

Special Issue

Interactions of Intestinal Microbiomes, Hosts and Nutritional Factors Involved in Liver Physiology

Message from the Guest Editor

The gut and liver are interconnected through the gut–liver axis, which includes the portal circulation and the biliary enterohepatic circulation. The intestinal microbiome plays a key role in liver physiology, influencing lipid metabolism, gluconeogenesis, and detoxification. Dysbiosis can trigger inflammation and liver diseases such as metabolic-associated steatotic liver disease (MASLD), cirrhosis, and chronic hepatitis. Microbial metabolites, including short-chain fatty acids, endotoxins, and bile acids, regulate immune function and intestinal barrier integrity. Nutritional factors, such as fiber, fats, and sugars, directly shape the microbiome and impact liver health. Recent research suggests that gut microbiota-targeted therapies, including fecal microbiota transplantation, may offer new strategies for managing liver diseases.

This Special Issue aims to provide insights into the complex interactions between the intestinal microbiome, host physiology, and nutrition in liver health. We welcome original research, reviews, and systematic reviews on this evolving field.

Guest Editor

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Message from the Editorial Board

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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