Editorial

Is allergy still a problem? A steep rise in the incidence and prevalence of allergic diseases undoubtedly occurred in many populations over the past 10–20 years, although the origins of this increase are still not well understood [1]. The existence and importance of the problem is one of the reasons that the topic ‘Food Allergy’ has been chosen for this issue.

Basic Research First. Understanding the pathophysiology of food allergy would be an important step toward reversing it. Thus, in the first article, *Prof. Christophe Dupont* (Hopital Necker-Enfants Malades, Paris, France) covers recent advances in this area. With a better understanding of the immune system, it is now clear that, among other factors, impaired oral tolerance, which is a specific suppression of cellular and/or humoral immune responses to an antigen, contributes to the development of allergic diseases. The recognition of the oral tolerance mechanisms may provide measures for safe and effective primary prevention of allergic diseases either at the population level or in subgroups of individuals with increased genetic disease susceptibility. The article by Prof. Dupont also sheds important light on the changing face of the clinical presentation of food allergy (e.g., expansion of eosinophilic esophagitis) and the importance of a food allergy diagnosis, which may be challenging and is often confused with non-allergic food reactions.

Breastfeeding Is Best. This conclusion is not doubted. But, is allergy prevention feasible through breastfeeding? This topic has been frequently studied and hotly debated for more than 70 years. In the *second* article, *Prof. Michael Kramer* (McGill University, Montreal, Que., Canada) provides an overview and critical interpretation of the currently available evidence. There are studies that show a protective effect, no effect, or even a predisposing effect.

Despite the fact that there is controversy in the literature, this does not mean that breastfeeding does not have significant effects. Rather, this is more likely a reflection of the methodological inadequacy of investigating breastfeeding in ways that take all the complexity of interactions into account. Factors that contribute to these inconsistent results are discussed. Still, everyone agrees that even if breastfeeding does not provide a strong protective effect, it should be promoted for its nutritional, immunological, and psychological benefits [1–3].

Prevention Is Better than Cure. But, not all preventive strategies are equal. The *third* article by *Prof. Susan Prescott* (School of Paediatrics and Child Health Research, University of Western Australia, Perth, W.A., Australia) and *Prof. Anna Nowak-Węgrzyn* (Mount Sinai School of Medicine, New York, N.Y., USA) not only reviews the role of other dietary factors, but it also addresses environmental factors that potentially may modify developing immune tolerance and disease risk in the pre- and postnatal periods. The article also discusses the potential mechanistic pathways involved. With regard to dietary factors, clearly we are witnessing a shifting of the paradigm. Previously, food allergen avoidance during pregnancy/lactation and infancy has been generally recommended. Currently, all recommendations agree that there is no convincing scientific evidence that the avoidance or delayed introduction of potentially allergenic foods beyond 4–6 months reduces allergies in infants considered to be at increased risk for the development of allergic diseases or in those not considered to be at increased risk [1, 3, 4]. Still, even if available evidence suggests that early exposures may modify tolerance development, further research on these exposures continues.

Money Rules the World. One can be sure that increasingly cost-conscious healthcare decision makers will demand not only clinical evidence of safety and efficacy, but also economical evidence in deciding which interventions to finance. For physicians, understanding health economics is often not easy. In the *fourth* article, Dr. Jörg Spieldecker (Nestle Nutrition Institute, Vevey, Switzerland) and colleagues introduce some basic terms relevant to health economics and demonstrate the cost-effectiveness of using partially hydrolyzed formulas versus cow's milk formula for preventing atopic dermatitis. The use of these formulas, as compared to cow's milk formula, may

be considered as a strategy for preventing the development of atopic dermatitis in at-risk infants who are not exclusively breastfed [1, 3]. However, significantly fewer may be aware of the financial implications of such a preventive measure, at least based on the data from five European countries.

In summary, this series of articles contains a range of titles covering the pathophysiology, diagnosis, prevention, and health economics of food allergy, a condition that still poses a challenge to physicians worldwide.

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References

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