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## Golden rice an effective source of vitamin A

HOUSTON – (May 13, 2009) – The beta-carotene in so-called "Golden Rice" converts to vitamin A in humans, according to researchers at Baylor College of Medicine ([www.bcm.edu](http://www.bcm.edu)) and Tufts University in an article that appears in the current issue of the *American Journal of Clinical Nutrition*.

Golden Rice was developed in the early 1990s with a grant from the Rockefeller Foundation with the goal of creating rice that had beta-carotene -- a vitamin A precursor -- in the rice grain. In its current form, Golden Rice contains 35 micrograms of beta-carotene per gram.

"We found that four units of beta-carotene from Golden Rice convert to one unit of vitamin A in humans," said Dr. Michael Grusak (<http://www.bcm.edu/cnrc/faculty/?PMID=9536>), associate professor of pediatrics at the USDA/ARS Children's Nutrition Research Center (<http://www.bcm.edu/cnrc/?PMID=0>) at BCM and Texas Children's Hospital.

They determined this by feeding five healthy adults a specific amount of specially-labeled Golden Rice and measured the amount of retinol, a form of vitamin A, in the blood.

Vitamin A deficiency is prevalent in many parts of the world where poorer community members rely on rice as their major food source. People who lack adequate amounts of this vitamin can have vision problems or even blindness as a result.

"By incorporating vitamin A into the major crop that is consumed, we would be able to make it accessible to the majority of people in the area," said Grusak.

Additional research is necessary before Golden Rice is made commercially available. The next steps of the research include incorporating this technology into the rice grains found in various regions and continuing testing the conversion rates in humans.

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Others who participated in this study include Guangwen Tang, Jian Qin, Gregory G. Dolnikowski and Robert M Russell, all of the Jean Mayer US Department of Agriculture Human Nutrition Research Center on Aging at Tufts University.

Funding for this study came from the National Institute of Diabetes and Digestive and Kidney Diseases, a part of the National Institutes of Health.

The study can be found at <http://www.ajcn.org/cgi/rapidpdf/ajcn.2008.27119v1>.

For more information on basic science at Baylor College of Medicine, please go to [www.bcm.edu/news](http://www.bcm.edu/news) or [www.bcm.edu/fromthelab](http://www.bcm.edu/fromthelab).

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