

Special Issue

The Role of Diet and Medication in Shaping Gut Microbiota in Disease

Message from the Guest Editor

The gut microbiota, consisting of trillions of microorganisms, plays a crucial role in maintaining human health. It is essential to understand the interaction between gut microorganisms and diet/medication and to develop strategies to maintain or restore a healthy gut microbiome. It is known that a fiber-rich diet is beneficial for healthy gut bacteria, producing short-chain fatty acids. In contrast, the Western diet, which is rich in high fats and sugar, can lead to an increase in harmful bacteria such as proteobacteria, which might contribute to metabolic disorders, including obesity and type 2 diabetes.

Studies show that certain types of medication, such as antibiotics, non-steroid anti-inflammatory drugs and proton pump inhibitors, influence gut microbiota composition. It is important to comprehend the effects of both diet and medication on gut microbiota and personalize treatment approaches aimed at maintaining a healthy gut microbiome.

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Nutrients is an on-line open access journal that was first published in 2009. *Nutrients* adheres to rigorous peer-review and editorial processes and publishes only high quality manuscripts that address important issues related to the impacts of nutrients on human health. The Impact Factor of *Nutrients* has risen rapidly since its establishment and it is now ranked in the first quartile of journals publishing in the field of nutrition and dietetics research.

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