MU News Bureau

*Daily Clips Packet*

Oct. 20, 2014
Researchers seek to combat bat disease

COLUMBIA, Mo. (AP) — Researchers studying a deadly bat disease are turning their attention to a type of bacteria that inhibits fungal growth.

The Columbia Missourian reports that Sybill Amelon, a Columbia-based wildlife biologist for the U.S. Forest Service, plans to try out the bacteria treatment in a cave for the first time this winter. Amelon is working with Chris Cornelison, who first studied the bacteria while conducting food preservation research at Georgia State University. As a postdoctoral researcher, Cornelison found that the bacteria could, without direct contact with fruit, inhibit fungal growth and delay ripening.

Cornelison then began testing the bacteria against the white-nose fungus, which has killed more than 6 million bats. The results kept coming back positive and ultimately caught the eye of the U.S. Forest Service, which hired Cornelison and brought his research to Amelon.

"She's been our greatest ally," Cornelison said. "Really, it's accelerated rapidly."

After exhaustive trials, the research is moving into the field. Bats will be pulled out of a cave, treated in the lab and then returned to the cave. Amelon and Cornelison have identified four test sites, one of which is in Boone County, though exact locations were not disclosed.

"You always have to temper your excitement when you do a lab experiment. In the lab, you have perfect conditions," said Amelon, whose offices are at the University of Missouri's Natural Resources Building. "But we're still really, really encouraged that we will see increased survival."
Kirsten Alvey, executive director of the Missouri Bat Census, called the treatment developed by Amelon and Cornelison "one of the top three" research projects in the works for white nose syndrome.

Bat Conservation International, an advocacy group based in Austin, Texas, has been funding the research since 2012. The most recent grant for the two was $50,000.

"The questions that get me excited are the ones that are going to solve the problem, and Chris was asking them," Katie Gillies, a biologist at Bat Conservation International, said. "That's something that we want to support. I'd like to find more money to fund this."

US expands reporting rule on campus sexual assault

NO MENTION

WASHINGTON (AP) — The government is trying to make people more aware of the extent of sexual assault on campuses.

Colleges and universities are required to compile and make crime statistics available on stalking, dating violence and domestic violence under a new rule announced Friday by the Education Department.

The change falls under the Clery Act, which requires colleges and universities to report crime statistics on or near their campuses and provide warnings in a timely manner if safety is threatened. The Violence Against Women Reauthorization Act of 2013 signed by President Barack Obama amended the Clery Act. Victims' advocates have said the statistics, as currently compiled, don't provide a full picture of the extent of such crimes.
The rule makes other changes such as adding gender identity and national origin as categories of bias under the Clery Act's definition of hate crimes. And, it requires colleges to ensure that both the accuser and the accused have an equal opportunity to have an adviser of their choice present at discipline hearings.

The rule goes into effect July 1.

The administration has taken a series of steps this year to fight campus sexual assault, including work by a White House sexual assault task force that encouraged greater protections for victims.

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COLUMBIA MISSOURIAN

EPA funds MU study on food waste

Friday, October 17, 2014 | 7:14 p.m. CDT
BY Joshua Booth

COLUMBIA — In a perfect world, there would be no edible food wasted. But in reality, food waste is a constant problem.

Edible food waste means misspent resources — from the fertilizer used to grow it to the transportation costs.

The U.S. Department of Agriculture estimated 31 percent of retail and consumer-level food in 2010 was wasted. That's 133 billion pounds of uneaten food.

Four MU Bioengineering seniors are now being funded by the Environmental Protection Agency to research treatment of organic waste. The students are Jeremy Davis, Austin Davis, Sami Tellatin and Amanda Prescott.

The team will receive nearly $15,000 for the study, according to a release. The focus will be on the anaerobic digestion of food waste mixed with pig manure. Anaerobic digestion is a process microorganisms use to break down organic materials. The team wants to find the optimal mix that is best for treatment.

"The stuff we think of as trash can be recoverable energy," said Christine Costello, project manager and an assistant research professor in the MU Department of Bioengineering.
The goal is to compare anaerobic digestion with two other options: Landfills with biogas capture and electricity generation and those without. Students will identify the most sustainable option — the one that has the most energy and nutrient recovery, along with the least greenhouse gas emissions.

Managing food waste is challenging due to the varied nature of the materials.

Food waste has a high carbon to nitrogen ratio. The team will mix it with pig manure to achieve better conditions for anaerobic digestion.

The study will look at edible and inedible food waste in order to evaluate the current waste stream and an ideal scenario where there is no edible food waste.

The students will present their findings at the National Sustainable Design Expo in Washington, D.C., next year. They will compete for funding up to $75,000 for further research.

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**Team effort can control meningitis**

By KRISTIN SOHL

*Sunday, October 19, 2014 at 12:00 am*

There has been a lot of buzz lately about vaccines — but I would like to get Columbia residents and Missourians statewide focused on one vaccine-preventable — and often misunderstood — disease in particular: meningitis.

Thanks to modern medicine, we can nearly eliminate previously devastating diseases like diphtheria, measles, mumps, rubella, polio and smallpox. Today, with a quick visit to our doctors, we can protect ourselves and our loved ones from dreadful diseases that our ancestors had to face.

Just last month, Andrea Jaime, a Georgetown University sophomore, died of meningitis. It is unknown how she contracted the disease, and now public health officials are working closely with Georgetown to vaccinate those Andrea was in close contact with to prevent even more cases and fatalities.
Last year, devastating meningitis outbreaks occurred on two other university campuses around the United States — Princeton University and the University of California, Santa Barbara (UCSB). More than 12 cases of meningitis were confirmed between the two schools. One student had both feet amputated because of the disease.

According to the Centers for Disease Control (CDC), 1,000 to 2,600 Americans contract meningitis annually, and 1 in 10 dies of this vaccine-preventable disease.

Many don’t realize how quickly meningitis can progress, starting with flu-like symptoms that escalate swiftly, leaving survivors with damage to the nervous system, including hearing loss, epilepsy, limb loss, cognitive impairment and death. The CDC consistently recommends vaccination as the best way to protect against meningitis, but most don’t even know to ask their doctors about it.

The outbreaks at Princeton and UCSB and the devastating death at Georgetown are unique because the strain of meningitis appearing in those cases was one that the current meningitis vaccination does not cover — serogroup B meningococcal disease.

An outbreak of this currently unpreventable strain of the disease, let alone multiple outbreaks across the United States, is incredibly frightening — one that feels as mysterious and threatening as the current situation with Ebola.

Thankfully, and different from Ebola, new vaccinations are undergoing approval by the Food and Drug Administration to combat this strain of meningitis. Once new vaccines are approved, they should be made accessible to patients as soon as possible.

Here in Missouri, beginning with the 2015-2016 school year, the state will require that college-bound students receive the meningitis vaccination before they can move into their dorms and apartments on campus. This regulation is part of new legislation Gov. Jay Nixon signed in July in an attempt to protect Missourians from devastating diseases for which we already have vaccines. Here in Columbia, where we have a large student population, that new law will be particularly beneficial for protecting our greater community.

It is important that citizens from all walks of life — students, parents, grandparents, cousins, friends, roommates, everyone — be aware of the potential risk of meningitis and that they ask their physicians about the proactive steps they could take to quickly, easily and affordably minimize the possibility of contracting such a harmful disease. It’s everyone’s responsibility.

**Physician Kristin Sohl is a pediatrician at University of Missouri Health Care.**
Amendment 2 asks whether child sex defendants' past acts can be used against them at trial

By Rudi Keller

Sunday, October 19, 2014 at 12:00 am Comments (2)

In August, the Missouri Supreme Court swept away one of the last vestiges of a centuries-old legal doctrine that the testimony of sex-crime victims could not be trusted. On Nov. 4, Missouri voters are being asked to make an exception to another long-standing rule, in place for more than 100 years.

The Missouri Constitution currently bars testimony that past acts show propensity — that the accused is likely guilty of the same crime again. Amendment 2 would alter that rule in cases involving child sexual abuse, including allowing testimony about crimes that were never charged.

Supporters argue the exception is necessary because pedophiles often have more than one victim, many of whom remain silent for years as they endure abuse in a family setting.

“From our perspective, we fully believe most sexual predators began their work as teenagers,” said Emily van Schenckhof of Missouri Kids First, an organization that provides support for the state’s 15 child advocacy centers.

Opponents said Amendment 2 undermines a basic protection in an area of law that already makes substantial exceptions to the rules that regulate other trials. Amendment 2 does not limit the testimony about other crimes to similar acts, said Michelle Monahan, treasurer of the Missouri Association of Criminal Defense Lawyers.

“We think it is one of the most dangerous propositions that has come along in a long time,” she said.

Amendment 2 was proposed by the General Assembly to overturn a 2007 Missouri Supreme Court decision in a case involving Donald Elliston, a Livingston County man convicted of
repeatedly molesting a young girl. A law passed in 2000 allowed prosecutors to introduce evidence of Elliston’s conviction for sexual abuse of a 13-year-old girl to show he likely was guilty of similar acts with the new victim.

The court ordered a new trial, ruling the law violated the Missouri Constitution. “Evidence of a defendant’s prior acts, when admitted purely to demonstrate the defendant’s criminal propensity, violates one of the constitutional protections vital to the integrity of our criminal justice system,” Judge Michael Wolff wrote for the unanimous court.

The issue that voters must decide is whether sex crimes against children are exceptional cases that require different rules.

Each year, Missouri’s 15 Child Advocacy Centers conduct about 7,500 forensic interviews with children younger than 18. More than 75 percent of the interviews concern alleged sexual abuse. Each interview is conducted in a neutral manner, observed by law enforcement and prosecutors from an adjoining room and recorded for use in court.

At Rainbow House in Columbia, the Child Advocacy Center has conducted more than 5,400 interviews since opening in 1998. Rainbow House serves a 10-county area of Central Missouri. “We were designed to be the neutral, safe-haven place for that child and family to come so that child can tell the story to all the investigative team members,” administrative director Janie Bakutes said.

The décor at Rainbow House is child-scaled. The base of the walls feature images of children at play, on skateboards or with tennis rackets and baseball bats. A large canvass covered in colored handprints helps build rapport with the child when they are asked to find a hand that matches their own, Bakutes said.

That rapport is key to making the interview a success, she said. The Child First model employed by the center is designed to allow the child to tell their story but not push them or suggest that they must talk.

“At some point the child is going to talk about it or not,” Bakutes said. “What we mostly find is it is a relief, that the kids know why they are coming in. We make it real plain.”

The forensic interviews are conducted in a spare room with beige walls and beige chairs and a few toys, markers and the like. The design is intended to relax the child with as few distractions as possible. Before the interview begins, the child is shown the room where observers will sit watching through a one-way mirror.

Cameras and microphones are mounted discreetly in the ceilings and walls, and backup power prevents the system from stopping during a storm. All that is explained to the child before the interview begins, Bakutes said.
The design has been created through trial-and-error. The sensational McMartin preschool case in the 1980s, where the owners were accused of molesting up to 360 children, fell apart when video recordings of the interviews revealed coercive, leading questioners were treating children like adult witnesses.

In Missouri, before the adoption of child advocacy centers, investigations of child abuse were often conducted by home visits in response to hotline calls, Bakutes said. The alleged offender often would be there, with the child services worker interviewing the victim in the next room.

“We did everything wrong, and would leave the child because the child would say ‘no, nothing is wrong,’ ” Bakutes said.

Statewide, in almost half of the child sex abuse cases investigated over the past two years, the alleged offender was a parent, step-parent or a parent’s boyfriend or girlfriend. “These crimes are perpetrated largely in silence in families,” van Schenkhof said. “There are very serious obstacles to prosecuting these cases that are not obstacles in other types of cases.”

Only 7 percent of the alleged offenders were people the child did not know. “It is 2 percent here at Rainbow House,” Bakutes said.

Statewide, 1 in 5 investigations results in a determination that the charges are unfounded.

**The theory of Amendment 2 is that those offenders are more controlled by their propensity to commit sex crimes than other offenders, said Frank Bowman, who teaches criminal law at the University of Missouri School of Law.**

“The other real reason they are being targeted is people have a particular horror of sex crimes and an even greater horror of sex crimes against children,” Bowman said.

More than 11,000 children have been interviewed throughout the past two years at child advocacy centers about allegations of sexual abuse. Fewer than 2,000 prosecutions have been initiated. The data on outcomes are incomplete, but about 1 in 5 that has gone to trial has resulted in an acquittal.

Most cases that have been settled resulted in a guilty plea but the data does not indicate how many included a deal for reduced charges.

“It takes a tremendous amount of courage for these children, who are often under the control of the perpetrator, to report what has happened,” Boone County Prosecuting Attorney Dan Knight said. “If the child does in fact come forward and report the crime, we are still going to have big obstacles ahead.”

After a sex offender is convicted, several provisions of law are triggered to protect the public. The Sex Offender Registry maintained by the Missouri State Highway Patrol has 14,607 names, including 309 in Boone County. Offenders who committed crimes against children may not live within 1,000 feet of a school or day care facility.
For violent sexual predators, the state has a civil commitment program that asks courts to assign offenders to the Department of Mental Health after they complete their sentences. The number in the program, now more than 200, grows about 20 each year, according to the department’s website. No one committed to the program has been released since its inception in 1999.

For repeat offenders against children, state law requires constant monitoring with GPS tracking, part of a 2006 law that increased penalties for sex crimes against children and denied probation to some offenders. The next year, lawmakers increased the penalties for promoting child pornography.

Those tools only work after a conviction, van Schenkhof said. “I think we as a society are trying to grapple with what it is going to take to protect children,” she said. “I would say that some pieces of public policy are more helpful than others.”

Amendment 2 is similar to a federal evidence rule and has safeguards to prevent the use of propensity evidence in an unfair way, Knight said. The Missouri Constitution’s prohibitions on the use of propensity evidence are among the strictest in the nation, he said.

Knight is president of the Missouri Association of Prosecuting Attorneys, which supports Amendment 2. The evidence it would allow can be used now in limited circumstances, such as to prove a person’s identity or that a signature method for committing a crime is connected to the defendant.

Knight has had two recent cases where propensity evidence would have strengthened the prosecution’s case. In one instance, he said, the defendant probably would have pleaded guilty rather than take the case to trial.

The judge will have the final say on whether propensity evidence is used, Knight said. If it is more prejudicial to the defendant than helpful in informing the jury, it will not be allowed.

“If you look into the proposed constitutional amendment, the court is the gatekeeper,” Knight said.

Bowman said he will vote against Amendment 2 because he considers it poorly drafted. By not limiting the kinds of crimes that a prosecutor can introduce as propensity evidence, it is far broader than the federal rules, he said.

He also said he is not convinced that sex offenders are any more likely to repeat their crimes than any other offender. “We are pretty insistent upon the idea that if we try someone for a crime that we want to punish them for this crime rather than something they have done in the past.”

The argument that a new law is needed to protect children is hard to oppose, Monahan said. Propensity evidence of prior crimes against children would prejudice a jury against any defendant and make it almost impossible for an innocent person to win acquittal.
“It is truly the bell that cannot be unrung,” she said.

Bakutes said she has faith the courts will apply the rule fairly. “The fact is that these are young victims, they should be treated differently. The thing that sets it aside for me is that I know that the judge can say, that was 35 years ago and we are not going to bring that in.”