



## Nutrition and the Gut Microbiome in Infants

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### **Message from the Guest Editor**

The role of the microbiome in human growth has been clarified in recent years. The intestinal microbiome interacts with the host mucosa, and in doing so, contributes to the development of gut function, stimulates the immune system, contributes to the regulation and maintenance of intestinal barrier function, provides protection against infection, and promotes food tolerance, and consequently, eubiosis status. The intestinal microbiome promotes the digestion and absorption of carbohydrates in the small intestine and colon, where organic carbohydrates are fermented to short-chain fatty acids (SCFA). The dietary provision of macro- and micronutrients impacts the gut microbiome and its metabolic activity. Phytochemicals in plant-based foods may have prebiotic effects on the gut microbiome, especially in dysbiosis. Disruption of this ecosystem may be associated with the pathogenesis of diseases (dysbiosis) and clinical conditions. The aim of this Special Issue is to discuss the role of nutrition in the establishment of the gut microbiome in infants, and its implications in child health and development.





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