

Special Issue

The Tight Junction and Its Proteins: More Than Just a Barrier

Message from the Guest Editors

Tight junctions (TJ) are named according to their classical function to seal the cleft between epithelial and endothelial cells against unwanted passage of solutes and water. TJ proteins do not only form barriers but, in contrast, some constitute paracellular ion or water channels. Apart from barrier and channel functions, TJ proteins are involved in many other processes. They can serve as receptors for pathogens and mediate immunological reactions. Studies on TJ molecular assembly and interactions give further insight into the complex machinery of the development and control of tissue formation and cell differentiation. In several inflammatory diseases and during bacterial infections, TJ proteins are involved. In cancer, they serve as targets in tumor diagnostics and treatment; also, they can mediate epithelial-mesenchymal transition thereby facilitating tumorigenesis and metastasis. This Special Issue will include original articles as well as reviews on these topics.

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