Welcome to the newly relaunched Fulbright Review, the digital magazine covering events, news and achievements in the J. William Fulbright College of Arts and Sciences at the University of Arkansas!

Whether you’re a current student, faculty or staff member, proud alumnus or community friend – we are so excited and grateful to have you as part of our Fulbright Family.
We are also incredibly proud of your accomplishments, and would like to share a few Fulbright College achievements from the 2015-16 fiscal year:

- We awarded 1,780 degrees
- We received more than $7.2 million in private gift support
- We received 143 grants totaling more than $15.5 million
- Four faculty members received tenure, and we welcomed 27 tenure-track and 82 non-tenure-track faculty members to campus
- Additionally, our faculty members produced more than 1,620 pieces of scholarly research and creative work

But our most significant accomplishment is you – our Fulbright Family.

My hope is that after reading the Fulbright Review you feel empowered and inspired, and that you let us know about your accomplishments by emailing us at fulbright@uark.edu so we can share your stories, too.

Our Fulbright Family is a huge part of our success, and I hope you know every day how much we appreciate all you do for the college and to continue Senator J. William Fulbright's legacy of peace through education!

Wishing you happy holidays and a wonderful 2017,

Sincerely,
Legacy
U of A Bands Commits Over $1 Million in Scholarships to Arkansas Students
Becoming part of “the Best in Sight and Sound” just got even better – now Arkansas students who want to study music at the University of Arkansas or join one of the U of A bands can receive a $5,000 annual scholarship to help them achieve these goals.

Starting in fall 2016, the newly founded Arkansas Music Initiative will commit more than $1 million in scholarship support over the next five years for students planning to study music in the J. William Fulbright College of Arts and Sciences.

“We are incredibly proud of the talented, dedicated student musicians who play and study with us,” said Todd Shields, dean of Fulbright College. “And we want to encourage and support the growth of music education throughout Arkansas. Our hope is that by creating these scholarships we’ll be able to empower and encourage some of the finest musicians in our state.”

Shields said because the bands’ private funding support has been so strong, the Music Department has been able to offer a scholarship of some amount to every member of one of the bands who remains grade eligible. About 350 students receive these general scholarships.

However, the bands still had scholarship funds left after fulfilling this commitment to their students. The department and Fulbright College decided to use those funds to found the Arkansas Music Initiative.

Shields said creating these new, additional scholarships is also in response to U of A Chancellor Joseph E. Steinmetz’s call for the university to recruit and retain more students from Arkansas.

As a result, the Arkansas Music Initiative will award 10 scholarships of $5,000 each to incoming music majors from Arkansas. These awards will be renewable for up to five years and can be used on top of other scholarships from the university.

“The University of Arkansas Bands Program believes in the power of music education and in the students of Arkansas,” said Chris Knighten, director of university bands. “By combining these two beliefs, the program is launching the Arkansas Music Initiative to increase the accessibility and the affordability for in-state students planning to study music.”
Knighten said the first group of scholars has been named and includes the following incoming 2016 music education majors:

- Spencer Baltz of Pocahontas, trombone
- Brandon Garret of Alma, tuba
- Stephen Hunt of Russellville, euphonium
- Ashton Johnson of Greenbrier, trombone
- Kerry Myers of Elkins, clarinet
- Melissa Stanton of Saratoga, trombone
- Angela Thompson-Neeser of Morrilton, flute
- Tyler Weaver of Fort Smith, trombone

The following incoming 2016 scholars majoring in music performance include:

- Bayleigh Darrough of Fayetteville, oboe
- Jessica Rider of Maumelle, clarinet

Current high school students in the state of Arkansas will be eligible for future Arkansas Music Initiative scholarships by auditioning on campus during the spring semester of their senior year.

For more information about auditions or the program, please visit the University of Arkansas Bands website.

**About the University of Arkansas Bands:** The University of Arkansas Bands Program, part of the Department of Music in the J. William Fulbright College of Arts and Sciences, began in 1874 and is one of the oldest band programs in the country. The program has six ensembles including the Razorback Marching Band, Hogwild Band, and four concert bands with over 400 student members representing every college at the university.

**About the J. William Fulbright College of Arts and Sciences:** The J. William Fulbright College of Arts and Sciences is the largest and most academically diverse unit on campus with 19 departments and 43 academic programs and research centers. The college provides the core curriculum for all University of Arkansas students and is named for J. William Fulbright, former university president and longtime U.S. senator.

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1871, the University of Arkansas comprises 10 colleges and schools and maintains a low student-to-faculty ratio that promotes personal attention and close mentoring.

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– Todd Shields, dean of the J. William Fulbright College of Arts & Sciences

PRESS ENTER HERE FOR A NEW LINE->
Legacy
Alumna Discusses How Psychology Degree Has Opened Career Doors
Pursuing a degree in psychology can lead to many career opportunities, many of which are not typically considered by students wishing to study the subject.

Brandie Patton, an alumna of the Department of Psychological Science in the J. William Fulbright College of Arts and Sciences, is an excellent example of this. She currently works for Wal-Mart Stores Inc. in GISAT, which stands for Global Investigations, Security Aviation and Travel.

After graduating from the University of Arkansas with a degree in psychology, she worked in logistics for a brief time before deciding that law school was her next step. She explained that many people who obtain psychology degrees go on to law school.

"Going to law school was a new idea for me," Patton said. "I didn't know that I wanted to do it at first, but my psychology degree played very well into studying for and taking the LSAT."

As an investigator for Walmart, her degree in psychology is useful when she interviews people about alleged violations of company policy. These violations can range from allegations of fraud, financial integrity, claims of harassment or ethics infractions within the company.

Her job is to collect facts which entails evaluating allegations and then determining the next steps to be taken regarding investigation, as well as communicating with the legal team and the ethics department. All of this is followed by sitting down and talking to the people involved, which is where Patton said her psychology degree gives her an advantage.

To do her job properly, Patton has to look at someone's behavior from different angles. For an investigation to be thorough, it's essential for an investigator to evaluate the veracity of the individuals involved to help determine the next steps in the investigation.

Patton also said her psychology degree is particularly applicable in today's job market.

"I would say it's extremely relevant all the time," she said. "A psychology degree is diverse, and you can use a psychology degree to go into any career that you want."

Patton said she hopes that current psychology students are studying the subject because they genuinely enjoy it and are passionate about it. Part of going to a university, she said, is the joy of learning. She also wanted current students to know that there are many people in her line of work who came from the FBI or
law enforcement backgrounds who may not have a degree in psychology, but who use psychology skills every day in their work.

Patton said she is thankful for the continued support of the U of A psychology department. She described how the professors in the department have continued to keep in touch, and how they continue to care about their students' success long after graduation. She said that Joel Freund, an associate professor in the Department of Psychology, has been a great mentor ever since she has known him.

For Freund, seeing students like Patton succeed is the sweetest success. With this in mind, Freund said he and his colleagues would like to connect with even more of the program's graduates.

“If you graduated with a psychology degree, please send me an email with a brief description of your journey,” he said. “We'd love to know if you are in a career you like, how you got there and how what you learned here played a role. This is very inspiring for our current students as well.”

Graduates can reach Freund at jsfreund@uark.edu or send a letter to Joel Freund, Department of Psychological Science, 216 Memorial Hall, Fayetteville, AR 72701.

“I would say it's extremely relevant all the time. A psychology degree is diverse, and you can use a psychology degree to go into any career that you want.”

– Brandie Patton, an alumna of the Department of Psychological Science

PRESS ENTER HERE FOR A NEW LINE->
Legacy
Latino Youth Visit Campus, Hone Spanish and English Language Skills
Jose Flores perched on a stool in a Discovery Hall chemistry lab, pulled on a pair of oversized goggles and grinned at his lab partner. "I'm a scientist!" the 12-year-old exclaimed.

The duo mashed chopped strawberries with dish detergent, hot water and salt, then filtered the paste through mini coffee filters, and trickled ice cold ethanol into the test tube. Ten minutes later, a whitish-colored layer floated between the pink liquid and the clear ethanol. Jose dipped a wire loop into that layer and pulled out a sticky bead of strawberry DNA.

Jose was one of 15 middle school students visiting the University of Arkansas campus last month with the Latino Youth Biliteracy Project, an outreach program of the university's La Oficina Latina: The Office of Latino Academic Advancement and Community Relations, and the Department of World Languages, Literature and Cultures within the J. William Fulbright College of Arts and Sciences.

Also known as Sin Limites - "without limits" - the program seeks to enhance students' literacy in both Spanish and English and encourage them to dream big for their futures. University students mentor the Latino youth during a two-week summer camp at J.O. Kelly Middle School in Springdale and at after-school or lunchtime programs at J.O. Kelley and Lowell Elementary School in Rogers during the academic year.

The purpose of the hands-on visit to the university was to introduce campers to the idea of higher education and help break down barriers that may keep lower income Latino kids from attending college.

"It opens up their eyes to the many possibilities," said Oscar Cardona, a mentor who began volunteering with the program as a U of A undergrad majoring in Spanish and Latin American Studies. He continued mentoring while he obtained his Master of Arts in Teaching, and now teaches Spanish at Rogers High School. "Because they haven't seen what other people can accomplish in life, they are closed minded. [This program] shows them not to be afraid. You can do whatever you want, as long as you set your mind to it."

The campus tour started with an introduction to Upward Bound, the college prep program for underprivileged high school students. The day continued with the chemistry lab, lunch at Brough Commons, and visits to the engineering and agriculture departments. Along the way, the group stopped for photos at the Fulbright Peace Fountain and the Chi Omega Greek Theater.

Program co-director Jeanette Arnhart shepherded students across campus, aided by a team of volunteers. Many were U of A students in the upper-level Spanish language service learning course Arnhart has taught
in previous years. Others were students from Northwest Arkansas Community College and area high schools.

Children who grow up in Spanish-speaking homes often learn to speak the language on an informal level not suited for the professional world, said Arnhart, a doctoral student in the U of A’s Interdisciplinary Hispanic track of the Comparative Literature and Cultural Studies Program and a former instructor of world languages in the Fulbright College.

She said that Sin Limites helps children develop Spanish language reading and writing skills through a combination of literacy classes, creative arts workshops and friendly competition. Students might be challenged to list all the words they know pertaining to a circus, for example.

“They're playing games, and they don't know that they're learning a lot of new vocabulary at the same time,” Arnhart said. “It's all hands-on, fun, literacy skill building.”

Biliteracy refers to the ability to read and write a second language, as well as being fluent in spoken communication, said program co-director Luis Fernando Restrepo, professor of world languages in the Fulbright College and former director of La Oficina Latina.

Exercising the brain in two languages has benefits that range from the cognitive to the cultural, Restrepo said. Research from the Center for Applied Linguistics in Washington, D.C., shows that being biliterate improves students’ academic performance, because they are able to transfer analytical and reading skills across languages, he said. Restrepo and colleagues in the Fulbright College Department of English and the Sam M. Walton College of Business have recently started the NWA Biliteracy Project to foster greater community support for language diversity.

Sin Limites, which started in 2013, is sponsored in part by a 21st Century Community Learning Centers federal grant awarded to J.O. Kelly Middle School under the leadership of Principal Sara Ford. The Women's Giving Circle at the U of A, the Department of World Languages, Literatures and Cultures, La Oficina Latina and Centennial Bank also provide funding for the program, which is offered free of charge.

Sin Limites stresses the benefits of being bilingual, something students do not often hear, Arnhart said.

“We want to make connections between school, home, community and culture,” she explained. “We want to give the kids confidence to understand that the language they speak at home is just as valuable as the language they speak in school. They don't have to give up one to acquire another.”
Arnhart pointed her camera at campers as they streamed down the red brick walkway from Fulbright Fountain to the Bell Engineering Center. "What a great photo," she exclaimed. "They're walking toward the future."

"We want to make connections between school, home, community and culture."

– Jeanette Arnhart, program co-director

PRESS ENTER HERE FOR A NEW LINE->
Legacy
High School Scholars Visit U of A to Gain Geosciences and STEM Skills
This week, 25 high school juniors from across the nation are visiting the University of Arkansas to take part in the Math, Science and Engineering Academy pre-college outreach program – known as MSEA – in partnership with Fort Valley State University in Georgia.

"It’s a wonderful experience," said Jo Ann Kvamme, program coordinator in the Department of Geosciences in the J. William Fulbright College of Arts and Sciences. "For the sixth year, these rising high school juniors will attend classes and participate in field trips learning about geosciences, electrical engineering, hydroelectric power generation, and 'big data' at Wal-Mart Stores Inc. headquarters in Bentonville."

Geosciences professor Steve Boss is Kvamme's co-coordinator for the program, and classes are taught by Boss, geosciences emeritus John Van Brahana and electrical engineering assistant department head Robert Saunders from the College of Engineering.

MSEA is a part of the Cooperative Developmental Energy Program at Fort Valley State University, and its aim is to introduce academically talented minority and female students to the fields of energy, mathematics, earth science, biology, engineering and computer science. Ultimately, the mission of both the Cooperative Developmental Energy Program and MSEA is to create a pipeline focused on the recruitment and placement of these scholars for professional careers in the energy industry.

The University of Arkansas partnered with Fort Valley State University in 2010, and since then each summer MSEA students visit campus and the surrounding area. Once these high achieving students graduate from high school, they are offered a scholarship to attend Fort Valley State University where they can enter the Cooperative Developmental Energy Program and major in biology, chemistry or mathematics.

At the end of three years, students will have completed their bachelor's degree and can transfer with their scholarship to a partner institution like the U of A, where they can major in either geosciences or engineering, completing a second bachelor degree in two additional years. Along with the U of A, partner institutions include Georgia Tech, University of Nevada-Las Vegas, Penn State University, University of Rio Grande Valley and the University of Texas-Austin.

"The program is a win for everyone," said Isaac J. Crumbly, founder of the two programs and Fort Valley State University's vice president for career and collaborative programs. "Fort Valley is able to attract and nurture talented students, who may otherwise not have considered a profession in STEM fields. Partners, like the University of Arkansas, are able to draw transfer students who have a proven track record of academic success in STEM
disciplines. However, the biggest winner is the student who has been mentored through high school, exposed to career choices, receives a scholarship for two bachelor's degrees and guidance as they progress into either graduate programs or the professional world.”

Crumbly, two additional team members of the Cooperative Developmental Energy Program and four college student counselors from Fort Valley State University are also accompanying the students at the U of A this week.

Kvamme said each year MSEA culminates with the students creating and performing skits at the U of A that demonstrate the complex principles they have learned in the classroom.

“This is an extremely entertaining and educational performance,” she said. “The students not only display strong academic skills but theatrical talent, too.”

The 2016 MSEA performance is free and open to the public. It will take place on Friday, June 17 from 1:30 to 3 p.m. in Giffels Auditorium inside Old Main.

About the Cooperative Developmental Energy Program: The Cooperative Developmental Energy Program has been operational for over 30 years under the direction of Fort Valley State University's Vice President for Career and Collaborative Programs and founder, Isaac J. Crumbly, a native of Forrest City, Arkansas. Crumbly was the recipient of the 2014 Bromery Award for Achievement in Advancing Diversity in the Geosciences from the Geological Society of America, was the 2010 recipient of an honorary doctorate from the University of Arkansas, and has dedicated himself to making a significant increase in the number of minority and women entering the energy field.

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For more information on the Cooperative Developmental Energy Program or MSEA programs, please visit http://www.fvsu.edu/academics/cdep/.
“The students not only display strong academic skills but theatrical talent, too.”

– Jo Ann Kvamme, program coordinator
Legacy
Researchers Examine How Arkansas.gov Can Better Serve State’s Businesses
A new survey by communication researchers at the University of Arkansas revealed that Arkansas businesses frequently interact with state government online, especially for routine tasks, such as paying taxes or applying for permits.

Attitudes that business people have about dealing with e-government vary according to business size, the survey showed, with the state’s smallest businesses – those with 10 or fewer full-time employees – preferring face-to-face interaction and other traditional means of conducting business with government agencies.

“We think for them, it might be a matter of trust,” said Robert Wicks, professor and director of the Center for Communication and Media Research in the J. William Fulbright College of Arts and Sciences.

State governments are struggling to keep pace as more business is conducted online. To understand how well it is serving Arkansas businesses and how it can improve services, the state turned to Wicks and his colleague Ron Warren, associate professor of communication. Wicks and Warren surveyed Arkansas business owners to assess attitudes about online services and explore how these data can help the Information Network of Arkansas manage Arkansas.gov.

The Information Network of Arkansas is a private company hired by the state to provide online services to Arkansas businesses and residents. Services include tools for paying taxes on online, applying for permits and accessing information about codes and regulations.

Wicks and Warren collected data from 368 businesses in Arkansas. Questions focused on access to digital government, interaction between government and business, the need of government services to assist business, and future online interaction between government and business.

Although respondents were generally positive about online services, the survey revealed significant differences based on the size of the business. The researchers analyzed and compared data from four groups: very small businesses (1 to 10 full-time employees), small businesses (11 to 20 employees), medium-sized businesses (21 to 50 employees) and large businesses (larger than 50 employees).

The smallest and largest Arkansas businesses reported the least confidence with services offered at Arkansas.gov. Respondents for the largest group felt that government websites were less helpful for clearly understanding information about codes, regulations, permits and other matters. These businesses also reported problems with resolving conflicts between state and local regulations and not knowing whom to consult when problems arise.
Small- and medium-sized businesses were more confident that their online work with government offices was correct and effective, the researchers found.

“We think this is important, because these are the businesses we assume to be poised for growth,” said Warren.

The survey revealed no differences based on respondents’ race and ethnicity but did find that businesswomen generally had more positive attitudes about online government than men and were more receptive to the idea of a potential business portal for government services.

“One of the biggest needs business people have of online government is quick access to clear, consistent and correct information that reduces the time they spend dealing with online government,” Wicks said. “Overall, the findings in this report reveal that Arkansas businesses are taking advantage of e-government,” said Wicks. “But not all businesses report the same level of satisfaction. We uncovered some vital areas of need, particularly for the very small and largest businesses. Respondents in these categories were not as happy, and we think this is where the state can focus on improving online services offered to Arkansas businesses.”

The report can be downloaded at the Center for Communication and Media Research website.

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reduces the time they spend dealing with online government.”

– Robert Wicks, professor and director of the Center for Communication and Media Research
Legacy
M.F.A. Theatre Directing Alumna Earns Prestigious Assistantship
Kholoud Sawaf, who earned her M.F.A. in theatre directing last August, has been awarded an Artistic Assistantship in Directing at the Tony Award-winning Oregon Shakespeare Festival.

Kholoud will be in residency for six weeks at the festival, with responsibilities including assisting on a production of the new comedy *Vietgone*, by Qui Nguyen. This highly competitive award includes housing, round-trip airfare, and a stipend.

Kholoud is from Damascus, Syria, and completed her M.F.A. in theatre directing at the University of Arkansas in August 2015. Productions directed here included *The Chairs* by Eugene Ionesco and *A Doll's House* by Henrik Ibsen. Last summer she was named a Lab Company member of the Hangar Theatre in New York, a nationally recognized training program for emerging artists. She has served as assistant director on several productions at TheatreSquared, Northwest Arkansas' year-round professional theatre, and recently directed staged readings of *Veils* by Tom Coash, and *Butte*, a new play by M.F.A. playwriting alumnus Todd Taylor.

One of the country’s premier arts organizations, the Oregon Shakespeare Festival has been producing plays for over 80 years. It offers diverse shows in repertory on three stages, with the following mission: "Inspired by Shakespeare's work and the cultural richness of the United States, we reveal our collective humanity through illuminating interpretations of new and classic plays, deepened by the kaleidoscope of rotating repertory." Oregon Shakespeare Festival commissioned and premiered the play *All the Way*, by Robert Schenkkan, which won Tony Awards for Best Play in 2015 and Outstanding Actor in a Play for Bryan Cranston.
Legacy
Research Examines Obstacles to Making Biofuel from Perennial Plants
A University of Arkansas chemistry professor has received a $400,000 award from the National Science Foundation to investigate a roadblock in the harvesting of biomass from perennial plants for the purpose of creating a source of renewable energy.

“Biofuel derived from perennial plants, such as grass and common weeds, is most desirable because these plants grow on marginal land and can be harvested repeatedly,” said Feng Wang, associate professor of physical chemistry in J. William Fulbright College of Arts and Sciences. “But first we have to solve the problem of breaking down cellulose fibrils before biomass can be considered an economically viable source of renewable energy.”

Cellulose fibrils are microfibers of inert carbohydrates within plants. They give wood its durability, for example. Through a process known as pretreatment, chemists separate these fibrils into individual carbohydrate chains that can be digested by enzymes. This process takes a long time, but Wang and other chemists are studying ways to speed it up.

Computational modeling is an important route toward understanding this process. Wang will develop computer models of cellulose fibrils to help scientists understand how they interact with water, alternative solvents and enzymes. His and other models will also lead to the design of catalysts for the pretreatment and hydrolysis of biomass.

The reliability of this kind of computer modeling depends on the accuracy of a mathematical model for intermolecular interactions. Sometimes called an “interaction potential” or “force field” by chemists, these mathematical models can be viewed as similar to engineering diagrams for machines, such as an elevator or an automobile.

Wang will use a method called adaptive force matching, which relies on a process using repeated iterations for developing simple but highly efficient and accurate force fields.

“The beauty of this method is that it allows us to develop accurate force fields without using complex energy expressions,” said Wang. “And maximizing its simplicity will enable larger structures to be modeled efficiently.”

Using the adaptive-force-matching method as a reliable protocol for mapping the molecular energy landscape of cellulose fibrils will have broad impact for computational chemistry and material research in general, Wang said. The ultimate goal is to understand the mechanisms that prevent scientists from making
clean and renewable fuel from biomass, which would decrease reliance on fossil fuels and reduce carbon emissions.

Wang has been a chemistry and biochemistry professor at the U of A since 2012. In 2013 he received a Faculty Early Career Development Program, better known as a CAREER award, from the National Science Foundation, one of the highest honors given by the foundation to junior faculty members.

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"Biofuel derived from perennial plants, such as grass and common weeds, is most desirable because these plants grow on marginal land and can be harvested repeatedly."

– Feng Wang, associate professor of physical chemistry

**PRESS ENTER HERE FOR A NEW LINE->**
Physics Department Recognized Nationally for Physics Teacher Preparation
Only 12 universities in the nation – including the University of Arkansas – are being recognized this year by the Physics Teacher Education Coalition (PhysTEC) for graduating five or more well-prepared physics teachers in the past academic year.

Recent estimates by the organization indicate that less than half of all high school physics courses are taught by a well-qualified teacher with a degree in physics. Universities like the U of A that are striving to reverse this trend are being inducted into the group's 5+ Club.

"Having our Physics Department recognized in this way is a huge accomplishment," said Julio Gea-Banacloche, professor and Physics Department chair at the J. William Fulbright College of Arts and Sciences. "It means we are making an immediate positive impact on the education of thousands of students by teaching and preparing the highest caliber of future physics teachers for classrooms across the nation."

PhysTEC is a partnership between the American Physical Society and the American Association of Physics Teachers aimed at improving the education of physics educators. The group mostly focuses on the high school level, because of a growing shortage of high school physics teachers in the United States.

According to PhysTEC, most universities graduate two or less qualified physics teachers each year, so members of the 5+ Club are truly making a major impact on this problem.

"In fact, according to the AAPT, the most common number of qualified physics teachers graduated by American institutions per year is zero," said Lin Oliver, associate professor and vice chair of the Physics department. Oliver said he found this statistic particularly startling and alarming.

Additionally, Oliver said being a part of PhysTEC's 5+ Club correlates strongly to the U of A's UATeach and MAT programs, each of which combine a degree in science or mathematics with an in-depth teacher preparation curriculum to help fill the shortage of Arkansas secondary teachers in STEM subject areas.

"UATeach prepares the next generation of STEM instructors and our graduates earn their teaching certification in math or science, along with their degree in Fulbright College," said Oliver, who also serves as a senior advisor for UATeach. "Being inducted into a group like the 5+ Club validates our teacher preparation programs and our university's commitment to preparing the best teachers for schools in Arkansas and beyond."
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– Julio Gea-Banacloche, chair of the Department of Physics

PRESS ENTER HERE FOR A NEW LINE->
Gifts
Jessamy Eve Samuels Memorial Scholarship Honors Her Life and Legacy
A wicked sense of humor, a keen interest in human rights and politics, a sparkling personality and a quick wit best described Jessamy Eve Samuels – and it’s with these qualities in mind that her family and friends recently established the Jessamy Eve Samuels Memorial Scholarship in her honor.

“Jessamy had an unparalleled love of learning and a constant drive to empower others in any passion that they wished to pursue,” said her older sister, Cicely Samuels. “Through this scholarship, we hope to echo her hopes by empowering young people to throw themselves into an educational journey at this fantastic university that Jessamy was proud to call her school.”

Jessamy passed away in May 2016 after a tragic fall while hiking at Hawksbill Crag in Newton County, devastating those close to the vibrant 19-year-old University of Arkansas freshman. She was an honors student in the J. William Fulbright College of Arts and Sciences and was interested in studying anthropology and journalism. Her death occurred a year to the day after Jessamy graduated from Rogers High School with Distinguished Honors.

Born in London, England, in 1997, Jessamy was named for the street on which her great-grandmother lived, and she flourished in Rogers when her family moved there in 2004. She became a U.S. citizen in 2015, and as a passionate political advocate, she was looking forward to participating in her first presidential election.

“Jessamy loved Arkansas and the U of A,” said her mother, Sallyann Samuels. “She wanted the best and the brightest to stay in state and to make this an even better place for all.”

The Samuels family and other donors contributed more than $60,000 to create the Jessamy Eve Samuels Memorial Scholarship. It will be awarded to two incoming freshmen each year. Each student will receive $5,000 a year for four years toward their studies. To qualify, students must be graduates of an Arkansas high school, meet GPA and ACT requirements, intend to be an honors student, display leadership abilities and be involved in extracurricular activities.

Applicants are also asked to submit a 1,000- to 2,000-word essay about their academic and extracurricular life, interests and achievements, and to discuss how they would use the scholarship and their time at the University of Arkansas to forward Jessamy’s legacy. Interested applicants can learn more and apply on the Fulbright College Scholarships & Fellowships website.
“Jessamy believed that everyone should have access to education,” said her father, Mark Samuels. “Creating the scholarship has allowed all who knew and loved her to give back in her name. In establishing this scholarship, we are looking for a way to celebrate Jessamy’s love of learning by giving future students this gift. She would have been grateful for everyone’s incredible generosity.”

In 2014, Jessamy attended the prestigious Arkansas Governor’s School, and throughout her high school years she was involved in Young Democrats, eventually becoming president of her school chapter. She was also the group’s first female 3rd District Director, and at University of Arkansas was elected College Director for the YDAR Environmental Task Force, which she also helped to create. Jessamy was posthumously awarded The Jeffrey Ledbetter Memorial Award for Outstanding Young Democrat at the annual Jefferson/Jackson Dinner in the presence of former U.S. President Bill Clinton.

Jessamy was also co-editor of her high school newspaper, participated in the University of Arkansas Lemke Journalism Project during the summer of 2015, and was recipient of the Lemke Journalism Project Scholarship.

“In Jessamy embraced what we do in LJP, training young people to investigate and report on the challenges minorities face,” said LJP director Gina Shelton. “She brought sensitivity, insight and passion to the program. Her potential was unlimited. She was interested in everything: people, politics, the world. She inspired those around her with her intelligence and humor.”

At the U of A, Jessamy made both the dean’s list and the chancellor’s list for both semesters she spent at the university, and had just begun an internship at the Museum of Native American History in Bentonville.

“Jessamy was smart, communicative, pleasant and full of life. I’m glad to have known her,” said Daniel B. Levine, university professor of classical studies in Fulbright College’s Department of World Languages, Literatures and Cultures. Jessamy took his Honors Humanities course.

“My first interaction with her was when I asked the students to introduce themselves and tell the class what their names meant,” he said. “Jessamy was unsure of hers, and after class I looked it up and shared that her name means jasmine flower. That seemed appropriate: she was always a bright light and pleasant company in our class.”

Levine recalled a particularly lively classroom debate Jessamy took part in, concerning where the Parthenon marbles should reside – in London’s British Museum or Athens’ New Acropolis Museum. When a
classmate jokingly disparaged the British for having bad teeth, Jessamy stood up said she was English and had “perfectly lovely teeth, thank you.” The class erupted into applause.

“She was a beautiful person inside and out, and blessed her family and her friends with happy memories of how totally awesome she was,” he said.

However, as important to Jessamy as her studies were, she was also passionate about the environment, healthy food bowls, coffee, world religions, art, literature and movies, said Sallyann Samuels. *Dan in Real Life*, the *Harry Potter* series and *Legally Blonde* were equally as important to her as works by Wes Anderson and Sofia Coppola.

“She had a side that adored fashion,” Sallyann Samuels said. “Music was a true love of hers, from The Strokes to Peter Paul and Mary. She loved going to Lollapalooza and other music festivals, and one of her legacies is a host of Spotify playlists. She could talk to anyone, young and old. She was a great friend, empathetic, understanding and encouraging.”

Donations will continue to be accepted for the Jessamy Eve Samuels Memorial Scholarship, to help commemorate this extraordinary young woman and provide future opportunities for students like her.

To make a donation, please send a check payable to the “University of Arkansas Foundation Inc.” designating the gift to the “Jessamy Eve Samuels Scholarship Fund” in the memo, and mail it to: Gift Services, 300 University House, One University of Arkansas, Fayetteville AR 72701.

For more information please contact Blake Rickman, director of development and external relations, at 479-575-3712 or brickman@uark.edu.

**About the J. William Fulbright College of Arts and Sciences:** The J. William Fulbright College of Arts and Sciences is the largest and most academically diverse unit on campus with 19 departments and 43 academic programs and research centers. The college provides the core curriculum for all University of Arkansas students and is named for J. William Fulbright, former university president and longtime U.S. senator.

**About the University of Arkansas:** The University of Arkansas provides an internationally competitive education for undergraduate and graduate students in more than 200 academic programs. Founded in 1871, the University of Arkansas comprises 10 colleges and schools and maintains a low student-to-faculty ratio that promotes personal attention and close mentoring.
“Jessamy loved Arkansas and the U of A. She wanted the best and the brightest to stay in state and to make this an even better place for all.”

– Sallyann Samuels, Jessamy’s mother
Gifts
U of A Geosciences Reaches Significant $500,000 Fundraising Milestone
The University of Arkansas Department of Geosciences in the J. William Fulbright College of Arts and Sciences has succeeded in raising more than $500,000 to meet the Walton Family Charitable Support Foundation Match for geosciences doctoral fellowships.

This is the latest of several milestones the department has achieved over the last 10 years, including:

- Creating an endowed chair of petroleum geology,
- Increasing graduate stipends, and
- Establishing the state of Arkansas’ first and only geosciences doctoral program.

Meeting this latest goal is significant because fellowships provide financial support for doctoral candidates and help attract the best and brightest students to the University of Arkansas, said Todd Shields, dean of Fulbright College.

“A fully realized doctoral program isn’t complete without competitive fellowship opportunities,” Shields said. “And a fully realized doctoral program will further strengthen the whole department by spurring growth and creating better undergraduate and graduate studies through enhanced course offerings, research opportunities and recruitment efforts for world-class scholars.”

The doctorate in geosciences focuses on the primary research areas of basin evolution and analysis, which includes multiple aspects of petroleum geology that incorporate sedimentation, structural geology, stratigraphy and geophysics. Other research specialities include crustal and mantle composition and tectonic evolution, neotectonics and dynamic geomorphology, groundwater dynamics, karst hydrology and limnology, paleoclimatology and geoinformatics, with GIS, remote sensing, GPS geodesy and geospatial analysis.

Christopher L. Liner, the Storm Endowed Chair of Petroleum Geology and chair of the Department of Geosciences, said that the doctorate is designed for committed scholars who are preparing to work within the academic community, industry or government. Research is a core component of the program, which fits with the University of Arkansas’ commitment to maintaining its status among the 2 percent of universities in America classified by the Carnegie Foundation for the Advancement of Teaching as having the highest level of research.

“Geosciences research requires rigorous observation, quantitative analysis and modeling in order to yield scientific results that are acceptable for publication in first-rate, internationally ranked journals,” Liner said. “Meeting this match will allow us to further enhance our
research and degree programs. Great new faculty hires have already helped to further strengthen the program and it is exhilarating to see the quality and breadth of the research being conducted.”

Additionally, Liner said that with this achievement, the Department of Geosciences has received more than $3.2 million in monetary gifts and pledges, and over $12 million of in-kind software, equipment and data gifts, since the department’s External Advisory Board was formed a decade ago.

“This is an exciting moment for our advisory board members and all who worked so hard to reach this achievement,” said Clayton “Yarri” Davis, chair of the department’s External Advisory Board.

“A big thank you goes out to the Walton Family Charitable Support Foundation, incredibly generous donors like Maurice Storm, and everyone who has helped make the Department of Geosciences what is today,” Davis said. “You have all truly made our degrees even more valuable. Your work will have a positive, transformational impact on our alma mater for decades to come, keeping the Department of Geosciences a strong and vibrant program with a bright future.”

For more information, or to make a gift in support of the Department of Geosciences, please contact Blake Rickman, director of development and external relations, at 479-575-3712 or brickman@uark.edu.

The 2016 Department of Geosciences External Advisory Board members include Chair Clayton “Yarri” Davis, Vice Chair Ron Keisler, Doug Bailey, Reginald Beardsley, Don Castleberry, Bill Coffey, Erica Cortez-Combs, Tom Freeman, Taylor Friesenhahn, Jonathan Gillip, Melody Hacker, Jeff Hall, Larry Handley, Lacie Knight, Gerry Lundy, Mike Malloy, Shane Matson, John Mitchell, Craig Parker, Ed Ratchford, John Sharp, Ron Snyder, Tad Sours, Maurice Storm, Eddie Valek, Heath Wallis, Alex Warmath, Devin White, Charles Wickstrom, John G. Williams, William Willis, and Edith Wilson.

About the Department of Geosciences: The Department of Geosciences offers undergraduate and graduate degrees in earth science, geography and geology. Courses focus on oil and gas exploration, environmental problems, historic preservation, planetary science and the physical, chemical and biological aspects of the earth. Field camps and research programs hone skills and prepare students for rewarding careers in all aspects of geosciences.

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"Your work will have a positive, transformational impact on our alma mater for decades to come."

– Clayton "Yarri" Davis, chair of the department's External Advisory Board

PRESS ENTER HERE FOR A NEW LINE->
Gifts
Gift Creates New Addition in Kimpel Hall for Journalism, Student Media
University of Arkansas students involved with the Department of Journalism and student media will have a new venue created for them in Kimpel Hall, thanks to a gift from alumna Susan Walk Burnett and her husband, Rusty Burnett, of Houston. The couple has pledged $1 million for a new addition to the second floor of Kimpel Hall that will include an integrated newsroom where students from all journalism disciplines will converge. A new UATV television studio will also open to a view of one of the busiest hubs on campus.

The addition will be named the Susan Walk Burnett Journalism and Student Media Center in honor of the donors, subject to the Board of Trustees' approval.

“*The Department of Journalism means a great deal to me, and I am thrilled that we can contribute to its continued success with this gift,*” Sue Burnett said. “*My hope is that these new facilities will create an engaging environment for students who wish to pursue careers in these fields and allow them to gain valuable experience working in settings that mirror what they will find after graduation.*”

The Walter J. Lemke Department of Journalism is currently located in Kimpel Hall, which was opened in 1973 as the Communications Classroom Building. In 1983, the building was given its current name to honor the memory of Ben D. Kimpel, professor of English, who died that same year.

The addition to the building will be located outside the front doors of Kimpel, facing McIlroy Avenue and Founders Hall, and will cost approximately $2 million. Thanks to the Burnett gift, the project will be fully funded, and construction will begin in the summer of 2017.

Todd Shields, dean of the J. William Fulbright College of Arts and Sciences, which includes the Department of Journalism, said this gift will be transformational for both Kimpel Hall and the university’s journalism students.

“*Thanks to the Burnetts’ generosity, this gift will enhance the way our students learn journalism in a very tangible and incredible way that will immediately connect our students to the technology they’ll use throughout their careers,*” Shields said. “*It is also incredibly meaningful and motivating for our students to see such a successful alumna investing in their futures.*”

Larry Foley, who serves as the chair of the Department of Journalism, agreed and added, “*The Burnetts are our heroes. The updated student media center will include a TV studio, with a backdrop that has a live view of campus – like the *Today Show*. It will be incredible.*”
Foley said the center will also feature a digital newsroom that will serve as the hub for all student news gathering on campus – merging newspaper, social media and television news operations.

“Student media is where students practice the lessons they are learning in their classrooms,” he said. “And this gift will elevate the University of Arkansas to a status matching some of the top Journalism schools in the country.”

Additionally, the Department of Journalism and the Division of Student Affairs have worked together closely to bring several national and international journalists to campus in recent years, including Gene Forman, Deborah Potter and Bob Woodward. The Center for Ethics in Journalism was also established in 2013, and a record number of students are now involved in media programs on campus. Students and faculty from the programs have won national and regional awards from the Seedling Film Association, the Arkansas Press Association, the Broadcast Education Association, the William Randolph Hearst Foundation and the Mid-America Emmys.

“The Division of Student Affairs is very happy to partner with the Department of Journalism and the Fulbright College to better support the academic and professional development of our students,” said Charles Robinson, vice chancellor for student affairs. “We are also very grateful to have generous benefactors like Sue and Rusty Burnett, who understand the empowering importance of philanthropy to our educational mission.”

Sue Walk Burnett grew up in El Dorado and has a Bachelor of Arts in journalism from Fulbright College. As a student, she was secretary of Chi Omega Sorority and co-editor of the *Razorback* yearbook in 1968.

Today, she is the president and founder of Burnett Specialists, a $70 million staffing and placement firm with 10 offices in Houston, Austin, San Antonio and El Paso, and Choice Specialists in Dallas. Burnett and her husband did an Employee Stock Ownership Plan for their company in 2010. It is now the largest employee-owned staffing firm in Texas and second largest in the U.S. She and her company have won many awards in the past 42 years, including being named the No. 1 placement firm and No. 2 temporary staffing firm in Houston by the *Houston Business Journal* and the Pinnacle Award winner by the Better Business Bureau.

Burnett was named Texas Business Woman of the Year by the Texas Women’s Chamber of Commerce, National Enterprising Woman of the Year by the *Enterprising Women Magazine* and Outstanding Entrepreneur of the Year by the National Association of Women Business Owners, Inspire Women, Houston Technology Center and the Women Business Enterprise Alliance. She was also honored by Junior
Achievement in their Hall of Achievement. The Burnetts were named Entrepreneurs of the Year in 1998 by Ernst and Young.

Sue Burnett serves on the Board of Directors for Junior Achievement and the Better Business Bureau and is on the Board of Trustees for Goodwill.

At the University of Arkansas, Burnett has supported the journalism department by creating scholarships for journalism students and funding the Reading Room in Kimpel Hall, which was named after her in 1999. She was honored as a Distinguished Alumna in 2007 and will be honored in the Department of Journalism Hall of Fame in October. Burnett is an A+ Life Member of the Arkansas Alumni Association.

**About the Department of Journalism:** The Walter J. Lemke Department of Journalism offers specialized concentrations in news/editorial, advertising/public relations, and broadcast. Students are trained in writing news, analyzing media, planning campaigns, producing television programs and basic photojournalism publishing. The department offers special interdisciplinary options, various student media organizations, award-winning faculty and a Center for Ethics in Journalism.

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"My hope is that these new facilities will create an engaging environment for students who wish to pursue careers in these fields and allow them to gain valuable experience working in settings that mirror what they will find after graduation"
PRESS ENTER HERE FOR A NEW LINE->
Gifts
Fulbright College Faculty Member Establishes Travel Abroad Fund for Students
Focusing on international education is not unusual at the university’s J. William Fulbright College of Arts and Sciences – after all the college’s namesake is quoted as saying "international educational exchange is the most significant current project designed to continue the process of humanizing mankind to the point, we would hope, that men can learn to live in peace."

But for the average student, studying abroad often comes with potentially prohibitive costs. And, if a student doesn't have the financial means, such essential educational opportunities can easily fall by the wayside.

That's why Margaret Reid, professor and chair of the Department of Political Science, knew when she wanted to create a lasting legacy to honor her late husband it would have to address this need.

"I wanted to help students have life-changing experiences," she said.

So with a gift of $50,000, Reid established the Jack J. Reid Endowed Travel Abroad Fund to give deserving students enrolled in the Department of Political Science at the Fulbright College the resources to support international travel experiences.

Reid and her husband were married for 40 years and first met in Sweden, when he was teaching there through the University of Central Oklahoma. The couple's love of international travel, education and each other formed the bedrock of their relationship.

"He was so passionate about travel," Reid said. "He traveled because of war experiences as well, and knew what value there was in international education."

Unfortunately, Jack passed away in April 2015. While settling his affairs, Reid began to think, 'What can I do? How can I commemorate his life's work?' She soon settled on creating the endowment.

"We’d had some conversations about doing something like this someday," she said. "It's completely natural and logical. I felt it was the best way to honor both his memory and the way he felt travel benefitted students."

Reid said the endowed fund would take a few months to mature, but that scholarships will likely be awarded as soon as spring 2017.
"My hope is that this fund will help students be able to live in a country for a while like a native. Different cultures and new people there will excite and hopefully inspire them," Reid said.

She is particularly eager for undergraduate Millennial students to experience the benefits of studying abroad. "The Millennial mind shift is all about community engagement," she said. "These students want to make an impact now and not wait until the grass grows underfoot. There are great opportunities internationally to make positive change."

Ultimately, Reid said she also hopes her gift makes others consider making their own gift in support of something they love.

"This was a much better way of creating a legacy," she said. "The endowment will be used in perpetuity, and could help students completely change their lives. It's a good feeling."

For more information about the Jack J. Reid Endowed Travel Abroad Fund or to make a donation, contact Blake B. Rickman, interim director of development for Fulbright College, at 479-575-3712 or brickman@uark.edu.

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!I wanted to help students have life-changing experiences."

– Margaret Reid, professor of political science

**PRESS ENTER HERE FOR A NEW LINE->**
Gifts
Bennett Scholarship Gift Supports Students in Two Colleges
A gift from the late Jim and Betty Bennett is being used to create the James Harold and Betty Jo Bennett Endowed Scholarship for undergraduate students at the University of Arkansas. The late Jim and Betty Bennett were native Arkansans, and both were distinguished graduates of the university.

As a nod to the couple’s majors, the scholarship will benefit two students each year – one studying chemical engineering in the College of Engineering and one studying mathematical sciences in the J. William Fulbright College of Arts and Sciences.

The Bennetts met on the U of A campus and were married for more than 60 years. They were devoted members of their community and St. Matthew’s United Methodist Church in Metairie, Louisiana.

“My parents were humble and hardworking,” said Elizabeth Grace Bennett, daughter of the Bennetts. “They believed in supporting the institution where they met, and received their education.”

Ed Clausen, interim department head of Ralph E. Martin Department of Chemical Engineering, said, “This gift will significantly impact our undergraduate students as they continue to face increasing educational expenses. We’re so grateful for this gift, and it means a great deal to us to have this kind of support.”

“Mark Johnson, professor and chair of the Department of Mathematical Sciences, agreed. “We are very appreciative of this generous gift,” he said. “It will be of great help in supporting the success of our students.”

Jim Bennett was a first-generation college student and graduated with honors, earning a bachelor’s degree as well as a master’s degree in chemical engineering. He was a member of the Theta Tau Epsilon Fraternity. After college, he worked with the DuPont enterprise for 42 years and was recognized as a leader and mentor while managing various startup and innovative projects. The Bennett family spent five years in Singapore while Jim supervised the DuPont facility there.

Betty Bennett also graduated with honors from the university, earning a bachelor’s degree in mathematical sciences. She was a member of the Kappa Kappa Gamma Fraternity, the Phi Beta Kappa National Honors Society and Daughters of the American Revolution. She worked as an 8th grade mathematics teacher for several years after college and was an active member of the parent-teacher associations where her children attended school, as well as the Girl Scouts and Boy Scouts of America.
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“My parents were humble and hardworking. They believed in supporting the institution where they met, and received their education.”

– Elizabeth Grace Bennett, daughter of the Bennetts

PRESS ENTER HERE FOR A NEW LINE->
Successes
U of A Graduate Student Creates Guide for the USDA and EPA Aimed to Reduce Food Waste
It’s a difficult statistic to stomach, but a staggering 31 to 40 percent of food produced in the U.S. ends up in landfills each year.

With numbers like these, Melissa Terry, a graduate student in the Master of Public Administration and Nonprofit Studies program in the J. William Fulbright College of Arts and Sciences and its Department of Political Science, knew something needed to change.

So, for the past two years, Terry has been working to develop a national guide to be released December 2016 by the University of Arkansas in conjunction with the U.S. Department of Agriculture and the U.S. Environmental Protection Agency to provide one way to start seeking a solution.

“It’s so exciting to see the completed Guide to Conducting Student Food Waste Audits,” Terry said. “It provides a blueprint for K-12 school programs to follow that will assist students in understanding how individual food choices can collectively lead to broader education goals about the ecosystem, health and food conservation.”

Terry created the guide after looking in vain for a set of protocols for her study of food waste in a local elementary school cafeteria. She approached the USDA and EPA in 2015 because the USDA regulates food in the school cafeteria and the EPA deals with food waste once it leaves the school door.

Neither agency had protocols for a student-based food waste audit; the EPA suggested that Terry write her own. So, she did – but not alone. As a caveat, Terry agreed to write the national guide only if it were co-authored by representatives from the EPA and the USDA. Each agency agreed and a collaborative partnership was born.

Terry said the partnership’s goal “is to help participating students to see the collective impact of our food choices and to understand how those choices leave environmental ‘foodprints’ in local communities and all over the globe. Some of those foodprints are good. Some not so good. So, let’s talk about it.”

The user-friendly guide she created and co-authored with the EPA and the USDA features simple language and a clean design, leading organizers and student volunteers through the ABCs of conducting a post-consumer student food waste audit in their school cafeterias.

The aim is to understand which types of foods are being wasted, and the reasons why this is occurring, to then implement strategies to reduce the waste. The project includes student engagement for learning on a number of levels, such as incorporating science, math and community service learning goals.
Food loss and waste is a serious problem, impacting health, food security and the environment. Food in landfills does not break down the same way it does in compost piles, producing levels of methane that are 21 times as potent as carbon emissions.

“If food waste were its own country, it would be the third largest emitter of greenhouse gasses,” Terry said. Additionally, she said the resources needed for food production and the fertilizer, pesticides and herbicides commonly applied to our crops have environmental implications of their own. “Keeping food out of the landfill is a simple, common sense approach to reducing greenhouse gas emissions and the beauty of the student food waste audits is that students can see for themselves how their individual choices can add up to be a collective force in healthy ecosystems,” she said.

The USDA and EPA also recognize the problem. In 2015, the two federal agencies announced the nation’s first food loss and waste reduction goal, calling for a 50 percent reduction by 2030. In November, both agencies issued a joint press release announcing 15 major U.S. companies pledging a 50 percent reduction in food loss and waste.

In the United States, the EPA estimates that more food reaches landfills and incinerators than any other single material in our everyday trash – about 21 percent of the waste stream. Keeping wholesome and nutritious food in our communities and out of landfills helps communities and the 42 million Americans that live in food insecure households. Reducing food waste also impacts climate change, as 20 percent of total U.S. methane emissions come from landfills.

The EPA Food Recovery Hierarchy prioritizes the following strategies for decreasing food loss and waste: reduce the volume of surplus food produced; donate extra food to food banks, soup kitchens and shelters; divert food scraps to animal feed; provide waste oils for industrial uses such as biofuels and bio-products; create nutrient-rich soil amendments by composting; and use landfills and incinerators as a last resort.

“If you take this to the 50,000-foot view, what you can see is that a public policy nudge that brings all of these issues together is in the best interest of a multitude of players — not just hungry kids or hungry families, but also farmers and climate,” Terry said. “Food policy as a research space and an applied learning space has the potential to have significant impact on each of those issues.”

The initial student food waste audit Terry conducted at Washington Elementary School in Fayetteville in the spring of 2016 has had a very practical impact on one school district already. Terry initially wanted to
look at the amount of fruits and vegetables students threw away, but the five-day audit revealed a far larger source of waste. Students were discarding large quantities of milk, both from opened cartons and unopened containers.

Further studies at four Washington County elementary schools in partnership with the Washington County Environmental Affairs department showed the same results: children were taking milk they did not want and discarding it in prodigious amounts. Additionally, students were throwing away unopened containers of milk, and uneaten and unpeeled fruit.

The solution? As a behavioral economics remedy, Terry worked with the Fayetteville School District to purchase reusable, restaurant-grade cups so that students could simply get a glass of water instead. The school’s PTO bought the cups and the Beaver Water District helped upgrade the water fountain in the lunch room. In a follow up audit a month later, data revealed that milk waste had decreased by 22 percent.

As another solution, Terry also designated a “share table” where children could return food they had taken in unopened containers. She also put a sign at the milk station encouraging children not to take milk they didn’t want. Only the food on each child’s plate counts toward the nutritional requirements set by the USDA, she said, so students deciding not to take a milk if they didn’t want one wouldn’t be missing out on any nutrients.

The pilot program offering water in reusable cups was so successful that other elementary schools in Fayetteville now offer this option as well. The innovation benefits all parts of the problem – keeping children hydrated, keeping costs down (milk is the most expensive item on the lunch tray) and keeping unused food out of the waste stream.

“If students are wasting the food on their plates, it’s to everybody’s benefit — health benefit, economic benefit, environmental benefit — if our students are informed consumers and make healthy choices for themselves,” Terry said.

Additionally, Terry facilitated a food waste audit during the National Consumer League annual conference in Denver, Colo., last spring, leading about 350 high school students through the process. She shared the results of her Washington County audit at the Arkansas School Nutrition Association meeting in July.

She also attended the Reduce and Recover: Save Food for People conference at Harvard for the past two summers, has been a guest blogger for the food policy organization, Food Tank, and has served as a guest speaker at the Arkansas Recycling Coalition Food Waste Workshop, the USDA Nutrition Director’s Regional Conference, and the University of Arkansas’ Food Waste and Hunger Summit.
This summer, Terry and her family were invited to represent Arkansas in a climate change rally organized by Moms Clean Air Force in Washington, D.C. on July 13. While in the nation’s capital, Terry visited with Arkansas senators John Boozman and Tom Cotton to talk about food waste-related issues.

Margaret Reid, professor in the Department of Political Science, is Terry’s advisor. She said Terry’s accomplishments are amazing.

“Melissa Terry is a prime example of how a passionate and driven student can create the change they want to see in our world,” Reid said. “Her research, the guide she created, and her activism will directly affect public policy and has the potential to make a measurable dent in our country’s food waste.”

Terry is currently working with the Sustainable Materials Management team of the EPA, the Food and Nutrition Services branch of the USDA, the End Food Waste Working Group of the National Food Policy Consortium and, on the state level, with the Access to Healthy Food Team of the Arkansas Coalition for Obesity Prevention.

If students are wasting the food on their plates, it’s to everybody’s benefit — health benefit, economic benefit, environmental benefit — if our students are informed consumers and make healthy choices for themselves.”

– Melissa Terry, a graduate student in the Master of Public Administration and Nonprofit Studies program

PRESS ENTER HERE FOR A NEW LINE->
Successes
Biological Anthropologist Awarded NSF for Fossil Research in Romania
A biological anthropologist at the University of Arkansas and her colleagues have been awarded a $30,000 grant from the National Science Foundation to conduct fossil surveys in the Oltet River Valley of Romania.

The award, a High-Risk Research in Biological Anthropology and Archaeology (HRRBAA) grant, is designed to provide investigators with seed money to assess the feasibility of anthropological research that may rely on factors that are difficult to assess but which may have great payoffs, and if successful can lead to more extensive funding submissions.

Claire Terhune, assistant professor of anthropology in the J. William Fulbright College of Arts and Sciences, and her colleagues will be searching for fossil mammals and other vertebrates that can shed light on the initial migration of ancient humans into Europe between 1.5 and 2 million years ago, not long after our human ancestors first left Africa. Although fossil humans were present in Spain by 1.4 million years ago, there is no evidence of how these early humans reached Spain, or where in Central or Eastern Europe they may have been present. Fossils recovered from the Oltet River Valley in the 1960s include extinct species such as mammoths and saber-toothed cats and the prehistoric ancestors of giraffes, giant deer, horses, rhinos, wolves, bears, hyenas and primates similar to today's baboons.

By examining the animals present at this time the researchers can reconstruct fossil environments and understand the challenges early humans might have faced when moving through these areas, which can shed light on the ability of these early humans to adapt to their surroundings in the face of new and unfamiliar environments and terrains.

In addition to understanding what animals were present, the researchers will especially be searching for evidence that human ancestors themselves were also present in Eastern Europe at this time. They will conduct this research by undertaking intensive ground surveys, test excavations, examining aerial and satellite imagery, and by talking with locals about their understanding of the geology of the area and where they have seen fossils.

Terhune and her colleagues have been working in Romania since 2012 and this past May spent 2½ weeks researching existing fossil collections in Bucharest. You can read more about their work and how they analyze these fossils on the Research Frontiers Field Notes Blog or at terhunelab.uark.edu.

Other researchers involved in this project include:

- Sabrina Curran, assistant professor, Department of Sociology and Anthropology, Ohio University
In addition to understanding what animals were present, the researchers will especially be searching for evidence that human ancestors themselves were also present in Eastern Europe at this time.
Successes
Margulis Named Kavli Fellow by the National Academy of Sciences
Elizabeth Margulis, professor in the Department of Music, has been named a 2016 Kavli Fellow by the National Academy of Sciences. The honor incudes her participation in the Japanese-American Kavli Frontiers of Science Symposium Dec. 2-4 in Irvine, California.

Kavli Fellows are young scientists selected by the advisory board of the Kavli Foundation, members of the National Academy of Sciences and organizers of the Kavli/National Academy of Sciences Frontiers in Science Symposia series. The Kavli Foundation, based in Oxnard, California, supports scientific research, honors scientific achievement, and promotes public understanding of scientists and their work.

The Kavli Frontiers of Science symposium series is the National Academy of Science's premiere activity for distinguished young scientists. Attendance is by invitation only and attendees are selected from among award winners for early career scientists in the United States and abroad. Attendees include Sloan Fellows, Packard Fellows, MacArthur Genius Grantees, Pew Fellows, Searle Scholars and Presidential Early Career Awardees for Scientists and Engineers. Since the inception of the Frontiers in Science series in 1989, more than 175 of its "alumni" have been elected to the National Academy of Sciences and ten have been awarded Nobel Prizes.

Margulis is director of the Music Cognition Lab at the University of Arkansas. Her research applies the methodologies of cognitive science to understanding music. Her book *On Repeat: How Music Plays the Mind*, published by Oxford University Press, won the Wallace Berry Award from the Society for Music Theory and the 2015 ASCAP Deems Taylor/Virgil Thomson Award. She is currently writing *The Psychology of Music: A Very Short Introduction* for Oxford University Press.

In 2014, Margulis participated in Science Foo Camp, or SciFoo, a similar interdisciplinary gathering of leading researchers from around the world, at the Google Headquarters in Mountain View, Calif.

Inspired by experiences such as these, Margulis and novelist Padma Viswanathan, assistant professor in the Department of English, recently founded the Center for Interdisciplinary Study of Science and the Arts, which seeks to create a dynamic space for scholars and artists at the University of Arkansas whose work crosses disciplinary boundaries.
The Kavli Foundation supports scientific research, honors scientific achievement, and promotes public understanding of scientists and their work.
Successes
Human-Centered Design Class Creates Artifacts to Help Arkansas' Marshallese
Being pulled over by a police officer can already be a nerve-wracking experience. Do you have your license and registration handy? Do you know why you were stopped?

Now, imagine you don't speak the same language as the officer. How would you communicate? How will you understand what's happening?

Many members of Arkansas's large population of Marshall Islanders don't have to imagine this type of scenario because they've lived it. But what if a relatively simple solution could help in this and other common legal situations like it?

Enter Marty Maxwell Lane, an assistant professor of graphic design, and the students in her human-centered design course.

"Human-centered design has the ability to tackle the world's messy problems by designing 'with' people rather than 'for' people," said Lane, who offered the course this spring through the J. William Fulbright College of Arts and Sciences Department of Art. "This semester we partnered with the Arkansas Coalition of Marshallese to design solutions for issues related to the law."

Lane said eight teams in her class took on project topics including adoption, college enrollment and community, educating law enforcement, cultural history, arrest issues, educating lawyers and judges, healthcare and insurance, and basic entry information for Marshallese new to Northwest Arkansas.

The teams' goal was to create innovative design solutions to help both the Marshallese and all who interact with them understand one another better, and to break down barriers of communication.

The class selected the Marshallese community after Lane spoke with a criminal defense attorney who mentioned all the challenges members of this community face when dealing with the legal system.

"They can be deported for crimes of 'moral turpitude' which can be subjective; there's a tendency to confess to crimes they didn't commit, and just general cultural differences. For example, there is no such thing as trespassing on the islands," Lane said. "It really struck me. There is so much misinformation, so many assumptions and a general lack of awareness."
Arkansas, and in particular Springdale, has a large population of Marshallese because after a long and complicated history, in 1986 the Marshall Islands and the U.S. entered into the Compact of Free Association. This agreement allows for the Marshall Islands to keep full sovereignty and receive defense and other benefits from the U.S in exchange for allowing U.S. military bases on the islands.

As a result, the Marshallese benefits include being able to work and travel in the U.S. without a visa or time constraints, which has led to a diaspora from the islands to the U.S. Springdale has emerged as a prime location because of its numerous jobs and more affordable housing.

Lane’s students approached the challenge with relish, forming their design teams after learning more about the Marshallese community from an expert panel including a Northwest Arkansas criminal defense attorney, an immigration attorney, a documentary filmmaker and a representative from the Arkansas Coalition of Marshallese.

The students used a variety of qualitative research methods — ranging from ideation, mapping and brainstorming, to inquiry, prompts and observation - to identify points of appropriate design intervention. They also conducted visual and verbal audits, created personas or character profile archetypes to represent audience needs, mapped the values and needs of their audiences and used this information to create prototype designs.

Students Alex Johnson and Ariel Romero took on the opening scenario — they wanted to find a way to use design to bridge the gap between law enforcement and the Marshallese, particularly by making it less challenging for a poor English-speaking individual to understand and communicate with an officer.

Their project has four major components all related to being pulled over. The first is a "know your rights" magnet with basic information, and the second is a video that includes a step-by-step walk through of what to expect when pulling over and interacting with a police officer. The third component is a dual-purpose document sleeve that keeps all driving documents in one place, and serves as an aid to a poor English speaker because it has icons depicting common reasons for being pulled over that can be pointed at to help communicate.

Similarly, the fourth component is a wallet-sized card holder with bilingual tips for what to do when being pulled over. The holder also contains multiple copies of a shareable card that reads, "Hello Officer, I can't speak English well" on one side and, "Could I have a translator, please?" on the other.

"We did lots of field work and lots of interviews to understand what would help," said Romero, a senior majoring in graphic design with a minor in communications. "We even
toured police vehicles and walked through the process of an officer pulling someone over. We wanted to look at the details and see what they'd talk about and ask for."

Johnson, a senior majoring in graphic design with a minor in marketing, agreed and said the pair is hoping to take their materials out of the prototype phase and into production. They are currently applying for grants to help make this happen.

"It was a very interactive process," Johnson said. "The Marshallese community members requested a card or something similar, and then we were able to create these prototypes and expand based on their feedback."

Romero said he could also envision the pair creating similar materials for other cultures who may also face language barriers when interacting with law enforcement.

Johnson, Romero and their classmates in the human-centered design course created about 24 items throughout the semester that are now on display in the Fine Arts Building Gallery Exhibition Cases through the end of summer.

Lane said reactions to the items so far has been very positive, and that she'd like to work with the Marshallese community again next time she teaches the human-centered design course, while shifting focus specifically to healthcare issues. She also said she's excited for more students to take the course and experience the power of human-centered design.

"It’s a way of approaching problems that puts people first," Lane said. "Now these students truly understand the conditions of the people they’re designing for, and they’ve learned to design based on a deep understanding instead of by making assumptions."

For more information about graphic design at the University of Arkansas, please visit [http://art.uark.edu/](http://art.uark.edu/).

To make a gift in support of the graphic design program, please call 479-575-4272 or email brickman@uark.edu.
card to help poor English speakers better communicate with police officers.

Some of the pieces of the project:

Students presenting their work to the community.

"Human-centered design has the ability to tackle the world's messy problems by designing 'with' people rather than 'for' people."

– Marty Maxwell Lane, assistant professor of design

PRESS ENTER HERE FOR A NEW LINE->
Successes
U of A Evolutionary Biologist Awarded $540,000 by Simons Foundation
The Simons Foundation has awarded $540,000 to University of Arkansas biologist Andrew Alverson to study the evolution of microscopic marine algae in the Baltic Sea.

Alverson is one of four researchers across the United States selected as a 2016 Simons Early Career Investigator in Marine Microbial Ecology and Evolution.

Alverson studies diatoms, one of the world’s most diverse groups of microalgae, also known as phytoplankton. Diatoms are single-celled algae that are found in oceans, lakes and rivers – practically anywhere there is sunlight and moisture. They are prolific photosynthesizers, producing one-fifth of the world’s oxygen, and are a key primary producer for ocean food webs.

For the Simons grant, Alverson will focus on a single diatom species – *Skeletonema marinoi* – which began life in the ocean and was carried inland when the Baltic Sea was formed following glacial erosion some 10,000 years ago. The sea is brackish, meaning it is saltier than fresh water but not as salty as seawater.

“*The Baltic Sea is interesting because of its young age and intermediate, brackish habitat,*” Alverson said. “Working with collaborators at the University of Gothenburg in Sweden, we’ll determine how this diatom adapted to low salinity in such a short period of time.”

Evolutionary biology is a historical science but it provides a powerful means of looking forward as well including the adaptation of species to global climate change, Alverson said.

“Increased atmospheric carbon and global warming are having profound impacts on the world’s oceans,” he said. “Changing precipitation patterns and melting polar ice caps are freshening large regions of the ocean. Although these changes are predicted to have important impacts on the phytoplankton communities in these areas, relatively few data are available to predict how phytoplankton will respond to a rapidly changing ocean.”

Data from a close relative, *Skeletonema potamos*, which has independently adapted to freshwaters, will show whether there is more than one adaptive solution to managing salinity stress, Alverson said, providing general insights into the adaptive potential of phytoplankton to a rapidly changing ocean.

This project will be heavily computational, relying on resources available through the Arkansas High Performance Computing Center at the University of Arkansas.
Alverson is an assistant professor in the Department of Biological Sciences in the J. William Fulbright College of Arts and Sciences. His research is also currently funded by the National Science Foundation, Gordon and Betty Moore Foundation and Arkansas Biosciences Institute.

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PRESS ENTER HERE FOR A NEW LINE->
Successes
U of A Anthropologist Part of Team that Identified New Human Ancestor
A University of Arkansas biological anthropologist is part of the international team of scientists who verified that fossils found in a South African cave belong to a new species of human ancestor.

The National Geographic Society and the University of Witwatersrand in Johannesburg, South Africa, announced the discovery of the new species — Homo naledi — on Thursday, Sept. 10. The U of A has a partnership with Wits University and researchers here have been working on the project since the fossils were found in 2013.

Over the last two years, Lucas Delezene, assistant professor of anthropology in the J. William Fulbright College of Arts and Sciences and expert on hominin dental anatomy, compared known hominin teeth to the newly discovered fossils to determine if they represent a new scientific discovery.

“I spent the last two summers looking at every fossil tooth I could get my hands on, and the new South African fossils don't match anything,” Delezene said. “We can find things that are similar, but nothing quite matches.”

Delezene said the conclusions of the dental analysis matched the results from teams that analyzed other anatomical regions of the fossils like the feet, hands, and heads.

“We were all in agreement that the fossils are different than anything found previously,” he said.

The fossils were found in a cave known as Rising Star in the Cradle of Humankind World Heritage Site, 30 miles northwest of Johannesburg. More than 1,550 fossils were found in the cave in what appears to be a ritual deposition of the dead never seen before in early hominids.

The discovery was made by Lee Berger, research professor at Wits University and a National Geographic Explorer-in-Residence. Berger’s parents are U of A alumni and he is a former adjunct archaeology professor.

Terry Garcia, the National Geographic Society’s chief science and exploration officer, called it “a tremendously significant find.”

Delezene and the other researchers who validated the find coauthored one of two papers on the discovery in the journal eLife. The other paper focuses on the geology and location of the find. Delezene and the
The discovery will be covered in the October issue of *National Geographic* and a *NOVA/National Geographic* special, “Dawn of Humanity,” premiering nationally at 9 p.m. ET Sept. 16 on PBS stations and at 8 p.m. locally on AETN.

The work on *Homo naledi* continues. Delezene and Peter Ungar, Distinguished Professor of anthropology chair of the Department of Anthropology at the U of A and visiting professorial fellow at Wits University, will work on reconstructing the diet through dental microwear as the project moves forward.

Delezene and collaborators have developed 3-D models from CT scans of the teeth that will allow them to determine precise differences between these teeth and previous findings. They will also explore how the new species fits into the broader scheme of human evolution.

Other scientists will work on determining when *Homo naledi* lived, and there is considerably more excavation to do at the cave. While this is one of the largest fossil hominin finds to date in Africa, only a small fraction of the fossils have been removed from the site.

“There will be decades worth of work on that cave,” Delezene said.

**About the J. William Fulbright College of Arts and Sciences:** Fulbright College is the largest and most academically diverse unit on campus with 19 departments and more than 30 academic programs and research centers. The college provides the core curriculum for all University of Arkansas students and is named for J. William Fulbright, former university president and longtime U.S. senator.

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"I spent the last two summers looking at every fossil tooth I could get my hands on, and the new South African fossils don’t match anything. We can find things that are similar, but nothing quite matches."

– Lucas Delezene, assistant professor of anthropology
Successes
U of A Graduate Student Selected for DOE Science Research Award
Raymond Walter, a doctoral student in physics and mathematics, is the first student from the University of Arkansas selected for a U.S. Department of Energy Office of Science Graduate Research Award.

The award program will provide Walter a $3,000 monthly stipend for up to one year and a $2,000 travel allowance. The program gives doctoral candidates an opportunity to conduct a significant part of their doctoral dissertation research in collaboration with scientists at a Department of Energy national laboratory. Awardees are selected on the basis of a submitted research proposal aligned with one of the Office of Science Priority Research areas.

Walter will collaborate with Lin-Wang Wang, senior staff scientist at Lawrence Berkeley National Laboratory in Berkeley, California. His appointment begins Nov. 1 and will last one year. He was among 43 awardees from 31 different universities in the program’s latest round of funding. The program began in 2014.

Walter is conducting physics research as part of the Computational Condensed Matter Physics Group at the U of A. His focus in the Computational Material Science and Nanoscience Group at Lawrence Berkeley National Laboratory will be electronic properties of topological defects and other complex geometries in ferroelectric materials. His calculations will be performed on supercomputers in the Arkansas High Performance Computing Center and the Oak Ridge Leadership Computing Facility in Tennessee.

Walter is a National Science Foundation Graduate Research Fellow and a U of A Distinguished Doctoral Fellow in physics and mathematics. His dissertation adviser is Laurent Bellaiche, Distinguished Professor of physics.

Raymond Walter is the first student from the University of Arkansas selected for a U.S. Department of Energy Office of Science Graduate Research Award.
Successes
U of A Psychologist Working With State Law Enforcement on Eyewitness Policy
James Lampinen, distinguished professor of psychological science at the University of Arkansas, is partnering on a project with the Arkansas Association of Chiefs of Police to adopt a science-based model policy for Arkansas law enforcement officers to use that will reduce errors when collecting and evaluating eyewitness identification information.

The association’s goal is for all Arkansas police departments and law enforcement agencies to adopt and use this model policy. Lampinen has provided feedback on the policy and is helping to promote it with law enforcement agencies around the state. He will also help train officers in how to effectively use the method.

“It’s critical for law enforcement to follow science-based practices when collecting eyewitness evidence,” said Lampinen. “I’m proud to be working with the Arkansas Association of Chiefs of Police in developing and promoting sound eyewitness identification procedures.”

Hope Police Chief J.R. Wilson, president of the Arkansas Association of Chiefs of Police, said the model policy will make a difference for investigators and for the public.

“Merely following the science-based suggested practices will reduce incorrect identification and the tragedy of wrongful conviction and incarceration,” Wilson said.

Lampinen is author of the 2012 book *The Psychology of Eyewitness Identification*. He is a certified law enforcement trainer in Arkansas and has worked around the state to provide expert training on eyewitness identification to law enforcement, the Arkansas Bar Association, and the Oklahoma Bar Association. Chief Wilson says Lampinen will play a vital role in the success of the new procedure.

“The science behind eyewitness testimony is clear and convincing,” said Wilson. “Our challenge now is to get Arkansas law enforcement agencies to implement these policies and commit to the practice. Dr. Lampinen will work with us to help explain the science, answer any questions, and train law enforcement officers around our state. Successful law enforcement requires community partnerships and we are honored to partner with Dr. Lampinen in this endeavor.”

The science-based protocols are supported by the National Academy of Sciences, National Institute of Justice, American Psychological Association, American Bar Association, the International Association of Chiefs of Police and others. Approximately 30 years of scientific research prove the benefits of these protocols.
The Arkansas Association of Chiefs of Police has also partnered with the Innocence Project and other organizations in this effort. Members of the association leadership recently attended the first National Eyewitness ID Symposium held by the Justice Education Center at Yale Law School to better familiarize themselves with the science behind the protocols.

About the Arkansas Association of Chiefs of Police: The AACP is a non-profit organization of police chiefs and executives from the state of Arkansas who recognize the importance of having proven, effective leaders in law enforcement. The AACP continually works towards enhancing the knowledge and skills of police executives so they can effectively meet the growing demand of providing the best possible law enforcement available today. Find out more at www.arkchiefs.org.

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"Successful law enforcement requires community partnerships and we are honored to partner with Dr. Lampinen in this endeavor."

– J.R. Wilson, Hope Police Chief and president of the Arkansas Association of Chiefs of Police

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Successes
U of A Researcher Links Mass Extinctions to 'Planet X'
Periodic mass extinctions on Earth, as indicated in the global fossil record, could be linked to a suspected ninth planet, according to research published by a faculty member of the University of Arkansas Department of Mathematical Sciences.

Daniel Whitmire, a retired professor of astrophysics now working as a math instructor, published findings in the January issue of *Monthly Notices of the Royal Astronomical Society* that the as yet undiscovered “Planet X” triggers comet showers linked to mass extinctions on Earth at intervals of approximately 27 million years.

Though scientists have been looking for Planet X for 100 years, the possibility that it’s real got a big boost recently when researchers from Caltech inferred its existence based on orbital anomalies seen in objects in the Kuiper Belt, a disc-shaped region of comets and other larger bodies beyond Neptune. If the Caltech researchers are correct, Planet X is about 10 times the mass of Earth and could currently be up to 1,000 times more distant from the sun.

Whitmire and his colleague, John Matese, first published research on the connection between Planet X and mass extinctions in the journal *Nature* in 1985 while working as astrophysicists at the University of Louisiana at Lafayette. Their work was featured in a 1985 *Time* magazine cover story titled, “Did Comets Kill the Dinosaurs? A Bold New Theory About Mass Extinctions.”

At the time there were three explanations proposed to explain the regular comet showers: Planet X, the existence of a sister star to the sun, and vertical oscillations of the sun as it orbits the galaxy. The last two ideas have subsequently been ruled out as inconsistent with the paleontological record. Only Planet X remained as a viable theory, and it is now gaining renewed attention.

Whitmire and Matese’s theory is that as Planet X orbits the sun, its tilted orbit slowly rotates and Planet X passes through the Kuiper belt of comets every 27 million years, knocking comets into the inner solar system. The dislodged comets not only smash into the Earth, they also disintegrate in the inner solar system as they get nearer to the sun, reducing the amount of sunlight that reaches the Earth.

In 1985, a look at the paleontological record supported the idea of regular comet showers dating back 250 million years. Newer research shows evidence of such events dating as far back as 500 million years.

Whitmire and Matese published their own estimate on the size and orbit of Planet X in their original study. They believed it would be between one and five times the mass of Earth, and about 100 times more distant from the sun, much smaller numbers than Caltech’s estimates.
Matese has since retired and no longer publishes. Whitmire retired from the University of Louisiana at Lafayette in 2012 and began teaching at the University of Arkansas in 2013.

Whitmire says what’s really exciting is the possibility that a distant planet may have had a significant influence on the evolution of life on Earth.

“I’ve been part of this story for 30 years,” he said. “If there is ever a final answer I’d love to write a book about it.”

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Successes
U of A Leads Effort to Nurture Research Collaborations in Southeast Asia
The University of Arkansas is helping lead an effort to develop a bioscience network of scientists in the United States and Southeast Asia.

The National Science Foundation recently awarded a $500,000 grant to establish the Food, Energy, Water and Ecosystems Resources Research Coordination Network, to build a team of minority and minority-serving faculty to strengthen research collaborations in the U.S. and enhance ties between U.S. faculty scientists and researchers working at institutions in Vietnam, Thailand and Malaysia.

“Dams that were built over the last 30 years on the upper and lower Mekong River have altered sediment flow, fisheries and tributaries of the river, resulting in a host of issues,” said Ruben Michael Ceballos, a biologist at the University of Arkansas and the principal investigator on the NSF-funded project.

The project will focus on four central research topics: aquatic biology and ecosystems science; traditional-use plants and natural products development; biofuel feedstocks and enzyme systems; and impacts of climate change on biodiversity in the lower Mekong basin.

“There are about 80 million people who rely on the Mekong River and there are some similarities between the Mekong River delta and the Mississippi River delta; thus, there are significant opportunities for U.S. scientists to collaborate with counterparts in Southeast Asia to address pressing issues,” said Ceballos, an assistant professor in the Department of Biological Sciences.

The Food, Energy, Water and Ecosystems Resources project has two focuses. The first is to fund ongoing research collaborations between U.S. scientists and research groups from universities in the Lower Mekong Basin to finish up projects that are at the cusp of completion of major milestones leading to publication. The second is to establish new collaborations in the four research areas that involve junior faculty from underrepresented groups.

“Under this grant we can’t fund individual research efforts but we can assist with travel money, logistical support, student training, and the integration of two or more research efforts so that connections can be made and new projects leading to fundable research may be established,” Ceballos said.
In 2015, Ceballos was invited to attend the 9th U.S.-Vietnam Joint Committee Meeting on Science and Technology as part of a U.S. State Department-led delegation to Ho Chi Minh City. The idea for the Lower Mekong Basin research coordination network came out of that meeting, Ceballos said.

Ceballos serves on the steering committee of the Minority Institution Research Collaborative, a professional association of faculty and students from minority and minority-serving institutions as well as minority faculty and students from major institutions.

"Dams that were built over the last 30 years on the upper and lower Mekong River have altered sediment flow, fisheries and tributaries of the river, resulting in a host of issues."

– Ruben Michael Ceballos, biologist and principal investigator on the NSF-funded project

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Successes
Fulbright College Chemistry and Mathematics Major Awarded Two National Fellowships
Undergraduate senior honors chemistry and mathematics major Craig McLean recently received not one, but two prestigious national fellowships, one from the National Science Foundation and a second from the National GEM Consortium.

"Craig is the first honors undergraduate researcher I've worked with who took basic skills in protein biochemistry that he learned in my laboratory and applied them to the development of his own original research project," said Paul D. Adams, McLean's honors thesis adviser and an associate professor in the Department of Chemistry and Biochemistry and in the Cellular and Molecular Biology Program. "I found this to be remarkable to say the least!"

Adams said McLean's selection as a fellowship recipient in the 2016 NSF Graduate Research Fellowship Program was based upon his demonstrated potential to contribute to strengthening the vitality of the U.S. science and engineering enterprise. His fellowship period will last five years, with financial support provided for three years.

McLean was also chosen as a 2016 GEM Full Fellow by the National GEM Consortium, whose mission is "to enhance the value of the nation's human capital by increasing the participation of underrepresented groups at the master's and doctoral levels in engineering and science."

Adams said the honors thesis he advised McLean on was titled, "Isolation and Characterization of Iron Binding Ligands from Marine Bacteria," and that the research McLean conducted to complete the thesis made him an excellent candidate for both fellowships.

"Craig, without a doubt, grasped the concept of 'independent and critical thought' more so than any student his age that I have encountered in my time on the chemistry and biochemistry faculty at the University of Arkansas," Adams said.

In addition to being a dedicated student and scientist, Adams said, McLean also helps others and often brought classmates into the lab so they could work on a problem together.

"This is the true essence of intellectual collegiality, which will no doubt aid in his continued success during his graduate and post-graduate experiences," Adams said. "To say that Craig will have a future as a successful scientist for me is a true 'no-brainer.'"

McLean's next steps include an internship with Pacific Northwest National Lab in Richland, Washington, this summer as part of his GEM fellowship. While there, McLean will be working in soil microbiology.
metabolomics. He will also begin his doctoral studies at the Massachusetts Institute of Technology this upcoming fall.

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– Paul D. Adams, McLean's honors thesis adviser and an associate professor in the Department of Chemistry and Biochemistry and in the Cellular and Molecular Biology Program
Events
Students Fuse Visual and Culinary Arts to Create a 'Kiln-to-Table' Experience
Ceramics and graphic design students from two University of Arkansas art classes are joining forces with a top local culinary team to create an unforgettable kiln-to-table dining experience for Northwest Arkansas art and food aficionados alike.

The Sunday, Dec. 11 event – Artisans at the Depot: A Kiln to Table Experience – will begin at 6:30 p.m. with the first of four gourmet courses prepared by Chef Patrick Lane at Arsaga’s at The Depot, 548 W. Dickson Street in Fayetteville.

And, in a fun twist, all delicacies will be served on hand-crafted, brand-new tableware created by Department of Art students from the J. William Fulbright College of Arts and Sciences.

“Our ceramics and graphic design students have been collaborating all semester to produce this creative culinary experience,” said event organizer Jeannie Hulen, associate professor of ceramics and chair of the art department. “Students are working on the tableware, takeaway packaging, ticket and menu design, wayfinding and many other experiential features. They are putting their hearts and souls into making this an evening to remember.”

Hulen said pieces of the one-of-a-kind, useable artware will be event keepsakes for the Artisans at the Depot diners, and additional ceramics pieces, tableware, apparel and goods will also be available for purchase.

Ceramics junior Helen Williams helped create some of the event’s unique dinnerware, and said her hope is that “people pick them up, turn them over and explore all the colors and textures. The ceramics are there to complement the beauty of the ingredients that are served on them, and the food provides a use for the art.”

For ceramics and painting senior Madelyn Hewins, “great food tastes even better when it’s served on whimsical, colorful tableware,” became a guiding mantra as she worked on creating a unique collection being featured in the event.

“When food is served on something handmade it changes the entire experience of eating,” she said.

Marty Maxwell Lane, assistant professor of graphic design and co-organizer of the event, said students from her Design for Good class have also been working hard to create this memorable evening.
“They have been working on the event’s logo and branding, menus, apparel, environmental graphics and more,” she said. “We wanted the students and diners to see first-hand how experiential design can aid in creating the conditions for a top-notch dining event.”

Lane said all proceeds from Artisans at the Depot will support summer scholarships for art students. The scholarships help students attend a variety of competitive, prestigious residencies at places like Arrowmont, Penland, Mildred’s Lane, Anderson Ranch and Thrive Design studio. Scholarships also allow students to study abroad in locations like Rome.

During Artisans at the Depot, Hulen said Chef Patrick Lane’s menu will include beer and wine, a playful starter, seasonal salad, hearty main dish and luscious desert.

Working with local businesses and artisans in the community like Chef Lane has been another part of the project that resonates with students like senior Madeline Lowe, who is studying ceramics and photography.

“It has been an incredible opportunity to work with a local business as loved as Arsaga’s,” she said. “The integration of art and food is seamless, and the food being created by Chef Patrick Lane is as much a work of art as the ceramics and designs created for the event.”

For more information, please email ceramics@uark.edu.

About the Department of Art: The mission of the Department of Art in the J. William Fulbright College of Arts and Sciences is to offer the highest quality educational, research, and service programs in the visual arts. These goals encompass the department’s professional and liberal arts programs, at both graduate and undergraduate levels, in art education, art history, graphic design, and studio art to prepare students for graduate study and meaningful employment in the art and design fields and allied professions.

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"Our ceramics and graphic design students have been collaborating all semester to produce this creative culinary experience."

– Jeannie Hulen, event organizer, associate professor of ceramics, and department chair

PRESS ENTER HERE FOR A NEW LINE->
Events
Tibetan Studies Students Create, Then Prepare to Destroy Intricate Sand Mandalas
Students gather around two tables in the front of the classroom, taking turns adding brightly colored sand to the chalked outlines of mandalas, or intricate geometric designs, that are meant to represent our universe.

A soft, rhythmic scraping noise fills the room but it is not unpleasant. This is the sound of the *chak-pur*, a conical metal funnel with ridged sides. By moving a metal stick down the side of the *chak-pur*, the students can carefully control the distribution and placement of the sands they work with.

The room is intense with concentration, but it is also mellow and the occasional buzz of conversation joins the *chak-pur* to create a pleasing hum of activity.

"I've never had a class like this," said biology senior Jose Soroeta, who is also minoring in philosophy at the university's J. William Fulbright College of Arts and Sciences. "It's completely different and more interaction-based. I feel like we're jumping right into the Tibetan culture with a truly first-hand experience."

Soroeta wasn't sure what to expect when signing up for Geshe Thupten Dorjee's Tibetan Culture and Philosophy course, but the native Argentine by way of Fort Smith knew he wanted to learn more about the Buddhist religion.

Making the sand mandalas, said Dorjee, gives students like Soroeta the experience of "creating something beautiful and then destroying it to learn how to let go."

"We cannot hold onto something forever, something we attach to cannot last forever," said Dorjee, who spent much of his early life in a refugee camp in Bhutan with other Tibetan exiles before settling in Southern India. He then entered the Drepung Loseling Monestary in Karnataka when he was 13.

Dorjee later received the degree of lharampa geshe, the highest academic degree possible within the Gelug monastic university system, after mastering the five subject areas of Perfection of Wisdom, Middle View, Valid Cognition, Discipline and Metaphysics. After many travels and time spent teaching, in 2006 Dorjee was offered a one-semester appointment within Fulbright College that blossomed into much more - including being awarded the University of Arkansas Outstanding Faculty Award in 2008.

Now, Dorjee continues to teach the Tibetan culture course as well as others and is also co-director along with Professor Sidney Burris of the university's Tibetans in Exile (TEXT) Program.
While gesturing to the larger of two sand mandalas the class is working on, Dorjee explains that the colors and lines of each design also hold significance. More than 24 colors are used, with white, yellow, red, green and blue making up the fundamental core. The mandala designs for this semester's course include a larger one with a circle surrounded by petals, inside a box with intricate designs in vivid yellows, reds, greens and blues predominantly. This one centers around compassion as its main theme.

A second, smaller practice mandala today features a lotus center with green, yellow and pink petals inside concentric circles. It typically takes the students between four-to-six classes to complete the large mandalas, though they practiced in the weeks leading up to the project.

"The students determine how much sand and how much control with each movement," Dorjee said. "They practice a lot first, and it also depends on if they are stressed or not stressed."

Some students use small pillows to rest their forearms and aid in their precise sand placement. All of the 14 participants wear similar looks of focused, yet still relaxed concentration. Some take breaks, switch out colors, or ask for guidance on the next step when they've completed a task. Others switch back and forth, working a little on each mandala.

Soroeta stops and stretches. He was surprised to learn the mandalas would be destroyed after completion. "I thought, 'Oh no! What can we do to preserve them?'" he said. "But then in the end I understand the philosophy."

Likewise, his classmate Emily Miller, a senior majoring in chemistry with a focus in biochemistry, said letting go of the artwork will be sad.

"I did know going into the class we'd be doing this. We'll be taking lots of pictures," she joked. "You really have to focus with the sand, and don't realize it takes this much effort. You do get attached to the mandalas."

For Miller, what struck her the most about Tibetan culture is the emphasis on love and compassion. She said she was also amazed at how welcoming and open Dorjee has been, even preparing a meal for his students.

Miller will be attending University of Arkansas for Medical Sciences (UAMS) in Little Rock after graduation, and she was surprised to learn how many students in the class would be pursuing a similar career path.
"A lot of us in class are going to medical school, at least five of us," said Miller, who said she thinks what the students have learned from Dorjee, in the class, and from their sand mandala experience will serve them well as future medical practitioners. "The principles from this class are great and will stay with you," she said. "Do everything with love and compassion, live out your entire life that way and always have a giving mentality."

About the J. William Fulbright College of Arts and Sciences: The J. William Fulbright College of Arts and Sciences is the largest and most academically diverse unit on campus with 19 departments and 43 academic programs and research centers. The college provides the core curriculum for all University of Arkansas students and is named for J. William Fulbright, former university president and longtime U.S. senator.

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– Jose Soroeta, senior in biology

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