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Delivering 'good' bacteria into our guts



Scientists at NTU Singapore have developed probiotics with a unique edible coating that ensures the beneficial bacteria successfully reach the intestine once they are ingested.

Probiotics have been shown to help prevent infections of the urinary and digestive tracts, and to maintain a healthy gut flora, which is linked to reducing the risk of obesity and promoting overall well-being.

However, using food and beverages to deliver probiotics to the intestine has not been effective. Many studies show that the bulk of probiotics delivered in food and drinks die off within the first 30 minutes of exposure to the acidic environment of the stomach.

In the NTU-study, the probiotics, gut-friendly Lacticaseibacillus bacteria, are coated with a unique technology to protect them from the harsh acidic conditions in the stomach.

Through experiments simulating a journey along the human gut, the probiotics are released only when they reach the small intestine, as the coating breaks down upon reacting to phosphate ions that are present in higher amounts in the small intestine.

A patent application for the coating has also been filed.

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Tags: bacteria, environment, exposure, food, Human, infections, Nanyang Technological University, obesity, patent, Singapore, small intestine, stomach, technology, university

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