

Friendly Bacteria Help with Healthy Soy Diet, Researcher Discovers

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(PhysOrg.com) -- Soy is a staple of the Asian diet. Here in America, soy is considered a healthy addition to a diet, but sometimes it is not so easy on the stomach. Now, a University of Missouri researcher believes she has the answer: freeze-dried probiotic microcapsules.

"Soy foods are recognized as healthy food; however, intestinal bloating, cramping and flatulence can offset the favorable qualities of soy," said Azlin Mustapha, associate professor of food science in the MU College of Agriculture, Food and Natural Resources.

Mustapha believed there was a better way for people in North America to enjoy the benefits of soy as people in Asian countries have done since ancient times. In her new research she found a holistic, natural solution in probiotics, friendly bacteria that already exist in the human intestinal tract.

"We took selected probiotics that were very effective at reducing the undesirable intestinal symptoms, encapsulated the friendly bacteria in a gel to protect the product over time and then freeze-dried the gel," Mustapha said. "We then had a powdery-type ingredient with live bacteria that could be added to food."

The product was added to soy protein energy bars. Taste testers detected no difference in the bars without the probiotic product, bars with the freeze-dried product in microscopic capsules or bars with the freeze-dried product not encapsulated.



"We are now getting a healthy triple whammy," Mustapha said. "Soy is a functional food that is one step higher than the usual healthy foods, and probiotics reduce the negative side effects, provide health benefits and fight potential food-borne infections."

Because it is a dry product, the shelf life is quite high and the bacteria remained active during a moderate period of time.

"It is a very important part of food science to create a novel, healthful and beneficial product," Mustapha said. "There are no soy energy bars on the market today that contain probiotics, making this a novel product."

Her research was recently presented at the annual meeting of the Institute of Food Technologists.

Provided by University of Missouri

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