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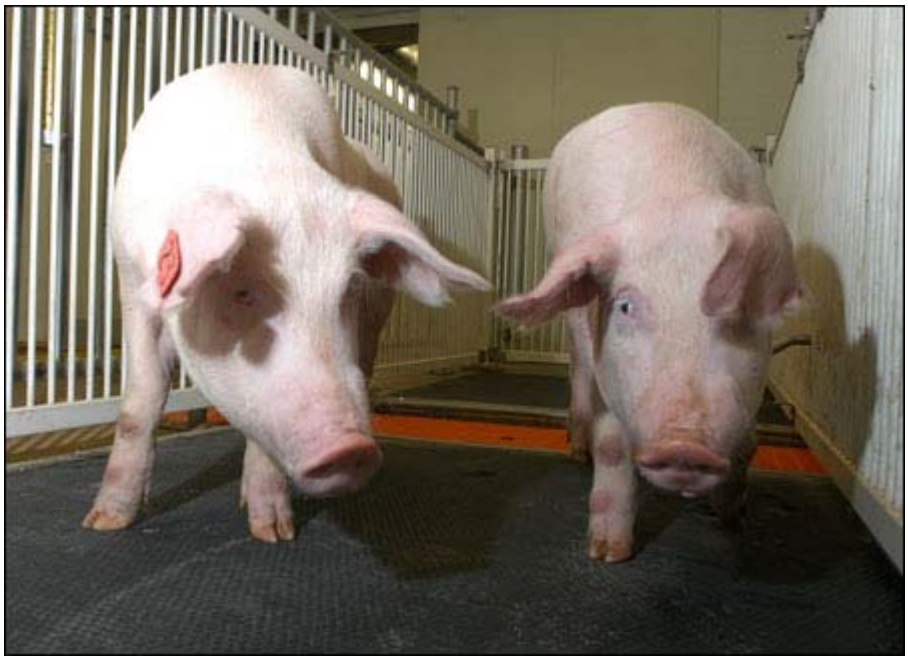
Researchers create pigs that produce omega-3 fatty acids

Harvard Professor Kang developed technology



"Livestock with a healthy ratio of omega-3 to omega-6 fatty acids may be a promising way to re-balance the modern diet without relying solely on diminishing fish supplies or supplements," Dr. Kang said.(Photo by University of Missouri)

Researchers report they have created pigs that produce omega -3 fatty acids, which are known to improve heart function and help reduce the risks for heart disease, representing the first cloned transgenic livestock in the world that can make the beneficial compound. The research could be a boost to both farmers and health-conscious consumers seeking an alternative and safer source of omega-3 fatty acids. Currently, the only way for humans to realize the benefits of omega-3 fatty acids is by taking dietary supplements or by eating certain types of fish that may also contain high levels of mercury.

The results, published by Nature Biotechnology, are the

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work of a team assembled by Yifan Dai, M.D., Ph.D., of the University of Pittsburgh School of Medicine that includes researchers from Randy Prather's group at the University of Missouri-Columbia National Swine Resource and Research Center, the laboratory of Jing X. Kang, M.D., Ph.D., at Massachusetts General Hospital (MGH), and the laboratories of Dai and Rhobert Evans at the University of Pittsburgh.

The transgenic pigs were created using technology developed by Kang of MGH, an associate professor of medicine at Harvard Medical School and co-lead author of the current report with MU's Liangxue Lai. Kang's group created the first omega-3 rich mammals (mice) and published that work in Nature in 2004.

The production of these pigs will now provide researchers with opportunities to conduct studies not previously possible.

Read full story (Massachusetts General Hospital, 03/26/2006)

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Last updated: May 2006
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