1. Record Nr. UNINA9910619467203321 Autore Sousa Flavia **Titolo Brain-Targeted Drug Delivery** MDPI - Multidisciplinary Digital Publishing Institute, 2022 Pubbl/distr/stampa **ISBN** 3-0365-5281-2 Descrizione fisica 1 electronic resource (260 p.) Technology: general issues Soggetti Lingua di pubblicazione Inglese **Formato** Materiale a stampa Monografia Livello bibliografico Brain diseases currently affect one in six people worldwide; they Sommario/riassunto 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

moieties present in the drug delivery systems.

systems based on nanotechnology/microtechnology have been

developed. Brain-targeted drug delivery enables targeted therapy with a higher therapeutic efficacy and fewer side effects because it targets