Parsley, celery may fight breast cancer

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COLUMBIA, Mo., May 9 (UPI) -- Parsley and celery, often used as decorative accents for meals, can stop certain breast cancer tumor cells from multiplying, U.S. researchers say.

Salman Hyder, a professor of biomedical sciences in the College of Veterinary Medicine at the University of Missouri, and colleagues said he exposed rats with a certain type of breast cancer to apigenin -- a common compound found in parsley, celery, apples, oranges, nuts and other plant products.

The study, published in the journal Cancer Prevention Research, found rats exposed to the apigenin developed fewer tumors and experienced significant delays in tumor formation compared to rats that were not exposed to apigenin. Hyder said the finding may affect women undergoing certain hormone replacement therapies.

"Six to 10 million U.S. women receive hormone replacement therapy," Hyder said in a statement. "We know that certain synthetic hormones used in HRT accelerate breast tumor development. In our study, we exposed the rats to one of the chemicals used in the most common HRTs received in the United States -- a progestin called medroxyprogesterone acetate -- which also happens to be the same synthetic hormone that accelerates breast tumor development."

Hyder said researchers have not identified a apigenin dosage for humans yet.

"However, it appears that keeping a minimal level of apigenin in the bloodstream is important to delay the onset of breast cancer that progresses in response to progestins," Hyder said. "It's probably a good idea to eat a little parsley and some fruit every day to ensure the minimal amount, after checking with your doctor."
MU professor accepted into National Academy of Sciences

By Kathryn Landis
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COLUMBIA — One of his favorite things about working in the science and research field is the "ah-ha moment."

"We call it the ah-ha moment, where it's like 'oh yeah, ah-ha that's how it works.'" said James Birchler, a curators professor of biological sciences for MU. It excites him to see his students have these same "ah-ha moments."

His dedication to these "ah-ha moments" helped pave the way for Birchler's acceptance into the National Academy of Sciences on May 3.

The National Academy of Sciences has about 2,200 members and 400 foreign associates, according to the academy's website. It serves as an advisory function for different departments in the U.S. government. Birchler said how involved he becomes is his decision.

Birchler wasn't completely surprised by the announcement that he was one of the 72 new members accepted this year. The academy also accepted 18 foreign associates from 15 countries.

“As I've often joked about other things, there are no secrets in academia. I had heard a rumor the previous year that something was in the works,” Birchler said.

Birchler's acceptance into the academy puts him in company with some historically notable scientists including Thomas Edison, Orville Wright and Albert Einstein. While he is humbled by his acceptance, Birchler said he feels it was a little over the top to lump him together with these scientists.
A colleague, who was anonymous throughout the process and has remained so, nominated him. A portion of the nomination included a description of the candidate's work in about 50 words, Birchler said.

Birchler studied at Eastern Illinois University as an undergraduate student and was encouraged by his teachers to pursue a graduate degree. He later went on to teach at Harvard and Berkeley. In addition to lecturing around the U.S., he has lectured in many countries including Canada, China, France, Germany, Italy, Japan, Mexico and the Netherlands.

Birchler, who studies fruit flies and maize at MU, came to the university when his partner also got a teaching job. Her lab is down the hall from his on the third floor of Tucker Hall.

On one of projects, he is working to create artificial chromosomes in maize. The ideal outcome would produce plants that could sustain longer periods of drought, nitrogen utilization and nutritional properties, he said.

"There's still a long way to go to that point from where we are now, but now we can see the path to that kind of application in the future perhaps," Birchler said.

Birchler conveyed his love for science and research through a "dramatic story" about one of his teachers from his undergraduate days.

"She had this little coal ball and said 'Jim, come here,' so I just go a few steps into her office and she takes a hammer and she slams down on this coal ball and it plops open," Birchler said. "She picks it up and she says 'Here's what keeps me going. I am the first person who lays eyes on this fossil.'"
Missouri campuses consider bulk buying power

By Janese Silvey

The University of Missouri System’s four campuses are teaming up with six other public four-year universities to see whether there’s a way to save money by making large purchases together.

An eight-week feasibility study is under way to get a snapshot of purchases being made at the 10 universities to get a better idea of whether combining those orders is a reasonable way to save money, said Gary Allen, UM’s vice president of information technology.

Extending contracts UM already has with companies for items that all colleges use — such as office and cleaning supplies — could result in heftier discounts from companies and a reduction of processing costs, UM spokeswoman Jennifer Hollingshead said in a statement.

And efficiencies make sense in today’s economic climate, Allen said.

“If this works the way we hope that it might, it would be beneficial to all institutes, including the University of Missouri, and be in line with the expectations” Gov. Jay Nixon “laid out for all of us to find ways to make our collective operations as efficient as we can in light of the economic situation and resource constraints,” he said.

In addition to UM campuses in Columbia, Rolla, Kansas City and St. Louis, participating universities include Truman State, Northwest Missouri State, Missouri State, Harris-Stowe, Southeast Missouri State and Missouri Western State universities.

All of the universities are sharing the cost of an outside consultant who’s assisting with the feasibility study. The study is expected to identify the required resources and preliminary costs of implementation as well as outline business plan options and possible designs of a shared services operation.

If the plan were to be implemented, Allen said he envisions a governing board that would represent all parties participating.

Reach Janese Silvey at 573-815-1705 or e-mail jsilvey@columbiatribune.com.
College grad to advise Normandy students on college options

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Normandy High School is one of five area high schools that will partner with the Missouri College Advising Corps next school year.

MCAC advisors help students and their families navigate the college application and financing processes.

Starting in the 2011-12 school year, a recent graduate of the University of Missouri-Columbia will join the Normandy High School staff as the school's MCAC advisor. The advisor will work alongside school counselors in one-on-one and group settings, serving as a role model to guide students through the college planning and admission process.

The advisor will work full time meeting with students on a daily basis, identifying needs, answering questions and providing counseling and support. The advisor also will assist students with ACT preparation and arrange tours to colleges and universities in Missouri and surrounding states. The advisor's sole focus is preparing students to pursue a college degree.

MCAC placed its first advisors in Missouri high schools in 2008. Currently, MCAC advisors are assisting students in four area high schools and will expand to include five more during the next school year.
MU students launch balloon experiment

From left, Mark Hansen, Andrew Kitson and Logan Forsythe prepare to launch a weather balloon Tuesday from Andrew Perry's farm just outside Columbia. They recovered the package just outside Hermann later that day.

By Janese Silvey

Six ambitious University of Missouri freshmen spent the semester creating a plan to send a weather balloon up to capture images of Missouri from thousands of feet in the air.

On Tuesday, their balloon traveled 45 miles, capturing hundreds of breathtaking views of Missouri before landing in the river bottoms near Hermann. Images from a camera attached to the balloon captured scenes of quilted farmland, clear blue skies, the sun and, in a couple of cases, the strings holding the whole thing together.
With the exception of one, Columbia native Andrew Perry, all of the students are engineering majors. Perry, Timothy Hezel, Andrew Kitson, Pedro Ruiz Fabian, Mark Hansen and Logan Forsythe live in Wolpers Hall, linked by a common freshman interest group.

The hall is undergoing renovations after this year to become coed, and to commemorate its days of housing engineering students, the staff there posed a competition to residents. Only the six students were interested, though, so they decided to make it a team project instead.

Late in the afternoon Tuesday, after an earlier failed attempt, the young men filled their latex balloon with helium and sent it on its way. Attached was a Styrofoam package that carried the camera and a cellphone for GPS tracking.

Oh, and at the last minute, Forsythe had the foresight to attach some glow sticks in case they had to go searching for the dropped package in the night — which they did.

Figuring out how to solve basic problems while working as a team gives the students an edge as they advance in their college careers, said Richard Whclove, a resident instructor who served as a mentor to the team.

"I think the thing that really surprised me, No. 1, is that the origin of their group came from a desire to do this," he said. "They’re really motivated students, and they really found out what teamwork takes. ... They’ve experienced success in the form of a team, and that’s really crucial to engineers. Engineers don’t know everything, so they have to rely on team members who have other expertise."

There were plenty of challenges, with perhaps the steepest hurdle being how to get the lightweight Canon camera to automatically snap pictures every 15 seconds. Kitson was the brains behind that: He figured out how to format the memory card, writing a unique script so it knew when to take photos and where to store them.

About five hours after they launched the balloon, the students drove to the GPS coordinates in Hermann to retrieve the package. Waiting to get home to see the photos on a laptop was the hardest part, they agreed.

"It was really exciting to get the pictures back," Kitson said. "It was really cool to see some of them. Some looked really professional. It was a lot of fun, to say the least."

The students realize their hard work has academic and professional benefits, too.

"It’s our first year of college, so we wanted to jump in any opportunity we could find," Hezel said. "I think it will help in interviews later on. We can talk about different challenges in the project and how we overcame them."

Reach Janese Silvey at 573-815-1705 or e-mail jsilvey@columbiatribune.com.