Faculty voice concern over degree mandate

Professor says they need to ‘push back.’

University of Missouri administrators are cooperating with a state mandate to review small degree programs, but that doesn’t mean faculty members are happy about it.

“We need to push back and tell them how we work if we are going to make this work,” Angela Speck, an associate professor of physics, told administrators yesterday.

A dozen or so faculty members seemed to agree, expressing their opinions and posing questions about the degree program review to Provost Brian Foster and Chancellor Brady Deaton during a two-hour forum at Waters Hall.

At issue is the Missouri Department of Higher Education’s charge to public universities and colleges to review degrees that graduate, on average, fewer than 10 bachelors, five masters and three doctoral students a year.

The department identified 75 degrees at MU that meet the “low-producing” criteria but provided some exemptions for small programs that, for instance, are new or revenue neutral. That’s posed some confusion, though: MU administrators identified five degrees for possible elimination, most of which would fall into one or more of those state exemptions.

Foster stressed that the campus report is not final. MU has until Dec. 31 to return to the state a whittled-down list of those degrees, which means some are either going to have to be eliminated or combined with other programs.

Although it’s not the case statewide as lawmakers brace for a significant budget shortfall next year, the degree review exercise for MU isn’t about cost savings, Deaton said. The UM System already has cut its budget by freezing positions and salaries. What the degree review does, he said, is allow the campus to deal with the aftermath of those budget reductions that left departments struggling.

Although he admitted it’s an extreme example, Foster said a degree program graduating one student every five years simply isn’t sustainable. “If a program is so small when one person leaves it falls apart — that’s an issue,” he said.

It’s been done before at MU on a voluntary basis. Several professors said the process is painful but worth it in the end. Bill Wiebold, a professor of agronomy, for instance, said the plant
science department reduced its program from 10 degrees to three, even as the department celebrated its 75th anniversary.

But merging related sciences is different than trying to piece together humanities programs, said Kristin Sehwain, associate professor in the Department of Art History and Archaeology. The graduate students in that program are preparing for jobs in very specific departments, she said. If future students instead have to get a doctorate from “the ‘Department of Stuff,’” they’re not going to be able to get a job anywhere,” she said.

“The last thing we want is a Department of Strategic Stuff,” Foster assured her. “We want better, not worse.”

Foster plans to meet with smaller groups to hash out details of potential reconfigurations or eliminations and called on faculty members to get engaged. Faculty, though, worry volunteering for such exercises might imply they think their degrees are in need of change. “You’re bringing small, endangered species together and maybe if we’re lucky, the zoo will keep one of us,” Nicole Monnier, associate teaching professor of Russian, said.

It’s a reasonable concern, Foster acknowledged, but he vowed to do everything he can “to make sure people can engage in honest conversations without compromising” their programs.

It was unclear after yesterday’s forum when smaller groups will begin to gather, although Foster said he will launch an online suggestion box for comments.

In the meantime, several faculty members asked that MU stop parroting the state’s use of the term “low-producing.” Even though a graduate program might have few students, faculty members say they’re productively conducting research, fulfilling part of Mizzou’s role as Missouri’s only Association of American Universities research university. Because of that unique mission, several said MU should not be judged by the same criteria as other four-year universities in the state.

And if that sounds elite, Monnier said, “It’s because we are.”

Reach Janese Silvey at 573-815-1705 or e-mail jsilvey@columbiatribune.com.
MU faculty express frustrations to administrators over program reviews

5:13 p.m. CST, Saturday, November 13, 2010
BY Walker Moskep

COLUMBIA — The discussion is just beginning, but time is running out.

At a forum with administrators Friday afternoon, MU faculty voiced concerns and frustrations at the state's order to reconfigure university degree programs. Chief among their worries was that not enough time is being given to decide how exactly to accomplish this. Some faculty expressed uncertainty at how their programs are being evaluated and what process should be followed.

The university must submit a report to the state by Dec. 31 with an inventory of degrees to be eliminated or realigned.

Russian professor and faculty council member Nicole Monnier said some programs will require reconfiguration, but that the process shouldn’t be rushed.

"We're being set up for greater vulnerability instead of lesser vulnerability," she said.

Provost Brian Foster agreed that the timeline put forth by the state is "impossible," but said he did not know what MU could do to change it.

Foster said as much communication as possible is needed during the next month between faculty and administrators. He and Chancellor Brady Deaton repeatedly emphasized that it is critical for faculty to begin meeting in smaller groups and discuss "creative" ways to improve programs.

Faculty Council Chairwoman Leona Rubin told faculty, "We can't make the decision about who those small groups can be. You have to make those decisions."

She said several deans and department heads have volunteered to serve as facilitators for these meetings.

Aside from the ubiquitous concern over the looming deadline, faculty members expressed a wide spectrum of frustration at the university and the state, with some unsure if their programs could be reconfigured at all.
Members of the humanities department emphasized that disparities between academic disciplines prevented programs from being combined in any way without significantly damaging their quality.

Kristin Schwain of the art history and archaeology department was particularly troubled about how to reconfigure graduate programs in her department. She said that students benefited from the specialized degrees they received from unique departments.

“What’s going to happen to my student who’s coming out of the department of stuff?” she asked.

“I would love to see realignment, but I’m also concerned about them and what makes them marketable.”

Dennis Trout, classical studies department chairman, was one of many faculty who said administrators needed to provide a greater sense of process.

“It’s all very unclear how I’m to spend the next four weeks,” he said.

He said it was not adequate to be told information would find its way to administrators. “How does it get there? What do I do? What do I tell my faculty?”

Deaton and Foster were hesitant to provide specific guidelines for faculty to follow.

“I’d like to keep the discussion open enough that we can facilitate effective communication,” Foster said.

Deaton said faculty’s final responses didn’t have to be entirely fleshed-out ideas, but he asked that they be as specific as possible.

Animal sciences professor Bill Lamberson said his department went through a reconfiguration in the past and was stronger as a result.

“These are conversations that in the long run can benefit all programs,” he said. “I think this is a good process.”

The discussion took nearly two years, Lamberson said.

In an Oct. 29 report to the state, Deaton stated MU has identified two programs to be closed and another three projected to be closed. In a Nov. 1 report, he stated that the university would carry out more eliminations or reconfigurations, resulting in a total of 12 fewer degrees being offered.

After a faculty member asked where that “magic number” came from, Deaton said the number was a judgment made by the university based on an initial overview of the programs. Even so, he said the number was “arbitrary.”
In an interview following the meeting, Foster said the state asked the university to provide a specific number.

"It was not an option not to give a number," he told faculty.

He and Deaton said the purpose of the reconfiguration discussion was not to create further savings, but to strengthen smaller programs to improve their quality.

"We're trying to find ways to deal with negative outcomes of savings we already achieved," Foster said. In particular, a hiring freeze has left several departments with limited "critical mass," he said.

Faculty and administrators agreed that smaller programs should not be referred to as "low-producing." Moreover, several faculty argued that smaller programs were being singled out, and larger programs should be included in the process.

Foster said he hoped further discussion will result in a consensus by the middle of December.

"Whether we can (agree) or not," he said, "we're going to have to submit some kind of list."

Any significant program changes would take a year or two to implement, Foster said.
MU payroll grows despite salary freeze

By Janese Silver

Even though University of Missouri salaries remain frozen as administrators brace for another budget crunch, total payroll increased by some $15 million over last year and 435 more people are employed by the university.

Most of those increases are found within the School of Medicine, though, which means taxpayers and students aren’t necessarily footing the bill. Physicians and medical staff are paid through a variety of sources, namely from patient care, grants and other external contracts, said Tim Rooney, MU budget director.

The funding from general operating revenues — which comes from tuition and state appropriations — going into salaries this year remained flat, he said.

MU Health Care has had a busy couple of years, opening the Missouri Orthopaedic Institute this summer, revamping Columbia Regional Hospital into a women’s and children’s hospital and absorbing Mid-Missouri Mental Health Center — all while seeing patient counts increase at existing facilities. The result is more surgeons, radiologists and anesthesiologists — some of the highest-paid positions at MU — on the payroll.

MU’s total payroll is $570 million, which goes to 10,428 employees, not including MU Extension or hospital workers not part of the School of Medicine. Of that, $214 million is spent on 980 employees making more than $100,000 each. That means fewer than 10 percent of employees take in nearly 40 percent of all salaries.

Rooney stressed that many of those salaries are paid with dollars coming from auxiliary services such as health care, bookstore sales and housing fees. Additionally, the MU Athletics Department generates its own funding, which means none of the salaries going to athletic staff are being paid with tuition or tax dollars, he said.

Most employees on campus remained at their 2009 pay levels, although professors advancing from assistants to associates or associates to full professors continue to receive the $3,000 to $4,000 pay increases that go with the promotions.

Also adding to some of the payroll increase is the fact MU hired two new deans this year and both are paid more than their predecessors. Daniel Clay, dean of the College of Education, is making $191,000, or $11,000 more than former interim dean Rose Porter. In the Trulaske School of Business, new Dean Joan Gabel is making $295,000 — $50,000 more than predecessor Bruce
Walker. The business school dean swap also isn’t a wash because Walker remains on the faculty, now earning $222,624.

There are more than 300 additional hourly employees on the 2010 payroll, some of whom are hired in the auxiliary departments that generate their own revenues. Several new hires have been made in the College of Veterinary Medicine, positions such as the lab technicians required in grant proposals. There’s also a string of new positions in the Center for Distance and Independent Studies to help develop online courses, representing a strategic investment to support e-learning initiatives, Rooney said.

Although in-state undergraduate tuition remained flat this year for the second year in a row, MU did get a boost from a record enrollment and from some increases in out-of-state and graduate tuition. Rooney estimated enrollment this year brought an additional $8 million to $10 million in general operating funds.

The fact that MU was able to hire new employees without increases in in-state, undergraduate tuition or state funds reflects the campus is working efficiently in tough economic times, he said.

It also requires good long-term planning, said MU spokeswoman Mary Jo Banken.

She credited Rooney’s continual budget reviews and forecasts for the fact MU has been able to handle increased enrollment without an increase in tuition or state appropriations.

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Number of vice presidents shrinks at University Hall

By Jessica Silver

At a recent town hall meeting with University of Missouri System President Gary Forsee, a faculty member challenged what he’s doing to shoulder some of the budget shortfalls plaguing the university.

Chemical Engineering professor Galen Suppes pointed to Forsee’s cabinet of vice presidents and challenged that even the U.S. president only needs one.

“We did that two years ago,” Forsee responded.

Forsee still has a dozen administrators with “president” somewhere in their title, but that network has indeed decreased. A comparison of the 2009 system payroll and this year’s salary list shows five fewer positions, which has resulted in a savings of more than $500,000.

Forsee reorganized University Hall in May 2009, but the fallout from those changes didn’t show up on last year’s salary data because some of the employees were being phased out. The current payroll reveals that five associate and assistant vice president positions have been cut. However, one of the associate vice presidents, David Russell, could return next year after he fills a one-year post as the state’s interim higher education commissioner.

Two other associate vice presidents were in the finance and administration and the management services departments. The assistant vice president positions were over student affairs and salary and wages.

Michael Paden, former associate vice president of benefits, has retired but has been replaced by Kelley Stack. Although she doesn’t appear on the October salary report, she’s slated to make $175,000, about $10,000 more than her predecessor.

For the most part, the UM System’s payroll isn’t significantly unchanged from last year. Forsee continues to make $400,000 and once again turned down the $100,000 bonus that’s offered to him annually, spokeswoman Jennifer Hollingshead said.

There are 47 fewer positions on the system’s salary list, many of which were teaching positions in the Missouri Virtual Instruction Program, an online K-12 school previously funded by the state that has since been cut. Fewer employees in MOREnet and the Missouri State Historical Society are on the payroll as those entities also dealt with significant state cuts. Additionally, procurement is down several positions after that office went through a restructuring this year.
The real savings happening at University Hall won’t show up in salaries, though, said Nikki Krawitz, vice president of finance. From 2009 to 2010, she said, the system reduced its travel and training expenses by 8.52 percent, slashed software and computing expenses by 16.3 percent and cut marketing costs by 15 percent.

Some of those savings helped offset increases in utilities and other fixed costs, while some of the funding was reallocated into other initiatives, such as Forsee’s new $5 million investment fund.

Krawitz said the system, like its four campuses, has tightened its belt. “We are really working hard to try to look at every dollar we spend,” she said.

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UM students won’t shoulder full burden of cuts, Forsee tells town hall

At his town hall meeting, University of Missouri President Gary Forsee did not mention how British students were rioting in London over tripled college tuition.

Perhaps he should have. It might have made his own warnings of coming increases in tuition a little less ominous.

At the meeting yesterday at the University of Missouri-Kansas City campus, Forsee could not guess at the amount but said even a 10 percent jump would not be enough to cover losses if the state cuts the higher education budget in the 8 percent to 15 percent range as some predict.

“We won’t put the cuts all on the backs of students,” Forsee said, softening the blow. “That math just won’t work.”

A boost in tuition would be accompanied by more spending reductions across the university system’s four campuses, which already have been tightening belts through salary freezes and discontinued programs.

One example of the financial pain was heard in audience questions about possible changes to the system’s pension plan. Forsee said new employees probably would pay more into the plan because “there isn’t enough money” to continue with the current setup.

The challenge is to deliver high-quality education without pricing out low- and middle-income families, he said.

“As we consider tuition increases, I want to keep in mind that the student financial aid picture has also been challenged,” he said.

Funding for the state’s need-based student financial aid program was slashed from $83 million to $33 million this year.

He talked about the mission to increase graduation rates, collaborate more with other universities and seek new funding sources.

By law, the public schools would face financial penalties for raising tuition above inflation, which currently is about 1 percent. Forsee said the system plans to request a penalty waiver.

Tuition increases will vary among the campuses, a first, Forsee said.
University of Missouri Chancellor Brady Deaton salutes Memorial Union Thursday as a sign of respect to the students who were World War I casualties. A plaque near the building's door asks passers-by to tip their hats to honor those whose names are engraved above it.

The bronze plaque near the doors of Memorial Union North caught Ryan Stander's eye yesterday as he passed through the building's archway.

Stander, who is pursuing a master's degree in history at the University of Missouri, read the plaque, paused, looked around and took off his plaid beret, not knowing a reporter was watching.
When the Tribune caught up with him, Standen admitted it was the first time he’d read the 1926 plaque charging men and women to tip their hats to honor the 117 names of University of Missouri students-turned-World War I casualties etched above them.

The timing was ideal. Less than an hour before, MU Chancellor Brady Deaton publicly challenged the campus community to bring back the tradition. Not wearing a hat? That’s OK, Deaton said: Just salute.

“I call on you faculty, staff, students and administrators at the university to resurrect that tradition and tip their hat or salute to recognize the incredible sacrifices of the veterans who have served our nation and have paid,” he said. “We owe them that respect.”

Deaton later said his charge was somewhat impromptu and that he still needs to sit down with the student affairs office and figure out logistics of bringing back a long-forgotten tradition.

It will be tough. Even the some 100 veterans, administrators and students gathered at Memorial Union yesterday to celebrate Veterans Day seemed to have forgotten Deaton’s request as they filed out of the building afterward. A couple of people stopped to salute, but most did not.

And students passing through the archway seemed too occupied with cell phones or hurrying to classes to notice the hat-tipping plaque, or the etched names of men — many not much older than themselves — who died in the Great War some 92 years ago.

The call to resurrect the tradition falls in line with MU’s other efforts to become a more military-friendly campus. During a string of ceremonies yesterday, campus leaders celebrated the opening of a new veterans center, a room downstairs at Memorial Union North donated by the College of Engineering. The center will serve as a one-stop shop for veterans transitioning to college life.

Also yesterday, state Rep. Jill Schupp, D-Creve Coeur, joined MU administrators to introduce the new Missouri Veterans History Project, an oral history program salvaged by lawmakers and community groups after legislators cut state funds for the project.

Schupp and others, including Columbia Rep. Stephen Webber, joined forces with MU to recruit journalism students to record interviews with aging veterans. The program is in need of more volunteers to be trained to expand those efforts and get more veterans from across the state, Schupp said.

During the afternoon ceremony, Mayor Bob McDavid praised the effort and said war history, although tough to hear sometimes, needs to be preserved.

There’s “no better way to remember what happened than getting stories from veterans,” he said. McDavid warned that there are stories from the battlefield veterans likely won’t share but that interviewers should press for information anyway.
“We ask you to tell us even stuff you don’t think we’re prepared to hear,” McDavid told veterans. Although war is a “dark history,” he said, “it’s a history that reminds us that peace is determined by the men and women willing to put on uniforms and fight for what we have here.”

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A University of Missouri-Columbia student from Chesterfield was in fair condition Sunday at a hospital after falling from an MU dorm balcony Saturday.

Richard Mehan, 19, an MU freshman, was taken to University Hospital in Columbia after he fell from a fifth-floor balcony to a fourth-floor commons area about 2 a.m. at Laws residential hall, authorities said.

MU Police Capt. Brian Weimer said Mehan had been hanging onto the outside of a railing when his hands apparently slipped.

Weimer said Mehan had been drinking.

Mehan is a 2010 graduate of St. Louis University High School, where he played lacrosse.

A family member said "things look better. He is improving tremendously day by day."
COLUMBIA — An MU freshman was in serious condition after a fall from a MU residence hall balcony early Saturday morning.

As of 9:30 a.m. Sunday, Richard Mehan, 19, had been upgraded from critical to serious condition at University Hospital, according to Maggie Woodson, a University Hospital house manager. Mehan fell from the fifth-floor balcony of Laws Hall and tumbled to a fourth-floor commons, according to an AP report.

Police responded about 2 a.m. on Saturday. According to the report, MU Police Capt. Brian Weimer said Mehan had been drinking.
MU freshman in critical condition after fall

A University of Missouri freshman was transported to University Hospital early yesterday morning after he took a tumble from a fifth-floor residential hall balcony.

Richard Mehan, 19, climbed a railing that overlooks a fourth-floor commons area at Laws residential hall, said MU Police Capt. Brian Weimer.

Mehan was hanging onto the outside of the railing with his back facing it when his hands apparently slipped, Weimer said. He fell to the fourth floor. MU police responded just before 2 a.m.

Mehan had been out drinking before the incident, Weimer said. As of yesterday afternoon, Mehan was listed in critical condition, a hospital spokeswoman said.
MU team delves into tough epilepsy cases

By J.J. Greaney

In a dark conference room at University Hospital, a group of physicians yesterday watched video of a woman at the onset of a seizure. As the woman lay in bed, her left arm appeared to raise ever so slightly and then freeze. The entire body went rigid before starting to thrash violently.

David Lardizabal checks Willard Merritt’s eyes Thursday at University Hospital’s neurology department. Merritt is recovering from brain surgery meant to stop his epileptic seizures. He has been free of seizures since his operation in June.

The doctors were looking for clues to the origin of the epileptic seizure. They wanted to know where in the brain the abnormal electrical activity began that caused the entire body to shake.

In the room were a surgeon, a neurologist, radiologist, neuropathologist, social caseworker and others. This group, known as the “epilepsy team,” formed one year ago and meets each month to discuss the toughest epileptic cases. It’s a rare multidisciplinary approach to medicine that is yielding great results.

“Everybody’s excited about it because you see all the information we get for just one person and how rich the information is,” said David Lardizabal, a neurologist and medical director of MU Health Care’s Epilepsy Program. “It allows us to treat the patient holistically.”

Statistically, about 30 percent of epileptic patients do not respond to medication alone, meaning surgery to remove the affected part of the brain is perhaps their best option. Three million Americans suffer from epilepsy, which can be caused by a range of problems, including head trauma, a brain tumor, a stroke or an inherited trait.

In an extensive process, the epilepsy team evaluates video taken while the patient spends days in the epilepsy monitoring unit. Doctors also look at MRI images of the brain and electroencephalograms, EEGs, which are graphs that track brain wave activity in different sections of the brain. “I read more EEGs than books,” Lardizabal said, smiling.

In this woman’s case, Lardizabal said doctors became convinced the seizure was originating from the back of the brain. Over the coming months, surgeons will enter to place a clear plastic strip with electrodes directly on the back of her brain. Using this, doctors can monitor electrical activity to get as close as possible to the epicenter of the onset of the epileptic seizures. They say it is equally vital to make sure that the portion of the brain causing seizures is not being used for any essential function such as memory or vision.
"The back of the brain is very important to vision," Lardizabal said. "To spare vision functions, we need to be precise and know exactly where it is when we do the resection."

One man who said his life has been saved by the epilepsy team is Willard Merrill, 58, of Boonville. Beginning at age 12, Merritt has suffered from clusters of severe "grand mal" seizures every six weeks.

Without any warning, Merritt would black out, fall to the floor and begin thrashing violently and moaning. During these one- to three-minute episodes, he could be dangerous to friends or family. He has been known to throw people across the room and once nearly bit his brother's nose off.

"When he would see these bruises on me, it would devastate him," said Donna Merritt, his wife of 33 years. "Because he realized he had hurt me."

In the days after a seizure, Merritt suffered from dark depression and psychotic thoughts. Sometimes he would just cry incessantly and would not allow his wife out of his sight. "I could be thinking some of the worst things that a person could ever think," Merritt said of these psychotic episodes. "My mind would go crazy."

After weeks of observation, doctors were able to determine the seizures were starting from the left temporal lobe portion of Merritt's brain just above the ear. Lardizabal and others determined the seizures were the result of an inherited defect in that part of the brain. Although the temporal lobe is typically responsible for memory and speech, the brain had adapted from childhood to shift those responsibilities elsewhere.

Neurological surgeon Dennis Mollman elected to remove that 5-centimeter lobe of the brain in June.

"It was just a disease," said Lardizabal of the temporal lobe. "The brain is very adaptable to disease; it tries to redelegate work somewhere else. In this case, his memory function transferred to the other side of the brain. And probably his speech function went somewhere else."

To make certain, Merritt was kept awake at the beginning of the surgery as doctors asked him questions and had him read to make sure he did not lose any brain function.

Merritt has not suffered a seizure since the surgery. He said the best part of his new life is the freedom; he is no longer forced to rely on his wife being by his side at all times for fear of an episode. His wife, too, feels like a great weight was lifted off her shoulders.

"It's like we're alive finally," said. "Before, we were always on edge."

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Laser-like focus

Photo by Dan Shrubshell | Buy this photo

Thomas Hode is chairman and CEO of Immunophotonics. The company has developed laser-assisted immunotherapy to help reduce tumor growth.

By Kris Hilgedick

Researchers have long known that if they could stimulate the body’s immune system to respond to a cancer cell the same way the body attacks bacteria or a virus, a cure for the disease could be within reach.

Lu Alleruzzo, COO of Immunophotonics, works on funding and financial projections. The startup has raised $2.8 million so far.

“The problem with cancer is the body doesn’t recognize it as foreign,” said Tomas Hode, CEO of Immunophotonics. “Cancer starts as a mutation in our own cells.”

Hode’s company is working to develop a novel therapeutic cancer vaccine – called laser-assisted immunotherapy – designed to treat patients with end-stage metastatic breast cancer.
"The neat thing is it's a simple procedure," Hode said. "It takes about an hour and eliminates primary tumors and distant metastases."

**Headquartered in Columbia at the University of Missouri Life Science Business Incubator at Monsanto Place, Immunophotonics plans to apply to the Food and Drug Administration by January for approval to start drug trials in the United States. Hode said his company already has raised $2.8 million to approach the FDA, and there's more work to be done.**

To launch the company, Hode is working closely with an eight-member advisory board and the therapy's two main inventors: Wei Chen, a professor of biomedical engineering at the University of Central Oklahoma, and Bob Nordquist, a retired ophthalmologist and experimental biologist.

"To get actual FDA approval takes a lot of work and time," he said.

Hode compared the uncontrolled division of cancer cells to the surprise attack of a stealth bomber.

"Tumors are sneaky," he said. "They secrete signaling substances that tell the immune system everything is normal."

And despite doctors' best efforts with surgery, radiation and chemotherapy, cancer has the regrettable habit of reoccurring. "Surgery doesn't address the long-term risk of cancer coming back, and surgery cannot help you with tumors at other locations in the body," Hode said. "You want to have some kind of long-term control."

The goal of immunotherapy is to educate a cancer victim's immune system to recognize cancers cells are imposters, he said.

Other researchers have learned how to extract tumor and immune-system cells from the same patient in hopes they'll interact and the patient's system will fight the cancer. "The problem is it's long and it's expensive," Hode said. "And it's not accessible to a large number of patients."

Hode said Immunophotonics' approach is different because "we do it inside a patient, with a simple procedure."

So far, the technology has been applied to tumors with defined boundaries that are easy to reach, such as the ones that occur with breast cancer and melanoma.

"With laser-assisted immunotherapy, we use a laser to heat the tumor a little bit for 10 to 20 minutes," Hode explained, noting the tumor is reached with a needle that has been threaded with a laser fiber.

The second step requires the physician to inject a drug around the tumor.
“Cancer cells are similar to our own cells, but they are not indistinguishable,” he said. “There are markers — proteins — expressed on the surface called ‘tumor antigens.’ The body uses these antigens to identify something as foreign. The trick is to make these antigens available.”

The laser heats but does not vaporize the tumor, causing it to break down into its component parts. Once those tumor antigens are liberated, the immune system recognizes them as foreign, Hode said.

“These fragments start to be identified as ‘not normal’ by the immune system,” Hode said. “But it’s not enough.”

Immunophotonics’ researchers discovered they need to do something to coax the immune system into a higher gear. “Our drug helps the immune system interact with the tumor antigens,” Hode said.

The drug component, called Protectin, is a nontoxic, biodegradable product derived from chitin, a structural element in the exoskeleton of crustaceans.

“It’s a two-part discovery,” Hode said. “The combination is a discovery. But the drug is quite unique in the way it is working.”

Although trials have yet to happen in the United States, two pilot studies are moving forward in Peru and the Bahamas.

Hode said medical researchers in those countries asked to try the technology and followed their country’s protocols to do so. “To be treated in an experimental trial, a patient must have either tried or refused existing treatments,” Hode said.

Hode’s group is not treating these patients, but he has seen the study’s preliminary results, and they are “really encouraging,” he said.

He said 18 patients in the Peruvian group suffer Stage 3 and 4 cancers. They’ve all undergone between 20 and 30 rounds of chemotherapy, yet the disease metastasized to other organs. Many were not expected to live another six months.

But once the laser-assisted immunotherapy was tried, it became clear that tumors in the lungs and brains were shrinking, even disappearing. Only four of the 18 haven’t responded positively to the experimental treatment, Hode said. “We’re seeing a phenomenal response at this point,” he said.

The results were so startling that the Peruvian nurses complained about the women’s behavior. While other chemotherapy patients in the ward were distressed with nausea, the pilot-study patients were “laughing” and “smiling.”

“They were not in pain,” Hode said.
The therapy has at least three major benefits: Protectin is nontoxic, the procedure is quick and easy to perform, and it’s not expensive. The news has ethical implications for Hode and his colleagues, he said.

“The only acceptable ethical approach is to try to maximize the number of patients who get access to this therapy,” Hode said.

Hode feels obligated to not only work to make the drug available as soon as possible in the United States, Japan and Europe but in other countries as well.

To date, only patients with end-stage cancer have received the therapy, so there is no human clinical evidence to confirm it affects early-stage cancers. “We’ll never replace surgery,” Hode said. “But we can combine it with surgery.”

Hode thinks the new therapy holds the potential to reduce costs for the entire health care system and allow cancer patients to return to work earlier and in better condition.

A native of Sweden, Hode, 37, attended the University of Stockholm, where he studied planetary science, chemistry and organic chemistry. He finished his Ph.D. in 2005 while studying astrobiology at the Swedish Museum of Natural History.

Yes, Hode has studied life on Mars — or, as he says, “photosynthetic microorganisms in extreme environments.”

But he has also been interested in laser medicine most of his life because lasers are the family business back in Sweden. But he never pursued the topic because “who wants to do what your parents do?”

While attending to his Ph.D., he became chairman of his father’s company, Irradia. Later that year, he moved to the United States to take a job at Portland State University in Oregon.

There’s no direct path between his interests in life on Mars and laser medicine. But all those years at the university level studying photobiological processes — how living organisms respond to light — inexplicably pulled him back into his father’s field of study.

“You can’t avoid your destiny,” he shrugged.

In 2007, he returned to the family business, forming a U.S. branch.

The initial research that led to the laser-assisted immunotherapy started with the collaboration of two scientists — Nordquist and Chen — in Oklahoma.

Nordquist served in academic, teaching and research positions at the University of Oklahoma’s Health Sciences Center for more than 40 years. Chen’s research focuses on laser medicine.

“T’m a physicist by training.” Chen said. “But I’m always interested in medical applications.”
Chen was working on a variety of random trials in the mid-1990s; in one of them, he injected tumors with light-absorbing dyes. But the liquid tended to leak out. Chen asked his mentor: “How do I contain the dye?”

That’s when Nordquist suggested Chen might want to try a carbohydrate-based, viscous compound he had developed to slowly release drugs in the eyes.

“About a week later, we saw the tumors shrinking,” Chen said.

The men like to joke the experiment went wrong because the tumors were disappearing.

For Chen, the breakthrough moment came when he realized the lasers never worked too well alone. “What worked were the laser and the special compound,” he said.

Years later, Nordquist — who is now retired — reached out to Hode to learn more about and buy lasers.

“Dr. Hode recognized the importance of our work and formed Immunophotonics,” Chen said.

Hode’s long-term plan is to grow the business in Columbia, creating jobs here and helping Mid-Missouri become a hub for biotechnology. The company is the recipient of $350,000 in seed capital from the Columbia Chamber of Commerce’s Centennial Investor network.

If plans proceed as envisioned, Ellis Fischel Cancer Center will be the lead site for clinical trials, Hode said.

Jake Halliday, president and CEO of the MU incubator, said his facility offers business mentoring services and provides a place for entrepreneurs to bounce ideas off one another.

Immunophotonics, which came to the incubator last year, is one of 15 businesses there now. Halliday said the company is “seeing extremely promising results, but they are in a high-risk, high-reward environment.”

With an undergraduate degree in biological engineering and an MBA, Chief Operating Officer Lu Alleruzzo was heavily recruited by large corporations when he graduated in May. But he decided to stay with Immunophotonics, a relatively risky startup, after Hode invited him to Peru.

Alleruzzo was astounded by the therapy’s effectiveness.

“I was able to meet the families,” he said. “They were so grateful. It really impacted my life and showed me how much of a difference we were making.”

He still keeps a homemade thank-you card written in Spanish near his desk. “I know in my heart this company is here to help people,” he said.
Chen said the women in Peru who’ve undergone the therapy are out of traditional options. One patient stands out in his mind.

“I can see her eyes … how grateful she is. We saved her life,” he said. “So far, no patient has died yet. It’s something quite significant.”

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Students, elders join together for a dance

By Janese Silvern

Mary Ginsburg didn’t get up and do the Macarena with the college students, but they crowned her “queen of the hall” anyway.

“I was flabbergasted,” the 90-year-old said, flashing a smile that made her tiara pale in comparison.

Ginsburg joined dozens of University of Missouri students and a handful of Columbia seniors last night for the first Senior Hall at Lewis Hall. The event was sponsored by Phi Epsilon Kappa, a health professions fraternity, and aimed to raise money for Adult Day Connection by charging younger attendees and raffling off baskets of goodies.

Ginsburg earned the crown in honor of her longtime support of Adult Day Connection. She became involved after her late husband, Larry, went there the year before he died. Every day for a year, the program “kept him going” by providing social activities, Ginsburg recalled.

“I still stay in touch,” she said. “They’re like my family.”

Last night’s dance also brought back memories of the couple’s younger days.

“When I look back, there wasn’t a lot of money so dances were important,” Ginsburg said, adding that she taught Larry the two-step. “It was a simpler world.”

Learning personal histories from older participants was one of the goals, event organizer Meghann Konczal said.

“I hope they do mingle with the older generation,” she said of the students. “I do feel we have something to learn from them.”

The initial song choices — sparking dances such as the Chicken Dance, YMCA and Electric Slide — didn’t seem to do much for the older attendees, who remained in their seats and watched the mostly female students dance. The first slow song, though, got more feet shuffling.

Conrad Howe, 75, sat in aisle seat near the dance floor waiting until the right time to start dancing.

“I’m not ready yet,” he said.
But Howe was enjoying the festivities anyway. The energy at the Senior Ball reminded him of barn dances he experienced as a boy growing up in an Amish community.

"This is great," he said.

Ginsburg agreed.

She doesn't always like how she sees young people portrayed on television, but after seeing the students put on an event to help others, she said: "I've got faith."

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Clubs compete in ultimate tournament at Cosmo

Ultimate fun was had on the cold, wet fields of Cosmo Park.

Photo by Joshua A. Bickel

A team from Washington University in St. Louis huddles before a match Saturday. Competition continues at 9 a.m. Sunday.

It takes more than chilly weather and gusting winds to hamper the spirit that athletes from across the country exhibited yesterday as participants in the University of Missouri's Ultimate club competition. Athletes wore prison jumpsuits, "Teenage Mutant Ninja Turtle" hats and zebra-print leggings to keep warm as teams fought for seeding in today's bracket play. Their clothing was meant to be fun, but their play was all business.

Ultimate is non-stop movement and requires the athletic endurance of soccer with the aerial passing skills of football, according to USA Ultimate, the league that governs this weekend's tournament play. Two seven-player squads with a high-tech plastic disc, similar to a Frisbee, compete on a field similar to football.

Approximately 1,200 college students from across the country are in Columbia for the weekend tournament that features ultimate competition. A total of 39 men's and 16 women's teams competed yesterday for bracket play set to begin at 9 a.m. today.

"Everyone plays hard. Tempers get high and often there are hard fouls," explained Nate Stuhrer, a 22-year-old senior captain of the University of Miami (Ohio) squad.

"It's about playing hard and having fun, but winning fun."

Stuhrer's Miami squad travels to about five competitions during the fall semester in preparation for the spring ultimate season. Freshmen are traditionally introduced to the game during the fall semester, and tournaments such as this weekend's are held to acclimate young athletes to the style of play, he said.

Each team has an individual personality and brings something different to the field of play. Approximately eight teams participating in the tournament compete at the national level, Stuhrer said, and some just follow along for good times.

"A lot of teams are out here to party," he said. "We like to do a little bit of both, but we definitely lean to a more competitive side."
Dennis Tarasi, 22, a Truman State graduate student, said his team also searches for balance.

“We try to play hard. We’ve learned we can play hard and be successful,” Tarasi said. “What can be more fun than being successful?”

Athletes buy into ultimate typically as freshmen when they arrive to campus and realize their lifestyle is much different from high school, said Catie Johnson, a 19-year-old sophomore at Illinois State University. Athletes arrive at college and don’t have the structured schedule of team practices every day and long for the structure and physical activity.

“I got bored,” she said. “This team is fun. We go out, sing cheers and everyone has a different personality. … Some teams are so competitive they are no fun. They don’t cut up like we do.”

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