



RECOMBINANT YEASTS WITH RECOMBINANT XYLOSE REDUCTASE, XYLITOLDEHYDROGENASE, AND/OR XYLULOSE KINASE GENES AND METHODS OF USING SAME

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The Invention

UW-Madison researchers have developed a novel xylose fermenting *S. cerevisiae* yeast capable of converting xylose into ethanol. The researchers did an extensive analysis of xylose fermentation activity in a variety of yeast species and found that xylose reductase from *Scheffersomyces xylosifermentans* acted in a cofactor independent manner which means that this gene can produce ethanol from xylose under anaerobic conditions. Adding this gene into *S. cerevisiae* converted the yeast from one that produces xylitol under anaerobic conditions into one that produces ethanol under anaerobic conditions.

Additional Information

For More Information About the Inventors

- [Christopher Hittinger](#)

Tech Fields

- [Clean Technology: Biobased & renewable chemicals & fuels](#)

For current licensing status, please contact Jennifer Gottwald at jennifer@warf.org or 608-960-9854