







Special Issue Reprint

# **Brain-Targeted Drug Delivery**

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Brain diseases currently affect one in six people worldwide; they include a wide range of neurological diseases, from Alzheimer's and Parkinson's diseases to epilepsy, brain injuries, brain cancer, neuroinfections, and strokes. The treatment of these diseases is complex and limited due to the presence of the blood–brain barrier (BBB), which covers the entirety of the brain. The BBB not only has the function of protecting the brain from harmful substances; it is also a metabolic barrier and a transport regulator of nutrients/serum factors/neurotoxins. Knowing these characteristics when it comes to the treatment of brain diseases makes it easier to understand the lack of efficacy of therapeutic drugs, resulting from the innate resistance of the BBB to permeation. To overcome this limitation, drug delivery systems based on nanotechnology/microtechnology have been developed. Braintargeted drug delivery enables targeted therapy with a higher therapeutic efficacy and fewer side effects because it targets moieties present in the drug delivery systems.





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