

Professor's case goes back to faculty panel

By Janese Silvey

Columbia Daily Tribune

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A University of Missouri faculty committee will have to decide again whether Associate Professor Greg Engel should face a figurative firing squad over allegations he has been discriminatory and disrespectful.

Chancellor Brady Deaton said the committee's original ruling that cleared Engel of those charges was flawed because members used too high a standard when considering the evidence.

Engel is a tenured faculty member in the College of Engineering who was suspended from teaching after three Asian female students accused him of discrimination when he gave them zero grades for allegedly plagiarizing. A separate student grievance committee cleared him of those charges.

"It is surprising to me that despite being exonerated of these frivolous charges against me by two independent committees, MU administration chooses to continue this process," Engel said, adding that it "seems like a waste of time."

The faculty committee was asked to review separate charges that Engel's co-workers lodged against him. Colleagues in their complaint, known as a faculty irresponsibility charge, accused him of not being an effective teacher and having a history of discrimination.

The committee narrowly ruled that there wasn't enough clear and convincing evidence against Engel.

But "clear and convincing" was too high a standard, Deaton said. He has sent the case back to the committee to consider the "preponderance of evidence," which basically means members will make their call based on whether accusations against Engel likely were accurate.

If that committee ultimately rules against Engel, the case will move forward to a tenure committee that does have to use the "clear and convincing" evidence standard before recommending he be fired. The Board of Curators has the final say on the university's ability to remove tenure.

Deaton's decision ignores a request from MU Faculty Council that he accept the committee's original decision.

Leona Rubin, a former council chairwoman who headed up the council discussion, said she understands Deaton's ruling.

"He used very traditional legal logic for doing it," she said.

Although some professors have said "clear and convincing" should be the automatic standard when tenured faculty members face serious sanctions, Rubin isn't convinced.

The faculty responsibility committee, she said, is set up to determine whether a faculty member is being responsible, not whether that person should be fired.

"It's kind of like an ethics committee," she said. "They're dealing with faculty behavior, dealing with faculty responsibility in the classroom."

She suspects the writers of the faculty bylaws intentionally left out a standard of evidence because each case is unique, and many don't rise to the level of dismissal.

Engel is also the researcher who snagged a \$2 million federal earmark, only to have his bosses remove him as project lead.

"I'm going to stick this out," he said. "I'm going to clear my name."



House budget plan aims to help higher ed

Health care for blind targeted.

By Rudi Keller

NO MU MENTION

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JEFFERSON CITY — House Budget Committee Chairman Ryan Silvey chose aid to higher education over health care for the blind in the budget proposal he will present Monday.

The move sets up what is likely to be a partisan battle over spending. Gov. Jay Nixon, a Democrat, strongly supported the health care program in a statement issued yesterday, and House Democrats also are uncomfortable with the plan.

The \$28 million used to provide Medicaid-like services for a segment of the state's blind population is the biggest source of money Silvey identified to prevent any cuts in state support for colleges and universities. The cut is among \$65.6 million in cuts proposed by a House appropriations committee and studied by a House Budget Committee working group as a potential source of money for higher education.

Silvey, R-Kansas City, said the state no longer can afford the health care program.

"This cut will only affect 2,800 people who are employed, who have income and who are treated differently under the system than any other disability," he told reporters yesterday.

Colleges and universities sustained the biggest cuts from Nixon's proposed \$23.1 billion state budget for the year that begins July 1. Nixon initially sought to cut \$106 million from colleges and universities but pared the cut to \$66 million after the state signed on to the national mortgage fraud settlement.

Along with cuts to the blind, Silvey's proposal is funded by \$10 million in new revenue from the state lottery and a series of small cuts, ranging from \$3 million to \$8 million in several areas.

"We don't make these decisions lightly," he said. "Some of these decisions will affect people. The reality is that we don't have the resources."

The smaller changes include taking \$5 million from Nixon's proposal for public school funding. If the money is not allocated, Nixon would be the first governor in memory who has not presided over an increase in basic aid to public schools during his term.

After Silvey announced his plan, Nixon responded by calling the services for the blind "the crucial elements that enable them to live in their own homes. That is why my recommended budget for fiscal year 2013 — just like the budgets of governors before me from both parties — has provided the funding necessary for this program."

Nixon said retaining health care for the blind wasn't a close call. "We face many challenges in ensuring that our state's budget is balanced, and we've had to make difficult decisions," he said. "This proposal to eliminate vital services for 3,000 Missourians who are blind is not, however, one of those difficult decisions."

Along with Nixon's opposition, the minority Democrats in the House will oppose cuts to medical care for the blind, said Rep. Sara Lampe, D-Springfield, and the ranking Democrat on the House Budget Committee. Colleges and universities have other sources of income, including tuition, that can help mitigate the cut, she said.

And Rep. Chris Kelly, D-Columbia and a member of the committee, said the debate will not end when Silvey presents his budget proposal to the committee. "We are a ways from being done here," Kelly said. "We are still working on it."

The news that higher education would be spared cuts is welcome, even if the places identified for cuts are not, said Rep. Stephen Webber, D-Columbia. "I am not happy with pitting K-12 education against higher education," he said.

Webber also has misgivings, he said, about ending health care for blind people but said he is "willing to cut some social service programs to help keep higher education funding."

COLUMBIA MISSOURIAN

MU's School of Medicine receives \$500K grant

By The Associated Press

March 2, 2012 | 1:18 p.m. CST

COLUMBIA — MU's School of Medicine has received a \$500,000 grant to help students learn to better address public health issues for patients of different backgrounds.

The school says in a news release that the goal of the National Institutes of Health grant is to give students experience addressing social and behavioral factors that are linked to health outcomes.

Students already are exposed to clinical simulations that use bilingual actors who pretend to be patients. The actors simulate various health conditions, share cultural beliefs and sometimes communicate with students through an interpreter.

The new grant will help MU's medical school make similar learning opportunities available more often.

The Indiana University School of Medicine is a collaborative partner in the new grant project.



Columbia airport to get daily flight to Atlanta

Columbia Mayor Bob McDavid, surrounded by state and local political and business leaders at City Hall, announces Friday morning that Columbia Regional Airport will add a flight to Atlanta beginning in June.

By Janese Silvey

Published March 2, 2012 at 9:36 a.m.

Updated March 2, 2012 at 11:53 a.m.

Mid-Missourians will be able to fly directly to Atlanta from Columbia this summer.

Starting June 7, Delta Air Lines will offer a nonstop daily flight from Columbia Regional Airport to Hartsfield-Jackson International Airport. The flight is expected to depart at 10:10 a.m. and return at 4:15 p.m., replacing the mid-day flight to Memphis. The airport still will offer two daily flights to Memphis. Booking for the Atlanta flights starts tomorrow.

Mayor Bob McDavid was joined by about 40 business leaders and state and local politicians when he announced the new flight at City Hall this morning. Having direct access to Atlanta, the busiest airport hub in the country, is good news for University of Missouri Tigers fans heading to games when MU joins the Southeastern Conference this summer, he said.

"This gives University of Missouri faculty, staff and students direct and immediate access into the heart of SEC country," McDavid said. "And we want our SEC partners to visit Mid-Missouri and have the times of their lives — except, of course, on the playing field."

The flight also puts Columbia in the game when it comes to luring new businesses. Several months ago, the city lost out on an international animal health company because Columbia was too far from a direct flight to Barcelona, Spain, McDavid said, adding: "This will not happen again."

Rep. Chris Kelly, D-Columbia, compared that loss and Columbia's swift reaction to recent MU basketball games where the Tigers have had to make comebacks. "This is the first basket after that basket by the bad guys," he joked.

And it was nothing but net. The city did not have to guarantee revenue or offer Delta any incentive to snag the second destination, City Manager Mike Matthes said.

Last month, an air travel consultant told city leaders they'd likely have to guarantee revenue to get a second destination. But the Atlanta flight "is purely because the market demand is there," Matthes said. "Our planes are full."

Columbia Regional Airport flights are at about 83 percent capacity, a rate that has steadily been increasing over the years, McDavid said.

The Atlanta flight is the first of what McDavid expects to be a number of improvements to air service over the next seven years. Overall, the city's goal is to serve 40 percent of the Mid-Missouri market by 2020. Right now, an estimated 900 area residents are driving to the St. Louis and Kansas City airports every day.

Specifically, Columbia needs direct flights to Chicago and Dallas — areas where MU heavily recruits students, McDavid said.

To capture that market, the airport will need to make some upgrades. Already, the federal government is paying the lion's share of runway improvements, and the Missouri Department of Transportation is constructing an overpass that will improve access.

Ticket prices will have to be affordable, too, McDavid said. He's hopeful a round-trip ticket to Atlanta will remain within \$60 of the price of tickets elsewhere. "If it's too high, it won't work," he said.



Pet Therapy: How Animals And Humans Heal Each Other

Those of us who own pets know they make us happy. But a growing body of scientific research is showing that our pets can also make us healthy, or healthier.

That helps explain the increasing use of animals — dogs and cats mostly, but also birds, fish, and even horses — in settings ranging from hospitals and nursing homes to schools, jails and mental institutions.

Take Viola, or Vi for short. The retired guide dog is the resident canine at the Children's Inn on the campus of the National Institutes of Health in Bethesda, Maryland. The Inn is where families stay when their children are undergoing experimental therapies at NIH.

Vi, a chunky yellow Labrador retriever with a perpetually wagging tail, greets families as they come downstairs in the morning, as they return from treatment in the afternoon, and can even be "checked out" for a walk around the bucolic NIH grounds.

"There really isn't a day when she doesn't brighten the spirits of a kid at the Inn. And an adult. And a staff member," says Meredith Daly, the Inn's spokeswoman.

But Vi may well be doing more than just bringing smiles to the faces of stressed out parents and children. Dogs like Vi have helped launch an entirely new field of medical research over the past three decades or so.

The use of pets in medical settings actually dates back more than 150 years, says Aubrey Fine, a clinical psychologist and professor at California State Polytechnic University. "One could even look at Florence Nightingale recognizing that animals provided a level of social support in the institutional care of the mentally ill," says Fine, who has written several books on the human-animal bond.

But it was only in the late 1970s that researchers started to uncover the scientific underpinnings for that bond.

One of the earliest studies, published in 1980, found that heart attack patients who owned pets lived longer than those who didn't. Another early study found that petting one's own dog could reduce blood pressure.

More recently, says Rebecca Johnson, a nurse who heads the Research Center for Human/Animal Interaction at the University of Missouri College of Veterinary Medicine,

studies have been focusing on the fact that interacting with animals can increase people's level of the hormone oxytocin.

"That is very beneficial for us," says Johnson. "Oxytocin helps us feel happy and trusting." Which, Johnson says, may be one of the ways that humans bond with their animals over time.

But Johnson says it may also have longer-term human health benefits. "Oxytocin has some powerful effects for us in the body's ability to be in a state of readiness to heal, and also to grow new cells, so it predisposes us to an environment in our own bodies where we can be healthier."

Animals can also act as therapists themselves or facilitate therapy – even when they're not dogs or cats.

For example, psychologist Aubrey Fine, who works with troubled children, uses dogs in his practice but also a cockatoo and even a bearded dragon named Tweedle.

"One of the things that's always been known is that the animals help a clinician go under the radar of a child's consciousness, because the child is much more at ease and seems to be much more willing to reveal," he says.

Horses have also become popular therapists for people with disabilities.

"The beauty of the horse is that it can be therapeutic in so many diff ways," says Breeanna Bornhorst, executive director of the Northern Virginia Therapeutic Riding Program in Clifton, Va. "Some of our riders might benefit from the connection and the relationship-building with the horse and with their environment. Other riders maybe will benefit physically, from the movements, and build that core strength, and body awareness and muscle memory."

On a recent day, one of the therapeutic riding program's instructors – speech therapist Cathy Coleman – works one-on-one with 9-year-old Ryan Shank-Rowe, who has autism.

Well, not really one-on-one. The co-therapist in this session is a speckled pony named Happy.

"Walk on" says Ryan, and Happy obediently does. "Excellent," Coleman replies.

As the session progresses, Ryan makes Happy trot, weave in and out of poles, and even rides bareback, all the while answering Coleman's questions and keeping up a continual back-and-forth chatter.

Coleman says she used to see Ryan in a more formal office environment. But since he's started horseback riding, his speech has actually improved.

"I get greater engagement, greater alertness, more language, more processing, all those things," she says. "Plus, he's just really good at it."

And Ryan's mother, Donna Shank, says the riding has helped with more than just his speech.

"It's helped his following directions, some really core life skills about getting dressed and balance — which really translate to a lot of safety issues, too."

But not all the research is focused on the humans. "We want to know how the animals are benefitting from the exchange," says Rebecca Johnson of the University of Missouri.

Much of Johnson's research, for example, has focused on the value of dog-walking by studying volunteers who walk dogs at animal shelters. She even wrote a book, *Walk a Hound, Lose a Pound*.

Those programs have clearly helped people get healthier, she says. Not only do they increase their exercise while they're walking the dogs, "but it increases their awareness, so that they exercise more during the week."

But it turns out the program was also helping the dogs.

"What we found was that they were significantly more likely to be adopted if they were in the dogwalking group," she says, thanks to the additional exercise and socialization they were getting.

Johnson's now working on a new project with likely benefits for dogs and humans. Military veterans returning from Iraq and Afghanistan are providing shelter dogs with basic obedience training.

And while it's still early in the research, she says, one thing seems pretty clear: "Helping the animals is helping the veterans to readjust to being at home."

Now the research is getting an even bigger scientific boost.

The National Institutes of Health, with funding from pet food giant Mars, Inc., recently created a federal research program to study human-animal interaction. The program, operated through the National Institute for Child Health and Human Development, offers scientists research grants to study the impact of animals on child development; in physical and psychological therapeutic treatments, and on the effects of animals on public health, including their ability to reduce or prevent disease.

Johnson says it's critical to establish the scientific foundation for the premise that animals are good for people, even if that seems obvious.

"The last thing we want is for an entire field to be based on warm fuzzy feelings and not on scientific data," she says. "So it's very important that now the NIH is focused on this ... and it is helping scientists across the country like myself to be able to do our research."

ST. LOUIS POST-DISPATCH

Schools are aiming to boost interest in science and math

BY TIM BARKER • tbarker@post-dispatch.com > 314-340-8350 STLtoday.com | Posted: Saturday, March 3, 2012 7:00 pm | (8) Comments

MU MENTION p. 2

Brandon Rice remembers well the way he fell in love with numbers.

The 17-year-old junior from East St. Louis was in fifth grade at the time. Like many children before him, he'd reached that point in life where he wanted to make a bow and arrow.

And like most, he failed at it. But where others gave up, he set about learning why. He read books and researched the history of archery. Somewhere along the way, he got hooked.

Not on bows. But on math and the things it allows us to build.

Today's he's the captain of the robotics design team at the SIUE Charter High School in East St. Louis. He has his sights set on the University of Illinois and beyond: "I want to work for Boeing or NASA."

In many ways, Brandon could be the poster child for the national academic movement trying to set more young people on the pathway to jobs relying on science, technology, engineering and math skills.

At a time when college campuses are flush with students — with record enrollments across the country — the fact remains that the nation's colleges and universities simply aren't producing enough graduates with critical skills demanded by employers.

The problem, advocates agree, is that by the time kids reach college, most have already decided against studying the so-called STEM fields.

"We try to inspire and motivate and interest students in science and math," said Sharon Locke, director of the Center for STEM Research, Education and Outreach at Southern Illinois University Edwardsville. "It's tough to do. A lot of times they've just had no exposure to it."

But the problem is deeper than just a lack of interest in science and math on the part of students.

More broadly, the education community has yet to even agree on how to define STEM fields, much less to effectively work toward improving outcomes. A lack of coordination between education and industry has many students pursuing math and science degrees not actually in demand, even as employers are begging for job candidates.

Consequently, companies such as Peabody Energy, Emerson, Monsanto and Express Scripts — who are all teamed up with area universities to form the St. Louis Regional STEM Coalition — face a problem.

"They are having to recruit from other states. They have jobs they need to fill, but they're not getting the applicants they need," said Anna Waldron, director of University of Missouri-Columbia's Office of Science Outreach and a member of the St. Louis STEM coalition.

What's a stem?

Trying to get an accurate look at the number of math and science majors on a college by college basis is challenging at best. There's no universally accepted definition for the term. Some schools, for example, include psychology or finance-related degrees, while others don't.

But some simple measures point to a struggle in directing students to science, math and engineering majors. For example, the University of Missouri-Columbia's annual listing of top 25 undergraduate majors shows that between 2001 and 2011, the popularity of history majors was up 59 percent; business administration, up 33 percent; and English, up 64 percent. At the same time, once-popular degrees like computer science and computer engineering have fallen off the list.

It's not that there hasn't been growth in interest in some STEM-related majors and degrees. At Mizzou, for example mechanical and civil engineering have seen their own ranks swell by nearly 60 percent from 2001 to 2011.

Meanwhile, across Missouri, the number of STEM bachelor's degrees has been steadily rising, with the state awarding 9,313 in 2011, compared with 7,408 a decade earlier, according to the Missouri Department of Higher Education. The Illinois Board of Higher Education did not have similar data readily available.

But that growth has not kept pace with an even higher growth among other fields of study. Consequently, from 2006 to 2010, the percentage of the region's college students getting science and math-related bachelor's degrees fell to 8 percent from 9 percent, according to a recent report by the St. Louis Regional STEM Coalition.

Compounding the problem is the fact that large numbers of STEM degrees in the United States are awarded to foreign students with temporary visas who have no plans of staying in the country.

In 2009, for example, foreign students earned 57 percent of the nation's engineering doctorates and 54 percent of computer science degrees, according to a report by the National Science Foundation. The same thing plays out locally. At SIUE, two-thirds of the graduate students in some engineering disciplines are not U.S. citizens.

But even without this loss of valuable graduates, there remains the fact that not all science and math degrees are equal. The STEM term covers such a wide range of degrees that it's impossible to look at them as a single group, said Rusty Monhollon, assistant commissioner for academic affairs for the Missouri Department of Higher Education.

Monhollon is reminded of the space race that started with the Soviet Union's launch of Sputnik 1 in 1957. Then, as now, there was a nationwide push for people with math and science skills.

Only this time, he said it is more difficult to figure out exactly what's needed.

For example, he said there is a demand for network engineers. But not for software engineers. And sometimes, it's a specific skill, rather than a degree, that companies are seeking.

"We are in a much murkier situation," Monhollon said. "It's not entirely clear how we identify these job titles, or the specific degrees that will get us there."

Creating Interest

The only way out of the shortage, advocates say, is to find ways to get young people interested in science and math before they are lost forever.

"If you've decided by the age of 10 that you hate math or science, you probably can't undo that," said Michael Petrilli, executive vice president of the Thomas B. Fordham Institute, which recently released a nationwide study of state science standards, finding that most were mediocre or worse.

The report gave Missouri a C and Illinois a D. It blamed pressure against the teaching of evolution, vague science standards and the decline of mathematics in science for low nationwide grades.

Hoping to bolster interest, area universities employ education and outreach centers to reach K-12 students through science and engineering camps, robotics competitions, science fairs and other programs. They also work with teachers to develop more appealing teaching styles that use experiments and other dynamic learning techniques to keep students' attention.

"If you are only teaching science out of a book and you act like you know everything, it's boring," said Vicki May, executive director of the Institute for School Partnership at Washington University.

In late February, SIUE opened a new high-tech learning center at its East St. Louis charter school, where more than 100 high school students will have access to the \$1 million classroom, featuring laptops, iPads, an LCD video wall with teleconferencing capabilities and high-definition cameras.

It's a center that school officials hope will be a solid first step in reversing a trend that sees African-American high school students becoming less interested in science and math.

"Students are not as exposed to it as early as they need to be," said Gina Washington, the school's director. "This is going to create an opportunity for them to want more."

Among those students eager to see the new classroom was ninth-grader Amber Johnson, 14. During a grand opening ceremony, Amber was among a handful of students chosen to put the classroom through its paces. She sat in front of a computer keyboard, happily demonstrating a software program based on our solar system to anyone willing to listen.

Of course, neither Amber nor her bow-building older schoolmate, Brandon, is the problem. Both have loved math or science for about as long as they can remember.

Amber acknowledges that many of her friends don't share her fascination. And her assessment appears to be pretty much spot on: "Everyone has something different they like. I like science and math. Other people like art."



MU dean finalist for LSU provost position

Friday, March 2, 2012

The dean of the University of Missouri's College of Arts and Science is a finalist for the provost position at Louisiana State University.

Michael O'Brien is expected to participate in a forum there Wednesday afternoon, LSU announced. He's one of four finalists for the top academic post.

O'Brien has been at MU since 1986, when he came from the Smithsonian Institution to serve as associate dean of the college. He became dean in 2006.

O'Brien was not available for comment this morning.

COLUMBIA MISSOURIAN

MU dean Michael O'Brien finalist for LSU provost position

By Zach Murdock

March 2, 2012 | 5:21 p.m. CST

COLUMBIA — **An MU dean is a finalist in the search for a new Executive Vice Chancellor and Provost at Louisiana State University.**

Michael O'Brien, dean of MU's College of Arts and Sciences, is one of four finalists for the position.

O'Brien is scheduled to visit the campus Wednesday to answer questions from LSU faculty, staff and students and make a presentation about higher education and his vision for the position.

According to the LSU website, the target start date for the position is July 1.