



## Metabonomics and IBS

### Probiotics research shows promise for improvement of IBS symptoms

Irritable Bowel Syndrome (IBS), a multi-symptom intestinal disorder, affects between 9 and 23 percent of the human population, according to the International Foundation for Functional Gastrointestinal Disorders. Scientists now recognize that factors such as infection, genetic disposition, and psychological factors may play a significant role in the onset of the disorder. IBS symptoms can also be strongly influenced by diet. At Nestlé Research Center, researchers investigate how probiotics can improve dietary symptoms such as abdominal pain and bowel movements. The goal is to create probiotic-containing products to alleviate such symptoms.

NRC scientists recently published findings in the *Journal of Proteome Research* showing that *Lactobacillus paracasei* bacteria help regulate intestinal balance and improve biological markers related to healthy gut function. Results were obtained through metabolic profile analysis of plasma, jejunal wall and muscle tissue using an animal model for IBS.

Addition of *L. paracasei* probiotic normalized many biological pathways linked to disturbances encountered in IBS patients and related to equilibrium of intestinal flora, inflammation, and reduced energy metabolism needs and muscular contractility in the intestine.

**For more information, please read the entire article:**

*Francois-Pierre J. Martin, Elena F. Verdu, Yulan Wang, Marc-Emmanuel Dumas, Ivan K.S. Yap, Olivier Cloarec, Gabriela E. Bergonzelli, Irene Corthesy-Theulaz, Sunil Kochhar, Elaine Holmes, John C. Lindon, Stephen M. Collins, & Jeremy K. Nicholson, Transgenomic Metabolic Interactions in a Mouse Disease Model: Interactions of Trichinella spiralis Infection with Dietary Lactobacillus paracasei Supplementation. Proteome Res., 5 (9), 2185 -2193, 2006.*

**The Internet link:**

<http://pubs.acs.org/cgi-bin/abstract.cgi/jprobs/2006/5/i09/abs/pr060157b.html>