

Ice cream researchers making sweet strides with 'functional foods' (w/ Video)

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Laura Ortinau (left), a graduate student in food sciences at the University of Missouri helps Rick Linhardt, coordinator of research operations and manager of Buck's Ice Cream store, and Jessica Roland, a junior in food science and nutrition, make a batch of Tiger Stripe Ice Cream. MU researchers are working on ways to make ice cream not only tastier, but healthier as well. Credit: Pinar Istek/University of Missouri

A comfort food, a tasty treat, an indulgence - ice cream conjures feelings of happiness and satisfaction for millions. Ice cream researchers at the University of Missouri have discovered ways to make ice cream tastier and healthier and have contributed to ice cream development and manufacturing for more than a century. Today, MU researchers are working to make ice cream into a functional food, adding nutrients such as fiber, antioxidants and pro-biotics to premium ice cream.

"The idea of putting a functional ingredient into a food instead of just using the nutrients found in the food naturally takes a multi-functional approach," said Ingolf Gruen, MU professor of [food chemistry](#) and [ice cream](#) researcher in the College of Agriculture, Food and Natural Resources. "Food provides calories and comfort - people want to indulge. We're working on making ice cream satisfying and healthy."

Adding nutrients such as pro-biotics, which are already found in some dairy products, and fiber to ice cream can improve digestive health. Many diseases are caused by [inflammation](#) that starts in the intestines, Gruen said. Improving digestive health with functional foods might reduce that inflammation. Although functional foods have health benefits, there are many challenges to adding nutrients to ice cream.

"Our major challenges are texture, flavor and psychological acceptance," Gruen said. "The nutrients we add often have bitter tastes and affect the texture of ice cream that we have to mask. Flavors like chocolate are easier to work with because the flavor is so strong that it can overcome other flavors from the nutrients. Another challenge is determining whether people would be upset that we're 'tampering' with a comfort [food](#). We need to know if they would be more willing to pay for ice cream with added nutritional benefits."

Gruen and his research team are looking at using the açai berry and remnants from grapes in wine-making to add [nutrients](#) to ice cream. They hope to have a prototype ready for tasting in the next six months.

Source: University of Missouri-Columbia ([news](#) : [web](#))

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