

New bacteria strain points the way toward 'super sourdough' bread

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Credit: AI-generated image ([disclaimer](#))

What better venue than San Francisco -- sourdough capital of the world -- to unveil a new natural sourdough ingredient that could replace conventional additives in a variety of other breads, while making them tastier and more healthful? And that's what scientists described today at the American Chemical Society's 239th National Meeting, being held

here.

In the study, Maija Tenkanen, Ph.D., and colleagues reported discovery and use of a new strain of bacteria that convert the sugars in [bread](#) dough into produce dextrans. Dextrans are sugar molecules linked together into long chains that improve the texture and taste of the sourdough and help keep the bread fresh. These bacteria are available commercially, but produce large amounts of lactic acid along with dextrans.

"The advantage of this new strain of bacteria is that while it produces 10 times more dextran than products on the market now, it doesn't produce large amounts of acid," Tenkanen said. "Because of this feature, and because the added amount of natural dextran could actually improve the flavor, this could be used in place of additives for a broad variety of breads."

She also said the new dextrans may act as so-called "prebiotics," non-digestible food ingredients that stimulate the growth or activity of bacteria in the digestive system which are beneficial to health.

Tenkanen explained that in the past bread-making involved a long [fermentation process](#) using bacteria and/or yeasts that gave bread a pleasant aroma and taste. But the automated bread-making processes adopted by companies are not compatible with the long fermentation processes, something requiring addition of food additives. "Now, with consumers preferring healthier, additive-free foods we believe our bacteria may lead to a variety of more healthful breads."

The [bacteria](#) could be marketed to home and commercial bakers as a sourdough starter, or enhancer for other types of bread.

Provided by American Chemical Society

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