Gov. Jay Nixon on Wednesday proposed awarding $20 million in grants to Missouri's colleges and universities to prepare 1,200 more students for employment in mental health.

Nixon said the funding would help the state make up a "critical shortage" of mental health workers. The governor said 104 counties and most of the city of St. Louis have been designated mental health shortage areas by the federal government. In addition, 72 of Missouri's 114 counties do not have a licensed psychiatrist, while 90 do not have a resident licensed behavioral analyst. Applied behavior analysis is used for treating autism spectrum disorders.

The governor plans to include money for the program in his recommendations' for next year's state budget. Lawmakers return to the state Capitol on Jan. 8.

"From teaching a child with autism how to interact with peers, to working with law enforcement to respond to a parent in mental health crisis, these health professionals will build on the work we've already done to strengthen communities and make sure Missourians have access to the care they need," Nixon said in a written statement.

Nixon traveled Wednesday to the University of Missouri-Kansas City and Moberly Area Community College's center in Columbia. Nixon calls the initiative Caring for Missourians: Mental Health. Nixon in 2009 launched Caring for Missourians to increase the number of graduates in health care fields.

Under Nixon's proposal, the University of Missouri-Kansas City would receive $4.2 million to train clinical psychologists, child psychiatrists and advanced nurse practitioners. The grant money would be used to hire new faculty members, expand programs and buy new equipment.

Moberly Area Community College is to receive $167,000 for classroom and lab space to train occupational therapy assistants and establish a new behavioral health technician certificate.

The largest grant would be $6.4 million for the University of Missouri-Columbia, which would go for preparing psychiatric nurses, psychiatrists, occupational therapists, speech pathologists, physical therapists and licensed psychologists. It would establish new doctoral internship positions at the Fulton State Hospital.

Nearly two dozen schools in all would receive funding, including about $1.7 million for Missouri State University and $1.3 million for Southeast Missouri State University.
Gov. Nixon plans $20 million for mental health education

By Karyn Spory

Wednesday, December 18, 2013 at 4:47 pm

Gov. Jay Nixon announced plans Wednesday to devote $20 million of his fiscal year 2015 budget to preparing Missourians for careers in the mental health field through his Caring for Missourians: Mental Health initiative.

Nixon made the announcement during a visit to MoberlyAreaCommunity College’s ColumbiaHigherEducationCenter.

Nixon said the $20 million grant will go to Missouri’s public colleges and universities to educate an additional 1,200 students to help address the critical shortage of mental health professionals. “In the same way Caring for Missourians expanded training opportunities for health care fields, Caring for Missourians: Mental Health will help Missouri’s two and four-year institutions increase capacity in degree programs that train psychologists and psychiatrists, speech therapists, applied behavior analysis, nurse practitioners and addiction counselors,” Nixon said.

Nixon said he plans to present his FY 2015 budget in the next couple of months.

Nixon, who spoke before educational administrators and mental health professionals from MACC and the University of Missouri, said MACC would receive a $167,000 grant to establish classroom and lab space in the Columbia facility to train occupational therapy assistants and create a new behavioral health technician certificate.

MACC President Jeff Lashley said he was honored the governor chose MACC as the site to make his announcement.

Lashley said the grant will allow the Columbia campus to lease more space within the ParkadeCenter for the occupational therapist assistant program. “This is going to strengthen this existing program,” Lashley said.

Lashley added the new behavioral health technician certificate will probably become available for the next fall semester.
Nixon said MU would receive $6.4 million to prepare more psychiatric nurses, psychiatrists, occupational therapists, speech pathologists, physical therapists and licensed psychologists, including new doctoral internship positions at Fulton State Hospital. The University of Missouri-Kansas City is set to receive $4,156,400 and the University of Missouri-St. Louis will get $1,676,307.

“The University of Missouri System is committed to expanding educational opportunities and improving quality of life for all Missourians, and we greatly appreciate Gov. Nixon’s support in helping us achieve this critical mission through initiatives like Caring for Missourians,” Tim Wolfe, UM System president, said in a prepared statement.
MU medical school receives an award

Wednesday, December 18, 2013 at 2:00 pm

The University of Missouri School of Medicine has been awarded the Learning Health System Challenge Award, a nationwide award from the Association of American Medical Colleges.

MU was one of five institutions to receive the award, which recognizes institutions that have implemented innovative, systemwide processes that improve opportunities for research in quality improvements, health equity or electronic health records, according to a news release.

The other recipients were the University of Chicago, Massachusetts General Hospital, Emory University and Vanderbilt University.

“This award speaks to our collaborative efforts to improve the health of Missourians through exemplary education, innovative research and exceptional patient care,” Linda Headrick, senior associate dean for medical education at the MU School of Medicine and professor of internal medicine.

Headrick added that the award would not be possible without the work of many people within University of Missouri Health Care, the MU Sinclair School of Nursing, the MU School of Health Professionals and the University of Missouri-Kansas City satellite pharmacy program.
Art and Archaeology museum gets $75,000 pledge

Money could be used for moving.

By Ashley Jost

Wednesday, December 18, 2013 at 2:00 pm

Past and present members of Museum Associates Inc. pledged $75,000 in an effort to support a fund for a new building that could bring the Museum of Art and Archaeology closer to the University of Missouri campus.

Bruce Cox, the museum's assistant director of operations, said those involved with the museum have known about the pledge for the last few weeks. Museum Associates is a not-for-profit that supports the museum.

Tootie Burns, the chairwoman of the expansion committee for Museum Associates, said the pledge is broken down into 10 pledges from individuals and organizations that range from $5,000 to $10,000.

The museum is being moved from Pickard Hall on the MU campus to Mizzou North as Pickard Hall is being decommissioned for radiation contamination. The hope is to bring the museum back toward campus, but the timeline and the means are still in the planning process, Cox said.

A $25,000 donation to Museum Associates from local entrepreneurs Beau Aero and Alfredo Mubarah of Columbia Safety Industrial Supply was announced last week.

Alex Barker, museum director and vice president of Museum Associates, said there has been no request for the funding the group has received. Instead, people are independently showing support for an effort they believe in, which Barker said is "always heartening."

"It's really exciting to have the community stepping forward and saying how much they value the museum,” Barker said.
University of Missouri professor helps shed new light on human toolmaking

December 18
BY DUGAN ARNETT
The Kansas City Star

Carol Ward knows bones.

For Carol Ward, a professor of pathology and anatomical sciences at the University of Missouri, the discovery represented a nominal moment in a career that has spanned three decades. As a professor of pathology and anatomical sciences at the University of Missouri, she has dedicated much of her work to the study of human and ape fossils, participating in active field research from Croatia to East Africa.

So in April 2011, when her research team sent back a plastic replica of its most recent finding — a small hand bone discovered in the Lake Turkana area in northern Kenya — she immediately realized its significance.

“As soon as I looked at it,” Ward said, “I knew.”

This month, nearly three years after it was discovered, the 1.42 million-year-old middle metacarpal bone serves as the crux of a scientific study suggesting that humans’ ability to use complex tools originated more than 500,000 years earlier than previously believed.

The study’s findings, published this week in the Proceedings of the National Academy of Sciences, have shed new light not only on the evolution of man, but on one of his most vital features.
The anatomy of the third metacarpal bone, which connects the middle finger to the wrist, is a defining human characteristic. It features the styloid process, allowing us to grip everything from a crowbar to a smartphone, while differentiating us from the plethora of other species.

“We can do things with our hand that no animal on the planet can,” said Ward, who served as the study’s lead author. “The way we can hold objects, we can grip things between our thumbs and fingers, a very strong pinch grip, very powerfully. Imagine if you’re making a stone tool — that’s what you need to be able to do.”

Although it had long been known that modern Homo sapiens possessed such an ability, it had been unclear when in the evolution process the distinctive, humanlike anatomy of the hand originally appeared, said Ward.

According to the findings, the bone probably belonged to a member of Homo erectus, a species that predated Homo sapiens.

For Ward, the discovery represented a nominal moment in a career that has spanned three decades.

Ward’s foray into the world of fossils began early in college, when she enrolled in a biological anthropology course at the University of Michigan. “I wanted to take the weirdest class I could,” she explained.

Within a few years, she had earned a Ph.D. in functional anatomy and evolution at Johns Hopkins in Baltimore. In 1991, she joined the faculty at the University of Missouri, where she eventually became part of the West Turkana Paleo Project.

Before the group’s 2011 discovery became public, however, it was subject to a fairly intense review process.

Ward traveled to the Cleveland Museum of Natural History and to the Smithsonian. She and a team of international researchers conferred with other experts, including Erik Trinkaus at Washington University in St. Louis and Wes Niewoehner at California State University, San Bernardino. The findings were also reviewed by a panel of peers in the field.

Since the study’s release, the discovery has sparked an understandable stir in the science world and national media. At home, where Ward has three teenage sons, the hubbub has centered on the study’s inclusion on a popular social media site.

“They’re excited that I made it on Reddit,” Ward said. “That was the biggest thing for them.”
But while the recent feedback has been nice, Ward said, plenty of other bones are currently awaiting her attention.

“We’ve got more fossils to move on to,” she said. “I’m sitting in my lab, collecting data for another paper right now.”
Drilling-area water found to contain hormone-disrupting chemicals

By Mark Jaffe

Water samples from Garfield County oil and gas fields have been found to contain chemicals that adversely affect cell development, according to a new study.

The analysis, conducted by researchers at the University of Missouri, found the hormone-disrupting chemicals at higher levels in the heavily drilled area than in nondrilled areas.

The study appears in the journal Endocrinology.

The findings, however, are a just a limited step in raising the question of potential health impacts of oil and gas drilling, according to the researchers.

"It is a first study to find an association between oil and gas drilling and these chemicals," said Susan Nagel, a researcher at the University of Missouri medical school.

"There is association, and as a country we should be assessing the potential impacts," Nagel said.

The researchers collected 39 ground- and surface-water samples from five sites in drilled areas where there had been spills.

Another nine samples were taken at "reference sites" in Colorado and Boone County, Mo., the area around the University of Missouri.

The hormone-disrupting activity was higher in the oil and gas field samples than in the reference samples.

The researchers, however, did not know which chemicals were in those water samples.

In a separate assay, chemicals used by the oil and gas industry were tested. They had hormone-disrupting effects that could impact metabolism, mood, growth and sleep patterns.
But endocrine-disrupting chemicals are present in many products, including pharmaceuticals, said Steve Gunderson, director of the Colorado Water Quality Control Division, in a statement.

Gunderson also questioned the comparison of Boone and Garfield counties.

"The geology, annual precipitation and overall environment of Boone County is extremely different than Garfield County," Gunderson said.

Picking areas where there had been spills, rather than operations with no problems, also stacked the deck, said Katie Brown, a researcher for the industry-funded website Energy Indepth.

"We all know spills are bad and can cause problems," Brown said.

Still, the fact that these chemicals can have effects at low levels on sensitive populations, such as pregnant women and children, make the result important, said Theo Colborn of the Endocrine Disruption Exchange, a research and advocacy group. "This opens the door to more research," Colborn said.
An advocacy group for oil and natural gas producers is criticizing what it calls an "inflammatory" study released this week by researchers from the University of Missouri and the U.S. Geological Survey saying chemicals used in hydraulic fracturing, or "fracking," a controversial technique used to extract natural gas from the earth, can disrupt human hormone function.

Energy In Depth, a Washington, D.C.-based advocacy group launched by the Independent Petroleum Association of America, argued in an article published Monday on its website that the researchers "falsely" claim that fracking is exempt from some key federal regulations and that endocrine-disrupting chemicals can come from both natural and man-made sources.

"The authors of this report are clearly playing for headlines," Katie Brown, a spokeswoman for Energy In Depth, said in an emailed statement. "The study was billed as linking fracking to widespread hormonal disruption, when in reality the researchers could make no definitive connection."

For the MU study, also released Monday, researchers compared ground and surface water samples from spill sites in drilling-heavy Garfield County, Colo. — as well as areas of sparse drilling activity from that county — and from Boone County, where there is no drilling activity.

The researchers say 100 of the more than 750 chemicals used in fracking are endocrine-disrupting chemicals and that the practice is exempt from the Clean Water Act, the Clean Air Act and the Safe Drinking Water Act.

Energy In Depth says fracking is regulated by some federal laws, citing a 2012 report from the Government Accountability Office saying eight federal environmental and public health laws apply to the practice, including a provision of the Clean Water Act requiring that oil and gas well operators obtain permits to discharge pollutants into surface waters.

However, that same report also says exemptions and "limitations in regulatory coverage" undermine the effectiveness of six of those federal laws.
The Clean Water Act, for example, largely exempts oil and gas well operators from obtaining stormwater discharge permits, which is required for industrial operations.

The report also says EPA officials find their efforts to conduct inspections and carry out enforcement actions are hindered by a lack of data on groundwater quality before drilling operations and by the fact that federal law exempts waste generated during the production and exploration phases of drilling.

Susan Nagel, one of the researchers for the study and an associate professor for the MU Department of Obstetrics, Gynecology and Women's Health, said government regulations on fracking are weak.

"The EPA is just impotent to be proactive and apply typical, normal and preventative environmental monitoring," she said.
MU researchers receive grant to design clothing for disabled individuals

Dec 18, 2013  BY SARAH REDOHL

COLUMBIA, Mo.—Two University of Missouri researchers recently received the Richard Wallace Faculty Incentive Research Grant to continue a project designing clothing for individuals with disabilities, such as formal wear for wheelchair-bound individuals or clothing for amputee victims.

Kerri McBee-Black, an instructor in the textile and apparel management (TAM) department, and Allison Kabel, an assistant professor in the department of health sciences, believe the grant will assist them in publishing their research and creating tangible products.

Since the project began in 2012, more than 80 students have participated in the adaptive design process.

Elena Ibarra, one of the students involved in the project, said her group aimed to create clothing for young girls that discreetly provided access points for medical devices, as well as breathable, comfortable clothing for wheelchair-bound individuals.

“We created functional clothing that is still trendy and empowers them to be the best version of themselves,” Ibarra said. Ibarra and other students see the business opportunity that exists for this type of clothing. “A large market of individuals who are in need of this type of clothing exists, and where a market exists, you have room for success.”

The class also conducts market research and attends focus groups to determine which designs work for individuals who might utilize them.

“The project exposes the students to an area of the design industry that often gets overlooked, but is needed,” said McBee-Black. “Designing clothes for individuals with disabilities might not be as glamorous as designing couture bridal gowns, but the adaptive clothing has the capability to directly benefit individuals’ lives, and a huge need exists for adaptive attire.”
Chris Belcher, who applied for MU job, tells staff he’s considering retirement

By Catherine Martin

Wednesday, December 18, 2013 at 2:00 pm Comments (26)

Columbia Public Schools Superintendent Chris Belcher might be leaving the school district and taking a position at the University of Missouri.

Barb Peterson, director of strategic communications for MU's College of Education, confirmed Belcher applied for a position as an assistant teaching professor of PK-12 leadership and policy. At this point, Peterson said, there have been two "qualified applications" the department has interviewed over the phone. Belcher also interviewed on campus Friday and Monday, but a hiring decision has not been made yet.

"Just given the timing with the holidays, it will likely be a few weeks before any decision is made on part of the college or Dr. Belcher," she said.

In an email sent to staff at 9:39 a.m. Dec. 10, Belcher said he might retire at the end of this school year or next school year, but he did not mention the MU job.

"I have not made a decision yet," he wrote in the email. "I want to be open about my decision-making process as I consider this and other opportunities that may be available to me. Columbia Public Schools is a great place to work, and I have enjoyed my time as superintendent. This will be a difficult decision for me."


Belcher has 32 years of experience in education, including time as a biology and chemistry teacher, secondary assistant principal and central office administrator, according to the Columbia Public Schools website. In the public school system, employees are eligible for retirement after 30 years of employment, district spokeswoman Michelle Baumstark said.

"Eligible to retire means that if he were to retire today he would receive his maximum benefit," she said.
Public school employees receive a pension after retirement.

Since the district last renewed Belcher's contract in April, he is making $198,992 a year. Belcher's contract was renewed through June 30, 2016, but Baumstark said that does not prevent him from retiring before then. Belcher can take another job after retiring, she said.

Belcher has not returned messages seeking comment.

Baumstark said Belcher has not made a decision yet. "It's business as usual around here," she said. "He is still our superintendent."
Lee Elementary students perform at Memorial Union

COLUMBIA — The Memorial Student Union arch became a theater for Lee Expressive Arts Elementary School first-graders on Wednesday.

Nearly 60 students performed songs from the opera "Hansel and Gretel," as well as Christmas carols, in front of the arch. Parents watched their children sing, some recording the concert on cellphones and tablets. Some university employees also came out to watch the performance.

For the last five years, Lee Elementary first-graders have decorated the chancellor's residence for Christmas and performed songs at the house, art teacher Ann Mehr said.

Because MU is currently between chancellors, no one is occupying the residence.

A Lee Elementary parent suggested the students create ornaments for the State Historical Society of Missouri's "Show Me Holiday Tree," Mehr said. The tree holds ornaments symbolizing different regions of Missouri, and this year holds papier mâché birds made by the Lee Elementary first-graders. Lee Elementary also arranged for the annual concert to take place at Memorial Union.

After the concert, students and teachers crossed Hitt Street to see their artwork on display at the State Historical Society.

"They were thrilled," Mehr said, to see their art work on display at such a "grown up" institution.
ASK A SCIENTIST Q: Are spiders insects?

By DEANNA LANKFORD of MU's Office of Science Outreach

Wednesday, December 18, 2013 at 2:00 pm

This question was submitted by John Gerhart's third-grade class at Benton Elementary

A: "Spiders are not classified as insects; however, they are related to insects," notes University of Missouri biologist James Carrel. Spiders and insects are grouped as arthropods because both have jointed legs. Examples of arthropods include crabs, insects, scorpions, shrimp and many others. In fact, there are more than 1 million known arthropod species throughout the world, and there might be many more that have yet to be named.

"It is important to note that spiders and insects have a common ancestor. Classified as arachnids along with ticks and mites, spiders are very different from insects," Carrel notes. Spiders typically have eight jointed legs, and insects have six jointed legs. Another difference is that insects have three distinct body parts — head, thorax and abdomen — while spiders have only two body parts: a combined head and thorax, and an abdomen. Insects also have segments within body parts; these are most easily observed with caterpillars. Spiders, however, have smooth body parts with no obvious segmentation or lines.

"Spiders are found everywhere on Earth. In fact, there is a jumping spider that lives on Mount Everest at elevations up to 22,000 feet," Carrel notes. This is because tiny baby spiders produce long threads of silk which are caught by the wind; the body acts like a kite, allowing tiny spiders to travel long distances, carried by the wind. This is called ballooning. Tiny spiders are known to travel distances of more than 700 miles by ballooning. Take the time to study the amazing creatures in the world around you.