

JAN 19 2011

ST. LOUIS POST-DISPATCH

Cash cows for campuses: Research

BY TIM BARKER • tbarker@post-dispatch.com > 314-340-8350 | Posted: Wednesday, January 19, 2011 12:05 am

In some ways, Zhou-Feng Chen is just the sort of researcher universities are looking for.

For the past year or so, the Washington University professor and his team have been striving to show that their ideas for relieving chronic itching in laboratory mice can be useful for humans.

Their work could transform an intriguing piece of research into a treatment for people with maddening chronic itching.

And — this is key — it just might make a bit of money for them and the university.

The work of researchers like Chen brings in tens of millions of dollars in licensing and royalty fees to Missouri and Illinois universities, reflecting one of the changing roles of today's universities. No longer are they responsible only for teaching, research and public service. Now they are developing technologies that bring profits to the university each time patents are licensed or sold.

"The whole game has changed in the past 20 years and especially in the past five," said Mike Nichols, vice president of research and development for the University of Missouri system. "Economic development now stands as a key goal for universities."

Nationwide, universities took in nearly \$1.8 billion in royalties and fees in 2009, according to a recent survey of 153 schools by the Association of University Technology Managers. That was down from the \$2.4 billion and \$2.1 billion in previous years, though the association attributed the difference to a pair of sizeable lump-sum payments made to two schools during those years.

Leading the way in Illinois was Northwestern University, with \$161 million in licensing income. Closer to home, Washington University took in \$6.3 million; the University of Missouri system collected \$10.4 million; and the University of Illinois campuses received \$13.4 million.

Still, while local education officials sound happy with recent results, they also say there's room for improvement.

Universities' ability to reap the benefits of their work is a relatively modern invention — something that came about through 1980's Bayh-Dole Act. It essentially gave schools and researchers the ability to patent and control the results of their federally funded work. And while

this so-called technology transfer process has been around for three decades, experts say the pace has picked up considerably in recent years as administrators and faculty have come to accept the notion that there are advantages to commercializing research.

beyond the lab

Of course, the idea of making money from academic pursuits isn't always easy to reconcile.

"There are some who still feel that's not a path anyone should ever take at a university. But they are becoming less common," said Washington University's Jack Ladenson, a professor of clinical chemistry.

His own work on diagnostic tools — such as the troponin test used in emergency rooms to diagnose chest pains — has brought the university some \$50 million in fees over the years.

It's one of the challenges facing research universities. While administrators want faculty to set their own research agendas, they also want them to keep an eye out for opportunities to apply that research beyond the laboratory.

"We need faculty to understand the potential of commercial successes," said Mark Wrighton, Washington University's chancellor, who last year chaired a National Research Council committee that looked at ways technology transfers could be improved.

Among other things, the committee suggested schools look for quicker ways to license ideas that are being used by companies started by the researchers themselves. It also urged streamlining the way intellectual property is licensed to outside companies.

The latter was an area of concern for recently departed University of Missouri President Gary Forsee. Near the end of his tenure — he resigned this month to spend time with his ill wife — he pushed for a \$5 million initiative called the Enterprise Investment Program. It offers financial support for new and young companies attempting to commercialize ideas developed by university researchers.

dividing the pie

Not every idea coming out of university research labs has a commercial value. But when they do, it can mean big things for the school and the researchers.

It varies from school to school, but generally the inventors of the patented research receive a third of all the royalties and fees collected. The rest is divvied up by the university, with portions going to the inventors' department and the university technology transfer office.

That last piece can be the key to future successes. A well-funded research transfer office can afford to pay for pricey patents — it costs around \$130,000 to secure a worldwide patent — and the marketing research required to determine viability.

"This is one of those games where the rich get richer," said Nichols, with the University of Missouri.

And while it may be tempting to think of it as a big money grab by schools and faculty, there are many cases where licensing is key to research being allowed to advance. That's particularly true in the case of new drugs, which require years of expensive development before they can be used on humans. Unless a pharmaceutical company is guaranteed exclusive rights to the new drug, it makes no sense — from a financial perspective — to develop and market it. A new idea thrown out into the public arena could simply be ignored.

It's something researchers have embraced, said Evan Kharasch, who heads Washington University's technology transfer office.

"They want to bring real solutions to real problems. Commercialization is the way to do that," Kharasch said.

Getting there, however, is no easy task, as WU researcher Chen has found since patenting the results of his research in 2009. First, there's the scientific struggle to take research that has proven effective in lab mice and apply it to humans. On top of that is the need to find a company interested in licensing the idea, or the venture capital to start his own firm.

What he knows is that a market exists out there for something capable of reducing or eliminating the chronic itching that plagues people with conditions such as psoriasis or liver disease.

"I'm still getting e-mails, from patients around the world, about terrible itching," Chen said.

ST. LOUIS POST-DISPATCH

Big money on campus

Ronald Wade > rwade@post-dispatch.com | Posted: Tuesday, January 18, 2011 5:45 pm

Voting has ended. The birdline is: **Big money on campus**

Major breakthroughs at research universities can be useful for the public, enhance the school's reputation, and make a lot of money.

Missouri and Illinois universities brought in tens of millions of dollars in licensing and royalty fees in 2009, staff writer Tim Barker reports. Schools have added economic development to their traditional mission of teaching, research and public service.

The ability to bring in money was made possible by a 1980s law that essentially gave schools and researchers the ability to patent and control the results of their federally funded work.

Nationwide, universities took in nearly \$1.8 billion in royalties and fees in 2009, according to a recent survey. Tops in Illinois was Northwestern University with \$161 million in licensing income. Washington University took in \$6.3 million; the University of Missouri system collected \$10.4 million; and the University of Illinois campuses received \$13.4 million.

And in these tough times, they aim to do even better. Washington University, for example, hopes that work on relieving chronic itching in laboratory mice could be developed into a treatment for people with chronic itching.

Read more at STLtoday.com later tonight or in Wednesday's Post-Dispatch.

THE TIMES OF INDIA

Step up activities to keep winter blues away

IANS, Jan 19, 2011

Staying indoors or overeating leave most people feeling cheated during the winter months.

University of Missouri-Columbia researchers suggest trying out activities and habits that promote health with spouses, friends and family members.

"When thinking about New Year's changes, a good first step is creating a vision for the future by picturing yourself happy and healthy," said Karen Sherbondy, special projects coordinator for family nutrition education programs of the university.

"Identify positive and negative aspects of your health and the health of others, including friends, family members, spouses and children," according to a Missouri University statement.

"This provides a starting point for establishing new behaviours, avoiding negative habits and seeking help from others."

"Establish traditions to accommodate cold weather. Try new things, such as dance classes, swimming or water aerobics, or check out exercise videos from the library," said Steve Ball, associate professor in the College of Human Environmental Sciences of the university.

"Think of things that are enjoyable - spending time with kids, crafts and watching movies - and incorporate physical activity to enhance them," Ball said.

"There are several easy ways to improve mood during the winter," university health educator Alejandra Gudino said.

"Wearing bright colours, reading or watching something funny and laughing out loud - laughing reduces stress hormones and increases endorphins."

Read more: [Step up activities to keep winter blues away - The Times of India](#)

ST. LOUIS POST-DISPATCH

Tax credits bedeviling Nixon

BY TONY MESSENGER • tmessenger@post-dispatch.com > 573-635-6178 | Posted: Wednesday, January 19, 2011 12:15 am

No MU mention

JEFFERSON CITY • Missouri Gov. Jay Nixon has painted the state's tax credit debate as an either/or proposition.

On one side: Hundreds of millions of dollars of potential tax revenue are instead being kept by various businesses and constituencies in hopes that the money will encourage economic development and other goals.

On the other side: The state's education system faces continued cuts in tough budget times.

Last legislative session, Nixon urged lawmakers to rein in tax credits to help save education funding. On Tuesday, however, he stood beside lawmakers crediting a tax incentive program for keeping Ford Motor Co. in the state.

The incentives will cost the state about \$100 million in withholding taxes over 10 years, as long as Ford makes a \$400 million investment in its Claycomo plant and maintains its current level of employees, about 3,750.

Such a position on the state's tax credit program has been a hallmark of Nixon's two years in office.

Nixon spent his first legislative session touting the idea of tax credits, and he won an increase in the cap for Quality Jobs credits. He spent his second year criticizing tax credits. Then he ordered a special session to approve even more economic development incentives to help keep Ford in Missouri.

With such back-and-forth, it's hard to figure out what common theme drives Nixon's opinions on the issue. So, as the governor prepares tonight to make his third State of the State address, might there be clarity on the issue coming soon?

Not necessarily.

"The question you ask is a very challenging one," Nixon said. "Ultimately you want to have the predictability of your economic development tax credits ... that people can make long term deals

with you. But at the same time, you need to balance what you're spending there with the other spending choices you have to make so they're equalized in an analytical way. That's really hard."

Nixon's stance suggests a dilemma for lawmakers on the subject of tax credits, which ultimately reduce the amount of revenue coming into the state. Each form of tax credit has its supporters, and trying to determine the return on investment can be a complicated process.

Nixon is not the only one at the Capitol who talks of reining in tax credits but also praises them for producing jobs in the state.

"We simply can't afford what we're doing right now," said Senate President Pro Tem Rob Mayer, R-Dexter, who stood side by side with Nixon as he announced the Ford investment. "I don't think we can continue to redeem \$500 million in tax credits and keep our commitments to education."

Asked why he appointed a commission to study tax credits last year, Nixon gave a similar answer.

"1, 2, 35, 45," he said.

Those numbers stand for where the state ranks in terms of various indicators.

Missouri is first in the nation in its use of historic redevelopment tax credits for the purpose of rehabbing buildings primarily in the urban cores of St. Louis and Kansas City. The state is second in its use of low-income housing credits, which are sometimes combined with the historic credits for the purpose of maximizing state reinvestment.

Nixon and others — including the state auditor in two audits — have criticized both of those tax credits as being inefficient. But supporters, including civic and business leaders in St. Louis, point to the construction jobs and urban redevelopment created by the projects funded by the incentives.

On the other end of the spectrum is where the state ranks in funding K-12 education, 35th, and higher education, 45th.

When Nixon ran for re-election, he focused on the low ranking on public education spending (then 47th nationally) and vowed that under his leadership, the state would do better.

It hasn't, really, with the slight improvement in rankings dependent more on the decline of other states than on Missouri's action. Over the first two years of Nixon's term, faced with horrible budget problems, Nixon has touted his efforts to keep tuition at the state's colleges and universities flat. But the state funding for education hasn't increased — and this year, it's going to take a cut.

That explains why Nixon continues to target two tax credit programs that St. Louis development leaders believe are good for the economy.

But a lot of businesses support the two programs, and there is no apparent source of money — or political will — to do much about the poor rankings for education funding.

When the governor appointed a task force to study whether to continue tax credits, developers complained that Nixon was jeopardizing construction jobs at a time in which they're most needed. Nixon's task force recommended that top tax credit programs, including those for historic redevelopment and low-income housing, be capped. Such a move would bring the state's ranking down a few notches.

But at what cost? For Nixon, the damage could be political, if there is no payoff on higher education. It's why he makes a point of saying that he's not against all tax credit programs, but he just wants to see them be more balanced.

For example, when Nixon's task force recommended getting rid of a tax credit that benefits senior citizens who rent their homes, the governor said he was against that recommendation.

"This is a relatively complicated rubric," Nixon said. "It's not that we don't like the programs, but they need to be sharpened."

AP Associated Press

THE DENVER POST Pittsburgh Post-Gazette

HOUSTON CHRONICLE

Forbes
#1



The★Star
THE KANSAS CITY STAR



A version of this story appeared in outlets across the nation.

Study: College students find learning limited

A new study provides disturbing answers to questions about how much students actually learn in college— for many, not much—and has inflamed a debate about the value of an American higher education.

The research of more than 2,300 undergraduates found 45 percent of students show no significant improvement in the key measures of critical thinking, complex reasoning and writing by the end of their sophomore years.

One problem is that students just aren't asked to do much, according to findings in a new book, "Academically Adrift: Limited Learning on College Campuses." Half of students did not take a single course requiring 20 pages of writing during their prior semester, and one-third did not take a single course requiring even 40 pages of reading per week.

That kind of light load sounded familiar to University of Missouri freshman Julia Rheincker, who said her first semester of college largely duplicated the work she completed back home in southern Illinois.

"I'm not going to lie," she said. "Most of what I learned this year I already had in high school. It was almost easier my first semester (in college)."

Three of the five classes she took at Missouri were in massive lecture halls with several hundred students. And Rhcinecker said she was required to complete at least 20 pages of writing in only one of those classes.

“I love the environment, don’t get me wrong,” she said. “I just haven’t found myself pushing as much as I expected.”

The study, an unusually large-scale effort to track student learning over time, comes as the federal government, reformers and others argue that the U.S. must produce more college graduates to remain competitive globally. But if students aren’t learning much that calls into question whether boosting graduation rates will provide that edge.

“It’s not the case that giving out more credentials is going to make the U.S. more economically competitive,” Richard Arum of New York University, who co-authored the book with Josipa Roksa of the University of Virginia, said in an interview. “It requires academic rigor ... You can’t just get it through osmosis at these institutions.”

The book is based on information from 24 schools, meant to be a representative sample, which provided Collegiate Learning Assessment data on students who took the standardized test in their first semester in fall 2005 and at the end of their sophomore years in spring 2007. The schools took part on the condition that their institutions not be identified.

The Collegiate Learning Assessment has its share of critics who say it doesn’t capture learning in specialized majors or isn’t a reliable measure of college performance because so many factors are beyond their control.

The research found an average-scoring student in fall 2005 scored seven percentage points higher in spring of 2007 on the assessment. In other words, those who entered college in the 50th percentile would rise to the equivalent of the 57th after their sophomore years.

Among the findings outlined in the book and report, which tracked students through four years of college:

—Overall, the picture doesn’t brighten much over four years. After four years, 36 percent of students did not demonstrate significant improvement, compared to 45 percent after two.

—Students who studied alone, read and wrote more, attended more selective schools and majored in traditional arts and sciences majors posted greater learning gains.

—Social engagement generally does not help student performance. Students who spent more time studying with peers showed diminishing growth and students who spent more time in the Greek system had decreased rates of learning, while activities such as working off campus, participating in campus clubs and volunteering did not impact learning.

—Students from families with different levels of parental education enter college with different

learning levels but learn at about the same rates while attending college. The racial gap between black and white students going in, however, widens: Black students improve their assessment scores at lower levels than whites.

Arum and Roksa spread the blame, pointing to students who don't study much and seek easy courses and a culture at colleges and universities that values research over good teaching.

Yahya Fahimuddin, a sixth-year computer science student at the University of California, Los Angeles, endorsed the latter finding, saying professors do seem more concerned with research. He said he can't remember the last time he wrote a paper longer than three pages, double-spaced. He feels little connection to his professors and gets the sense that mastering material is not as important as the drudge work of meeting goals and getting through material on schedule.

"Honestly, you can get by with Wikipedia and pass just about anything," he said.

Phil Hampton, a UCLA spokesman, said the university offers a rigorous and well-rounded curriculum led by faculty committed to student learning, and pointed to a study that showed high student satisfaction with their experience.

So what to do? The report warns that federally mandated fixes similar to "No Child Left Behind" in K-12 education would be "counterproductive," in part because researchers are still learning how to measure learning. But it does make clear that accountability should be emphasized more at the institutional level, starting with college presidents.

Some colleges and universities are taking steps. The University of Charleston, in West Virginia, has beefed up writing assignments in disciplines such as nursing and biology to improve learning. President Edwin Welch is among more than 70 college and university presidents pledging to take steps to improve student learning, use evidence to improve instruction and publicize results.

"I think we do need more transparency," Welch said. "I think a student at a private institution who might go into debt for \$40,000 or \$50,000 has the right to know what he can learn at the institution."

Lindsay McCluskey, president of the United States Student Association, said the findings speak to a larger problem in U.S. higher education: universities being run more like corporations than educational institutions, with students viewed as consumers who come for a degree and move on.

"There is less personal attention in the classroom, fewer tenure-track positions, and more classes are being taught by teaching assistants and in some cases undergraduate students," said McCluskey, a recent graduate of the University of Massachusetts Amherst. "Obviously, that has an impact on our learning and the experience we get in college."