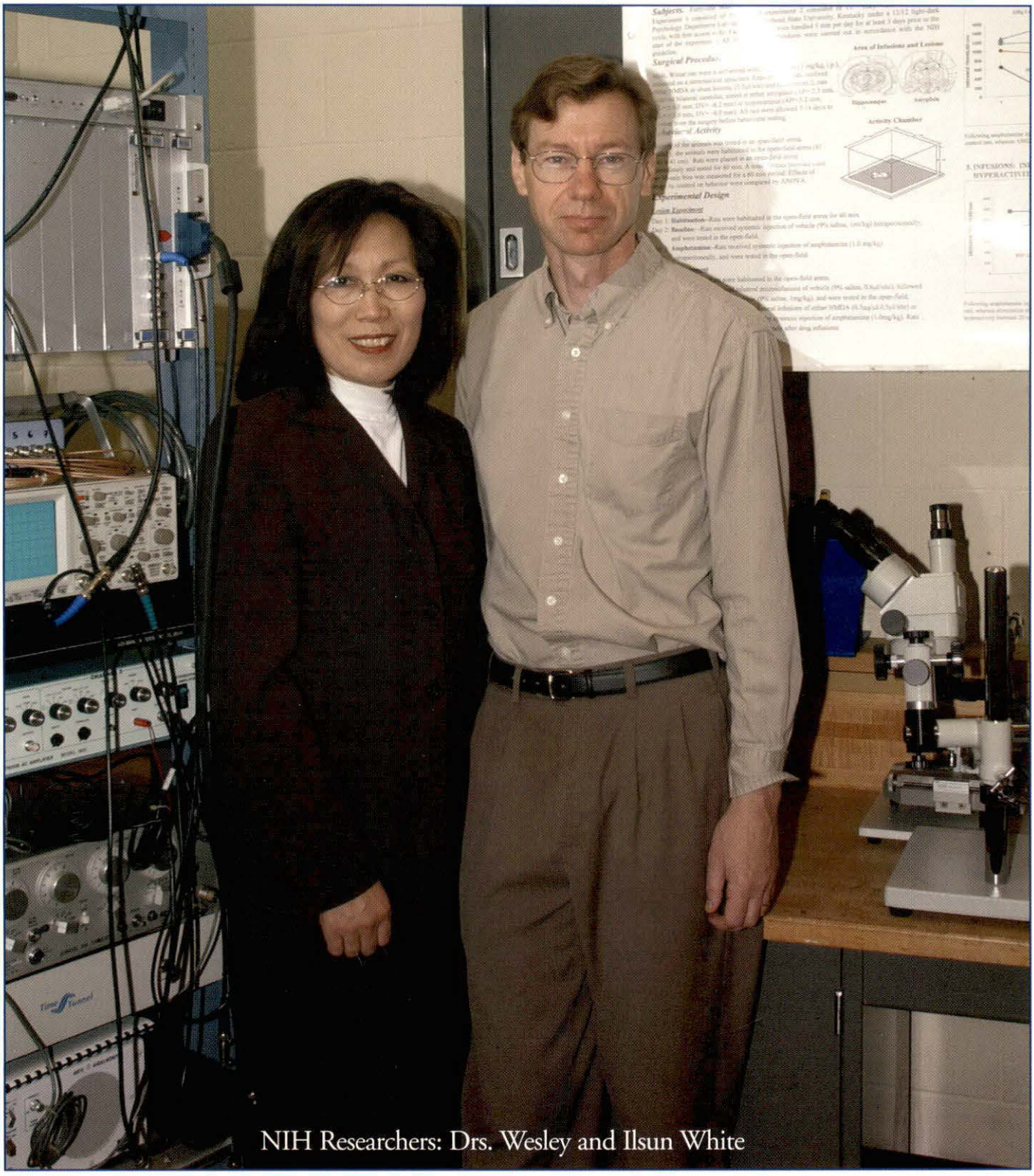
FOCUS

On Research and Creative Productions at Morehead State University

Vol.6 No.1



NIH Researchers: Drs. Wesley and Ilsun White

Funding increase is direct result of faculty efforts

Since 1992, internal and external funding for research and creative productions at Morehead State University has increased dramatically, from $5 million to nearly $15 million annually, a remarkable figure that has helped transform our whole approach to faculty scholarship. This dramatic increase is the direct result of the energy and talent of our faculty.

Research at MSU serves many purposes, from scientific advancement to environmental assessments, addresses practical issues and philosophical directions, and helps make good teachers into better teachers and eager students into better students.

Internal funding supports specific research, while external funding provides for programs such as the Space Science Center and the Kentucky Folk Art Center.

Recognition of faculty members for outstanding research and creative productions honors those whose long term efforts reflect dedication, talent, and solid evidence of academic professionalism.

FOCUS salutes the research and creative efforts of MSU faculty, the endless pursuit of academic excellence and the personal commitment to meeting the needs of their students. In this issue we feature two faculty couples, outstanding teachers and researchers whose efforts earn national attention and funding.

We are very proud of these scholar educators and the work they do each day to enhance the academic community which is Morehead State University.

Sincerely,

Michael R Moore

Michael R. Moore,
Provost and Executive Vice President

FOCUS

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Comments or questions to:

focus@moreheadstate.edu

About The Focus Edition

Focus–a point to which something converges or from which something diverges–illustrates the ideals of Morehead State University for bringing the best research together and encouraging new efforts in distinctly different areas. The goal of **Focus** is to recognize faculty and professional staff involvement in sponsored research and creative projects and to illustrate diversity in the University's mission of teaching, research, and service to the people of East Kentucky. Through the combination of teaching with research, scholarship, and creative activities, an environment in which knowledge may be discovered, integrated, and disseminated to educate students is created. **Focus** is intended to illustrate the breadth of research within the University and thus describes only a few of the on-going projects under way in a variety of areas.

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On the cover: Drs. Wesley and Ilsun White, associate professors of psychology, share laboratory spaces and research interests, but each is a distinguished independent scholar whose ongoing studies are supported by the National Institutes for Health.

On the back: Drs. Jennifer Birriel and Ignacio Birriel, assistant professors of physical sciences: "While she studies the highly evolved stars in the farthest reaches of the universe, he looks into nuclear structures here on earth equally invisible to the naked eye."

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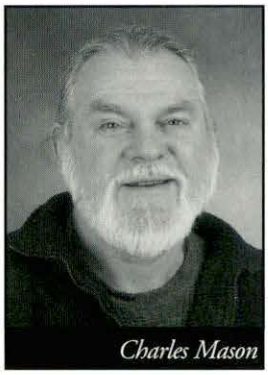
Kentucky UNBRIDLED SPIRIT

Distinguished Researcher: **Charles E. Mason**


Charles Mason

Charles Mason's research at Morehead State University started when he was an undergraduate, helping geology professor Jim Chaplin with field and laboratory work.

Mason, associate professor of geology, has carried on the tradition, involving students in every project, using research to teach and inspire. Believing that "where there's a will there's a way," Mason has conducted research on weekends, nights and holidays, funding the early work from his own pocket, and mentoring scores of young geology students.

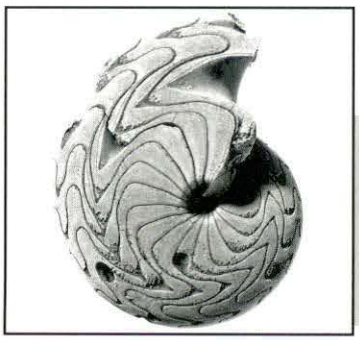
"It's a great teaching tool," says Mason, "and seeing the students succeed in graduate school and in the workplace has been worth far more to me than any productivity I may have lost."

Mason's specialty is ammonoids, an extinct group of cephalopods related to modern day squid and octopi but which had an external shell. He specifically works in ammonoids occurring in rocks that are lower Carboniferous (Mississippian) in age, 322 to 355 million years old, the rocks that underlie much of Eastern Kentucky, including Rowan County and the MSU campus. In 2002, Mason was honored by having an ammonoid genus named after him, the *Masonoceras kentuckiense*, as featured in the May, 2002, issue of the *Journal of Paleontology*.

In examining the lower Carboniferous rocks of the central Appalachian Basin, Mason discovered the most complete and best preserved series of ammonoid faunas of this age known to date in the world. According to Mason, ammonoids are the best macrofossil group to break Mississippian time down into smaller intervals and to compare the time intervals around the world.

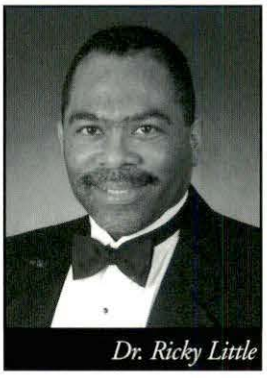
Most of Mason's research and publication to date have been from the data collecting phase, though now he has moved into data analysis. Having published over 20 scholarly articles during his career at MSU, Mason continues to present the information using students whenever possible. While serving as president of the Kentucky section of the American Institute of Professional Geologists, Mason scheduled the 2005 national meeting for Kentucky and serves as Field Trip Chair for that Lexington session.

Conducting research at MSU is not easy, says Mason, because of the heavy teaching and service loads required of faculty, but that does not hinder his research efforts and involvement of students. Much of what he does, says Mason, is "part payback for the mentoring I received as a young geology student."



In 2002, Charles Mason was honored by having an ammonoid genus named after him, the *Masonoceras kentuckiense.*

Distinguished Creative Production: **Dr. Ricky Little**


Dr. Ricky Little

Dr. Ricky Little, associate professor of music, was the recipient of the 2003 award for creative productions. Dr. Little, a native of Winston-Salem, N.C., holds the Bachelor of Arts degree in music from Oakwood College, the Master of Arts in Vocal Pedagogy, and the Doctor of Musical Arts in Vocal Performance from The Ohio State University.

Dr. Little, specializing in vocal performance and vocal pedagogy, is a classically trained baritone singer and performs operas, oratorio, masses, cantatas, art songs, sacred songs, spirituals and folk songs, as well as Broadway literature and some forms of jazz.

After completing his education, Dr. Little continued to pursue his goal of entering the professional world as a singer and teacher of voice at the university level. He has been engaged in hundreds of creative productions through professional management agencies in the United States, Europe and South America, and through associations with institutions of higher education. These involvements have made an impact on the international, national, regional and local levels.

Dr. Little has given more than 100 international performances on four continents, which include 18 countries, more than 25 major cities, as well as 26 U.S. states. He has participated in 11 major professional tours, and more than 20 international music festivals. He has performed at some of the most prestigious halls in the world and before royalty and heads of states as well as former President Bill Clinton. In April of 2004, Dr. Little performed for King Juan Carlos I, and Queen Sofia of Spain. His work has received positive written reviews in international and national newspapers.

He can be seen in two films, having just completed his third, and has performed on four CDs. His work has been aired locally, regionally and nationally over the ABC, TBN and BET television networks, and internationally over television in East Germany, Spain, Great Britain, Brazil and other countries in South America. Radio broadcasts of his work have been aired in the U.S., East Germany, and Italy. He has given approximately 70 performances in the Morehead area, including faculty recitals, performances at various functions, churches and community events.

Before coming to MSU in 1995, he was director of music at the Martin Luther King Jr. International Chapel at Morehouse College in Atlanta and director of choral activities and associate professor of voice at Oakwood College in Huntsville, Ala.

"I like very much the idea of being versatile," says Dr. Little, explaining why he both performs and does choral conducting. "These two forms of creative expression have worked hand in hand and have brought me immense fulfillment in music making."

The Caudill College of Humanities has placed an emphasis on the recruitment and retention of minority faculty, and graduate and undergraduate students, and Dr. Little is also coordinating that effort.

Public History at Zboriv: Preservation of a Seventeenth Century Cossack Battlefield in Western Ukraine

On April 16-17, 2004, Dr. Adrian O. Mandzy, a Fulbright fellow and assistant professor of history, brought to Morehead State University an International Conference "Identities Through Battlefields."

Sponsored in cooperation with the Kentucky Heritage Council, the Department of Geography, Government and History and International Studies, this conference confirmed that battlefield studies help foster identities, mutual respect, and understanding no matter where or when a battle took place. Battlefield studies are the rediscovery of history, the search for evidence of what really happened when armies and cultures collided. A number of papers were presented at the conference and scholars from as far away as Australia and Great Britain shared the results of their research.

Dr. Mandzy has participated in a number of battlefield projects. Most recently he sat out to study and locate the Cossack battlefields of the Zboriv/Zbarazh campaign of 1649. These battles, fought with extremely large armies, resulted in the Cossacks achieving self-rule in Ukraine. During the past 350 years, the area has been controlled by a variety of foreign rulers, including the Austro-Hungarians, Germans, Poles, and the Soviet Union, and none were particularly interested in preserving a cultural monument that had become synonymous with Ukrainian national identity.

Following the demise of the Soviet empire in 1991, renewed interest in the Cossacks brought forth a need for new research. During the last two years, Dr. Mandzy and his team were able to locate the exact location where these battles took place and learn much about the Cossack armies that fought there. As a result of their research program, the area was declared a national historical archaeological preserve. Dr. Mandzy created a Web site, www.lviv.ua/cossacks, to detail the history and the progress of this project.

MSU student Matt Priest has traveled to the Ukraine with Dr. Mandzy, helping with the fieldwork that has unearthed musket balls and other relics specific to the battle. Dr. Mandzy, whose parents came from Ukraine, presented a paper on his work at Zboriv to the 7th National Conference on Battlefield Preservation in Nashville, Tenn., April 19-25, 2004.

Dr. Adrian Mandzy is pictured with a 17th Century musket ball unearthed at a Cossack battlefield.

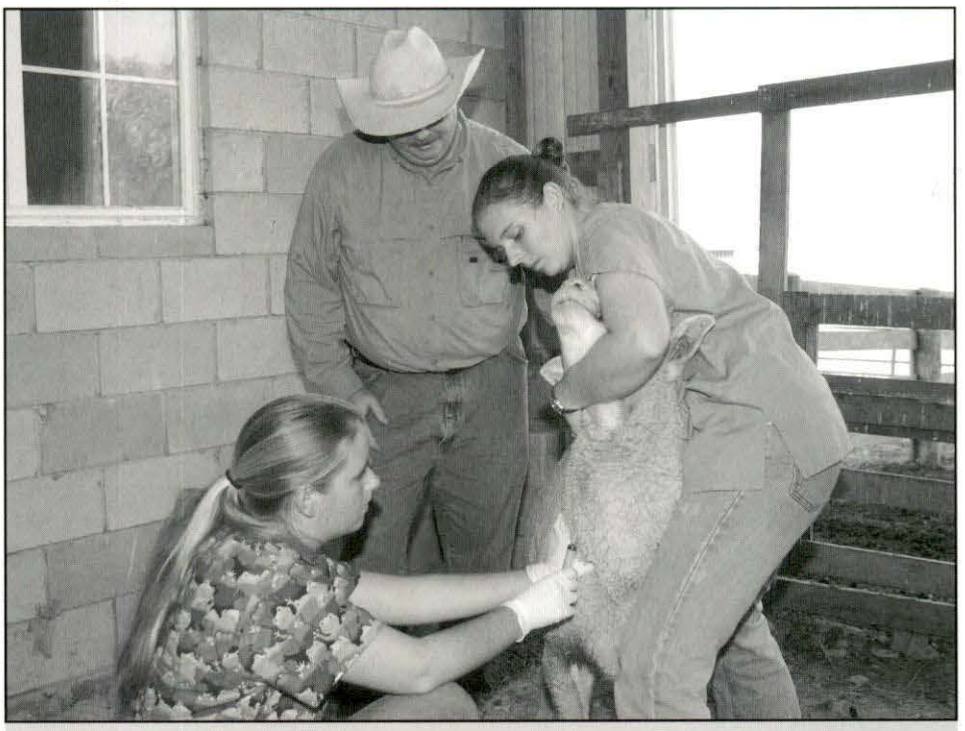
Testing Eprinomectin in Sheep

"Parasitism in sheep and goats," says Dr. Philip E. Prater, associate professor of agricultural sciences-veterinary tech, "is the most economically devastating disease today in the United States." As parasites become more and more resistant to older medicines, growers are turning to newer medicines such as eprinomectin that have not been fully tested in sheep and goats.

Dr. Prater's work, with help from MSU students, was to conduct a safety trial of eprinomectin on 15 adult ewes ranging in age from one to eight years. Five of the ewes were a control group, receiving a placebo, and the other 10 received the real medication and were tested at 48 hours, seven days and 14 days.

Results showed essentially no differences between the control group and the test group, and a report has been submitted to the drug's manufacturer.

According to Dr. Prater, who was in private practice before coming to MSU, working with the students has been very rewarding. Students did all the bloodwork and microscope work at each level and used the research for a vet-tech class project.



Students Lisa Penkal, left, Winchester senior, and Angela Buenger, Napoleon, Ohio, junior, assist Dr. Prater in obtaining a blood sample.

Looking at the World Through Different Lenses

While she studies the highly evolved stars in the fartherest reaches of the universe, he looks into nuclear structures here on earth equally invisible to the naked eye.

Drs. Jennifer Birriel and Ignacio Birriel, assistant professors of physical sciences, share an enthusiasm for research and teaching despite interests that take them far apart. Both received Kentucky National Science Foundation EPSCOR grants to fund their current research.

Jennifer's proposal, titled **"Raman Scattering in Planetary Nebulae,"** is for the study of highly evolved binary stars, ones that have shed their outer layers of gas and are scattering radiation. The particular type of scattered radiation she studies gives important information on the dynamics inside the gas. "Ultimately, this scattered radiation may reveal evolutionary links between two classes of stellar objects that, until recently, were considered different phenomena," says Jennifer.

"Planetary nebulae and symbiotic stars both exhibit Raman scattered radiation. Symbiotic binary stars are composed of a hot white dwarf star and a cool red giant star, both embedded in a common nebula. Planetary nebulae are composed of a hot white dwarf and an expanding nebula of material shed by the central star in a previous stage of evolution. There is a growing body of evidence, however, that most of the planetary nebulae actually contain a companion star to the white dwarf. Many planetary nebulae exhibit hourglass or butterfly nebular shapes just as the symbiotic stars. Evolutionary models for symbiotic stars predict that most will undergo a planetary nebula phase at the very end of their lives. The presence of Raman scattered radiation in some planetary nebulae and symbiotics may ultimately provide evidence the many or most hour-glass shaped planetary nebulae were once symbiotic stars."

"While the evolution of single star systems like our Sun is relatively well understood," says Dr. Birriel, "the evolution of binary star systems, which dominate the stellar systems, has many unresolved issues. Raman scattered radiation may provide a small piece of the puzzle to our understanding of binary star evolution and that's pretty exciting."

Ignacio's proposal, **"Shape Changes in 81 Sr,"** deals with the study of nuclear shape changes of 81 Sr at high angular momentum. The study of complex systems (so-called "mesoscopic" systems) defined as systems consisting of a finite number of interacting particles is today at the forefront of physics, embracing a broad range of phenomena. The atomic nucleus is a particularly interesting example of such a system, consisting of a finite number of nucleons that interact with one another via the strong and the Coulomb interaction and which obey the laws of quantum mechanics. Other examples are large molecules like Buckey balls, DNA or, least but not last, small metal clusters consisting of a relatively small number (10 to 500) atoms, whose properties are very different from that of "bulk metal." Nuclei have been investigated the "longest" and most "detailed" both experimentally and theoretically. The theoretical methods used in nuclear physics (mean field theories plus residual interactions) have been amazingly successful not only in nuclei, but for the understanding of shell effects and collective effects in metal clusters.

The results of this study will be of interest to most physicists working in the field of nuclear structure. The behavior of the atomic nucleus under various conditions has ramifications for fields ranging from medical physics to astrophysics. In medical physics, for example, a radioactive isotope is introduced into the body and the isotope emits gamma rays that are then traced to identify the location of cancer tumors. The generation of nuclear energy in the cores of stars occurs under conditions of extreme density and high temperature. Under such conditions, atomic nuclei collide with many energetic particles and are thus excited. The shape changes these nuclei undergo will, without a doubt, influence the rate of nuclear reactions, and thus studies such as this will ultimately prove useful in theories of stellar energy generation.

Both grants include the purchase of some much needed equipment for physics studies at Morehead State University. The Birriels have already purchased two UNIX workstations for the reduction and analysis of nuclear and astrophysical data and for student research crucial to the education of our physical science majors.

Both Jennifer and Ignacio Birriel involve students in their research, and feel that the experience better prepares the students for further studies and/or professional careers.

Prefrontal Cortex and Basal Ganglia in Rule Selection

Psychiatric disorders such as schizophrenia, obsessive-compulsive disorder (OCD), and Tourette's syndrome are associated with dysfunction of the prefrontal cortex and/or the basal ganglia. Patients with these disorders manifest cognitive deficits, primarily due to an inability to select among context-appropriate rules. In her primary research, Dr. Ilsun White investigates the involvement of the prefrontal cortex and the basal ganglia in higher order learning and in rule selection, the executive function of selecting among previously learned behavior-guiding rules. As in all her research, Dr. White uses an animal model approach and employs various techniques of behavioral neuroscience, including behavioral, neuroanatomical, neuropharmacological and neurophysiological methods. As part of her rule selection research, which is supported by a grant from the National Institutes of Health, she trains rats on complex behavioral tasks that require the use of different rules at different times, and she then records from individual neurons in the medial prefrontal cortex and the basal ganglia, in order to determine what information the neurons encode and how they might mediate rule selection.

Addictive drugs exert their effects through the mesolimbic system, and another line of Dr. White's research focuses on the role in drug addiction of different structures that comprise this system.

Dr. White measures the activity of single neurons of awake and freely moving animals before and after the administration of drugs such as amphetamine, cocaine, or PCP. She also monitors a range of behaviors from simple locomotor activity to performance on complex behavioral tasks. As a result, she can identify neural correlates of drug-induced changes in behavior.

Dr. White has identified specific regions of the brain that appear to play crucial roles in rule selection and drug addiction, and she has confirmed an important role for the neurotransmitter dopamine in these processes.

In the last three years, Dr. White has received over $260,000 from four external grants. Funds have been used to improve laboratory infrastructure, to purchase basic equipment and supplies, to maintain an animal colony, and to provide students' stipends. Over 20 undergraduate and graduate students have done research in her laboratory. All have presented their work at scientific meetings, and her students have won eight research awards. One student received an undergraduate research grant from the KAS in 2003, and three of her undergraduate students have entered Ph.D. programs. "Our top students," says Dr. White, "are as good as those anywhere. Research is one of the best ways to teach students to be analytical and creative thinkers."

Psychostimulant-Induced Acute Withdrawal

Drug use follows a Puritan ethic: "You must pay for past pleasure with future pain." Many hours after receiving methamphetamine or cocaine, an individual begins to experience a temporary state akin to depression. The state entails reduced sensitivity to drug; consequently, trying to relieve the condition by administering further drug would require considerable escalation of dose, reinitiating and amplifying a vicious cycle that might have a role in the development of abuse and addiction.

Dr. Wesley White received a three-year competitive grant from the National Institute on Drug Abuse to study amphetamine-induced acute withdrawal in rats.

In order to induce acute withdrawal, rats are injected with a moderate dose of amphetamine. In order to detect the condition, the animals are housed in individual cubicles and their activity is continuously monitored.

According to Dr. White, about 20 hours after receiving a moderate dose of amphetamine, rats become hypo-active. The hypo-activity appears to be an indictor of an acute withdrawal syndrome because sleep disturbances, unwillingness to work for normally rewarding objects, and indicators of blunted affect are also greatest at this time.

Dr. White and his colleagues are trying to understand acute withdrawal by seeing what manipulations produce or attenuate the hypo-activity. A brain structure called the nucleus accumbens and the neurotransmitter dopamine contribute to many of amphetamine's immediate effects. The researchers are in the process of selectively activating these factors to see if they also contribute to acute withdrawal.

The researchers have learned that acute withdrawal is elicited near hour 20 by any dose above a moderate threshold one, that drugs which mimic dopamine produce the effect, and that activation of more than one dopamine receptor subtype may be necessary.

Drs. Ilsun and Wesley White met as lab partners at Western Michigan University, married, obtained Ph.D.s from Indiana University, and did postdoctoral work at NIH (I.W.), Johns Hopkins University (W.W.) and at ETH (I.W. and W.W.) in Switzerland. They came to MSU in 2001 and are associate professors in the Department of Psychology. Their daughter, Christine, is an honor student at the University of Michigan.

A Social Studies Academy for Region 8: Economics Through a Historical Perspective


Janet Ratliff

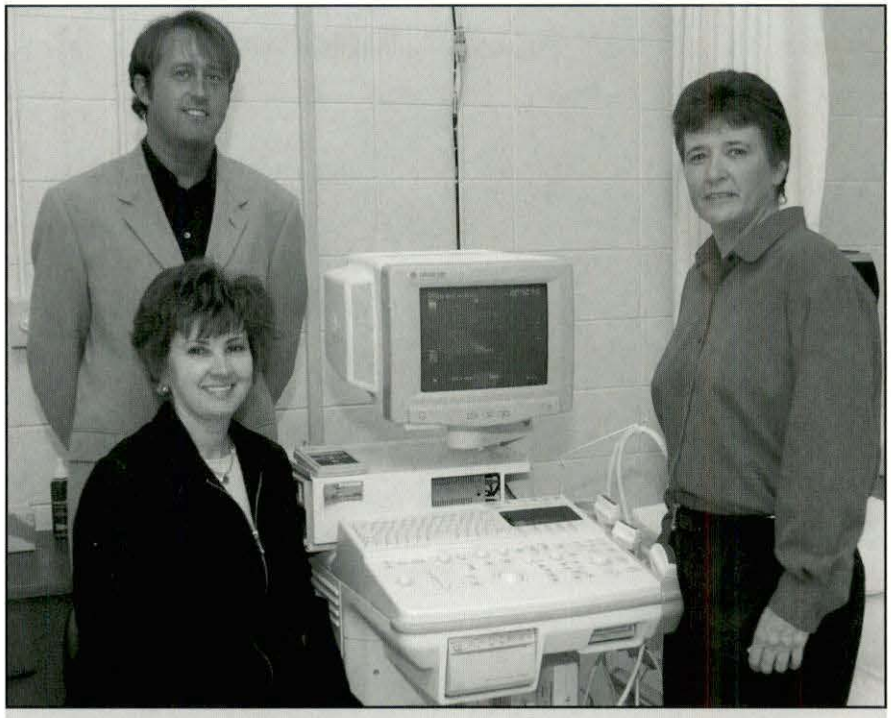
When Janet Ratliff, director of the MSU Center for Economic Education, saw a need for "economic literacy" among East Kentucky's children and adults, she proposed the Social Studies Academy to help P-12 teachers incorporate economics into what they already teach.

The summer of 2002, Ratliff joined forces with the Region 8 Service Center in a weeklong Academy. Held June 17-21 in Whitesburg, the Academy was titled The 2002-2003 Region 8 Social Studies Academy: "Economics Through a Historical Perspective."

Twenty-three teachers from grades 4-8 from across Region 8 took part in the five-day workshop. Ratliff describes the event as, "an intensive, five day learning experience that involved: technology, historical perspectives, unit of study development, literacy, and economics, just to name a few of the many topics extensively covered during the Academy."

This grant also provided for additional training through follow-up that was to occur both in the fall of 2002 and the spring of 2003. The fall semester follow-up was unique in that a "Virtual Teaming Approach" was undertaken. Academy participants "virtually" accumulated six hours of professional development credit for a follow-up workshop. An additional follow-up finished the grant on March 29, 2003. Participants met in Hazard and discussed their respective successes. Participants also shared projects and student work with each other. The Academy was then evaluated by the participants and the yearlong commitment for the grant and its implementation ended.

Ergonomic Injuries Among Sonographers



Jeff Fannin, Wretha Goodpaster, and Marcia Cooper work toward filling the needs of sonographers for training and ergonomically correct equipment.

The work of Associate Professors Wretha Goodpaster and Marcia Cooper, Assistant Professor Jeff Fannin, and student Tim Ferguson, all of Nursing and Allied Health Sciences, resulted in an article in the May, 2003, issue of *Advance*, a magazine for Imaging and Oncology Administrators, titled "Images of Pain," a study of ergonomics for sonographers.

Ergonomics is defined as "the science of tailoring the work environment to the worker to prevent injuries caused by wear and tear on the body," and sonographers are at great risk. The MSU study surveyed 1500 sonographers in Kentucky and Ohio to determine the correlation, if any, between sonographers who were trained on the job and those who received formal education. Both groups reported injuries, but the rate for those with formal training was 68 percent compared to 83 percent for those who learned on the job.

Sonographers use a 300-to-600 pound ultrasound machine in their work, and must grip and continuously apply pressure with a transducer, a hand-held instrument that sends and receives sound waves. With one hand on the transducer and the other stretched to manipulate the imaging controls, sonographers are constantly at risk of back pain, muscle and bone disorders, and wrist injuries such as carpal tunnel syndrome.

Contributing to the risk of injury is poor equipment design. For years, sonographers have used stools and exam beds that would not adjust to accommodate their height, forcing them to lean and stretch extensively. The keyboard height and position were not adjustable, resulting in continuous poor posture. Increased workloads have added to the problems, cutting down on breaks where sonographers could rest and stretch.

The ergonomic design revolution in ultrasound technology is bringing about equipment designed to reduce physical strain on sonographers. Lighter and smaller workstations, more flexible and comfortable positioning for scanners and monitors, and footrests to enhance circulation are all part of the changes coming into the workplace.

The sonography on-campus scan lab has four ultrasound machines that are ergonomically correct.

According to the researchers, the combination of proper equipment and better training, part of an overall need for providing a healthy work environment, will prevent many future injuries to sonographers.

Collaborative Center for Literacy Development

Dr. Melinda R. Willis, associate professor of Elementary, Reading and Special Education, figured it was time to "put my money where my mouth is," to make an impact on undergraduate teaching. She works through the Collaborative Center for Literacy Development as director of the Kentucky Reading Project where "I learn with the teachers as we discuss issues related to literacy and as I visit their classrooms."

Six years into implementation, the Center provides professional development for elementary teachers with up to date research on effective literacy practices. The program provides 10 components such as reading instruction, reading comprehension, reading across the curriculum, fluency, and phonics. Students are involved in the choices of the reading-writing process, which builds ownership and voice within the class.

With initial funding from the Council on Postsecondary Education, the Collaborative Center is centered at the University of Kentucky. The MSU Kentucky Reading Project has served all but one school district in the region in six years.

Leann Price, Offutt senior, and Ashley Hall, Pikeville freshman, join Dr. Melinda Willis in a learning exercise.

Adult Learning Centers in Morehead and West Liberty

The MSU Adult Learning Center in Morehead and the MSU at West Liberty Educational and Career Center, both supported by the Kentucky Department for Adult Education and Literacy, provide adult basic education, GED training and testing, ACT and SAT training, and other largely computer-based programs for developmental needs.

As the population of English as a second language (ESL) adults grows in the MSU service region, so do needs for ESL programs, tutors, and tutor training programs, all served by the staff and volunteers in Morehead and West Liberty.

Both centers work with local industries, such as Dollar General and Carhart, to meet the educational needs of their employees. The Morehead center opened in 1967 and during the past three years, had 1200 individuals use the services. One hundred sixty-five earned the GED. One hundred entered postsecondary education or training. Over 400 gained employment or job advances.

Staff members at the MSU Adult Learning Center include: Front, L-R, Eva Henderson, Opal Fannin and Beverly Tadlock; Back, L-R, Dr. Ross Owen, Cindy Kearns and Jennifer McKinney.

Content Area Reading Workshop


Dr. Mary Anne Pollock

Dr. Mary Anne Pollock, department chair of Elementary, Reading and Special Education, coordinated a collaborative effort with MSU's departments of Elementary, Reading and Special Education, Physical Sciences, Mathematical Sciences, and Geography, Government and History for the Pike County school district to provide a Content Area Reading Academy for 30 middle school and secondary content area teachers and their principals from 18 schools. Pike County is one of the largest school districts in Kentucky, serving approximately 2,400 students in the MSU service region.

Fifty hours of formal instruction were followed by four hours of classroom observation, support, and conferencing for each participating teacher during the academic year. Principal interviews were conducted during each school visit. Each teacher developed a Literacy Action Plan based on student need and documented their implementation of the plan in a portfolio containing lesson plans, student work samples, and reflections.

The curriculum consisted of research-based instructional practices to actively engage students in vocabulary development and reading comprehension. Also included were strategies to actively engage students in using text features; interpreting information presented in graphic aids; writing as a tool for learning across the curriculum; and using technology to enhance lessons.

Outcomes of the program include incorporation of research-based content area reading practices into classroom instruction, actively involved students, increased use of technology to support instruction, and increased students' reading skills.

Premier Performance at the Mid-Europe Festival, Schladming, Austria


Angie Hunter, left, Dr. Stacy Baker, Velvet Brown, and Sharon Huff, are members of the all-woman tuba/euphonium quartet JUNCTION.

Dr. Stacy A. Baker, associate professor of music, traveled to Austria in July, 2002, to perform as part of the tuba/euphonium quartet JUNCTION. Austrian composer Franz Cibulka wrote Concerto for Tuba/Euphonium Quartet and Wind Band for JUNCTION and the group performed with director Walter Ratzek and the German National Concert Band at the Mid-Europe Festival in Schladming.

JUNCTION consists of Dr. Baker, Velvet Brown, Sharon Huff and Angie Hunter. The all-woman ensemble strives to improve the visibility and acceptance of women in the field of low brass performance and pedagogy. In January 2004, Austrian composer Franz Cibulka came to Washington, D.C., for a performance with JUNCTION of his Concerto with the U.S. Army Band "Pershing's Own" at the 21st Annual Army Band Tuba/Euphonium Conference.

JUNCTION also performed the composition in Lexington with the Lexington Brass Band in late 2003.

Catalog of the Water Beetles of Kentucky

Dr. Sean T. O'Keefe, assistant professor of biological and environmental sciences, created a catalog of the water beetles of Kentucky that includes geographic distribution, habitat information and references to taxonomic literature. After preliminary research, field collections of beetles were done in different areas of Kentucky streams and rivers.

The catalog complements other ongoing catalogs of the aquatic insects of Kentucky by the Kentucky State Nature Preserves Commission, and the information generated has been made available to the Kentucky Biodiversity Council and the Atlas of Appalachia.

Catalogs of the aquatic insects of Kentucky are valuable in the identification of insects sampled in water quality studies, environmental impact studies, and ecological studies. This catalog includes the distribution, associated habitat types, and taxonomic literature references to the water beetles of Kentucky. One result of the compilation of this catalog is the establishment of a regional specialist on the water beetles of Kentucky which will be able to assist in identifying the beetles collected in various environmental and ecological studies across the state. By understanding beetles' reliability as bioindicators and including beetles in analysis, researchers can gain better insight into the water quality problems in Appalachia.

High School Curriculum in Public Relations


Dr. Shirley Serini

How does McDonald's™ respond to environmentalists calling for a boycott of their food? How does Jell-O® promote its 100-year-old product line? What exactly does the White House Press Corps do?

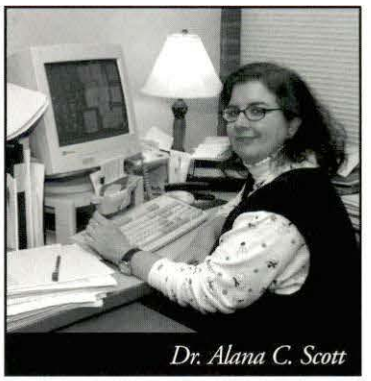
Crisis communications, special events and political public relations are just a few of the areas addressed in the Public Relations Society of America's (PRSA) new online public relations curriculum for high schools developed by Dr. Shirley Serini, APR.

Dr. Serini, an assistant professor who teaches public relations and advertising in the Department of Communication and Theatre, received a $6,500 grant from PRSA to develop the curriculum. She has extensive experience with PRSA, most recently as Chair of the Educators Academy.

She wrote three lesson plans for the initial pilot year: the Definition of Public Relations, Media Relations and News Release Writing. Following the pilot test, she held a focus group in New York City with the pilot faculty and developed the 55 lesson plans that are now available on the Web site at www.pracademy.org.

The lessons are project-based to give the students hands-on experience in learning about public relations.

Whither Thou Goest: Nonconformist Women in Late Stuart England


Dr. Alana C. Scott

Dr. Alana C. Scott, associate professor of geography, government and history, studies the diaries of seventeenth century noncomformist women, the handwritten autobiographical records women kept for themselves and did not intend for publication.

Previous interpretations of noncomformist women in Stuart England fall into two categories. These women, including Baptists, Independents, Presbyterians and others were seen either as passionate radicals paving the way for modern day feminism or as meek and submissive housewives, trapped in their conventional lifestyles. The truth, suggests Dr. Scott, is somewhere in the middle, and her research is an effort to find more information so that a final conclusion might be drawn.

In a presentation at the Ohio Valley History Conference, Dr. Scott tentatively concluded that "a brief study like this actually raises more questions than it answers," questions she will continue to address through her study and research.

Increasing Perceived Cohesion Among Employees of the Kentucky Cabinet for Families and Children

Dr. Samuel Faulkner and Dr. Cynthia Faulkner display photos of the activities used in their project.

Drs. Cynthia A. Faulkner and Samuel S. Faulkner, assistant professors of social work, responded to a request for training to increase cohesiveness among employees of Kentucky's Cabinet for Families and Children (now called the Cabinet for Health and Family Services). By developing a portable "Challenge Course," they trained over 200 employees from 10 counties in the Buffalo Trace-Gateway region.

The challenge course included games and activities that groups of employees had to solve together, thereby building a higher degree of cooperation and coordination to build group cohesiveness.

The Faulkners have made presentations of their study and results to groups such as the National Institute on Social Work and Human Services in Rural Areas Conference, the Appalachian Studies Association Conference, and for the State of Kentucky's Cabinet for Families and Children's Research Conference. A training manual has also been developed and is available for purchase.

Looking at the World Through Differing Lenses:
Drs. Jennifer and Ignacio Birriel