

Special Issue

The Role of Dietary Fibre, Nutrition in Gastrointestinal Diseases

Message from the Guest Editor

Adequate nutrition plays a key role not only in maintaining gastrointestinal health but also in preventing and treating intestinal diseases. Dietary fibre has a beneficial effect on the intestinal microbiome by providing food for fermenting bacteria that produce short-chain fatty acids, such as butyrate. These metabolites promote mucosal integrity and modulate immune system function through various molecular pathways. In inflammatory bowel diseases, such as Crohn's disease and ulcerative colitis, intestinal dysbiosis, and impaired intestinal homeostasis are often observed. In this case, the role of fibre becomes even more important, especially since its fermentation products can affect gene expression and inflammatory signalling at the cellular level.

A balanced diet that provides adequate nutrients, particularly a variety of fibre fractions, can alleviate symptoms and promote the restoration of intestinal barrier integrity. Understanding the interactions between dietary fibre, the gut microbiome, and gastrointestinal disease is crucial to developing effective nutritional strategies to support the therapeutic process, especially in the context of molecular medicine.

Guest Editor

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