

Preface

Overview: Tight junctions, the most apical cellular structure of epithelial and endothelial cells in the body, are key cellular structures that control paracellular permeability in cells and as a result, are key to the maintenance of the space and tissue types in the body. There has been a dramatic increase in knowledge of tight junctions in the past decade. The molecular structure of tight junctions, the cellular functions and the pathophysiological roles of the tight junctions are becoming clear. Of the most important functions, the role of the cellular structure in cancer spreading and drug delivery is increasingly realised. It is now clear that there is fundamental damage to tight junctions during the process of cancer development. Tight junctions are also critical in the metastatic process of cancer cells. The cellular structure is also critical in drug therapies, namely, the permeability and bioavailability of the drugs, and penetration of barriers such as the blood-brain barrier. There have been few dedicated publications on tight junctions and cancer metastasis. This volume aims to summarise the current knowledge of tight junctions, their role in cancer and cancer metastasis.

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