University of Missouri scientists using salmonella to kill cancer

BY MARÁ ROSE WILLIAMS
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Generated from News Bureau press release: 50-Year-Old Bacteria Could Be Alternative Treatment Option for Cancer

Abdominal and muscle pain, chills, fatigue, fever, diarrhea and headache — it’s hard to imagine anything good coming from a dose of salmonella.

But scientists at the Cancer Research Center and the University of Missouri may have found something.

The university announced Wednesday that the scientists have developed a nontoxic strain of salmonella to penetrate, target and kill cancer cells.

“Results from this study could lead to promising new treatments that actively target and control the spread of cancer,” the MU statement said.

According to the Centers for Disease Control and Prevention, 48 million Americans contract foodborne diseases annually, with salmonella being the leading cause of illness.

However, this latest research from MU and the Cancer Research Center turns salmonella’s unique characteristic that allows the bacteria to penetrate through cell barriers and replicate inside its host into a benefit in the fight against cancer without harming normal, healthy cells.

“Salmonella strains have a natural preference for infiltrating and replicating within the cancer cells of a tumor, making the bacteria an ideal candidate for bacteriotherapy,” said Robert Kazmierczak, a senior investigator at the Cancer Research Center and a postdoctoral fellow in Division of Biological Sciences in the MU College of Arts and Science. “Bacteriotherapy is the use of live bacteria as therapy to treat a medical condition, like cancer.”
This genetically modified salmonella strain was administered directly into the circulatory system of mice with prostate cancer.

“We found that the mice tolerated the treatment well and when examined, their prostate tumors decreased by about 20 percent compared to the control group,” Kazmierczak said.

“The goal of this treatment is to develop a bacterial vector that can destroy the tumor from the inside out and reduce the amount of side effects endured by patients with cancer,” Kazmierczak said.

The study was recently published in Plos One and was funded by the Cancer Research Center.

![Image](http://munews.missouri.edu/news-releases/2016/1026-50-year-old-bacteria-could-be-alternative-treatment-option-for-cancer/)

**Nontoxic strain of Salmonella tested as a cancer treatment**


*Salmonella* has a unique characteristic that allows it to penetrate cell barriers and replicate inside its host. Now, scientists have developed a nontoxic strain to target cancer cells.

“*Salmonella* strains have a natural preference for infiltrating and replicating within the cancer cells of a tumor, making the bacteria an ideal candidate for bacteriotherapy,” says Robert Kazmierczak, a postdoctoral fellow in the division of biological sciences at the University of Missouri and a senior investigator at the Cancer Research Center.

Bacteriotherapy is the use of live bacteria as therapy to treat a medical condition, like cancer.

For the study, published in the journal *PLOS ONE*, researchers developed CRC2631, a *Salmonella* strain genetically modified to render the bacteria nontoxic and enhance its natural ability to target and kill cancer cells—without harming normal, healthy cells.
The *Salmonella* strain was administered directly into the circulatory system of mice with prostate cancer.

“We found that the mice tolerated the treatment well and when examined, their prostate tumors decreased by about 20 percent compared to the control group,” Kazmierczak says.

“One of the most remarkable aspects of *Salmonella* is its ability to target, spread and persist inside the tumor. We are taking advantage of this ability by using *Salmonella* to carry or generate effective chemotherapeutic drugs, concentrating them at and throughout the tumor.

“The goal of this treatment is to develop a bacterial vector that can destroy the tumor from the inside out and reduce the amount of side effects endured by patients with cancer.”

The CRC2631 strain is derived from a *Salmonella* sample that was stored in a test tube at room temperature for more than 50 years. The sample originates from the Demerec collection, a collection of mutant strains of *Salmonella* collected by geneticist Milisav Demerec and curated by Abraham Eisenstark, scientific director at the CRC and professor emeritus of biological sciences.

The collection contains more than 20,000 different samples, with half of the samples housed at the Cancer Research Center where researchers focus on three areas of cancer research: early detection, targeted treatment, and new, effective chemotherapy.

“The uniqueness of CRC2631 differentiates our *Salmonella* strains from other universities trying to achieve the same goal; it is one of a kind,” Eisenstark says. “The strain of *Salmonella* we are using is essential to the success of our study.”

The Cancer Research Center funded the work.

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**Salmonella bacteria could help cure cancer**

COLUMBIA – A new study shows that use of salmonella bacteria could help cure cancer.

Scientists at the Cancer Research Center and the University of Missouri have developed a non-toxic strain of salmonella, which will help penetrating and targeting cancer cells.

"This is a pretty big deal," said Robert Kazmierczak, a senior investigator at the Cancer Research Center.

"This will mean that cancer patients will have the cancer drug they need targeted, concentrated and directly at their tumor. It will most effectively kill the tumor and minimize side effects, because drugs are not spread into healthy tissue," said Kazmierczak.

Salmonella bacteria has been known for being a leading cause of illness among Americans. According to the Centers for Disease Control, 48 million Americans contract food borne diseases every year.

The researchers hope that the results can lead to new treatments that will actively target and control the spread of cancer.

In the future, the researchers hope that other diseases can also benefit from the non-toxic salmonella bacteria.

"Now we are focused only on cancer, but the ability and knowledge that you can target other kinds of problems could mushroom into something else than cancer. It could be diabetes, brain injuries or Alzheimer's Syndrome, but that is in the future," said Abraham Eisenstark, scientific director at the Cancer Research Center and professor emeritus of biological sciences in the MU College of Arts and Sciences.

The next stage of the research will be testing the non-toxic strain in dogs, that has a size easier to compare to humans.

Salmonella to Fight Cancer

All-you-can-eat? Research focuses on all that you waste

By DALE SINGER

Generated from News Bureau press release: New Food-Ordering Formula Could Lead to Less Food Waste in Buffet-Style Restaurants

You have leftover French fries on one plate and leftover beef ravioli on another.

Sure, it’s not the most balanced meal, but that’s not your concern. What you want to figure out is this: Which will have the bigger impact on the environment when you toss it into the trash? And how can that impact be reduced?

Research led by Mizzou Professor Ron McGarvey addressed that question in his latest study of food waste at those popular all-you-care-to-eat buffets.

McGarvey, who teaches both industrial engineering and public affairs, said most analysis of the environmental cost of food waste has looked at the consumer side of the question, what he called “the clean your plate sort of public announcements.”

He approached the problem from a different angle.

“I saw that there was quite a lot of food waste that was occurring back in the kitchen, on the production side of the operation,” he said. “It was really being aware of those two pieces that brought the topic to mind.”
In a restaurant where you order what you want to eat, operators have a better way to anticipate demand and limit waste, McGarvey said. But the all-you-can-eat operations, where patrons can help themselves to a variety of choices, with unlimited portions, present a different challenge.

“In a standard environment,” he said, “we have production planning tools that help us identify what you lose in terms of revenue for a lost sale. If you run out of cheeseburgers, and you made $1 per cheeseburger, you have an idea of what the cost is to you of running short.

“You don't really have a parallel in these all-you-care-to-eat, buffet-style operations. Because if they run out of cheeseburgers, there's no lost revenue associated with that. They weren't going to get any more money by serving an additional one.”

The planning process becomes a delicate balance of two objectives, he said.

“There’s the desire to not overproduce,” McGarvey said, “because overproduction in food service is usually associated with waste. And so you’d like to avoid producing more than what demand is, but there’s a similar desire to avoid underproduction, to avoid shortfalls for food.”

And with some items, like meat, whatever isn’t eaten one day may be frozen and used later in another form, like chili or tacos. Fried foods are different, McGarvey said, because they have a shorter shelf life.

“They cook it,” he said, “and whatever isn’t served or consumed has to get thrown away.”

Combine the supply-and-demand problem with the environmental costs of producing food, and the issue takes on a new complexity.

“Whenever you throw away a pound of chicken,” McGarvey explained, “you’re not just throwing away a pound of chicken. You need to think about all the resources that were necessary to grow that chicken, turn it into meat and then deliver that meat to you.”

Filet mignon or potato peels
And when that meat goes to waste, additional environmental factors enter the picture, like hauling the garbage away.

“In terms of trash hauling,” he said, “a pound is a pound. You pay the same for a pound of filet mignon as you would for a pound of potato peels.

“If you include the environmental impact of the wasted food, all of a sudden, throwing away a pound of beef is a lot worse than throwing away a pound of tomatoes or a pound of cheese.”

The latest research by McGarvey’s team grew out of an earlier study on the relative environmental costs of plant-based foods versus meat-based dishes. The research included students who were paid to conduct “trash audits” of food that came out of campus dining services.

Now that McGarvey and his colleagues have looked at the problem from the production side, his next step will look at how the use of leftovers affects the environmental costs.

For restaurant owners and their patrons who show up hungry, the answers may change how all-you-can-eat operations are run.

“What’s the penalty that you pay for running out of an item?” he asked. “We’re able to show them that based on the decisions that we’re making, if you ask somebody at this kind of facility, what’s your shortfall cost, what do you pay whenever you run out of an item.

“The typical answer is I don't know. It's not something that people think about, because it doesn't really appear on a balance sheet.”
Missouri professor: new sentencing law could allow arguments for further leniency

Generated from News Bureau expert pitch

The Missouri Supreme Court could hear an increase of cases seeking appeals for juveniles convicted of first-degree murder. A new sentencing law requires Missouri to offer a life without parole or a minimum 25-year sentence for juveniles guilty of murder. University of Missouri social work professor Clark Peters says the law could allow some to continue to argue for further leniency.

“This law was occasioned to align with the U.S. Supreme Court decision. So there wasn’t much flexibility provided. It wasn’t a matter of whether to do this but exactly how,” says Peters. “But it does open a door. I think, down the road to further arguments that the prohibition of cruel and unusual punishment with regards to juvenile offenders could expand. It started with the death penalty. Then it went to automatic life without parole was prohibited by the Supreme Court that was held to be retroactive, which is not always the case for the Supreme Court decisions.

The state legislature passed the law this year. The legislation, which was sponsored by Senator Bob Dixon (R-Springfield), puts Missouri in compliance with a 2012 U.S. Supreme Court ruling.

“I think the justifications for these decisions can be used to expand other appeals and other calls for leniency for young people who commit crimes. By leniency, I don’t mean that we’re going to let them off and reduce the severe penalties at all,” says Peters. “But rather, to develop a criminal justice policy that recognizes that young people who commit a serious mistake when they’re 15 years old, they’re going to be a different person when they are 30 and 40 years old.”

Peters says the law could be an administrative and judicial headache in the short term.

“For those who are old enough now to have served that time, does that mean they get released immediately? I think that’s to be determined. I’m not sure if further legislation will be required. I doubt it,” says Peters. “My guess is there’s some serious meetings going on between the judges, prosecutors and public defenders to understand what the best way is to move forward in a way that makes sense for everybody concerned.”

The Missouri Supreme Court is considering whether two cases should be appealed involving juveniles guilty of first-degree murder – LeDale Nathan and Jason Carr.
Carr was convicted of the 1983 killings of three family members in southern Missouri. Nathan was convicted of the 2009 killing of a St. Louis woman. Both men remain incarcerated in Missouri prisons.

**MISSOURIAN**

**Marc Lamont Hill to look at race, social justice at MU a year after protests**

EMILY SHEPHERD, 14 hrs ago

COLUMBIA — Professor and author Marc Lamont Hill will moderate a discussion Friday to examine the long-term effects of last year's campus protests and the racial climate at MU.

Starting at 5 p.m., the event will feature performances by the Legion of Black Collegians Gospel Choir, the Indie Poets and Talking Drum.

A panel discussion is scheduled to begin at 6 p.m. and will address questions from the audience. After, there will be a reception and book-signing.

Hill has commended student activist group Concerned Student 1950 for being a leader in the movement to fight racism and social injustice.

Along with teaching African-American Studies at Morehouse College in Atlanta, Hill is also the host of BET News and VH1 Live, and a political correspondent for CNN.

An activist himself, Hill is a founding board member of the nonprofit My5th, devoted to educating youth about their legal rights. He is also involved with the Philadelphia Student Union and the ACLU Drug Reform Project.
Hill’s newest book, “Nobody: Casualties of America’s War on the Vulnerable, from Ferguson to Flint and Beyond,” is a New York Times bestseller. It analyzes the systematic oppression of the poor, black, immigrant and LGBTQ communities.

“We want to bring him here to help us look back on our last year, what’s been accomplished and envision where we want to go next as a community,” said Stephanie Shonekan, director of the MU Black Studies Department, a key sponsor of the event. Other sponsors are the offices of the Chancellor and the Provost, the Division of Inclusion, Diversity and Equity, the Black Faculty and Staff Organization, the Black Collective & Allies and Mizzou Advantage.

**MISSOURIAN**

**MU can keep offering health insurance to grad students, but still no permanent solution**

RUTH SERVEN, 15 hrs ago

COLUMBIA — Three federal departments said Friday that universities will be able to offer health insurance to students indefinitely.

**That's good news for MU's 6,000 graduate students, because the university won't have to adjust the health insurance subsidies it gives graduate assistants and won't be penalized by the IRS for continuing to offer those subsidies.**

Colleges and universities have arrangements for graduate student health coverage that are often part of a large and complex admission offer and acceptance process, the report said, and Congress believes that the Affordable Care Act should preserve higher education institutions' ability to offer health insurance.
"It's certainly good news for graduate students who took health insurance subsidies," said Joseph Moore, spokesman for the Coalition of Graduate Workers, the union that represents MU graduate students.

But the underlying issues identified after MU removed health insurance from its graduate students with little warning will remain.

MU announced on Aug. 15, 2015, that graduate students would not receive health coverage. The subsidies were reinstated Aug. 21, and Interim Chancellor Hank Foley extended them through the 2016-2017 school year, but tensions between graduate students and the administration remained high. Graduate students formed a union and have been trying to get the university to give the union official recognition and collective bargaining.

U.S. Sen. Claire McCaskill, D-Missouri and an MU graduate, had put pressure on the federal Treasury Department to change the rules earlier in the year. She and 16 other Democratic senators sent a letter to the Obama administration in June urging a permanent solution for graduate student health insurance within the Affordable Care Act.

"Mizzou's hardworking teaching assistants had been left in limbo about whether they’d be able to access the affordable, quality health insurance they'd relied on," McCaskill said in a statement on Friday. "So this decision is great news for both the school and its graduate students — providing more certainty for the school year and beyond, and I’ll continue working to make that certainty permanent."

Other universities have also struggled with the previous ruling by the IRS that said universities could not subsidize graduate student health care. Last month, the University of Kansas said it would be removing graduate health subsidies at the end of next summer, according to the Topeka Capital-Journal.

Because MU had promised to extend health insurance subsidies through this school year, Moore said the federal updates won't change the day-to-day life for its graduate students.
"It's not a permanent solution," Moore said. "We're just kicking the can down the road, and a collectively bargained contract would be a better permanent solution."

The coalition is also seeking higher wages, guaranteed tuition waivers, affordable housing and on-campus child care. Foley did announce increases to minimum stipends in January.

MU has not provided any updates on its plan for health coverage for graduate students following the federal updates, but spokesman Christian Basi said on Tuesday that the extensions will allow the university "the time and ability to work toward identifying a permanent quality, affordable, health coverage solution for our graduate students looking forward."

Kristofferson Culmer, a doctoral candidate in computer science at MU and CEO of the National Association of Graduate-Professional Students, pointed out that the federal update still doesn't specify the length of the exemption.

"We were happy to hear about the new guidelines," he said, "but we still have to make it permanent."

**Campus speech restrictions should be loosened, Faculty Council says**

The council unanimously sent two proposals to the Board of Curators and tabled two other recommendations for further discussion.

Free speech policies on campus could be broadened if the Board of Curators accepts the suggestions from Faculty Council to revise the MU Business Policy and Procedures Manual.

Faculty Council voted unanimously Thursday to recommend that the Board of Curators adopt two proposals to revise the manual.

Currently, there is no established process for changing the manual, but the council expects the curators to consider their advice seriously.
The council recommended that a rule in the manual requiring university permission before distributing written materials be replaced. The new language allows distribution of written and digital materials outside of buildings without prior approval from the university’s administrative services, as long as the materials do not advertise the availability of alcohol or imply they are connected with MU.

Council Chairman Ben Trachtenberg suggested removing a portion of the proposal that would ban distribution of coupons and advertisements.

Trachtenberg said his colleagues in the law school were concerned MU could face a lawsuit if advertisements were banned, as they are considered commercial speech.

“And frankly, people might be more interested in advertisements about the price of milk than my opinions on the presidential election,” Trachtenberg said.

The council also recommended removing a line in the manual that advises MU employees to contact the MU News Bureau when approached by reporters. Faculty Council Academic Affairs Committee Chairman Art Jago said he submitted the proposal because he thought the line might intimidate some employees.

He said he felt the line could infringe on an employee’s right to free expression.

“It wasn’t so much a problem for me, but I put myself into the mindset of a non-tenured faculty member, or a contingent faculty member,” Jago said.

Journalism professor Berkley Hudson said several of his colleagues could not believe the provision existed, and there is consensus in the School of Journalism to eliminate the line.

Two other proposals to revise the manual were tabled for the next council meeting on Nov. 3. One of the proposals would loosen restrictions on sidewalk chalking on campus.

Current rules prohibit writing in chalk on university property, including sidewalks. The council tabled that proposal to give members time to consider feedback from Robert Jerry, law professor and chairman of the MU Ad Hoc Joint Committee on Protests, Public Spaces, Free Speech and the Press.

The council will also vote at the next meeting on proposed revisions to a rule in the manual banning the use of sound amplifiers without a permit. The revisions would allow for sound amplifiers like megaphones to be used without a permit as long as they are not disrupting any classes.
College students ask why Clinton, Trump aren't talking about student debt


COLUMBIA - The 2016 Presidential Election is less than two weeks away, and after months of campaigning, some voters are asking why the topic of student debt has been so absent among the candidates' conversations.

While both Republican nominee Donald Trump and Democratic nominee Hillary Clinton have noted student debt as an issue of concern on their campaign sites, the matter has made very few appearances at the forefront of either campaign.

According to Nick Prewett, Director of Financial Aid at the University of Missouri, with the national student loan debt around $1.3 trillion dollars and gradually increasing annually, the lack of conversation has not gone unnoticed.

"I think we've kind of seen it come up in the national scene a couple of times this year, but we haven't really seen any substantial plans regarding student loan debt," Prewett said.

The average MU student graduates with around $21,000 dollars of student loan debt; slightly less than the national average of $31,000, he said. On average, MU students pays around $289 dollars a month towards student loan debt upon graduation.

Jordan McFarland, a MU senior, said he is frustrated by the relative silence surrounding debt.

"Education hasn't been brought up really at all in this general election campaign and it's sad. It goes to show you that we to need to bring it up, that we do need to force the issue, that it's not going to naturally fix itself," McFarland said.

In an effort to help students counter the rising the debt, Prewett said MU has taken a proactive approach.
"We are keeping them updated, we send them an annual award notice, or annual award debt letter, to let them know exactly how much they borrowed, and what their annual payment's going to be," he said.

One of the biggest issues facing students when it comes to debt is the fear of it, Prewett said.

"Students are scared to look and really determine how much student loan debt they have," he said.

While McFarland said he doubts much will be said on the topic with the polls opening so soon. But, if the candidates were to release their early plans before then, he said his is hopeful both would outline some legislation to address the matter in their first 100 days.

"I would like to see some solid legislation that directly addresses the grievances of students who have overwhelmingly suffocating amount of student debt," McFarland said.

Youth Detention Alternatives in Boone County, MU Professor Says Multiple Responses Needed to Keep Children Out of Prison Pipeline


Students struggle to find affordable, convenient housing options near campus

“Affordable housing” and “college town” seem synonymous on paper. But the reality is not so clear-cut.
Rent for student apartments in Columbia can run anywhere from $300 to $1800 per month, depending on whether it’s based on number of residents and bedrooms or a flat fee for the whole unit. Columbia’s student housing price range is also influenced by the building’s proximity to campus.

According to Numbeo, a user-submitted database of city living expenses, the cost of a one-bedroom apartment in Columbia is around $158 cheaper than a similar apartment around the University of Kansas campus. A one-bedroom apartment in Fayetteville, Arkansas, off the University of Arkansas’ campus, is around $45 more expensive per month than one in Columbia.

“It’s definitely a hard process, and it’s all-around too expensive,” said sophomore Kelly Buer, who lives at Orr Street Lofts. “I wanted to live somewhere where I didn’t have to be shuttled to campus, and that’s very limiting, and it’s expensive to be that close to campus. We’re in a smaller space with more people than there should be, and it’s still not that cheap.”

Brookside’s Downtown and Midtown locations and University Place Apartments are options just off campus. UPA, on the lower end of the price spectrum, runs for around $490 a month for a two-bedroom apartment. Rise on 9th, which will open downtown in fall 2017, rents anywhere from around $679 to $1,559 per month.

In May, Columbia City Council froze new permits for housing developments downtown until Dec. 1. The housing freeze came after several new housing complexes were constructed and planned for downtown Columbia at the expense of some local businesses and storefronts. There aren’t many housing complexes immediately off-campus, but recently there has been an influx of new developments downtown.

One of the newer complexes is the Lofts at 308, which has units for around $900 per month. The most recently completed downtown development is Brookside’s location above Shakespeare’s Pizza. The third through sixth floors include roughly 50 apartments.

**One resource available to MU students is the Off-Campus Student Services office, located in the lower level of the Student Center.**

“We take the time to find out what [students] are looking for, what have they tried in the past, their expectations for housing and then work with them to find other options,” said Nicole Logue, Off-Campus Student Services interim coordinator. “This is not a simple five-minute process; looking for housing takes time and research to find the best fit for each student.”

Students at other campuses in Midwest towns reported having similar issues to those faced by some students at MU. Iowa State sophomore Jessica Allison had similar experiences finding housing in Iowa City.

“It’s extremely expensive to live just off campus in Iowa City, and I think that is a bit of a problem. I’d also like to see more parking opportunities in our town; a lot of the complexes are charging people to park your car on the side of the street because there isn’t a lot of room.”
KU junior Dan Stewart said prices are typically higher the closer you get to campus. With fewer bedrooms and roommates, the price for each individual goes up drastically.

“Last year, I stayed in an on-campus apartment that was facilitated by the university but without many of the restrictions they place on freshman-oriented housing,” Stewart said. “It was a nice transition from there to my own apartment now. There were a few well-known places around Lawrence, and I decided if I was going to move to a place, I would go for a more recognizable name.”

That name sometimes comes with a much higher cost. Brookside is one of the larger and more popular housing companies with multiple properties around Columbia, and it has similar rent costs to the other major downtown developments.

A downtown Brookside location unit starts around $850. High rent prices and costly utilities are often compounded in some downtown locations with an additional fee for parking. Residents at UPA could pay $225 per semester for parking, which is almost half a month’s rent for a two-bedroom unit.

“When I started looking for housing last year, I didn’t get any help from the university; it was mainly my roommates and I working through it ourselves,” Buer said. “The university may not be advertising that they help find housing as much as they should be, and I think they could definitely help more since most of Mizzou’s students don’t live on campus.”

**MISSOURIAN**

Laws Observatory hosts Harry Potter themed astronomy lesson for families

EMILY SHEPHERD, 8 hrs ago

Generated from News Bureau media advisory: [MU Hosts “Haunted” Observatory, Ghostly Historical Scientists Will Bring Astronomy to Life](https://example.com)

COLUMBIA — Wizard characters from the "Harry Potter" series bewitched Muggle families with tales of famous astronomers on Wednesday night at MU’s Laws Observatory.

More than 50 people, including families and students gathered on the top floor of MU’s Physics Building as part of the fourth-annual Haunted Observatory, which is hosted by the Department of
Physics and Astronomy. Each year, professors and students don Potter-themed costumes and discuss famous astronomers to spark kids' interest in the subject.

Angela Speck, MU's director of astronomy, imbibed Polyjuice Potion, which wizards in the series drink to adopt a different identity, allowing her to transform into Aurora Sinistra, the astronomy professor at Hogwarts School of Witchcraft and Wizardry.

She told those gathered: "Astronomy is the only subject taught to both wizards and Muggles."

Speck conjured ghosts of dead astronomers, who were played by her astronomy students. Galileo Galilei, Isaac Newton, Carl Sagan, and Sally Ride, among others, haunted the observatory, sharing stories with those in attendance of their scientific contributions. The ghosts also answered questions from the Muggle children.

Upon entering the observatory, groups were given a checklist of the astronomers. After collecting check-marks from each ghost, participants could trade in the list for candy.

Carmen Marr, 12, a student at Jefferson Middle School, said she enjoyed learning about Maria Mitchell, an American astronomer.

"Maria Mitchell was the first American astronomer at a time when women didn't have very many rights," Marr said. "Men are usually the ones who get to do stuff first, but not this."

A small, winding staircase lead to the Hogwarts Astronomy Tower, where Professor Snape, played by Sean Baldridge, an MU graduate student, demonstrated the proper way to operate the telescope.

"Unfortunately, there's too many clouds to observe the stars, but at least that means there won't be any werewolves out tonight," he said.
COLUMBIA — The 25th annual India Nite will be held Saturday at MU.

The event will feature classical Indian and Bollywood dance, a live band, fusion music of east and west, and folk songs, according to the event page.

India Nite is a celebration of Indian culture scheduled for the night before the Hindu holiday Diwali, the festival of lights. Typically, the event draws about 1,500 people. The planning starts a year in advance, and 15 groups of 80 to 100 people will participate.

The night will begin with a traditional lamp lighting to get into the celebratory mood for Diwali.

"My favorite thing is that diversity is a really big thing in India just like it is in the U.S.," said Jimit Jain, a member of the Cultural Association of India at MU. "These opportunities allow me to work with people from different parts of India with different languages and backgrounds as well as people from Columbia."

For newcomers to Indian culture, Jain says to, "expect to leave whatever you have around you for two hours. You will see a glimpse of India and the diversity and culture we have. Far beyond that, you can get a glimpse of how we are still unified."