

## FUNCTIONAL MEDICINE UPDATE

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### **“What Happens in the Gut Does Not Stay in the Gut”**

At the recent Annual International Conference organized by the Institute for Functional Medicine, the recipient of the 2013 Functional Medicine Linus Pauling Award, Alessio Fasano, MD, who is noted for his research on celiac disease and gluten sensitivity, was quoted as saying: “The gut is not like Las Vegas. What happens in the gut does not stay in the gut.” It’s both a funny observation AND a profoundly true one. Dr. Bland begins this issue with a discussion about the gastrointestinal system. The gastrointestinal system is uniquely connected to the neurological, endocrine, and immune systems. The neurotransmitters produced in the brain have an effect upon gut function, and the gut hormones and gut modulators influence the nervous system, both peripherally and centrally. REF#1

But do gastroenterologists, neurologists, endocrinologists, and others who focus on one specific specialty of medicine routinely keep this context in mind during their day-to-day interactions with patients? Anecdotal conversations indicate they do not. And so in addition to its importance to a variety of health concerns through emerging links to diseases such as type 2 diabetes, cancer, inflammatory arthritis, and neurological disorders, the gastrointestinal tract also stands as the perfect example of the functional medicine model and a systems biology approach to treatment.

Dr. Bland focuses his discussion on the gut mucosa. He reviews the types of gut bacteria—symbionts, commensals, and parasites—and describes their “personalities” and the influence they have on gut homeostasis and function. This homeostasis and function can be modulated through lifestyle interventions such as dietary choices. High sugar, high fat diets have been linked evidence of metabolic endotoxemia. In addition, gut microbiota and lipopolysaccharides have been associated with insulin stability, proper weight control, and lipid management. REF #2-6

When the term “Leaky Gut Syndrome” made its first appearance in *Functional Medicine Update* more than 20 years ago, it was considered to be something of a joke among traditional gastroenterologists of that era. The term, which refers to the impairment of intercellular junctions that exist between gastrointestinal mucosal cells causing loss of integrity and creating portals of entry for larger substances, has now not only become a term of common use but also appears widely in the medical literature.

What can be used for intervention in the gut? Dr. Bland discusses prebiotics and probiotics, as well as substances like l-glutamine, l-arginine, zinc in a non-irritating form, and pantothenic acid, all of which have been shown to help improve the integrity of the gut mucosal junctures. REF #7-8

## Clinician of the Month

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The Institute for Functional Medicine's Annual International Conference took place in Dallas, Texas May 29-June 1 this year. Several exciting announcements were made, among them that Dr. Jeffrey Bland has been invited to join the IFM Board of Directors as Chairman Emeritus, and also that Dr. Patrick Hanaway would be joining IFM as Director of Medical Education. Dr. Bland and Dr. Hanaway are longtime colleagues and friends. They sat down together in Dallas for an interview and discussed not only the personal journeys that had brought them to their current positions, but also what the next chapter will be for IFM as the Functional Medicine Movement grows stronger with each passing year.

Dr. Patrick Hanaway is a board-certified family physician with his medical degree from Washington University and residency training at the University of New Mexico. Dr. Hanaway is Past President of the American Board of Integrative Holistic Medicine and co-founded Family to Family: Your Home for Whole Family Health with his wife in Asheville, NC. He has been initiated as a Marakame (Shaman) by the Huichol people in the Sierra Madres of Central Mexico. His interests are in systems-medicine research and the clinical application of nutritional biochemistry, with an emphasis on digestion, immunology, prevention, and wellness.

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