Drug Delivery Across Physiological Barriers

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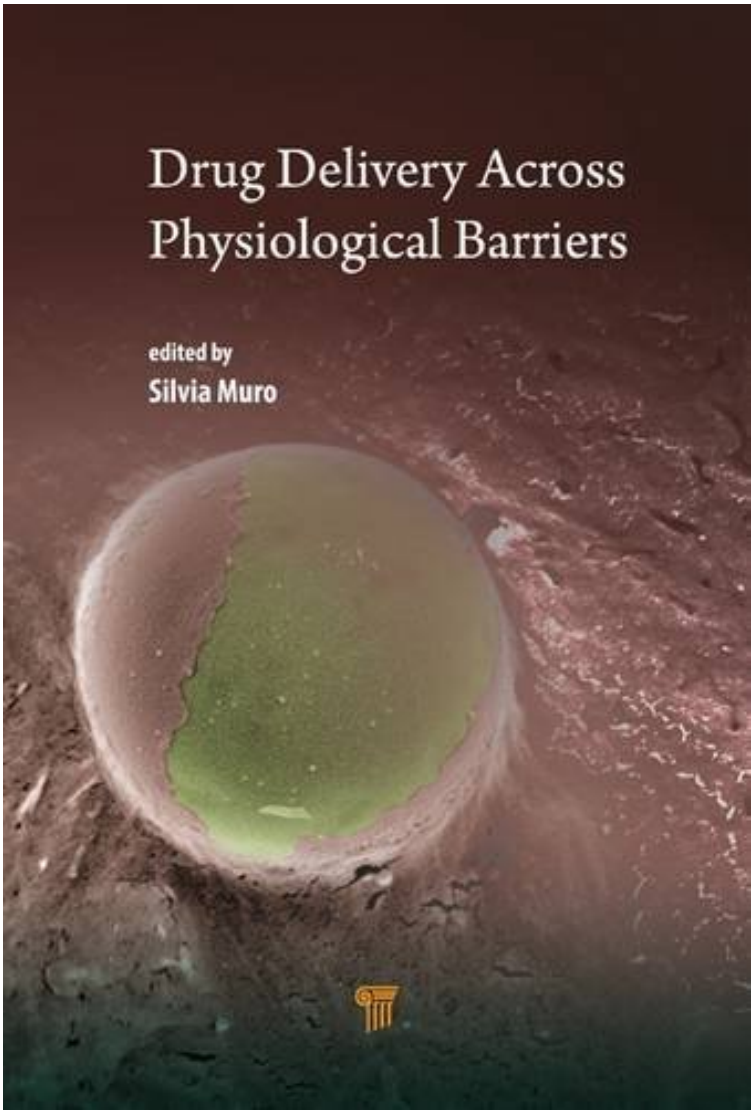

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From Pan Stanford : Drug Delivery Across Physiological Barriers before purchasing it in order to gage whether or not it would be worth my time, and all praised Drug Delivery Across Physiological Barriers:

Transport of pharmaceutical agents in the body is paramount to therapeutic efficacy. Advances in the past decades have rendered a remarkable improvement of drug delivery strategies, which has helped to increase the bioavailability of therapeutic agents by protecting them from degradation, targeting them to diseased sites, and controlling their

circulation time and release rate. Additionally, for most therapeutics, reaching the targets of action require penetration across tissues and/or entry within cells. The design of strategies to control the transport of therapeutic compounds through these physiological barriers has become an imperative and a challenging need in the quest for better therapeutics. This book provides an overview of the current advances in this field, including considerations on the biological regulation and natural mechanisms overcoming these barriers, as well as drug delivery strategies facilitating the transport of drugs and their carriers at the tissue, cell, and subcellular levels.

"This book combines a thorough overview of the barriers encountered and strategies employed to increase the delivery of therapeutics. It also provides a critical assessment of the merits and limitations of delivery approaches. Overall, this is a concentrate of the most recent scientific discoveries written by highly recognized authors in the field. It is an excellent reference for both students and seasoned scientists."Dr. Mohamed ElSayed, University of Michigan, USA "Drug delivery across physiological barriers is a historic and challenging problem. This compelling book addresses this topic thoroughly, with detailed chapters ranging from descriptions of the composition of physiological barriers, through barrier-penetrating drug delivery strategies to how drugs are trafficked once inside cells. A must-have addition to any pharmaceutical scientists technical library." Dr. John D. Higgins, Merck Co., USA "Drug Delivery Across Physiological Barriers is a fundamental book in nanomedicine, particularly for those who start in the field of designing therapeutic strategies based on nano-drug delivery systems. It addresses the challenging anatomical and pathological barriers of the epithelia, endothelia, extracellular matrix, and cell endocytic pathways. It shows that a thorough understanding of the stepwise processing to which nanostructures are exposed throughout the body and intracellularly is a critical tool for a wise design of nanomedicines." Dr. Eder L. Romero, National University of Quilmes, ArgentinaAbout the AuthorSilvia Muro is an associate professor in the Institute for Bioscience and Biotechnology Research and the Department of Bioengineering, University of Maryland, USA. She obtained her PhD in sciences (molecular biology) from Universidad Autnoma de Madrid, Spain. She received a postdoctoral training in drug delivery and obtained a research assistant professor position in the Pharmacology Department at the University of Pennsylvania, USA. Her research focuses on targeting and transport of nanomedicines into and across cells, with emphasis on delivery of biological therapeutics for treatment of inherited enzyme deficiencies. Her work has received awards from the Controlled Release Society, the American Society for Nanomedicine, and others, and since 2012 she is a standing member of the Nanotechnology Study Section [NANO] of the USA National Institute of Health.