Geneticists Pave Way For “Heart Healthy” Pigs

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San Francisco, CA (AHN) - Scientists using genetic engineering have produced pigs rich in omega-3 fatty acids, the kind believed to stave off heart disease.

Geneticists have mixed DNA from the roundworm C. elegans and pigs to produce swine with significant amounts of omega-3 fatty acids - a kind of healthy fat abundant in many fish but not naturally found in meat.

Harvard University's Jing Kang, one of the scientists involved in the study, is confident the levels of omega-3 fatty acids in the new pigs aren't high enough to ruin the flavor.

Kang told the Los Angeles Times, "There should be no difference," adding that, as far as he can tell, the pigs "don't smell fishy."

The team from Harvard, the University of Missouri and Pittsburg State University in Kansas used a gene from an earthworm, which naturally produces omega-3 fatty acids, to genetically modify their pigs. The acids are believed to offer some protection against heart attacks, and federal nutrition guidelines recommend them in daily diets.

While boosting omega-3s doesn’t decrease the fat content in pigs, the fatty acids are also important to brain development and may reduce the risk of Alzheimer’s disease and depression. The American Heart Association recommends at least two weekly servings of fish, particularly fatty fish like trout and salmon, which are naturally high in omega-3s.

However getting these “heart-healthy” pigs to market could also be a challenge as the Food and Drug Administration has not allowed any genetically altered animals to enter the food chain. Unlike crops, the FDA treats such animals as medicine and requires extensive testing before approval.

FDA spokeswoman Rae Jones told the Associated Press, “We understand that this research is in the very early stages. This technology will not likely reach meat counters for many years.”

Researchers hope they can improve the technique in pork and do the same in chickens and cows. In the process, they also want to better understand human disease.

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