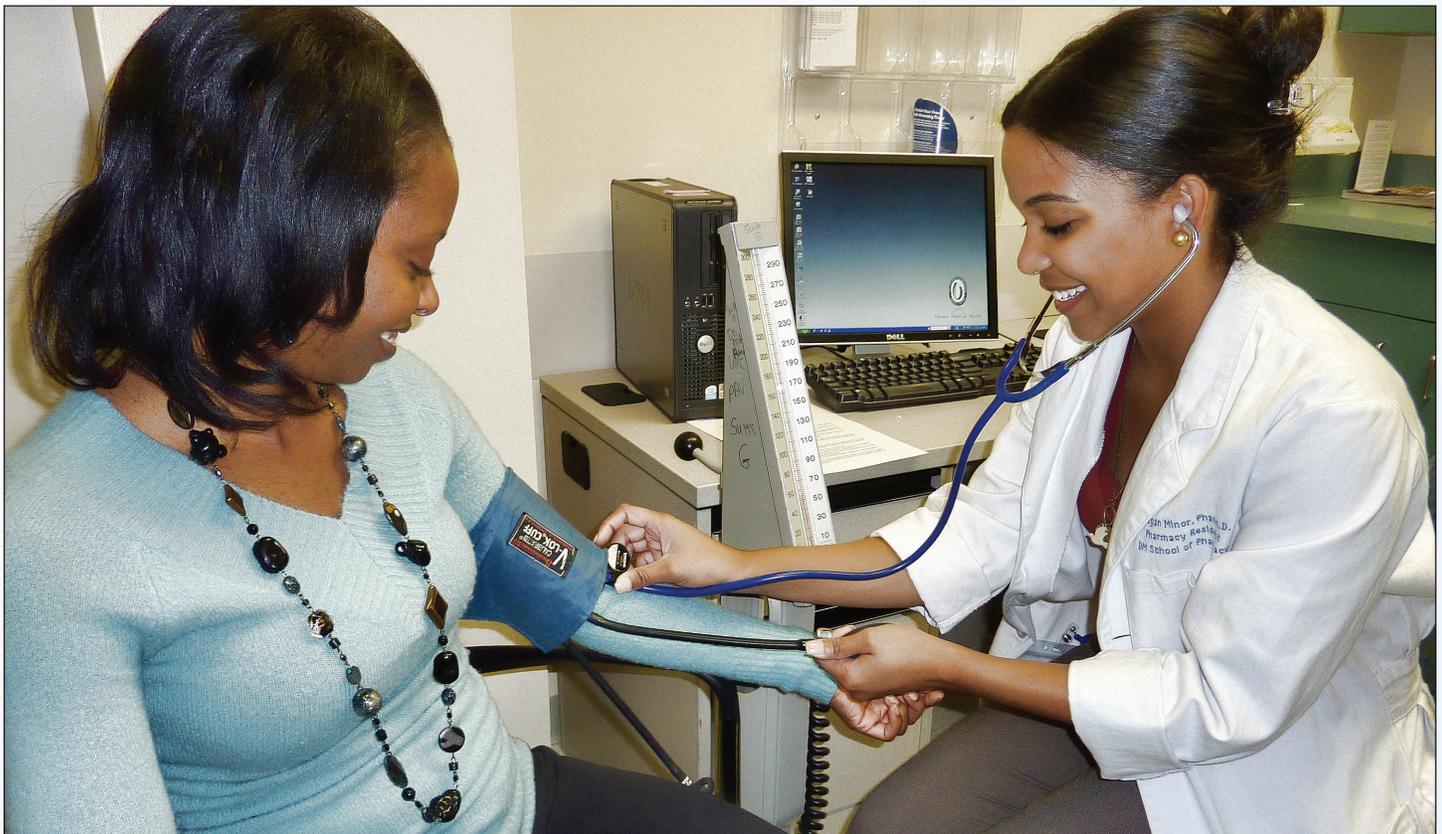
own innovative pharmacy practice. Teaching and scholarship are emphasized, and we hope this will prepare residents interested in careers as faculty members in an academic setting."

Residents appreciate the program.

"With lots of focus in the clinical and academic world, I know I will be well prepared for a job, whether in a hospital, academia or clinical community pharmacy," said Resident Meagan Minor of Baton Rouge.

"I expect to come out of this residency with increased confidence, knowledge and skills to manage patients in outpatient and community settings," said Resident Courtney Davis of Clinton.

The Department of Pharmacy Practice administers the pharmacy residency program, and many of its faculty members serve as preceptors. The program is directed by Ross and coordinated by Justin J. Sherman, associate professor of pharmacy practice, with support from the Delta Pharmacy Patient Care Management Project and Walgreens. ■



University of Mississippi pharmacy resident Meagan Minor checks the blood pressure of a patient served by the Delta Pharmacy Patient Care Management Project.

Student Focus

Budding pharmacists take to new elective like fish to water

Medicine from the sea took on new meaning for Doctor of Pharmacy student Katerina Pappas of Tupelo, after spending two weeks last summer exploring coral reefs in the Bahamas.

“As a pharmacy student, learning how ‘drugs from the sea’ are discovered was really interesting, and I don’t think it would have made such an impact on my learning if it had occurred in a classroom setting,” Pappas said. “It also helped me really understand that everything is interconnected—environmental preservation, ecology, pharmacognosy, medicine—and getting the full picture is essential.”

The field course is one of a dozen new electives pharmacy students can take to meet their degree requirements, said Marvin C. Wilson, associate dean of academic and student affairs.

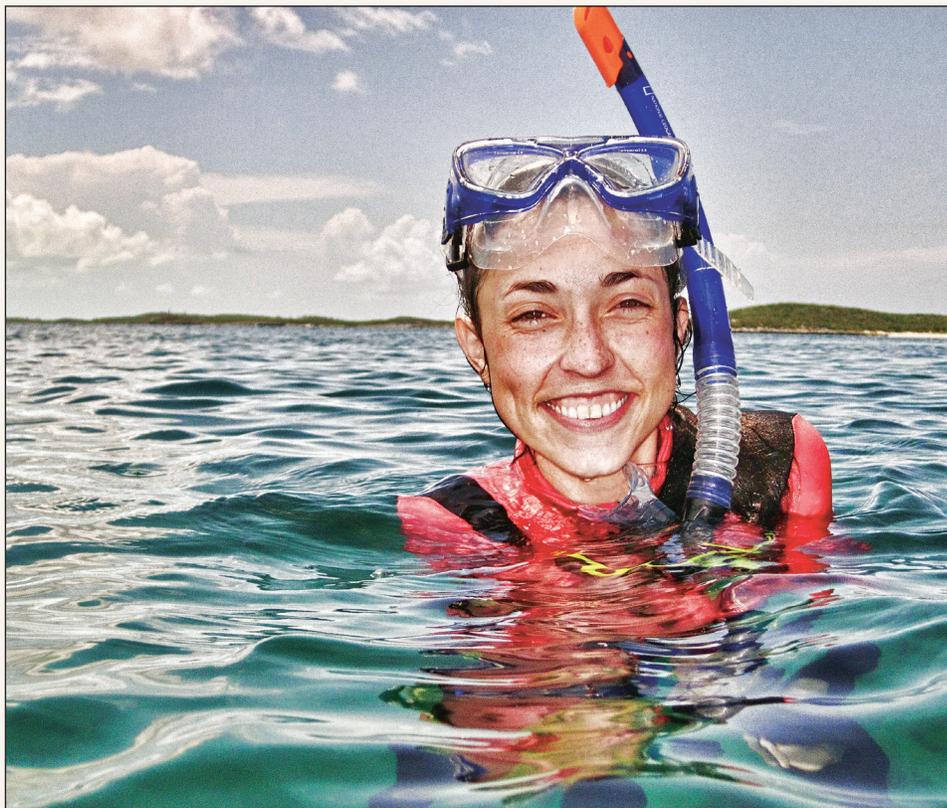
“Students must complete five hours of electives during the first two years of their professional program,” Wilson said. “We asked each department to develop at least two. The one in the Bahamas was created by the pharmacognosy department, and it appears to be a big hit.”

One of the richest and most diverse ecosystems on the planet, coral reefs are threatened by pollution, climate change and human activities. The risks of coral reef extinction are so real that marine biologists worldwide are frantically studying the problem.

“I got to swim with sharks, sea turtles and barracudas while seeing different types of marine life and coral reefs,”

DOCTOR OF PHARMACY STUDENT
LAURIN DIXON

Scientists from UM and the University of Alabama are trying to better understand coral disease and ocean acidification in the reef near Lee Stocking Island, part of the Greater Exuma chain of the Bahama Islands. With a fish-eye



Katerina Pappas of Tupelo snorkels in the Bahamas, getting a firsthand look at threatened coral reef ecosystems.

view of the crystal-clear turquoise waters, their research team observes one of nature’s most fragile, yet bountiful, marine ecosystems.

“Coral reefs help provide food and medications, along with other goods and services, to hundreds of millions of people worldwide, yet they are disappearing at alarming rates,” said UM Pharmacognosy Professor Marc Slattery, an expert on briny invertebrates and algae. “Without research, they may be lost to future generations.”

Last summer, the team examined reefs 200 to 300 feet below the surface, depths overlooked by prior surveys, said Slattery, who hopes to discover new pharmaceutical compounds from coral reef organisms.

Other researchers working with Slattery on the project include Deborah Gochfeld, an expert on corals and fish from UM’s National Center for Natural Products Research, and UA’s Julie Olsen, a microbial ecologist with expertise in biological oceanography. The team brought home plenty of samples of the coral and other sea life, and Slattery said they will be busy for

months examining them for signs of changes in the reef’s health.

Pappas and 20 other UM students got their feet wet as Slattery and colleagues led a related two-week graduate course at the nearby Perry Institute for Marine Sciences.

“I got to swim with sharks, sea turtles and barracudas while seeing different types of marine life and coral reefs,” said Laurin Dixon, a Doctor of Pharmacy student from Germantown, Tenn. “Every day was an experience both in the water and in the classrooms and labs.”

First-year pharmacy student Mallory Johnson of Brookhaven said, “The course was a once-in-a-lifetime opportunity. I was able to visualize, firsthand, the process of developing potential pharmaceuticals from the marine environment.”

The courses will be offered again this summer. They are funded by the National Institute for Undersea Science and Technology, part of NOAA’s Office of Ocean Exploration and Research at UM. Slattery is director of NIUST’s Ocean Biotechnology Center and Repository. ■

*Student focus***60 students share in ministry of medicine**

Clinical Assistant Professor Rachel C. Robinson teaches pharmacy student Addy Stone Dinkins proper use of an inhaler at the Oxford Medical Ministries Clinic, where both are volunteers.

Pharmacy students are helping uninsured residents in Lafayette and Yalobusha counties get the health care they need by working at the Oxford Medical Ministries Clinic, which provides free services to working adults with low incomes.

Working at the clinic was a valuable experience, said Melissa Webster of Madison, a fourth-year pharmacy student.

"I loved volunteering at the clinic," Webster said. "The patients were great, and they have helped me just as much as I helped them. They were always grateful for everything the volunteers at the clinic could do for them. It

was a great experience for me to draw from for school, as well as for my work as a pharmacist."

Clinical Assistant Professor Rachel C. Robinson became a clinic volunteer in fall 2008 and saw an opportunity for students to become involved. Since then, more than 60 students have helped out at the clinic.

"After volunteering for several weeks at the clinic, I realized what a great learning environment the clinic was for our students," Robinson said. "I asked for volunteers and was very pleased with the interest."

The clinic's primary focus is treating and preventing chronic diseases. It serves 515 patients

and fills about 100 prescriptions during clinic hours each Tuesday night, when the pharmacy is open.

Under the supervision of the clinic's staff pharmacist, students help fill prescriptions, stock medications, provide patient counseling and answer medication-related questions from clinic nurses and physicians. They also learn about the functions of an ambulatory clinic and patient assistance programs.

"The students ease the workload of the pharmacists, allowing pharmacists to have more time to answer physicians' questions and to interact with physicians and patients," said Marlene Bishop, the clinic's executive director.

"The students ease the workload of the pharmacists, allowing pharmacists to have more time to answer physicians' questions and to interact with physicians and patients."

EXECUTIVE DIRECTOR
MARLENE BISHOP

Pharmacy students, on the other hand, receive a glimpse of the tough decisions facing the uninsured.

"I learned about the challenges that many of the patients faced in having to make difficult choices between their basic health and other necessities," said Robert Peel of Hendersonville, Tenn., a third-year pharmacy student. "I gained valuable real-world knowledge as it pertains to the practice of pharmacy, and I learned about the challenges that exist in providing good health care to all segments of the population." ■

How you can help

Four out of five pharmacy graduates complete their degrees with nearly \$50,000 in debt, a fact that discourages some students from pursuing the professional degree. Contributing to the School of Pharmacy's existing scholarship endowments, or creating new ones, before the "Promises to Keep" campaign ends on June 30 will help ensure that qualified students are able to become outstanding pharmacy practitioners. Contact Raina McClure at raina@umfoundation.com or 800-340-9542 to learn how you can help.

Student Focus

A passion for serving others

Pharmacy student Brian McCrate has set a lofty goal for himself. He wants to establish a self-sufficient free clinic, rather than remain a volunteer at one.

His passion for serving others grew through his volunteer work with the Oxford Medical Ministries Clinic and Jackson Free Clinic.

"I enjoy giving my expertise to help others," said the Cape Girardeau, Mo., native. "It's enjoyable, exciting, and I am able to help people. That is part of what is great about being a pharmacist, helping others."

McCrate created a pharmacy volunteer coordinator position at the Jackson Free Clinic to help increase the number of pharmacy students volunteering there.

The clinic offered a great opportunity for students to not only develop their skills but also have a positive impact on patients' health, he said. Pharmacy student duties at the clinic included assisting with medication selection, evaluating patient therapy, providing patient education and helping with patient assistance.

"We have had lots of positive feedback," McCrate said. "Students and medical practitioners greatly appreciate having a consistent pharmacy presence at the clinic."

McCrate's volunteerism doesn't stop at free

medical clinics. Last year, he founded a running club at the Medical Center. This year, students, faculty and staff from all disciplines meet once a week and enjoy running together.

"Brian is a unique student, in that he enthusiastically seeks opportunities to serve others as well as enhance his own professional development."

ASSOCIATE DEAN OF ACADEMIC
AND STUDENT AFFAIRS
MARVIN WILSON

He also is president of the UM chapter of Phi Lambda Sigma pharmacy leadership society. In August, the society held its first student-led leadership retreat at the School of Pharmacy. It focused on improving leadership skills and



Brian McCrate

aiding student organizations with the transition to the Jackson campus. Funding for the retreat has been secured through multiple donations from state organizations and pharmacies, and its organizers hope it becomes an annual event.

Most recently, McCrate and fellow pharmacy students Donan Bourgass, Rosemary Call, Hillary Freeman, Keri Mills, Aften Henley and Hope Glidwell participated in the "Taste of the U" at the Medical Center. The event is a competition among employees and students that raises money for special projects.

"I did it last year working with the School of Pharmacy," said McCrate. "This year, a group of us decided we wanted to have a personal booth. We had a CANDY LANDSM (children's game) theme and made homemade marshmallows. We even built a castle. It was an amazing time. I even dressed up like a giant peppermint stick."

McCrate received his bachelor's in pharmaceutical sciences in 2009. He also is a graduate of UM's Sally McDonnell Barksdale Honors College and a recipient of the Taylor Medal, the university's highest academic honor.

Upon finishing his Doctor of Pharmacy degree in May, he plans to complete a pharmacy practice residency with Clarian Health Partners in Indianapolis. He would also like to pursue a second-year postgraduate residency and career in academia.

"Brian is a unique student, in that he enthusiastically seeks opportunities to serve others as well as enhance his own professional development," said Marvin Wilson, pharmacy's associate dean of academic and student affairs.

"The school is blessed to have a number of students pursue one or the other of these types of initiatives, but Brian engages in both," Wilson said. "He also has been a catalyst for engaging others in these activities. We are honored that he chose to complete his professional education at the University of Mississippi." ■



Brian McCrate (left) and fellow pharmacy students participate in the "Taste of the U" at the Medical Center. The group made homemade marshmallows to go along with their CANDY LANDSM theme.

Faculty Focus

UM's chief research officer receives top NIH honor

The National Institutes of Health's Center for Scientific Review named Alice M. Clark the 2010 winner of its top honor for extraordinary commitment to peer review.

Clark, vice chancellor for research and sponsored programs and E.A.P. Barnard Distinguished Professor of Pharmacognosy, received the Marcy Speer Outstanding Reviewer Award, which highlights the vital contributions of CSR reviewers who evaluate NIH grant applications.

"With her wonderful enthusiasm and passion for rigor and fairness, Alice personifies all that's great about our reviewers," said CSR Director Toni Scarpa.

Scarpa noted that Clark was nominated by four CSR scientific-review officers, three NIH program officers and three fellow reviewers. They called her the "chair of chairs" for her exceptionally "fair, efficient and collegial" way of running meetings.

In an average year, about 16,000 reviewers volunteer some 150,000 days to assess the scientific merit of more than 58,000 grant applications. Their scientific evaluations help NIH invest more than \$20 billion in the most promising research grants.

"Only the best scientists are selected to participate in these review panels," said UM Chancellor Dan Jones. "That Dr. Clark was chosen to receive this award from among thousands of reviewers is an indication of her national stature in science. We are fortunate to have a person of her ability, commitment and character leading research for our university."

During Clark's 20 years of CSR service, she has participated in 63 reviews, including those as a regular reviewer and chair for the AIDS and Related Research Study Section and the Drug Discovery and Mechanisms of Antimicrobial Resistance Study Section. She was also a regular member of the Bio-Organic and Natural Prod-



Alice Clark

ucts Chemistry Study Section and has served on multiple special-emphasis panels. The Speer Award calls attention to Dr. Clark's dedication to quality science and unbiased peer review in the funding process," said pharmacy Dean Barbara Wells. "It highlights her dedication to the very best science, fairness to all concerned, and improving human health and fiscal responsibility in the funding of research."

The Marcy Speer Award recognizes scientists who demonstrate extraordinary commitment to CSR peer-review groups. The award's namesake, who died in 2007, exemplified this commitment by continuing to review grants during her treatment for breast cancer. ■

Faculty Focus

Scientist honored for dietary supplement work

Ikhlas A. Khan, assistant director of the National Center for Natural Products Research, received the 2010 Nutrition Business Journal's Education Award for his significant education and training contributions in the field of dietary supplements.

Khan, also director of the U.S. Food and Drug Administration's Center for Excellence in Botanicals at UM, is a nationally and internationally recognized proponent of using analytical fingerprinting to standardize herbal products and using bio-analytical approaches to improve their quality and safety.

The NBJ award "speaks highly of our research team's efforts in dietary supplements here at NCNPR," said Khan, whose other



Ikhlas A. Khan

awards include the 2010 American Herbal Products Association Herbal Insight Award, 2009 Norman R. Farnsworth Excellence in Botanical Research Award and 2009 FDA Commissioner's Special Citation. Khan has served on advisory boards or expert panels of the AHPA, U.S. Pharmacopoeia, Women's Health and Asian Traditional Medicine, Missouri Botanical Garden, American Botanical Council, AOAC International Dietary

Supplement Task Force and Health Canada's Natural Health Directorate. He also has more than 400 original research articles, publications or reviews to his credit.

"Dr. Khan's research on the quality and safety of botanical supplements has long been appreciated in the scientific community," said NCNPR Director Larry A. Walker. "This award from the Nutrition Business Journal marks the recognition by supplement industry leaders that such work provides an important foundation for the long-term health of the industry. We at the NCNPR are indeed fortunate to have Dr. Khan's vision, energy and expertise helping to shape our research program." ■

Faculty Focus

Medicinal Chemistry professor receives UM's Faculty Achievement Award



Christopher McCurdy's (left) outstanding career performance earns a campuswide achievement award.

Christopher McCurdy's resume is filled with teaching, research and service accolades, but receiving UM's prestigious Faculty Achievement Award last fall tops the list.

"There is no higher form of recognition than that of one's own colleagues and peers," McCurdy said. "There are so many faculty here that I hold in the highest regard and utilize for inspiration and mentoring, including some former FAA recipients. I love working with students, faculty and staff as they drive me to work harder and dig deeper."

Provost Morris Stocks presented the medicinal chemistry professor with an engraved plaque and a \$2,000 check. The award recognizes professional scholarship, high scholarly standards and overall outstanding career performance.

"Dr. McCurdy is an excellent teacher and continually demonstrates a commitment to his students," Stocks said. "His research is well-funded, and the importance of his work has been recognized by his peers. Dr. McCurdy also is a committed servant to his department, his university and his profession. The Faculty Achievement Award, which recognizes the excellence of his body of work, is well-deserved."

McCurdy, who holds a joint appointment in the Department of Pharmacology, joined the pharmacy faculty in 2001. Students complet-

ing their second professional year selected him as their Teacher of the Year in 2003, 2006 and 2010, and he recently became co-director of the school's National Institutes of Health Center of Biomedical Research Excellence—Center for Research Excellence in Natural Products Neurosciences.

McCurdy, who is serving his second three-year term as a Distinguished Teaching Scholar in the pharmacy school, "makes extraordinary contributions to the university's missions and is generous in facilitating professional development of other faculty," said pharmacy Dean Barbara Wells. "He holds students' best interests as his highest concern, and he challenges them to think critically and to problem solve. He also fosters their interest in research."

The author of more than 50 papers in professional journals, McCurdy has received research funding from NIH, National Science Foundation, Centers for Disease Control and Preven-

tion, and the American Association of Colleges of Pharmacy. AACP named him an Academic Leadership Fellow, and the Pharmacy Leadership and Educational Institute presented him with the Albert B. Prescott/GlaxoSmithKline Leadership Award.

McCurdy is the new trends editor for Medicinal Chemistry Research and an editorial

"Dr. McCurdy is a committed servant to his department, his university and his profession. The Faculty Achievement Award, which recognizes the excellence of his body of work, is well-deserved."

PROVOST MORRIS STOCKS

board member of Current Topics in Medicinal Chemistry, Perspectives in Medicinal Chemistry, Open Medicinal Chemistry, Current Bioactive Compounds, Open Enzyme Inhibition Journal, Future Medicinal Chemistry and Pharmacologyonline. He is on the Journal of Medicinal Chemistry's editorial advisory board and Synergix Ltd.'s senior editorial advisory board for Medicinal Chemistry. He also is heavily involved in the American Association of Pharmaceutical Scientists' Drug Design and Discovery Section. ■

How you can help

Schools must supplement faculty salaries and support research to recruit and retain the very best, as competition for outstanding faculty members is stiff. Contributing to the School of Pharmacy's endowed professorships, or creating new ones, before the "Promises to Keep" campaign ends on June 30 will enable us to hire and reward exceptional faculty members working to make our pharmacy school one of the nation's best. Contact Raina McClure at raina@umfoundation.com or 800-340-9542 to learn how you can help.

Faculty Focus

Pharmaceutics professor receives pharmacy school's 'New Investigator' award

Since joining the pharmacy faculty in 2006, S. Narasimha Murthy has received three National Institutes of Health research grants and directed six graduate students and two postdoctoral research fellows. Under the assistant professor of pharmaceutics' tutelage, those students and fellows have published dozens of papers in peer-reviewed journals, secured a few research grants on their own and received several professional honors.

Murthy's NIH-funded research focuses on developing an electrically mediated technique to deliver iron through the skin of anemic patients. He already has invented several novel technologies to treat skin and nail diseases, including one that uses electric current to drive antifungal drugs into the plate of fingernails and toenails to treat onychomycosis. His research



Narasimha Murthy

Recognizing these and other accomplishments last fall, the pharmacy school presented Murthy with its inaugural New Investigator Research Award, which includes an engraved plaque and \$1,500.

"Although he has been on our faculty for only four years, his drug-delivery research is already well-funded by the NIH, and he has proven he is committed to the professional

group also has developed a noninvasive technique to sample drugs from the skin, enabling researchers and others to determine how much of the medications reach the skin after they're administered.

development of students and young investigators," said Charles D. Hufford, associate dean for research. "He is a well-deserving first recipient of our New Investigator Research Award."

In addition to 50 journal articles, Murthy has authored seven chapters on drug-delivery systems in the "Advances in Industrial Pharmacy" textbook. He also edited two textbooks released last fall and helped edit another to be released this year. As a series editor for Taylor and Francis Publishers, he will help bring out a number of textbooks on the theme "Drug Delivery Systems: Design by Disease."

"Dr. Murthy has established himself as a notable researcher in the area of noninvasive drug-delivery systems by developing several innovative concepts and technologies in this field," said Michael Repka, chair of pharmaceutics. ■

Donor Focus

Alumni and friends support pharmacy excellence

The School of Pharmacy gratefully acknowledges the generous gifts of alumni and friends who support and enable the school's success. Private support is the essential element necessary in maintaining the school's commitment to excellence. The following donors made gifts to the school during the 2010 calendar year.

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Professor Dewey Garner with his wife, Barbara, and pharmacy Dean Barbara Wells



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Raina McClure becomes pharmacy school's development officer

Raina McClure is the School of Pharmacy's development officer and is responsible for securing financial support to better meet the programmatic needs of students and faculty.

"I am so excited to make the change from pharmaceutical sales to fundraising," said McClure. "I loved my time at Ole Miss, and I look forward to getting to know alumni who also love and take pride in supporting our university. To be able to steward support that will make an impact on so many lives will truly be a rewarding career. I am proud to be able to represent Ole Miss and the School of Pharmacy."

McClure spent the last seven years in the pharmaceutical sales industry working for Meda Pharmaceuticals and Schering-Plough. She had previously worked locally with Security Check and Oxford Publishing.

"Raina has a solid professional background that made her a natural fit for this position," said Sarah Hollis, associate director for university development. "But equally important is Raina's

long-standing relationship with the Oxford-University community."

Pharmacy Dean Barbara Wells said, "Raina's background and experience, as well as her personal qualities, make her an excellent fit for this key position. She is already having success in enhancing relationships with our alumni and friends, and securing new resources to strengthen our programs and our endowments to assist students and faculty."

"She joins the school at an exciting time, in that we are about to wrap up our first-ever capital campaign, finishing up a new academic and research building on the health sciences campus, and about to begin construction on a new research building for the National Center for Natural Products Research in Oxford."

McClure earned her bachelor's degree in education from Ole Miss in 1995. She is married to Jim McClure and has two sons, Jack, 14, and John Reece, 10. They are members of Oxford-University United Methodist Church and love to attend Ole Miss sporting events. ■



Raina McClure