

The American College of Gastroenterology
72nd Annual Scientific Meeting
Probiotics Symposium: "Applications in Gastrointestinal Health and Disease"
Executive Summary

The American College of Gastroenterology (ACG) hosted its 72nd annual scientific meeting in Philadelphia from October 14-17 2007. In conjunction with the conference, a symposium titled, "Probiotics: Applications in Gastrointestinal Health and Disease" was held on October 16. The goal of the symposium was to clearly define the term probiotics and to explain the characteristics of probiotic food-grade products. It was also to provide gastroenterologists information on the latest scientific research on how probiotics can have a beneficial impact with various conditions of the gastrointestinal tract.

Probiotics are live cultures or "friendly" bacteria that, when consumed in sufficient quantities, give health benefits beyond basic nutrition. Key learnings on probiotics are provided by the following experts who presented at the symposium.

Gut Flora and the Impact of Probiotics on Human Health

Dr. Mary Ellen Sanders, PhD: Founding President, International Scientific Association for Probiotics & Prebiotics

Dr. Sanders provided information on the role and the benefits of probiotics to the body, discussing the specific strains and the various products that contain probiotics. Highlights from her presentation included the following:

- Probiotics play an integral role in human health, especially with regard to immune system development.
- Not all probiotic are the same. Effects of probiotics are strain specific and dose specific.
 - Example: Bifidobacterium lactis DR10 and Bifidobacterium lactis Bb-12 and the dose taken changes the effects of probiotics.
- Products with probiotics should list the genus, species and strain.
- Probiotics can provide benefits for the following:
 - Mouth
 - Throat
 - Intestines
 - Vaginal tract

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Probiotics for Antibiotic-Associated Diarrhea

Dr. Stefano Guandalini, MD: Professor of Pediatrics, University of Chicago

Dr. Guandalini discussed several research studies on how probiotics may help with antibiotic-associated diarrhea (AAD) The definitions of these ailments and the current research on the topic is highlighted below:

- **Antibiotic-associated Diarrhea**: AAD occurs when antibiotics disturb the natural balance of healthy bacteria in the intestinal tract, causing AAD and harmful bacteria to increase. The result is often frequent, watery bowel movements. Antibiotics are prescribed frequently in children and AAD is common in this population.

Probiotics for Antibiotic-Associated Diarrhea (continued)

Research Study #1

- A recent study in 2007 from The Cochrane Library¹ treated children (ages 0 to 18) who had AAD and the effects of different probiotic strains (Lactobacillus spp., Bifidobacterium spp., Streptococcus spp., or Saccharomyces boulardii).
- The study found that probiotics may reduce pediatric AAD by restoring the gut microflora.

Research Study #2

- A July 2007 study published in the British Medical Journal² found that daily intake of a probiotic drink containing Lactobacillus casei, Lactobacillus bulgaricus, and S thermophilus for one week longer than the duration of antibiotic treatment can prevent diarrhea associated with antibiotic use.³

Probiotics in Irritable Bowel Syndrome, Constipation and Intestinal Motility

Dr. Eamonn Quigley, MD, President of the American College of Gastroenterology and Professor of Medicine & Human Physiology at National University of Ireland

Dr. Quigley explained that probiotics may help with Irritable Bowel Syndrome (IBS), referencing several research studies that prove probiotics' effectiveness. Specific insights from his presentation are below.

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¹ Johnston BC, Supina AL, Ospina M, Vohra S. Probiotics for the prevention of pediatric antibiotic-associated diarrhea. *Cochrane Database of Systematic Reviews* 2007, Issue 2. Art. No.: CD004827. DOI: 10.1002/14651858.CD004827.pub2

² BMJ. 2007 Jul 14;335(7610):80. Epub 2007 Jun 29.

³ Cremonini F, Di Caro S, Nista EC, Bartolozzi F, Capelli G, Gasbarrini G, et al. Meta-analysis: the effect of probiotic administration on antibiotic-associated diarrhoea. *Aliment Pharmacol Ther* 2002;16:1461-7. McFarland LV. Meta-analysis of probiotics for the prevention of antibiotic associated diarrhea and the treatment of Clostridium difficile disease. *Am J Gastroenterol* 2006;101:812-22. D'Souza AL, Rajkumar C, Cooke J, Bulpitt CJ. Probiotics in prevention of antibiotic associated diarrhoea: meta-analysis. *BMJ* 2002;324:1361.

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- Some probiotics reverse changes to the complex ecosystem of bacteria that lives in the intestinal tract and affecting the symptoms of IBS.⁴
- Some commercial probiotics with the of *Bifidobacterium animalis* help with slow intestinal transit.⁵

For more information about probiotics, visit www.probioticscenter.com or contact Beth Heller at beth.heller@edelman.com or 212.704.8161.

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⁴ Whorwell PJ, Altringer L, Morel L, Bond Y, Charbonneau, O'Mahony L, Kiely B, Shanahan F., Quigley EM.

⁵ Aliment Pharmacol Ther. 2007 Aug 1;26(3):475-86; Guyonnet D. Chassany O. Ducrotte P, Picard C. Mouret M, Mercier CH, Matuchansky C.