Understand and assess the design, delivery, and efficacy of orally administered drugs

A practical guide to understanding oral bioavailability, one of the major hurdles in drug development and delivery, Oral Bioavailability: Basic Principles, Advanced Concepts, and Applications is designed to help chemists, biologists, life science researchers, pharmaceutical scientists, pharmacologists, clinicians, and graduate and students become familiar with the fundamentals and practices of the science of oral bioavailability.

The difference in rate and extent between a drug taken orally and the actual amount of a drug reaching the circulatory system, oral bioavailability is an essential parameter for determining the efficacy and adverse effects of new and developing medications, as well as finding an optimal dosing regimen.

This book provides a much-needed one-stop resource to help readers better understand and appreciate the many facets and complex problems of oral bioavailability, including the basic barriers to oral bioavailability, the methods used to determine relevant parameters, and the challenges of drug delivery.

In addition, this comprehensive book discusses biological and physicochemical methods for improving bioavailability, integrates physicochemistry with physiology and molecular biology, and includes several state-of-the-art technologies and approaches#Caco-2 cell culture model, MDCK, and other related cell culture models#which are used to study the science of oral bioavailability.
ABOUT THE AUTHOR

Ming Hu, PhD, is Professor of Pharmaceutics at the College of Pharmacy, University of Houston. Dr. Hu is on the editorial boards of Molecular Pharmaceutics and the Journal of Alternative and Complementary Medicine.

Xiaoling Li, PhD, is Professor of Pharmaceutics and Associate Dean of Graduate Education and Research at the Thomas J. Long School of Pharmacy and Health Sciences, University of the Pacific. He is a Fellow of the American Association of Pharmaceutical Scientists.

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