

Drug delivery to the central nervous system Neuromethods, Volume 45 Kewal K. Jain (Ed) Humana press, Totowa, NJ (USA) Series: Springer Protocols Pages: 324; €114.35 ISBN: 978-1-60761-528-6

Delivery of drugs into the central nervous system (CNS) is of paramount importance for the treatment of neurological disorders, but is also a challenging task since only few molecules can cross the blood-brain barrier. Thus, many drugs that could be effective fail during development because they do not reach therapeutic concentrations within the CNS. Many methods to overcome this obstacle have been proposed and tried. In Drug Delivery to the Central Nervous System, the editor, in 15 chapters and just over 300 pages, has done an overview of these methods. All chapters are organized to be autonomous, structured with an abstract and an introduction, while the central part deals with the implications of the method and terminates with the description of the method presented with a step-by-step approach. The different chapters are authored by skilled international experts.

The editorial quality is generally good, but images, mainly in B&W, are in some cases not

clear and their presentation would definitely have benefited of colours.

The book covers from theoretical models predicting blood-brain barrier penetration of drugs to intracarotid and intranasal drug delivery, virus- and mesenchymal stem cells-mediated gene therapy, intratechal delivery of drugs and stem cells treatments. Methods to disrupt the blood-brain barrier and pharmaceutical preparations (vesicles, liposomes, peptides, angiopeps, etc.) designed to overcome the blood-brain barrier are also presented. Large space (three chapters, with some repetitions) has been given to convection-enhanced drug delivery, a method of direct intraparenchymal drug infusion. Some of these methods have been proposed and explored several years ago, but, with the exception of drugs delivered intratechally, the way to clinical practice has not been found yet, a gap which need to be filled to improve the treatment and prognosis of diseases such as glioblastoma, ischemic and traumatic CNS injuries, and cognitive disorders.

We recommend this book to scientists involved in the treatment of CNS disorders.

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