Nixon withdraws UM Board of Curators nominee

Nixon withdraws pick after heated hearing.

By Rudi Keller

JEFFERSON CITY — Gov. Jay Nixon withdrew the nomination of a Cape Girardeau attorney to the University of Missouri Board of Curators Wednesday after lawmakers questioned the way he handled his role on the state Board of Education.

Michael Ponder was facing the constitutional deadline for confirmation today. To preserve his chances to be confirmed later, Nixon withdrew Ponder's nomination with Senate consent. It is the third year in a row that one of Nixon's nominations to the board has run into trouble in the confirmation process.

Lawmakers questioned Ponder's nomination over two issues. They raised both in a hearing of the Senate Gubernatorial Appointments Committee yesterday, and some lawmakers came away dissatisfied with his answers.

"I had no issue going into this hearing," said Sen. Brad Lager, R-Savannah. "There is no way I am comfortable letting him go on to the Board of Curators."

One issue, the way school money is distributed, affects every legislative district. The other, regarding which programs to use to support and measure early childhood learning efforts, is part of an ongoing legislative battle with the Department of Elementary and Secondary Education.

This is the first state fiscal year fully under the state education aid formula written in 2005. Under that law, when available funds are less than the calculated need, the "adequacy target" that determines funding is supposed to be cut to even out the pain.

Instead of following that plan, the department made a partial adjustment then gave each district a prorated share equal to about 92.5 percent of the allocation set by the formula, said Ray Lankford, deputy commissioner of education.
Districts that were supposed to be insulated from cuts in state aid by "hold harmless" provisions have protested the move.

The department in 2011 asked for a freeze on the changeover to the 2005 formula, Lankford said. When lawmakers did not pass one, he said, the department decided to keep the adequacy target unchanged but not cut it. By prorating the distribution, it spread the shortfall among all districts.

"We distributed money to the extent there were dollars available," he said.

The department's decision shifted about $160 million from the $3 billion state school fund from one district to another. "My problem with that is that is not what the law requires," said Sen. Eric Schmitt, R-Glendale, who represents several districts covered by the "hold harmless" provisions.

Under questioning from the committee, Ponder said he did not remember whether the state Board of Education had ratified the department's funding decisions, Schmitt said. Ponder and other board members should have been more assertive to challenge the legal basis for department decisions, he said.

"I have been frustrated with them — not only how DESE acts but the state board going along and picking winners and losers in school districts," Schmitt said.

Ponder could not be reached to discuss his committee appearance. Sen. Wayne Wallingford, R-Cape Girardeau, said he was caught off guard by the questioning.

The issue over early childhood programs is a fight over methods and how money is distributed. "You could tell as the testimony was proceeding that there is some bruising between DESE and the legislature," Wallingford said.

By withdrawing Ponder's nomination before the deadline, Nixon will have the option of appointing him again. He tried that in 2011 with the nomination of Columbia attorney Craig Van Matre, but continuing issues blocked Van Matre again, and he was unable to win confirmation despite three attempts.
JEFFERSON CITY — Some MU Extension offices have been suffering from budget shortfalls in recent years, but a bill passed through a House Committee on Thursday could help fix that.

The bill would allow counties to share their resources for MU Extension programs by joining to create districts. It also would allow those districts to propose property taxes to fund their MU Extension programs.

MU Extension is a partnership between MU and Lincoln University to provide programs across the state that educate people in fields such as business, natural resources, and nutrition, among others. Tony DeLong, county council coordinator for MU Extension, said the programs give people the chance to empower themselves and contribute to society.

DeLong said 21 mostly rural counties are currently facing budget shortfalls, with Green County facing the gravest problems.

As a result of the budget shortfalls, some offices are open only two days a week, he said. Although the state and the federal governments pay for the specialists who administer extension programs, counties have to find money to pay for necessary support, including secretarial support and travel expenses.

Joining counties into extension districts would increase efficiency by maximizing the use of the money the counties have, DeLong said.

Anita Hampton, state extension council member, said counties could create a centralized location or share secretaries if they are part of one district. They could also lend each other equipment.

A property tax levy – which could not exceed 30 cents per $100 assessed value – would have to be passed by majorities in each county in a district.

The bill has not yet been assigned for a third reading in the House.
Nixon casts Medicaid expansion as business decision

Jay Nixon's plan gets REDI's endorsement.

By Rudi Keller

Gov. Jay Nixon brought his campaign to expand Medicaid coverage to the University of Missouri campus Thursday, visiting the Trulaske College of Business to emphasize his argument that it is a smart financial decision to help the uninsured.

Public pressure is one of Nixon's best levers with the state legislature, where his fellow Democrats hold fewer than one-third of the seats. He is collecting business endorsements of the Medicaid expansion plan: Regional Economic Development Inc. President Mike Brooks announced that the REDI board voted today to endorse it. Nixon also is using studies showing a gain of 24,000 jobs next year to promote the proposal.

"For the business leaders, it is not a political decision, it is a business decision," Nixon said. "We shouldn't let last year's politics get in the way of next year's business decision."

Nixon was surrounded by local political and business leaders, as well as representatives of MU Health Care. Hal Williamson, vice chancellor for health affairs, said the choice facing the state is whether to replace one form of federal support for health care with an expanded Medicaid system. If Missouri opts not to embrace the expanded program, he said, MU's hospitals will lose $5 million to $6 million annually with nothing to replace it.

Under an expanded program, newly covered Missourians would use doctor's offices and seek preventive care rather than wait until they are sick enough to go to emergency rooms, he said.

"When they are uninsured, they seek crisis care in emergency rooms," he said.

Under the 2010 Affordable Care Act, the federal government will pay 100 percent of the cost of adding new clients to the Medicaid rolls. The expansion would grant coverage to people earning up to 138 percent of the poverty level, or about $31,809 for a family of four. That's the annual
pay of a single earner making $15.29 an hour. In a two-earner family, that is equal to an average wage of $7.64 per hour each, 29 cents more than the minimum wage.

Missouri provides current Medicaid coverage to able-bodied adults only if their annual income is less than about $3,400.

Nixon estimates that about 300,000 Missourians would gain coverage under the proposal. Because of rules concerning children, pregnant women and others, the group that will be most helped in Missouri are adults working for low to moderate wages.

Republican legislative leaders have been unwilling to embrace the plan. They argue that the promise that the federal treasury will never pay less than 90 percent of the cost is shaky. Federal deficits and long-term debt make all promises suspect, House Speaker Tim Jones said this week.

Nixon has asked for a provision repealing the expansion if the federal government breaks that promise. If Missouri does not participate, taxes paid here will be used to provide coverage in other states, he said.

"Other states would get the benefits. We would get the bill," he said.

Nixon's budget estimates the cost at $907.7 million in the coming fiscal year when the expansion takes effect Jan. 1. In ensuing years, the total would be about $1.8 billion annually.

"The biggest economic decision facing our state is how to move forward on health care," Nixon said.
MU, REDI join Gov. Nixon's call for Missouri Medicaid expansion

BY Ethan Colbert

COLUMBIA — The debate over Gov. Jay Nixon’s proposed Medicaid expansion came to MU’s Trulaske College of Business on Thursday when the governor and representatives of the university and Regional Economic Development Inc. gathered to urge the legislature to go along with the plan.

REDI President Mike Brooks, MU Chancellor Brady Deaton and Vice Chancellor of MU Health Systems Harold Williamson Jr. attended the news conference.

Nixon is urging the legislature to allow Missouri to opt into the Medicaid option under the Affordable Care Act. Opting into the program would extend coverage to an additional 300,000 Missourians, mostly women and children. The expansion comes with a $5.7 billion price tag that would be covered by the federal government at no cost to the state for the first three years of the program.

Brooks attended the news conference to announce his organization’s endorsement of Nixon’s proposal. REDI members, he said, believe Medicaid expansion would be a good business decision for the state.

“Here in Columbia and throughout Boone County, health care providers are a major part of our economy, employing thousands of workers and generating significant economic activity,” Brooks said.

Citing a recent study completed by MU that found the expansion would create 24,000 new health care jobs, Brooks said REDI sees it as plus for Columbia.

“This (expansion) means more doctors, nurses, specialists, EMTs and lab techs would be living in and working in our communities,” Brooks said.

REDI is joining other chambers of commerce and economic development organizations in its endorsement of the proposal.

Acknowledging stiff resistance from Republicans to the Medicaid expansion and to Obama's larger health care initiatives, Nixon said the time for political grandstanding is over.
“This transcends politics,” Nixon said. “This is not the time to reopen the debate on the merit of the president’s health care plan. Congress passed it, the president signed it, and the Supreme Court upheld it. It is now the law of the land.”

Another law of the land is one that requires doctors and medical professionals to treat all patients, even those without health insurance. Providing care to the uninsured comes at a heavy cost for the MU Health System.

“Last year we alone we provided over $33 million in uncompensated care for uninsured Missourians,” Williamson said. “Our emergency rooms recorded over 51,000 visits during the last fiscal year.”

Nixon said he is working to inform the public about why the Medicaid expansion is so important for Missouri.

“The question before us now is will we bring the tax dollars we sent to Washington back home to strengthen the Medicaid system here in Missouri, or will we allow the tax dollars Missourians send to Washington to go to other states to get the benefits, while Missourians only get the bill?” Nixon said.

Deaton agreed with Nixon’s assessment of the ideological debate over the Affordable Care Act.

“Gov. Nixon is right: The time for the ideological debate is over,” Deaton said. “Now is the time to craft a policy which responds to the national policy and is best for this state.”

As the state’s flagship institution, Deaton said MU administrators and staff have an obligation to educate the state on the effects of Medicaid expansion.

“We will be entering the debate from an educational perspective,” Deaton said. “This is why we have these centers of higher education and learning — to take complex issues and inform the public of policy implications.”

Despite concerns about whether the federal government will follow through on its funding promises, Nixon said he is willing to work to with the legislature to draft a proposal that would allow the state to back out if the federal money doesn’t materialize.

Nixon said the Missouri General Assembly first must draft a proposal that would bring the money to the state.

“If we take a pass, then that money will go to other states,” Nixon said. “Quite frankly, I want Missouri dollars to be spent benefiting the people of Missouri. As we look at this as a business decision, it would be a big win for our economy.”
Nixon endorses Medicaid expansion in speech at MU

Gov. Jay Nixon discussed his plans to expand Missouri Medicaid roles to students, professors, local business leaders and UM Health System officials at the College of Business on Thursday.

Before Nixon’s speech, Harold Williamson, Vice Chancellor for the UM Health System, and Michael Brooks, President of business group Columbia Regional Economic Development, Inc. announced their support for the expansion.

Nixon, who received his undergraduate and law degrees from MU, said he chose to speak at the College of Business in order to emphasize that the Medicaid expansion is a practical business decision for the state of Missouri, not a matter of partisan politics.

“This isn’t the time to re-open the debate or re-argue the merits of the president’s health care plan,” Nixon said. “Congress passed it, the president signed it and the Supreme Court upheld it. It’s the law of the land. But quite frankly, the biggest economic decision facing our state right now is how we move forward on health care.”

Nixon emphasized the economic benefits of the Medicaid expansion, citing a 2012 MU study that said an expansion would bring 24,000 jobs to Missouri in 2014. The study found these jobs would generate $7 billion in new income over the first six years of the expansion.

Nixon thanked MU for authoring the study, which concluded the expansion would be beneficial to the state. He called the findings “unassailable numbers” that helped advance the expansion debate in 2012.

Williamson announced the UM Health System’s endorsement of the expansion, saying the Affordable Care Act assumed states would expand Medicaid, and therefore reduced the funding states normally receive to help offset the costs of treating uninsured patients. Without an expansion, the UM system would lose funding.

“MU Healthcare expects to lose $5 to 6 million a year in the funds known as disproportionate share, or dish payments,” Williamson said. “And, overall, Missouri’s health care and hospitals systems will lose something like $4 billion.”

In fiscal year 2012, the UM Health System provided about $33 million in uncompensated care. Williamson said the Medicaid expansion would help offset the high cost of care, although the UM Health System would try to continue to care for the uninsured if the expansion does not go through.

“If Missouri decides not to accept the Medicaid expansion, MU health care would lose the funding to offset reductions mandated by the Affordable Care Act,” Williamson said. “We’d certainly try to continue to treat large numbers of uninsured patients with no additional funding to offset these costs.”
The rural land around Columbia is home to a substantial population of uninsured people, Williamson said. These uninsured patients can be expensive for health systems, because they can’t afford to seek preventative care and instead must turn to more costly crisis care in emergency rooms.

The Columbia area’s large uninsured population meant UM Healthcare System dealt with 50,000 emergency room visits last year, Williamson said.

Nixon said although expanding Medicaid has economic benefits, it is also a smart decision for the health of uninsured Missourians.

“For all of Missouri’s working families who are uninsured, expanding access to Medicaid is quite simply the right thing to do,” he said. “Here in Missouri we must make what is the smart business decision, the right human decision, and send the tax dollars we sent to Washington back to work right here in Missouri.”
The Southeastern Conference is bringing its 14 member schools together in Atlanta this weekend for a renewable energy research summit.

The inaugural SEC Symposium features scientists from SEC schools old and new, from the University of Missouri to Auburn. The conference credits Vanderbilt University Chancellor Nicholas Zeppos with inspiring the event. The University of Georgia is hosting the gathering.

Organizers say the research summit will focus on the role of renewable energy in the southeast U.S.
MU engineering team's invention could lead to compact, portable X-ray source

BY Ann Elise Taylor

COLUMBIA — After months of staring at a blank computer monitor, Brady Gall saw a blue and white blip appear on the screen.

At first, Gall didn’t believe it. He and his team members’ morale had reached a low point, and they were beginning to think the device they were working on would never begin to produce X-rays like they wanted it to.

But there they were — pixels bursting to life on his screen in the form of a graph that could mean only one thing: Four years of work, seven researchers’ mental energy and countless hours of tinkering, rethinking and retinkering had ended in invention.

Gall raced from his cluttered laboratory in MU's Lafferre Hall to the next room, where Scott Kovaleski, the leader of the project, was working.

"Dr. Kovaleski," Gall said. "I think we’re making X-rays."

The computer was registering X-rays generated by a device invented by Gall, an MU doctoral student in electrical engineering and a graduate research assistant, and Kovaleski, the interim chairman of MU's Electrical and Computer Engineering Department and an associate professor there. Also involved were current and former MU students including Mark Kemp, Andrew Benwell, Emily Baxter and James VanGordon.

The device, which produces X-rays in an unprecedented way, is likely to lead to the creation of compact, portable X-ray machines that would alter the way the technology is used in an array of fields and industries.

How it works

Normally, an X-ray source has three major components: a tube, a cathode and an anode. Both the cathode, a metal filament, and the anode, a positively charged disc of tungsten, are located inside of the tube.

A high-voltage electrical current is applied to the cathode, which heats it and causes it to emit electrons. The anode then pulls the electrons through the tube with great force. When the electrons hit the anode, X-rays are created.
The MU team’s device operates quite differently. It has one major component: a lithium niobate crystal, which Kovaleski referred to as "the magic material" that makes the X-ray source work.

The crystal is shaped like a long, thin stick of gum — four inches long, half an inch wide and an eighth of an inch thick — and is partially covered in highly conductive silver paint.

To power the technology, an alternating electrical current of 10 volts is applied to one of the crystal's ends. The current has to correspond to the particular frequency at which the crystal would "ring" if you were to, say, tap it with a small hammer.

This causes the crystal to swell and contract; in other words, it "squeezes" the crystal, Kovaleski said. The squeezing causes the 10-volt current to amplify into a 120,000-volt current, which draws electrons from the crystal and propels them forward. As soon as these electrons hit a metallic target, they turn into X-rays.

**DIAGRAM: Portable X-ray source**

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**How it works**

- Current applied
- 10 Volts
- Crystal
- Metallic surface
- X-rays

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**The device**

- Circuit board
- Crystal
- Foam supports for crystal

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Sources: MU NEWS BUREAU, BRADY GALL, MU GRADUATE RESEARCH ASSISTANT
An MU engineering team has developed a new type of radiation source that could lead to the creation of portable X-ray machines. The device uses a crystal the size of a piece of gum to amplify electrical currents and create X-rays. (Graphic: Libby Burns/Missourian)

"I compare it to pushing a kid on a swing," Gall said. "You don’t have to push really, really hard to get (the kid) going high. As long as you time the pushes right, it’ll start swinging more and more, and soon, without even breaking a sweat, the kid is going really, really high."

In Gall’s analogy, pushing the child higher is like applying the current and letting the crystal amplify it. He went on to say that if you were to give the swinging child a baseball, he would be able to throw the ball far, due to the height he had reached.

In the same way, electrons can be drawn and "thrown" from the crystal once the voltage reaches a certain "height."

**New use for old knowledge**

The MU device’s ability to amplify currents using the "magic" crystal is one of the things that makes it innovative. It does this by reversing what’s called the piezoelectric effect, in which stress is applied to certain kinds of crystal to create electricity.

The team’s device flips the effect by using electricity to apply stress to the crystal.

Piezoelectric transformers, which harness the traditional effect, are used in common applications including gas grill lighters, some types of speakers, LCD monitors in laptops and halogen lights.

However, other piezoelectric transformers haven’t come close to creating the voltage the MU team’s new device does.

Those used in everyday capacities create about 30 volts. The transformer that generated the highest voltage the team has found in scientific literature created about 5,000 volts. The team’s device, on the other hand, can generate a whopping 120,000 volts.

Gall thinks the reason others haven’t pursued the technology, which the team stumbled upon while creating plasma for space propulsion applications, is because of its finicky nature.

"They’re very touchy," Gall said of working with the devices. "I know that’s not a technical term, but it’s the best way I can describe it. It’s almost like, if you get up on the wrong side of the bed in the morning, it’s not going to work."

Whereas other researchers have abandoned the technology after a few failed tests, the MU team persisted, Gall said.
"We had to think outside of the box. We had to think, 'How else can we probe this device?' or 'How else can we maybe take advantage of some aspect that other people were neglecting?' It's really that sort of creative thinking that allowed us to demonstrate (that the technology works.)"

**New device’s advantages**

At the moment, the device can be tweaked to produce two types of radiation: X-rays and, more recently, neutron radiation, which can be used in scanning applications similar to those of X-rays.

The technology’s nature allows it to effectively run on a battery and have an "on and off" function that could allow it to replace other radiation sources in a wide variety of industries.

Though there are some fairly portable X-ray sources out there, Kovaleski said these last two functions make the team’s device superior.

"They don’t have the operating capability, operating range or the versatility that our source has," Kovaleski said. "There are some really small sources that can make high voltages and X-rays, but they can only do it in very short bursts, and you can only do so many bursts.

"Ours, which is a similar power level, should be able to generate X-rays over much larger amounts of time with smaller amounts of power in a much smaller package."

**Uses for a portable X-ray source**

Kovaleski and Gall said a variety of fields and industries might gain from having portable X-ray sources.

Once the device is made into an X-ray machine — which could happen in as few as three years — it could have a major impact on medicine in rural and impoverished areas, for example.

Sometimes these areas don’t have a reliable enough power source to operate a traditional medical X-ray, Kovaleski said. Because the new X-ray machine will be battery-powered, it could be used to treat people in these areas. Doctors could use it after a disaster that eliminates power sources.

Its portability could reduce the amount of radiation patients are exposed to at the dentist. X-rays used in dentistry are placed around the outside of patients’ heads, which exposes much of the area to radiation. On the other hand, the MU team’s X-ray machine could be small enough to place inside of patients’ mouths, sending radiation through their cheeks as opposed to their entire heads.

"We like to eliminate radiation wherever we can," Kovaleski said. "It’s not that it’s not safe at current doses, but it’s just that it’s safer when there’s less."

Though it will not be powerful enough to replace airports’ full-body and luggage scanners, the X-ray machine could be used for a few other homeland security functions as well. Kovaleski said
a bomb technician could use it to look inside of a bomb and determine how to disable it without touching it. This would reduce the risk of the bomb exploding while it's being examined.

Kovaleski said that if the team were to eventually develop a scanning machine that used their device's ability to produce neutrons, it could be used to check for nuclear material inside of things like cargo containers.

Because of its ability to operate off a battery, the X-ray machine could be used in interplanetary rovers. These rovers, which often convert solar energy into battery power, could use the X-ray to analyze samples in a way they haven't been able to before.

Additionally, the X-ray machine could help archaeologists to see inside of artifacts such as sarcophagi, geologists to better analyze samples and industrial radiographers to more easily inspect things like welds and die-casts.

'On and off' capability

The device's other prominent characteristic, its "on and off" function, could allow the device to serve as a safer alternative to radioisotope radiation sources.

For example, it could change the way radiation sources are used in oil drilling. Kovaleski said. Usually, radioisotope sources are dropped into oil boreholes after they have been drilled so that information about the geology surrounding the hole can be gathered.

The problem is that radioisotope sources are inherently radioactive — there's no way to turn them on or off. So, if a radioisotope source gets stuck in a borehole and can't be retrieved, safety standards dictate the hole has to be filled in and drilled elsewhere, at a huge cost to the oil company.

However, if a device that scanned using neutron radiation was created based on the team's invention, it could serve the same purpose as the radioisotope sources with only a fraction of the risk. Because the team's source can be turned on and off, if it got stuck in a borehole, the oil company need only to replace the device, rather than having to spend a massive amount redrilling the hole.

Next steps

For now, the team plans to work on creating images based on the device's X-ray output. Research on its ability to produce neutron radiation, which is in its early stages, will also continue.

"We've done two different experiments where we've demonstrated with statistical significance that, yes, we have neutrons, but it's not so much that we want to publish again," Gall said. "We have really promising initial results."
Kovaleski said he looks forward to seeing what the team's work leads to and is excited to see how scientists and innovators end up building on the team's invention in the future.

"By making things cheaper and smaller, you suddenly remove the limit for people to use their creativity and come up with stuff you never thought of," he said. "What I'm interested in is the stuff that I have not even considered that someone might be able to use a really low-power X-ray source to develop.

"If someone had something that was really low-power and cheap and small, what would they be able to do with it that hasn't occurred to me? That's what I want to find out."
Retired military psychologist Larry James, whose candidacy for an MU position has been the subject of controversy, spoke and answered questions from the audience at an open forum Tuesday, Feb. 5 in the Reynolds Alumni Center.

James began the forum with a presentation in which he summarized his credentials as the current dean of the School of Professional Psychology at Wright State University in Dayton, Ohio, and outlined his goals if hired as division executive director with the MU College of Education. He is one of two candidates being considered by the search committee, along with Dr. Matthew Burns, an educational psychologist from the University of Minnesota.

Before filling his position at Wright State University, James served as chief psychologist at Guantanamo Bay in 2003 and as the director of the Joint Interrogation and Debriefing Center at Abu Ghraib in 2004.

From 2007 to 2008, James headed the Guantanamo Behavioral Science Consultation Team, a group of mental health professionals who provided advice to interrogators at the detention centers. The Harvard Law School’s International Human Rights Clinic filed a complaint against James, accusing the consultation team of helping to create an atmosphere conducive to inciting prisoner breakdowns.

At the forum, James talked about his work to reduce departmental debt at Wright State University and stressed the importance of creating programs for a diverse range of students within the College of Education.

He proposed the creation of a national center dedicated to reducing gun violence in schools and expressed admiration for the “unique talent and expertise” present in MU’s current education department.

James also said trust is important in professional relationships.

“I do believe transparency is of the utmost importance at all times,” he said.

After James’ presentation, the floor was opened to questions from College of Education faculty, staff and students. Only two members of the College of Education asked questions of James, leaving the rest of the session open to Columbia residents.


Multiple questions were asked about a passage in the book that describes James witnessing an interrogation that involved subjecting a near-naked man to sexual humiliation. James waited five minutes and took a coffee break before intervening, according to his memoir.
MU graduate student Nabihah Maqbool questioned James about a passage from his book describing the American Red Cross as "a bunch of radical-left do-gooders" who consider military detainees "completely innocent, and only needing to be hugged more."

Faizan Syed, representative of the St. Louis division of the Center for American-Islamic Relations, partnered with Harvard Law School’s International Human Rights Clinic to conduct an investigation of the depth of James’ alleged involvement with enhanced interrogation techniques at Guantanamo and Abu Ghraib. He expressed his organization’s goal in questioning the legitimacy of James’ appointment.

“We try to make sure that people who may have committed crimes in the past are held accountable and that they’re not rewarded for those crimes,” said Syed.

The decision regarding the position of executive director will be announced at the end of February or early March.