TB drugs may be disrupted by botanical supplement, MU researchers find

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Generated from News Bureau press release: Anti-Tuberculosis Drug Disrupted by Botanical Supplement, Can Lead to Development of Disease

University of Missouri researchers have found that some botanical supplements could do more harm than good because they reduce the effectiveness of prescription medications.

Botanical supplements are used by people around the world to treat a wide range of physical and mental ailments. Some of the supplements have high levels of antioxidants that could have positive health benefits for certain conditions.

But MU researchers, working with scientists in Africa, discovered that a widely used African botanical supplement called Sutherlandia — traditionally taken to prevent or treat symptoms of infections — may actually disrupt the effectiveness of a common anti-tuberculosis drug.

That’s dangerous because blocking the affects of this medication, in this case, could lead to the development of active tuberculosis and perhaps drug-resistant forms of the pathogen in some patients.

Tuberculosis is a highly contagious bacterial infection that can quickly spread.

William Folk is a professor of biochemistry in the MU School of Medicine and College of Agriculture, Food and Natural Resources. He and other researchers made the discovery while monitoring South African patients who were taking either Sutherlandia or a placebo, along with the world-standard anti-tuberculosis drug, isoniazid.

“We believe that the antioxidants in Sutherlandia can directly disrupt how Isoniazid functions within the body to prevent tuberculosis,” Folk said in a university release on the findings.
Patients taking the Sutherlandia supplement developed tuberculosis despite taking Isoniazid, which Folk said is very reliable in preventing tuberculosis.

“More than one-third of the world’s population is susceptible to active tuberculosis,” Folk said. “It is unfortunate that Sutherlandia, which traditionally is taken to prevent or treat infections, can actually cause them to develop the disease, and perhaps also cause the microbe to become a drug-resistant ‘super bug.’”

And he said the same situation could apply to other botanical supplements when paired with different medications, including cancer-fighting drugs.

“With so many people around the world turning to botanical supplements to help with a wide range of health issues, it is vital that we explore how these supplements interact with established medical drugs,” Folk said.

Botanical supplement may weaken TB drug

A widely used African botanical supplement, called Sutherlandia, may disrupt the effectiveness of a common anti-tuberculosis drug. This could in turn lead to the development of active tuberculosis and perhaps drug-resistant forms of the pathogen in some patients.

People around the world use botanical supplements to treat a wide range of physical and mental ailments. Some of these botanical supplements have high levels of antioxidants, which may have some positive health effects for certain conditions. However, the supplements and their antioxidants may have unwanted side effects when it comes to prescription medications.

For a new study, published in Neuromolecular Medicine, researchers monitored South African patients who were taking either Sutherlandia or a placebo, along with the world-standard anti-tuberculosis drug, Isoniazid. Sutherlandia is a supplement commonly taken in Africa to fight symptoms of infection and some chronic diseases, such as diabetes, and discovered that several patients taking the Sutherlandia supplement developed active tuberculosis despite taking Isoniazid.
“We believe that the antioxidants in Sutherlandia can directly disrupt how Isoniazid functions within the body to prevent tuberculosis,” says William Folk, professor of biochemistry at the University of Missouri.

“Isoniazid is very reliable in preventing the active form of this potentially deadly microbe, which is present in nearly one-third of all humans, but if individuals concurrently take a botanical supplement, they could undo the good that the scientifically proven drug is accomplishing.

“More than one-third of the world’s population is susceptible to active tuberculosis, so it is unfortunate that Sutherlandia, which traditionally is taken to prevent or treat infections, can actually cause them to develop the disease, and perhaps also cause the microbe to become a drug-resistant ‘super bug.’”

The findings could apply to many different botanical supplements and many different medications, including cancer-fighting drugs, so it’s important for future research to examine potential interactions between drugs and antioxidant-laden supplements, Folk says.

“With so many people around the world turning to botanical supplements to help with a wide range of health issues, it is vital that we explore how these supplements interact with established medical drugs.

“Many drugs use pathways that could be disrupted by antioxidants, so we need for physicians to better advise their patients. Many physicians do not know everything that their patients take, so it is important for people to inform their physicians, and for physicians to ask, so they can better advise their patients what is best for their health.”

The National Center for Complementary and Integrative Health, the Office of Dietary Supplements, and the University of Missouri funded the work. The contents are solely the responsibility of the authors and do not necessarily reflect the views of the sponsors.

Missouri expert on town hall debates thinks St. Louis event deviated from format

October 10, 2016 By Jason Taylor

A Missouri expert who helped develop town hall presidential debates thinks Sunday night’s face-off at Washington University in St. Louis was far different from previous events in the format.
The entire election was jolted by the revelation late Friday Republican Donald Trump bragged, on tape, about sexually assaulting women in 2005.

By yesterday afternoon, almost 60 congressional members had condemned, rescinded endorsements or asked Trump to step down. The GOP candidate responded by holding a press conference before the debate with women who’ve accused former president Bill Clinton of sexual assault or rape.

University of Missouri Professor Mitchell McKinney says Trump set up the debate to deviate from the town hall format. “(Trump is saying) ‘I’m going to not back down. I’m not going to use this as an opportunity for an apology per se. I’m going to turn it into an opportunity to attack Bill and Hillary Clinton’ said McKinney. “There really was no way to avoid, to pretend, OK we’re just going to focus on the concerns of these citizens all night and we’re not going to talk about this issue.”

Mitchell thinks Democrat Hillary Clinton handled attacks from Trump well. He notes last night’s town hall debate was unusual because questions from audience members were overshadowed by the candidates’ confrontation with each other. He says the encounter ended up being the most attack oriented, hostile town hall debate ever.

Previously, only President Barak Obama had ventured outside the town hall protocol. He took on an aggressive role in 2012 when Mitt Romney was perceived to have won the first debate and was picking up ground in the polls.

McKinney thinks the element of audience interaction Sunday night was overshadowed by the confrontational nature of the event. “I think some of that was driven by the fact that on so many questions, Mr. Trump seemed to maybe just briefly make indirect reference to whatever the questions was, but then would quickly turn it into an attack of Hillary Clinton.”

McKinney’s thinks Trump was reacting to the Friday disclosure in the debate. He’s not convinced the billionaire candidate was able to overcome the revelation’s negative impact. “Anything he did last night certainly wasn’t in the realm of ‘Oh this is going to change the dynamics or turn any momentum around’. I don’t think that’s what we saw last night.”

Mitchell thinks we’ll know in a couple of days if Democrat Hillary Clinton’s lead in the polls stabilizes or starts to grow. But there appears to be early movement in her favor. An NBC News/Wall Street Journal poll conducted on Saturday and Sunday, but before the second presidential debate, shows Clinton with 46 percent support among likely voters in a four-way matchup, compared to 35 percent for Trump. Libertarian Gary Johnson garners nine percent support, followed by Green Party candidate Jill Stein with two percent.

Mitchell advised the Commission on Presidential Debates in 1992, when the town hall format was introduced.
Polls show candidates take positive strides in presidential debate

BY MARK SLAVIT MONDAY, OCTOBER 10TH 2016

Generated from News Bureau press release: After Debates, Clinton’s Increased Positive Scores by College-Aged Students is Historic

COLUMBIA — CBS News contributor and former “Face the Nation” host Bob Schieffer called the debate between Hillary Clinton and Donald Trump “Wrestlemania” and said it wasn’t about presidential politics.

A focus group conducted by CBS News contributor and pollster Frank Luntz said that Trump won the debate against Clinton. MU Political Communication Professor Ben Warner gathered nationwide reaction from more than 300 college students. Warner’s results were not from a poll and do not show a winner, but he said his data shows a change in attitude toward the candidates before and after the debate.

“We asked them on a scale from 0 to 100 how do you feel about the candidates?” Warner said. "Hillary Clinton gained about five and a half points. Donald Trump didn’t change his evaluation at all."

He said the presidential race is too close to call with the election just weeks away.

“I don’t think it was make or break,” he said. "I do think Donald Trump needed to make up significant ground."

Warner also said the town hall meeting style debate revealed the body language of both candidates.

“I thought Donald Trump looked odd looming behind Hillary Clinton," he said. "At times it almost felt menacing and I’m sure unintentionally so, but practice matters."

A CNN instant poll of debate watchers found that Clinton had won, 57 percent to 34 percent. 63 percent of CNN debate watchers also said Trump had done better than they’d expected.
The third and final presidential debate has been scheduled for October 19 at the University of Nevada-Las Vegas.

Editorial: University of Missouri presidential search

By The Associated Press, 46 min ago

As the 16-member University of Missouri search committee for a new system president nears the end of its work, it promises to keep names of applicants secret until the final choice is made. The rationale is familiar. A secret process will attract better candidates who don't want their current employers to know they are looking elsewhere. A secret process will relieve committee members and applicants from bothersome public attention. A secret process will give the public fewer reasons to second-guess the work of the committee until only one finalist is left standing.

These excuses have some merit, but do they measure up against a policy of disclosure?

As a general principle, public agencies should operate openly so constituents can second-guess their activities. In the current case, public knowledge of the applicants and finalists gives the world a chance to deliver potentially helpful information about the prospects. How a candidate for a top public job deals with an open selection process might tell a lot about fitness for the office. We learn more about the function of the selection committee.

Florida’s Sunshine Law applies to university search committees. All applicants’ names are posted publicly. Finalists are identified and interviewed publicly. Recently the University of Florida released the names of three finalists touted for their exemplary credentials. The university had plenty of applicants not dissuaded by the public process. They were encouraged
by the high salary and other benefits offered, but that's part of the public process citizens can observe in action.

At the University of Missouri, we will learn nothing except the name of the person chosen to be the next president. We have heard reports from search committee members that they are receiving a good pool of applicants, and no doubt curators will say the same when they make the final decision, but this vague allegation is not the same as knowing and learning about the applicants.

Of course selection officials and applicants will say they prefer secrecy when privately asked, but the experience in Florida demonstrates the value of an open process. Perhaps the Missouri General Assembly, in the mood lately to be more demanding of UM, will consider making a productive requirement rather than another punishment. If legislators consider requiring presidential selection openness under the state Sunshine Law, they will have to overcome their own penchant for secrecy, but since the demand will visit on the university instead of themselves, who knows.

Out of concern for my personal mortality, I'm not holding my breath.

Meanwhile, let us hope for the best as a new UM president is chosen. Of course it's possible for the best choice to be made even in a secret process, just not as likely.

**COLUMBIA DAILY TRIBUNE**

**Editorial: Health care**

A hint of the local future

At its meeting Thursday in Kansas City, the University of Missouri Board of Curators heard a series of reports. The one that tweaked my interest the most came from Mitch Wasden, CEO of MU Health Care.
Wasden is presiding over a growing health care delivery enterprise and making plans for more. During the year ending March 30, revenue grew $50.7 million to $839.9 million and net operating income increased 26 percent.

Wasden & Co. plan to keep the ball rolling with the purchase of three medical practices and a proposal to manage Boone Hospital Center. We had heard Boone is considering new management and that MU Health was a possibility.

Wasden’s report to the curators is the first public acknowledgment the university will make a proposal.

This comes amid a larger discussion of health care in Columbia and Boone County that has gone off and on for years. Back in the day when the private Columbia Regional Hospital still existed in competition with Boone and University Hospital, the most inclusive committee one can imagine met over several months to examine possibilities for collaboration, merger or some form of common purpose rather than the often difficult competition that then prevailed. As the designated independent, I was chairman. We met at Boone Hospital, and around the table was a who’s who of interested parties: the president of the University of Missouri, the presiding commissioner of Boone County, the mayor of Columbia, the CEOs of all three hospitals and an inclusive group of physician leaders.

Am I forgetting someone? Probably. Everybody was at the table. If a chance for blending was possible, this was the gang that had to be on board. All the special interests confronted each other in friendly but politely distant demeanor.

The most visible sign of serious intent came when the group agreed to underwrite an expensive report from a leading national consulting firm. The county and all three hospitals contributed funding to see how the mutually respected consultant would answer the question.

In due time the report was presented, suggesting an interesting merger idea that had not a chance of being adopted by the involved parties, each believing it could compete and win in the marketplace.

Not least among the warriors were physicians who liked the presence of competing hospitals and clinics they could use to their own benefit.

But that was then. Now the situation is different. All-out competition is proving here and around the world not to be the best model for health care delivery to entire populations at highest efficiency and lowest cost. We are engaged in a national discussion about how best to provide universal health care.

The move is toward unifying rather than splintering hospital and physician services. A community that would become a powerhouse provider of health care will present a comprehensive solid front rather than a phalanx of separate offices and clinics touting duplicative services. Think Mayo Clinic.
Even back when we had our abortive round of meetings, everyone recognized the potential for Columbia/Boone County. We were on our way with good but fractionated doctors and hospitals, but we were not ready for community action.

Years ago Boone Hospital recognized the need for outside expert management. The current lease with BJC Health Care of St. Louis is the result, but questions are growing about the wisdom of an out-of-town manager. MU Health has grown in the scope and ability necessary to manage Boone Hospital facilities.

As time approaches for lease renewal, Boone trustees see good reason to invite MU Health to make a proposal and MU sees good reason to respond. Interested parties have time to imagine potential benefits of collaboration. Letting the idea soak in is the best attitude for the moment.

Working together instead of at cross purposes? Hmm.

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**Breast milk protein cuts preemie NICU infections**

Generated from a MU School of Medicine press release

A protein in breast milk offers a safe and efficient way to reduce infections in babies in hospital neonatal intensive care units, new research shows.

“**The majority of diseases affecting newborn preemies are hospital-acquired infections such as meningitis, pneumonia, and urinary tract infections,**” says Michael Sherman, professor emeritus in the child health department at the University of Missouri School of Medicine.

“Not only did we find that lactoferrin, a protein found in breast milk, could reduce hospital infections among preemies, but we also measured the safety of feeding the protein to newborns.”
For a new study published in the *Journal of Pediatrics*, researchers conducted a randomized control trial with premature infants weighing between 1 pound, 10 ounces, and 3 pounds, 4 ounces, at birth. Sixty of the infants were fed lactoferrin through a feeding tube twice a day for 28 days, while 60 additional infants were given a placebo. The rate of hospital-acquired infections was 50 percent lower among the infants fed lactoferrin.

In addition, researchers used MedDRA, a system that reports safety outcomes to the US Food and Drug Administration, to evaluate the safety of lactoferrin during and after the infants received the protein. Infants were examined for adverse effects from the protein six and 12 months after the trial ended.

Sherman says all adverse effects identified were associated with complications from preterm birth and not lactoferrin.

“While a large-scale clinical trial is needed before lactoferrin becomes a standard treatment protocol in NICUs, our results show the safety of lactoferrin and provide an initial report of efficiency related to reducing hospital-acquired infections,” Sherman says.

Lactoferrin can cost an estimated $25 to $500 per dose, but a previous study in the *Journal of the American Medical Association* shows that hospital-acquired infections cost $9.8 billion to treat each year.

In previous research, Sherman and his colleagues found that lactoferrin helped protect premature infants from a type of staph infection known as Staphylococcus epidermidis.

The National Institutes of Health funded the work.
Local officials expect no vaccination decline despite loss of FluMist

Public and pediatric health officials expect parents will insist their kids endure the brief pinch of a flu vaccine injection now that the FluMist nasal spray vaccine no longer is available.

The Centers for Disease Control and Prevention, which favored the nasal spray over the injection during the 2014-15 flu season, has recommended against using FluMist as protection from influenza, a potentially fatal respiratory disease.

“I do not think the absence of the FluMist means less kids vaccinated. ... The absence of the FluMist should not deter people from getting their vaccines,” said Christelle Ilboudo, pediatric infectious disease specialist at University of Missouri Health Care’s Women’s and Children’s Hospital. “Everyone, in my opinion, should get their flu shot.”

Ilboudo said most other vaccines are given via an injection, “and it should be up to the parents to decide what is best for their kids” in conjunction with recommendations from pediatricians.

The Food and Drug Administration first licensed FluMist in 2003, approving it for people ages 5 to 49. The approval later was expanded to included children ages 2 to 5. But FluMist’s protection rate dropped sharply over the last three flu seasons. A CDC committee determined in June that the nasal spray showed just a 3 percent effectiveness rate in protecting against the flu among kids 2 to 17 in the 2015-16 season.

Last year when FluMist shipments were delayed, the public health department’s nursing staff contacted parents to talk about the delay and the availability of the injectable vaccine, said Andrea Waner, public information officer for the Columbia/Boone County Department of Public Health and Human Services.

“We learned that most parents were really receptive to the change and believed that getting vaccinated, by whatever means necessary, was the right decision for their families,” Waner said.
The health department, at 1005 W. Worley St., has injectable flu vaccine available for anyone 6 months or older, and provides vaccines for free for children from 6 months to 18 years old. The clinic is open Monday through Friday from 8 a.m. to 4:30 p.m. No appointment is needed. Public health nurses also conduct flu clinics in participating Boone County elementary, middle and high schools.

For adults 19 and older, the vaccine costs $25 if not covered by insurance.

The department also has scheduled community flu vaccine clinics in the following cities:

- Centralia from 3:30 to 6 p.m. Thursday at Centralia Intermediate School, 550 W. Lakeview.
- Hallsville from 3:30 to 6 p.m. Oct. 20 in the Hallsville High School cafeteria, west gym entrance, 421 E. Highway 124.
- Ashland from 3:30 to 6 p.m. Oct. 27 at Southern Boone County Primary School, 803 S. Henry Clay Blvd.
- Harrisburg from 3:30 to 6 p.m. Nov. 3 in the Harrisburg Community Room, 1000 S. Harris St.

Influenza outbreaks can happen as early as October and as late as May. According to the Missouri Department of Health and Senior Services, more than 20,000 laboratory-confirmed cases of influenza were reported statewide during the 2015-16 flu season. That number included 782 cases of flu reported to the Columbia/Boone County Department of Public Health and Human Services.

MU School of Health Professions offers new degree program

COLUMBIA, Mo. - The University of Missouri School of Health Professions will be offering a new degree program in the spring.

The Board of Curators approved the program, allowing the creation of the Bachelor of Health Science in Public Health degree.

The program will be limited to 60 students, and is the only one of its kind within 300 miles of MU’s campus.

MU Holds “Celebrate Ability” Week

Watch the story: http://mms.tveyes.com/PlaybackPortal.aspx?SavedEditID=7df52d8f-ff97-4777-8c28-2a81ca67e77c