GMO wine? Scientists developing hangover free nutritionally-enhanced vino

Imagine wine, only better for you and without the hangover the next day. Researchers from the University of Illinois are working to make this a reality with their recent <u>study</u>, which used genetically engineered yeast to make healthier versions of wine and other alcoholic beverages.

The new wine would be possible due to a "jail breaking" process, known as a "genome knife," researchers believe can greatly reduce the toxins created by wine that cause a hangover, The Independent reported. Previously, changing the genomes of yeast was a very difficult task.

"Fermented foods — such as beer, wine, and bread — are made with polyploid strains of yeast, which means they contain multiple copies of genes in the genome," Yong-Su Jin, a researcher involved in the study explained in a <u>recent press release</u>. "Until now, it's been very difficult to do genetic engineering in polyploid strains, because if you altered a gene in one copy of the genome, an unaltered copy would correct the one that had been changed."

The genome knife helps to avoid this auto correction and has allowed scientists for the first time to genetically alter yeast — a feat that can lead to many possibilities.

Scientists could improve on the health qualities of wine, adding more <u>resveratrol</u>, the healthy component in red wine. Resveratrol <u>helps to prevent damage to blood vessels</u>, reduces cholesterol, and prevents blood clots. One <u>study</u> has even linked resveratrol to a <u>longer lifespan</u>. They could also introduce healthy compounds found in other foods into wine, enhancing its health factor.

On top of increasing the levels of resveratrol, the genome knife would also allow scientists to reduce the amount of toxic byproducts that can cause hangovers.

Read full, original article: <u>No-Hangover Red Wine: Genetic Engineering Increases Resveratrol,</u>
Decreases Toxic Byproducts