

## **Probiotics: Research Round-Up** *Study Highlights on the Topic of Healthy Bacteria*

**Did You Know?** Research on probiotics is emerging rapidly. In fact, there have been more than 2,200 original articles on probiotics published since 2000. Here is a sneak peak of some of the studies.

### ***PROBIOTICS & THE DIGESTIVE SYSTEM***

**RESEARCH FINDINGS:** Daily consumption of milk fermented with the probiotic strain *Bifidobacterium animalis* DN-173 010 (Bifidus regularis TM) helps naturally regulate the digestive system by helping with slow intestinal transit. Daily consumption of this probiotic yogurt significantly reduces total colonic transit time by 21% and sigmoid transit time by 39% in individuals with slow intestinal transit. The improvement in total colonic transit time was significant in both men and women.<sup>1</sup>

### ***PROBIOTICS & THE IMMUNE SYSTEM***

**RESEARCH FINDINGS:** A study of athletes who participate in high competition sports has shown that among those who consumed a dairy drink with the probiotic *Lactobacillus casei* DN-114 001, the decrease in production of NK (natural killer) cells was reduced.<sup>2</sup> An additional six-week long study with students undergoing academic stress during exams found that those who consumed a dairy drink with *Lactobacillus casei* DN-114001 presented an increase in the absolute number of lymphocytes. There was also a significant effect on the change in absolute numbers of CD56 cells during the 6-week study. Mean absolute CD56 cells significantly decreased in the control group, whilst remaining similar in the treatment group; the latter, are one of the most important cell types for the body's defense system.<sup>3</sup> Research shows that this dairy drink modulates the immune suppression associated with physiological and psychological stress, helping to strengthen the body's defenses.

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<sup>1</sup> Picard, et al. Review article: "Bifidobacteria as probiotic agents – psychological effects and clinical benefits." *Ailment Pharmacol Ther*, 2005; 22: 495-512.

<sup>2</sup> Pujol et al (2000) Multicentric study of the effect of milk fermented by *Lactobacillus casei* DN-114001 on the immune response to exercise.

<sup>3</sup> Marcos, et al (2004) the effect of milk fermented by yogurt cultures plus *Lactobacillus casei* DN-114001 on the immune response of subjects under academic examination stress.



# Dannon Probiotics Center

Digestible information on healthy bacteria

## ***PROBIOTICS & CHILDREN***

**RESEARCH FINDINGS:** Daily consumption of *Lactobacillus* GG (LGG) (*Lactobacillus rhamnosus* ATCC3103) has shown to have beneficial effects in children. One study found that LGG increased the number of beneficial bacteria in the GI tract. In another study, children who were given LGG while receiving antibiotics, showed a reduction of incidence and duration of diarrhea-associated with antibiotic suppression of microflora.<sup>4</sup> LGG also influences immune function and has been shown to modulate children's response to certain vaccines;<sup>5</sup> clinical research demonstrates that children who receive LGG have fewer absences from daycare.<sup>6</sup>

For more information about probiotics, visit [www.ProbioticsCenter.com](http://www.ProbioticsCenter.com) or contact Beth Heller at [beth.heller@edelman.com](mailto:beth.heller@edelman.com) or 212.704.8161.

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<sup>4</sup> Arvola T et al. "Prophylactic *Lactobacillus* GG reduces antibiotic-associated diarrhea in children with respiratory infections: a randomized study." *Pediatrics*, 1999; 104(5): 1-4.

<sup>5</sup> Isolauri E et al. "Improved immunogenicity of oral D x RRV reassortant rotavirus vaccine by *Lactobacillus casei* GG." *Vaccine*, 1995; 13 (3):310-2.

<sup>6</sup> Hatakka et al. "Effect of long-term consumption of probiotic milk on infections in children attending daycare centres: double-blind, randomized trial." *British Medical Journal*, 2001; 322:1327-1329.