Editorial

When googling ‘role of diet’, you receive 298,000,000 results: 60,000,000 more than if you google AIDS – quite impressive. Historically, in pediatrics, one of the few instances in which diet played an important role as a form of therapy was after diarrhea. This was probably more supported by grandmothers and the lay public than by clinical studies. As a matter of fact, doctors used to recommend fasting to treat diarrhea. However, that was then and this is now. Diet has not only been associated with bad things, but also with some good ones. Just recently, important publications have shed some light on the unproven theory that avoidance of allergenic foods early in life would reduce the occurrence of allergy. Similarly, it was shown that delayed introduction of gluten to the diet might not only not delay, but rather enhance the appearance of gluten sensitivity.

In this issue, we address four crucial topics related to the therapeutic role of the diet. First, Drs. Chumpitazi and Shulman, from the Department of Pediatrics, Baylor College of Medicine, and the Section of Pediatric Gastroenterology, Hepatology, and Nutrition, Texas Children’s Hospital and Children’s Nutrition Research Center, Houston, Tex., USA – where I worked over 30 years – discuss the role of carbohydrate in causing abdominal pain. Carbohydrate malabsorption may cause gastrointestinal symptoms (e.g. bloating) via the physiologic effects of both increased osmotic activity and increased gas production from bacterial fermentation. However, there is a

general lack of strong evidence supporting the restriction of individual carbohydrates (e.g. lactose) to avoid childhood functional gastrointestinal disorders; yet, emerging evidence suggests that the restriction of fermentable oligosaccharides, disaccharides, monosaccharides and polyols (FODMAP) may be effective. In addition, soluble fiber (a complex carbohydrate) supplementation has demonstrated efficacy via randomized controlled intervention trials in childhood functional gastrointestinal disorders. Paradoxically, carbohydrates found to be involved in causing abdominal pain are detected in dietary components considered to be part of a ‘healthy diet’: fructose in fruits, lactose in milk, fructans in wheat, onions and rye, galactans in beans, legumes and asparagus and polyols in certain fruits and vegetables such as apricots, cherries and pears. The good news is that most children with abdominal pain will be glad to accept this kind of diet devoid of ‘healthy’ food.

Next, Drs. Feuille and Nowak-Węgrzyn, from the Division of Allergy and Immunology, Department of Pediatrics, Jaffe Food Allergy Institute, Icahn School of Medicine at Mount Sinai, Kravis Children’s Hospital, New York, N.Y., USA, address the topic of oral immunotherapy, which has demonstrated efficacy in desensitizing subjects to offending food proteins. However, this is still an investigational therapy for food allergy. Even when the therapy is temporarily successful, most subjects regain sensitivity within days to weeks of discontinuing the al-

lergen and, therefore, it is still unclear whether or not oral immunotherapy has the potential to induce permanent tolerance. The safety and tolerability of oral immunotherapy continue to limit its utility in routine clinical practice, so this is not something to try at home.

One of the most fascinating aspects of diet therapy is addressed next by Dr. Frank M. Ruemmele from the Sorbonne University, the Descartes University and the Hôpital Necker Enfants Malades, Pediatric Gastroenterology Service, Paris, France. The topic is induction of remission of Crohn's disease by diet. The idea of using nutrition is in contrast to former practice, when patients with Crohn's disease were given bowel rest and treated with intravenous nutrition and corticosteroids, which came along with a list of quite dramatic and sometimes irreversible side effects. Investigators in Europe and Canada began exploring the idea of using diet as a form of therapy, with quite impressive results and without side effects. It is also curious to see that such a form of therapy is less well accepted in the US than in other countries, despite the weight of evidence in its favor, including reduced costs and risks. Today, exclusive enteral nutrition is well established as induction therapy of Crohn's disease. However, new diets, such as a Crohn's disease exclusion diet or defined diets (specific carbohydrate diets, FODMAP diet, Paleolithic diet) are being discussed as treatment options for inflammatory bowel disease (IBD). Well-designed clinical trials in IBD are urgently required to define the precise role of each of these diets in the prevention or management of IBD. Up to now, the role of diet in IBD is highly undermined by lay and anecdotal reports without sufficient scientific proof.

Finally, a potpourri of topics is discussed under one heading addressing the questions that doctors are always

being asked by parents and sometimes by colleagues. Dr. Cruchet and colleagues, from the Nutrition and Food Technology Institute (INTA), Chile University and the Luis Calvo Mackenna Hospital, Santiago, Chile, address the subject of truths, myths and needs of special diets with respect to attention-deficit/hyperactivity disorder, non-celiac gluten sensitivity, vegetarianism and autism. Attention-deficit/hyperactivity disorders are being diagnosed more and more often and, at least in the US, more and more children are being medicated for this disorder. When consulting a doctor, some parents will swear that their child becomes more hyperactive after ingesting sugar and are difficult to be convinced otherwise, while others may come to the consultation with questions. This is similar to the diagnosis of autism. Desperate to find some kind of improvement, parents are willing to try anything, and they may run into someone not very scrupulous that will take advantage of those needs. In this paper you will find updated information regarding studies that support or do not support the role of certain nutrients in worsening or improving symptoms. Non-celiac gluten sensitivity is a syndrome which causes the development of a variety of intestinal and/or extraintestinal symptoms in patients that improve when gluten is removed from the diet, once celiac disease and wheat allergy are excluded. Originally described in the 1980s, it has been a part of the spectrum of gluten-related disorders since 2010. Vegetarianism is also becoming popular among adolescents, and the dietary needs of this population are addressed in this section as well.

I sincerely hope that you will find this issue informative.

Carlos Lifschitz