Probiotic Strain HN019™ Improves Colonic Transit Time and Digestive Symptoms

The results of a study found that daily consumption of HOWARU® Bifido and DR10™ decreases colonic transit time and improves functional gastrointestinal symptoms in otherwise healthy adults.

A collaborative study by Danisco and Fonterra Co-operative Group on the effects of Bifidobacterium lactis HN019™ on colonic transit time (CTT) and digestive symptoms has just been published in the Scandinavian Journal of Gastroenterology*. The results of this study found that daily consumption of Bifidobacterium lactis HN019™ (also known as HOWARU® Bifido and DR10™) decreases CTT and improves functional gastrointestinal symptoms in otherwise healthy adults.

"Gastrointestinal disorders are both common and complex. The results of this study will help us to validate the roles and benefits of consuming probiotics in patients with mild gastrointestinal disorders," said Dr. Pramod Gopal, Principal Research Scientist, Digestive and Immune Health, Fonterra Research Centre.

Poor gastrointestinal health and its complications are often linked to variances in CTT — the time it takes food to be swallowed, digested, absorbed and excreted. Functional gastrointestinal symptoms can affect the quality of daily life and include pain, bloating, diarrhoea, and constipation. In addition, published studies, independent of this study indicate that slow CTT and functional GI symptoms may be associated with an increased risk of gallstones, and possibly bowel and breast cancer¹. Probiotic consumption may benefit people with mild gastrointestinal disorders by improving slow CTT² and reducing associated GI symptoms³. According to European Food Safety Authority (EFSA) guidelines for digestive health claims; transit time, frequency of bowel movements and stool bulk are appropriate outcome measurements for claims on bowel function.**

Study Design
The double-blind, randomized, placebo-controlled clinical trial was designed to evaluate the impact of consumption of two doses of B. lactis HN019™ on CTT and digestive symptoms in healthy adults.

The trial enrolled 100 patients, aged 25-65 years old with mild gastrointestinal symptoms. The subjects were randomized to ingest B. lactis HN019™ at daily doses of 10¹⁰ CFU (High; n=33), 10⁹ CFU (Low; n= 33), or placebo (n=34) for 14 days. CTT was assessed by x-ray on days zero and 14 following six days of ingestion of capsules containing radio-opaque markers. Frequency of upper gastrointestinal symptoms (such as nausea, vomiting, regurgitation, abdominal pain and gurgling) and lower gastrointestinal symptoms (such as flatulence, constipation, diarrhoea and irregular bowel movements) were recorded before and after supplementation using a Likert scale.
Key Findings
The average CTT decreased in the high (28hr reduction) and low (19 hr reduction) groups, but not with the placebo group. Of the nine gastrointestinal symptoms investigated, the high group improved in eight, the low group improved in seven and the placebo group improved in only two symptoms. Food consumption habits were similar among the three groups over the 14-day study period.

Researchers concluded that daily B. lactis HN019™ supplementation is well tolerated, decreases CTT according to the dose taken and improves functional gastrointestinal symptoms in otherwise healthy adults. No adverse events were reported in any group. The clinical trial was conducted by Sprim Advanced Life Sciences, Inc. San Francisco, CA.


For more information on B. lactis HN019™ please visit www.howaru.com or www.fonterra.com.

References

About Fonterra
Fonterra is a global leader in dairy nutrition – the preferred supplier of dairy ingredients to many of the world’s leading food companies. Fonterra is also a market leader with our own consumer dairy brands in Australia/New Zealand, Asia/Africa, Middle East and Latin America. The farmer-owned New Zealand co-operative is the largest processor of milk in the world, producing more than two million tonnes of dairy ingredients, value added dairy ingredients, specialty ingredients and consumer products every year. Drawing on generations of dairy expertise, Fonterra is one of the largest investors in dairy based research and innovation in the world. Our 16,000 staff work across the dairy spectrum from advising farmers on sustainable farming and milk production, to ensuring we live up to exacting quality standards and delivering every day on our customer promise in more than 100 markets around the world.

Media Contacts
Sarah-Jane Jumppanen, Communications Director, Danisco BioActives email: sarah.jane.jumppanen@danisco.com

About Danisco
With a rich and innovative portfolio, Danisco is a world leader in food ingredients, enzymes and bio-based solutions. Using nature’s own materials, science and the knowledge of our 6,800 people, we design and deliver bio-based ingredients that meet market demand for healthier and safer products to a growing global population. Headquartered in Denmark and operating from more than 80 locations, our key focus is to become our customers’ First choice and a truly market-driven global business particularly in the areas of food, health, energy and chemicals. In May 2011, DuPont acquired Danisco forming a global leader in Nutrition & Health and Industrial BioSciences. Find out more at www.danisco.com 

Published by Danisco A/S, Communications, Langebrogade 1, PO Box 17, DK-1001 Copenhagen K
Tel.: +45 32 66 20 00 • Fax: +45 32 66 21 75 • info@danisco.com • www.danisco.com
Adele Kinghan, Corporate Communications, email: adele.kinghan@fonterra.com