

Engineered E. coli produces high levels of D-ribose

April 24 2014



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D-ribose is a commercially important sugar used as a sweetener, a nutritional supplement, and as a starting compound for synthesizing riboflavin and several antiviral drugs. Genetic engineering of *Escherichia coli* to increase the bacteria's ability to produce D-ribose is a critical step

toward achieving more efficient industrial-scale production of this valuable chemical, as described in an article in *Industrial Biotechnology*.

In "[Engineering *Escherichia coli* for D-Ribose Production from Glucose-Xylose Mixtures](#)." Pratish Gawand and Radhakrishnan Mahadevan, University of Toronto, Canada, describe the metabolic engineering strategy they used to increase the yield of D-ribose from the genetically modified *E. coli*, which were able to produce D-ribose from mixtures of glucose and xylose. The authors propose future research directions for additional metabolic engineering and bioprocess optimization.

"The research article by Gawand and Mahadevan represents one of many ways that molecular biology is being deployed to expand *Industrial Biotechnology* development," says Co-Editor-in-Chief Larry Walker, PhD, Professor, Biological & Environmental Engineering, Cornell University, Ithaca, NY.

More information: The article is available on the *Industrial Biotechnology* [website](#).

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Citation: Engineered *E. coli* produces high levels of D-ribose (2014, April 24) retrieved 20 March 2024 from <https://phys.org/news/2014-04-coli-high-d-ribose.html>

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