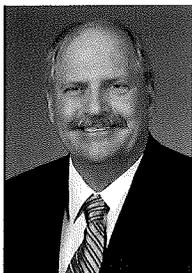


Agriculture and Natural Resources UF/IFAS



By Jack Payne
Senior Vice
President for
Agriculture
and Natural
Resources
UF/IFAS

The conventional wisdom is that ranchers have helped

create antibiotic-resistant superbugs through the overuse of antibiotics on their animals.

Conventional wisdom has never been good enough for us at IFAS. We stick to science, even when that separates us from the herd.

You can help us do science that could contribute to prevention and better management of

germs we can't treat with drugs, and maybe even reduce the scapegoating that's occurred up to now.

KC Jeong, an IFAS microbiologist, is seeking the source of antibiotic-resistant microorganisms in cattle. And here's what he thinks he may find: Yes, livestock harbor what are known as antimicrobial-resistant organisms. But it could be that they show up in animals for reasons beyond the overuse of antibiotics.

What if antibiotic-resistant bacteria is in the grass cows graze on? What if it's passed to calves from their mothers? Do superbugs hitchhike their way into animals on feed?

Answering these questions are crucial to stopping the spread of virtually untreatable disease. After all, if you don't know where the pathogens are coming from, you can't very well check their advance.

KC is the lead researcher on a 12-member team that just received a \$2.2 million grant from the USDA's National Institute of Food and Agriculture. He'll start in January to get to the heart of the matter.

He could use your help. If you're interested in having your animals or land be part of the study, contact him at 352-294-5376 or kcjeong@ufl.edu.

In addition to U.S. regulatory implications, there are market responses to the superbug crisis. The European Union prohibits the use of antibiotics as growth promoters in livestock feeding. So does South Korea. That closes off lots of potential customers for some American beef.

Jeong himself once subscribed to the notion that the drugs pumped into cows on feedlots were to blame for most of the antibiotic-resistant microorganisms that threaten both animal and human health. As a doctoral student, he hadn't

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"The property is a 60.95± acre cleared pasture that is approved for 150 residential lots. The site is located at a lighted traffic signal and will have the Belleview Bypass running directly down the center of the property. It is located on the east side of SE 58th Avenue and SE 92 Place Road and is one of Marion County's most highly traveled North/South corridors. Ocala is located along Interstate 75 in North Central Florida and is a one-hour drive north of Orlando. Zoning is PUD Residential for 150 residential lots. Price - \$650,000



92.64 acres vacant land with access located off of Hodge Lane along the W. side of Brook Road in Polk County just N. of US Hwy. 98. It is S. of State Road 60 in the town of Fort Meade. U.S. Hwy 17 is W. of the site and U.S. Hwy 27 is to the E. Access is from Hodge Lane to the rear of the site via a long strip of land with 60 feet of frontage along Brook Road. Zoning is A/RR Agricultural/

Residential Rural; permitted uses include agricultural, low-density residential, low-density recreation and veterinary services. Potential development based on the maximum density under current zoning regulations, 1 dwelling unit per every 5 usable acres is permitted. However, due to the parcel's layout and the fact that it encumbers two 5.0-acre parcels, the maximum number of achievable dwelling units may only be 9 to 10 units. Price - \$350,000 – Bank Owned

This 145-acre property with over 1 mile of frontage on I-75 is ideal to be developed into the next commercial project. The parcel is located at the last exit before the Florida Turnpike meets I-75 and the first exit off the turnpike, after it merges into I-75, in the middle of the state. The majority of the land is zoned commercial and within the urban development boundary of the county, however a portion is zoned agricultural. The property has approximately 9 billboards on it currently with active agricultural uses throughout the property to maintain a greenbelt exemption. Price - \$15,900,000 – Motivated Seller – Bring offers!



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Ag & Natural...

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delved deeply into the issue and formed his opinion largely on non-scientific sources of information. And he blamed ranchers.

But this is big-time science. About 23,000 people in the United States die each year from pathogens that are resistant to antibiotics, according to the Centers for Disease Control and Prevention. The response has to be evidence-based.

Jeong is now a seasoned scientist who devises his hypotheses on this subject from data, not hype and hysteria. He has an impressive publication record. Although a member of our animal sciences department, he works in UF's Emerging Pathogens Institute. It's where scientists take unflinching looks at tiny killers to figure out what they are, where they come from and how to keep them from claiming lives.

When you visit Jeong's office, he meets you at the building entrance – and he walks you

back when you're done. No one's allowed to wander those halls unchaperoned.

Working at the Institute also signals Jeong's ability to partner with colleagues across disciplines to examine problems from multiple perspectives, multiple sources of expertise.

Jeong's grant calls for him to identify where antibiotic-resistant microorganisms come from and to make sure the information is shared with you. His grant application has an Extension component. What he learns, he intends to disseminate through direct instruction to ranchers and others.

He has preliminary data that indicates that factors beyond antimicrobial use contribute to antibiotic-resistant microorganisms.

That's worth following up on. As scientists, we won't advocate for a particular set of government regulations based on the outcome of the study. But we will advocate for the greater use of empirical evidence to guide public policy.

It could be that the conventional wisdom is right. We don't know for sure, and that's why KC is undertaking this important research. Whatever the conclusions, IFAS wants to make sure public policy, public perception and conventional wisdom are grounded in facts, not hearsay. □

Strong Demand Boosts Town Creek Farm Sale

It is the best of times in the beef cattle industry as producers across the United States are benefiting from historically high cattle prices. The bullish market was the driver of the record setting Town Creek Farm Brangus and Ultrablack Bull Sale and Commercial Brangus Bred Heifer Sale held on Saturday, October 18, 2014, near West Point, MS. Buyers and bidders from 11 states and Paraguay, South America, engaged in the fast pace sale that saw 127 Town Creek Farm bulls average \$6890 and 288 Town Creek Farm customer-owned commercial bred heifers average \$2842. The two sales grossed \$1,693,450.

Town Creek Farm owner, Milton Sundbeck warmly welcomed a capacity crowd of customers, friends and family, as well a large group of on-line bidders, to the Town Creek Farm Sale. Town Creek Farm genetic



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An advertisement for Crystalyx BioBarrel. The top half features the text "BIODEGRADABILITY. IT'S THE FUTURE." in large, bold, white letters. Below the text is a photograph of a cow's head and neck, with a hand holding a white BioBarrel container. The container has the Crystalyx logo on it. The bottom left corner of the ad features the Crystalyx logo and the text "Brand Supplements" and "Crystalyx.com | 800.727.2502". The bottom right corner contains social media icons for Facebook, Twitter, and YouTube. The main body of text describes the product's benefits: "The addition of WeatherAll® Protection to CRYSTALYX® BioBarrel® helps to better match container degradation rate under wet conditions. Eliminate labor and costs associated with collecting and returning steel barrels or disposing of plastic containers. The BioBarrel® is effective, simple and can make everyday hassles and frustrations disappear. Your future looks bright with CRYSTALYX®."/>

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