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ST. LOUIS POST-DISPATCH

Editorial: The opportunity costs of college

By Jane Donahue and Faith Sandler | Posted: Thursday, March 3, 2011 12:00 am

When Missouri's Class of 2011 graduates from high school this spring, cameras will be snapping and grandmas will be misty-eyed, as always. Diplomas symbolize the collective dreams of families, school districts and communities whether our students are leaving Dixon R-1 headed to Missouri State or graduating from Ritenour en route to Ranken Tech.

But as students leave high school, they face the stark reality that nearly half of them will need financial aid to make a college dream a reality.

Unfortunately, Missouri is faltering on its commitment to low-income students. Last year, Access Missouri, the state's need-based financial aid program, received a legislative appropriation of \$83 million — not enough to fully fund the program but enough that eligible students received a meaningful award. By summer, the program received a heavy blow from budget cuts initiated by the governor and only partially offset by a grant from Missouri Higher Education Loan Authority.

Now the governor and the Legislature once again are contemplating cuts to the program, but this time those cuts are even deeper. Missouri families are facing the possibility that state need-based aid will not offer a realistic opportunity to make college dreams a reality.

Consider the impact on the Class of 2011. As they graduate in May, they already face large tuition and room-and-board increases at many of our state's institutions. Access Missouri awards currently max out at \$1,010 for students attending four-year public institutions. Total costs for one year at the University of Missouri-Columbia, for instance, now approaches \$21,000. Access Missouri students qualifying for maximum state and federal need-based aid still will have to foot over half the bill with debt. This math does not work for Missouri students, and the situation will be worse if Access Missouri awards are cut.

To date, state investment in each member of the Class of 2011 is approximately \$40,000 from their first days of kindergarten to the granting of a high school diploma. That's a solid investment, but by all indicators we know it's not enough just to graduate high school. By 2018, two-thirds of the jobs in this state will require a post-secondary degree. In that same year, the Class of 2011 will be just a few years out of college OR will have been underemployed or unemployed for a solid seven years. Think what that cost will be to our state — not to mention our graduating students.

Missouri has a choice. As these students cross the threshold, we can thwart our investment and dash their dreams. Or we can leverage our financial and community investment in these young people. The payoff will be big — for us and them. Research shows that with a degree the Class of 2011 can expect to see their wages, over a lifetime, 156 percent higher as a result of post-secondary education. Further, we know that wages for those without a degree increase when educational attainment increases in a community. In other words, we all benefit when more students earn a degree.

The decision before the Legislature is clear. Funding Access Missouri is a worthwhile investment in the future of our state and a signal to each member of the Class of 2011 that we think they are worth it.

Jane Donahue is vice president of the Deaconess Foundation. Faith Sandler is executive director of The Scholarship Foundation of St. Louis. Donahue and Sandler co-chair the St. Louis Regional College Access Pipeline Project, a collaboration of education, business, non-profit and philanthropic leaders planning to double the number of St. Louis area adults with post-secondary degrees.

ST. LOUIS POST-DISPATCH

MU researchers turn 'trash into cash' with tree compounds

BY JEANNE ERDMANN Special to the Post-Dispatch | **Posted: Wednesday, March 2, 2011 10:00 am**

People outside of rural areas probably give little thought to Eastern red cedar trees.

But farmers give them plenty of thought. Without prairie fires to control their numbers, Eastern red cedars invade pastureland, leaving less grass available for grazing cattle.

If a group of University of Missouri researchers has its way, this pesky tree could be Missouri's newest cash crop. Chung-Ho Lin, research assistant professor in the MU Center for Agroforestry, is leading an effort to isolate compounds from the Eastern red cedar that could be of commercial value.

The effort began in 2007 when Lin took on the task of finding commercial applications for underused trees. He started with the Eastern red cedar because it resists fungal disease and rot. Farmers like this tree's quality because the trunks can be used for fence posts that withstand decades of Missouri weather. The abundance of these trees in Missouri also appealed to Lin. Missouri has about 500 million Eastern red cedars.

"I wanted to find a way to turn this kind of trash into cash," Lin said.

Lin and colleagues George Stewart, professor and department chair of pathobiology in the College of Veterinary Medicine, and Brian Thompson, postdoctoral fellow in the Bond Life Sciences Center, started by isolating chemicals from all parts the tree, needles, berries, roots and branches.

The researchers concentrate on a class of chemicals from the needles and berries of Eastern red cedars called diterpenoids (dic-TERP-en-oyds), known for their anti-bacterial, anti-fungal and anti-inflammatory properties.

Plants need to fight off bacteria and fungi just as humans do, and, like humans, plants produce chemicals to defend themselves against such threats. Sometimes, pathogens use the same biological tools to invade plants as well has humans. That's why researchers can isolate compounds from plants and use them in human medicines.

With compounds in hand, the MU group screened them in tests designed to see how well they work against a wide variety of human invaders. Of the 17 compounds isolated, at least three can

kill fungi and bacteria. One compound works against the human skin cancer melanoma and can even kill the deadly methicillin-resistant *Staphylococcus aureus*, a strain of bacteria the medical community calls a 'superbug' because it resists most medications.

Cassandra Quave specializes in *Staphylococcus aureus* and in the links between humans and plants at the University of Arkansas for Medical Sciences. She is impressed with the researchers' effort.

"We need new approaches and new drugs because the pipeline for new antibiotics is seriously diminished," said Quave, a post-doctoral fellow. "If Dr. Lin has been able to isolate a single compound with this activity, that's a great start."

Now, the MU researchers are filling out patent applications for the isolated compounds. With patents in hand, they can find potential collaborators to commercialize any compounds purified from the tree.

Meanwhile, the MU researchers will need to make sure the compounds are not toxic and conduct detailed molecular studies to figure out how the compounds work. The group will also test whether they can extract enough of the compounds to make the effort commercially viable. Because these compounds come from the berries and needles, Lin said these renewable components provide a sustainable way to harvest them without cutting down the trees.

"Hopefully one day we can transfer production of our discovery to the local community, and can create more jobs, and stabilize the rural economy. That's our goal," Lin said.

MEDILL REPORTS

One man's trash, another man's cure

by Emily Gadek

March 02, 2011

The newest discovery in the fight against MRSA may not be from a lab, but from a tree.

University of Missouri scientists found 17 compounds harvested from the needles of red cedar trees, which many consider "trash trees," may have promise as antimicrobial and antifungal agents.

"Several of the compounds actually showed good inhibitory activity against some bacteria that are important human pathogens, including Methicillin-resistant staphylococcus aureus, or MRSA," said George Stewart, a University of Missouri pathobiologist.

MRSA bacteria are resistant to most current antibiotic treatments available to patients. In 2005, more than 94,000 people were infected by MRSA in the U.S., and 19,000 died from the infection, according to the Centers for Disease Control and Prevention. The findings, just made public last month, were presented in October at the International Conference on Gram-Positive Pathogens in Omaha, Neb.

Stewart, along with Brian Thompson, a University of Missouri postdoctoral fellow, collaborated with agroforestry researcher Chung-Ho Lin to isolate the compounds. Lin has been researching commercial uses for the red cedar since 2007. The tree is an aggressive plant native to the Midwest that many landowners consider an invasive trash tree.

"I started this project by extracting all different classes of phytochemicals from the needles, berries, bark, roots and branches," said Lin. Phytochemicals are chemicals that occur naturally in plants.

He exposed 2,500 promising compounds from extracted cedar to E. coli and bacillus bacteria. Of the thousands of compounds extracted, 17 showed promise in targeting human pathogens.

"The reason we're targeting the red cedar in this project is to turn the trash into the cash so a landowner can have a side income with their land," said Lin. Because the compounds can be collected from the trees' needles, it can be harvested year after year.

"I think that red cedar has got a lot of potential," said James Chamberlain, a research scientist at the United States Department of Agriculture's National Agroforestry Center in Lincoln, Neb. "It reportedly has medicinal properties. People have been extracting homeopathic remedies from the red cedar for years," including aromatherapy, he said.

This is not the first time possible medical treatments have been isolated from trees. The active

ingredient in aspirin was originally discovered in willow bark. And Taxol, a cancer drug manufactured by Bristol-Meyers Squibb, is synthesized from a compound found in the bark of yew trees.

The Missouri researchers cautioned the discovery is still in early stages, and will need to go through extensive testing mandated by the Food and Drug Administration to ensure that it is not toxic to animals or humans. Then more clinical trials are required ensure it is medically effective, before it can be used as a treatment.

“This is the first stage in the process,” said Stewart “A lot of compounds that look very promising at the beginning ultimately turn out to not be very useful commercially so we have to temper the enthusiasm a little bit from that point. “

Still, he thinks the discovery has promise. “On the positive, we’re not talking about a single compound, but a number of compounds from this source that all look very promising. So hopefully, at least some of them will make it all the way through the pipeline to become a useful product.”

THE TENNESSEAN

Protests at funerals upheld

Ruling emboldens Westboro church, veterans alike

MU MENTION PAGE 2

WASHINGTON — A Supreme Court decision protecting anti-gay picketing by the Westboro Baptist Church as free speech has veterans groups and other opponents vowing to step up efforts to block such demonstrations at high-profile funerals.

But the small fundamentalist congregation that has agitated many Middle Tennessee families and soldiers said it would only increase its protests.

In one of the most watched cases of the term, the Supreme Court ruled 8-1 that the First Amendment shielded Westboro from a lawsuit for picketing the funeral of a Marine killed in Iraq. Justice Samuel Alito dissented.

The decision was a significant victory for the Topoka-based, Phelps family-dominated church. It has demonstrated nationwide to gain attention for its belief that the United States, particularly the military, is too tolerant of homosexuality.

"Speech is powerful," Chief Justice John Roberts wrote for the court. "It can stir people to action, move them to tears of both joy and sorrow, and — as it did here — inflict great pain. On the facts before us, we cannot react to that pain by punishing the speaker."

The decision Wednesday drew protest from Alito, who said the man who sued the protesters was "not a public figure" who would be expected to tolerate such an onslaught but a private person who sought to "bury his son in peace."

"Our profound national commitment to free and open debate is not a license for the vicious verbal assault that occurred in this case," Alito wrote. "In order to have a society in which public issues can be openly and vigorously debated, it is not necessary to allow the brutalization of innocent victims."

But Roberts said that when the disputed words "address matters of public import on public property" and when the protest is conducted "in a peaceful manner, in full compliance with the guidance of local officials," they are protected.

The outcome might well be different, the chief justice said, if a private person had sued another for a "purely private" posting of outrageous and hurtful words.

Albert Snyder, whose Marine Corps son Matthew was memorialized at a Catholic Church service in Westminster, Md., in March 2006, sued for damages based on the emotional distress that Westboro picketers caused him. The high court ruled against Snyder.

Many families and soldiers in Middle Tennessee also were targets of the church's protests.

Last year they were in front of local churches protesting, prompting counterprotests by churchgoers and residents.

While he finds the church's actions deplorable, Brandon Shoop said he joined the armed forces to help protect the country and its constitution, including free speech.

"As despicable and horrendous as I may find it, who are we to dictate what's free speech?" said Shoop, 32, a U.S. Navy veteran, in Nashville.

"We're fighting for that right and that we are guaranteed free speech. I personally despise what they do, but I have to agree with the court's decision."

Westboro church members were in Nashville for the April 2006 funeral of Cpl. David Bass, who was killed in Iraq when his 7-ton truck rolled over.

Before that they pulled a permit to protest at a memorial service for fallen soldiers near Fort Campbell.

Mark Seavey of the American Legion said Westboro opponents probably would view the ruling as a call to action. He said veterans motorcycle clubs will shadow the picketers in greater numbers to "shield mourners everywhere these protesters go."

Margie Phelps, who represented her father and Westboro before the justices, said, "Our pickets will increase. The opinion is 10 times better than I ever imagined. This case gave this little church an international megaphone."

University of Missouri law professor Christina Wells, who joined a group of First Amendment scholars in urging the court to side with Westboro, said, "There is still going to be a fight at the state level on how you can regulate protests."

Phelps said Westboro is challenging funeral protest regulations in Missouri and Nebraska as too restrictive. The high court said states could limit the time and place of funeral protests if laws do not target views and are written narrowly.

Kansas, for instance, prohibits any "public demonstration" within 150 feet of the entrance to a funeral service, while Florida prohibits disturbing military funerals specifically.

"All of those are ill-designed and completely unconstitutional," Phelps said. "There's going to be all sorts of appealing."

Romaine Patterson, founder of the counterprotest group Angel Action, says the ruling "without question" will prompt more counterdemonstrations. "Just as Mr. Phelps has the right to express himself, as disgusting and horrible as it is," she said, "Angel Action started a feeling that people have a right to express themselves, too."



Handling of complaints leads to rift

Grievance vote pending at MU.

By **JANESE SILVEY**

A small but vocal group of University of Missouri professors is urging fellow faculty to get rid of the process now being used when faculty members lodge complaints against their superiors.

MU and two other UM System campuses have been trying a new grievance process for the past two years. The problem is, opponents say, not one faculty member has actually won a case since the process went into effect.

MU faculty will vote in the coming weeks on whether to make the pilot process permanent. UM-Kansas City and UM-St. Louis faculty have already OK'd the plan, although professors on the Rolla campuses voted it down. Three of the four campuses must approve it for the grievance process to be implemented systemwide. About a dozen MU faculty members — most of whom are members of the American Association of University Professors — issued an open letter calling the process “fundamentally flawed” and asking faculty to vote against continuing it.

The group's biggest challenge could be apathy. During a faculty forum on the topic yesterday, 15 people showed up — most of whom were members of either AAUP or Faculty Council — a “sad” turnout, council Chairwoman Leona Rubin said.

Lack of interest could stem from a lack of familiarity with the process, math Professor Stephen Montgomery-Smith, an AAUP member, said.

“When you haven't dealt with it, you assume that everything is fine and it is just a few whiners who are complaining,” he said. “But once you do go through it, it is a very painful experience, made more so because people often only learn how loaded the process is when they finally get to the end.”

Under the pilot process, a faculty member files a complaint against a superior, usually a department chair or dean, and the panel reviews the case to make sure it fits university criteria. Of the nine grievances filed under the new process, four have been dismissed at this stage. If a case is accepted, the panel then collects evidence and interviews those involved before making a decision. That's a switch from the former process, which required a grievance officer to collect that evidence and turn it over to an all-faculty panel. The new process lasts about three months; the old system could drag a grievance on for years.

Under both processes, the chancellor has the power to veto the panel's decision. The new model, though, adds an oversight committee to make sure procedures are followed and to track the chancellor's final decision.

The most common complaint about the pilot grievance process is that an administrator — Deputy Provost Ken Dean — is a member of the three-member grievance panel. Having an administrator on board gives the committee an administrative viewpoint during the review, which Rubin believes is an advantage. It also gives the panel some “teeth,” she said: If members find that a chair or dean is guilty of wrongdoing, that administrator has the power to intervene.

Complicating things, though, is the fact that Dean has a background in law. The grievance panel isn't supposed to seek guidance from university legal counsel, but some have expressed concern that Dean's legal expertise could tilt discussions in favor of the university. Victoria Johnson, an associate sociology professor who is on the oversight committee, said in one case Dean did attempt to give a legal opinion but that the other panel members didn't agree with his interpretation

The university has a long history of finding in favor of administration, anyway, professors wrote in the open letter. But, they said, “the pilot process tilts this balance further away from faculty ”

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Officials say visit went well

EPA inspected water policies.

By **WILL GULDIN**

The final results are a couple of months away, but university, city and county officials think they scored good marks during an EPA inspection two weeks ago.

The inspection, which started Feb. 14 and lasted a week, looked at the joint stormwater permit the three entities hold. The permit allows them to discharge stormwater runoff into local creeks.

Steve Hunt, the city's environmental services manager, said EPA inspectors looked at how the city tries to reduce stormwater runoff and control erosion at its own sites. They also went to some private construction projects that held a city land disturbance permit.

Hunt said they looked at several projects but mostly were interested in the paperwork surrounding these practices.

Georganne Bowman, the county stormwater coordinator, said the inspectors had a box of documents when the week ended. "I think it was overwhelming for them," she said. "It was a lot to look at."

She said the inspectors toured three county sites, including a facility along Highway 63 where vehicles are stored. In the past, a county inspection of that building found a leaky grease trap underneath a floor drain. When the EPA inspectors came, she said, county officials were able to show them they had found the problem and fixed it quickly.

University of Missouri spokesman Christian Basi said the inspection process was positive overall for MU. He said the inspectors were particularly interested with how the university stores plowed snow. MU puts the snow in places where melt water doesn't run back over roads or sidewalks. That keeps it from refreezing over those areas.

Basi said the university doesn't expect the final EPA report to raise any significant issues.

There were cases where the city and county should be recording more information. For instance, Bowman said if a fence meant to control erosion went down at a construction site and was fixed, officials should track that better on paper. Overall though, inspectors' impressions were positive.

"Other communities could learn a lot from you," Bowman remembered one inspector saying.

Hunt said the inspectors said something similar when they looked at the city's procedures, but he stressed the results of the inspection aren't known yet.

"I'm not willing to say we did great because we haven't gotten the final report," he said.

EPA spokesman Kris Lancaster has previously said the report should be finished about 60 days after the inspection.

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Teens say school is biggest stress source

By **ANDREW DENNEY**

Three-fourths of adolescent students in Columbia Public Schools consider school work and academic tasks to be their greatest source of stress, and the professionals who deal with that age group consider alcohol and drugs to be the greatest threat to the kids' health.

Those were some notable findings of an assessment of adolescent health needs from the Columbia-Boone County Department of Public Health and Human Services, which used data from surveys conducted by Columbia Public Schools, the Missouri Department of Elementary and Secondary Education and the **University of Missouri**.

According to the assessment, nearly half of students ages 14 to 19 said thinking about the future was among their top concerns. Issues involving family members, time management and problems with dating or relationships also were priorities.

A total of 1,120 Hickman High School students and 1,328 Rock Bridge High School students participated in the 2009 survey.

Liz Gebhart, an MU graduate student who worked on the assessment, said the statistics indicate students are suffering from chronic stress because of an emphasis on academic achievement.

"You have junior high school students at 14 and 15 who are relying on energy drinks and coffee," Gebhart said.

Health educator Maureen Coy said the pressure to succeed is affecting students from all parts of the economic spectrum. She said students from low-income families might feel pressure to become more successful than their parents, while students from higher-income families might feel pressure to maintain their family's standard of living. "If I want to live how my parents live, I have to do well for myself," Coy said of what students are feeling.

The assessment also included data from focus groups of students and professionals, as well as the results of the Missouri Safe and Drug Free Schools 2010 survey and the 2009 Youth Risk Behavioral Survey, a nationwide study.

The medical professionals, teachers and school counselors involved with the focus groups said for the adolescents they serve, mental health care was the most difficult type of health care to access. Roughly half of the professionals surveyed said alcohol and drug use was a top health concern for that age group.

According to the Safe and Drug Free Schools and Youth Risk Behavioral surveys, Columbia students are below the national average in terms of drug use. About 29 percent of Columbia students had used marijuana, compared with 37 percent nationally. More than 13 percent of Columbia students said they had abused prescription drugs, compared with more than 20 percent nationwide.

Heather Harlan, a prevention specialist for Phoenix Programs, said the results of the assessment indicate there is a growing disconnect between adults and adolescents. "Young people would like to spend more positive time with their parents," Harlan said.

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Missourinet

Sen. Blunt says Libyan unrest points to need for more U.S., and Missouri, energy

by Jessica Machetta on March 2, 2011

in [Environment & Conservation](#), [Finance](#), [Politics & Government](#)

Senator Blunt says this week's main focus in Washington is spending, which it should be, but also says the U.S. House and Senate need to pay attention to unrest in the Middle East. Blunt says as the trouble in Libya and the Middle East continues and prices at the pump continue to go up, the U.S. needs to keep talking about energy.

“As the trouble in the Middle East continues and gas pump prices go up, we’re also in that discussion we should be in consistently, ‘What are we doing to have more American energy?’ Our state is in the middle of that more-American-energy debate from the Danforth Science Center to the University of Missouri to the biomass projects being discussed throughout the state. “One thing we’ve known for half a century is we use more energy than we produce.”

Blunt says the disruption in Libya is bigger than industry or energy, it's about freedom. He says we should be doing everything we can to promote a social structure that supports freedom.

“We should be doing everything we can with our influence in the region and everything we can with other countries that have influence in the region,” he says. We should be promoting “more democracy, not Iranian-style religious-driven systems that don't allow participation for most of the society and particularly women and others in that country, so it's a critical time.”

Blunt says industry, spending and job creation should all be part of the same formula during the financial discussions that are ongoing in Washington.



Talking Points Memo – New York

Show-Me State Says "Me Too" On Sharia Court Ban

Melissa Jeltsen | March 2, 2011, 3:47PM

Missouri is now the latest state seeking to ban its courts from consulting Sharia law. A bill introduced on Tuesday by State Rep. Paul Curtman (R) would bar courts from taking any foreign law, legal code or system into consideration when deciding cases.

From the bill:

Any court, arbitration, tribunal, or administrative agency ruling or decision violates the public policy of this state and shall be void and unenforceable if such court, arbitration, tribunal, or administrative agency bases its rulings or decisions in the matter at issue in whole or in part on any law, legal code, or system that would not **grant the parties affected by the ruling or decision the same fundamental liberties, rights, and privileges granted under the constitutions of this state and the United States.**

In essence, Missouri courts would be prohibited from considering or using any international law that does not grant individuals the same rights as the U.S. Constitution does.

Dr. S.I. Strong, a law professor from the University of Missouri, called the bill a "dangerous exercise" that could potentially open the Missouri court system to complex litigation. She told TPM the bill has a number of inconsistencies and would be difficult to implement.

"The document takes the view that it is only trying to protect the fundamental liberties, rights, and privileges granted under United States constitution. But there's huge disagreements about what those fundamental rights are and we're in constant litigation about them," she said.

Requiring that Missouri courts *only* consider foreign laws that grant individuals those same rights would force courts to undertake expensive and time-intensive analysis of foreign law, she said.

Strong said the bill could also have implications in marriages, divorces and child custody cases.

The sponsor of the bill, Rep. Paul Curtman, and Speaker of the House Stephen Tilley, a cosponsor, did not immediately respond to TPM's request for comment.

Fears about Sharia law taking hold in the United States aren't new, but they seem to be picking up steam. South Carolina, Wyoming, Texas and Georgia have introduced anti-Sharia legislation this year.

Just last week, legislators in Tennessee went a step further, proposing a bill that would make adherence to Islamic law illegal and punishable with jail time.

The issue was elevated to national levels in November, when an amendment to the Oklahoma constitution forbidding courts from considering or using international law was overwhelmingly passed as a ballot measure last November. A federal judge granted an injunction against the amendment later that month.

For an in-depth look at the origins of Sharia anxiety in the U.S., check out TPM's investigation on the subject.