

Special Issue

Crucial Role of Intestinal Barriers and Their Impact on the Gut–Brain Axis in Health and Disease: Addressing Future Therapies

Message from the Guest Editor

This Special Issue highlights recent advancements in the field of the brain–gut microbiota axis, including the intestinal barrier, its crucial component, and its interactions. Specifically, recent discoveries suggest that the interaction between the intestinal barrier and the brain–gut microbiota axis is significantly influenced by age, gender, and sex, which in turn affects the intestinal barrier, microbiota, and overall health. Among the most significant findings is the recognition of the fetal intestinal barrier and its interaction with the fetal brain–gut microbiota axis, which supersedes the concept of the sterile womb. Additionally, there is an emerging concern regarding the usefulness of animal models, such as rodents, which exhibit different developmental time frames. Given the growing recognition of the essential regulatory roles of the intestinal barrier and the brain–gut microbiota axis in human health and diseases, further examination of their interactions will deepen our clinical understanding and contribute to medical applications.

Guest Editor

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