

Special Issue

The Significance of the Intestinal Environment in the Brain–Gut Axis

Message from the Guest Editors

The gut–brain axis is not only intimately involved in the pathophysiology of gastrointestinal diseases, but also in psychological or metabolic diseases. The intestinal environment, including the gut microbiome, its related metabolites and mucosal immune cells, greatly affect the functions of the mucosal barrier, the production of gut hormones and the gastrointestinal immune system, playing a pivotal role in the interaction between the gastrointestinal tract and the central nervous system. Conversely, psychological stress is a crucial factor that affects gastrointestinal physiology and the symptoms of patients with various diseases. It is very likely that psychological stress alters the intestinal environment, subsequently playing a role in the pathophysiology of patients with functional gastrointestinal disorders and/or inflammatory bowel disease. Thus, this special issue requires the submitted papers to clarify the mechanisms that govern how the intestinal environment is linked to gastrointestinal disease via the brain–gut axis.

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