



Roles of Transporters and Receptors in Drug Delivery to the Brain in Health and Disease

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Message from the Guest Editors

Dear Colleagues,

Drug delivery to the brain, restricted by the blood–brain barrier (BBB) with its tight junctions, membrane transporters, receptors, and metabolizing enzymes, remains one of the major reasons for high failure rates of the central nervous system (CNS) drug candidates. Solute carriers (SLCs) and ATP-binding cassette family (ABC) transporters play crucial roles in drug delivery to the brain. Knowledge about transporters and receptors expressed at the BBB and brain parenchymal cells has opened new opportunities for the improvement of drug delivery to the brain. However, the expression and function of transporters and receptors at the brain barriers can be altered in neuropathological conditions, which can affect drug delivery efficacy to the brain.

This Special Issue aims to provide readers with an overview of the latest developments in the field of transporter- and receptor-mediated drug delivery to the brain, current knowledge about the changes in expression and function of transporters and receptors expressed at the brain barriers in CNS diseases, as well as advances in the methodologies for evaluation of carrier-mediated drug delivery to the brain.





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