Journal Of Pharmacokinetics And Biopharmaceutics

Developing Solid Oral Dosage FormsNovel Drug Delivery and Its Therapeutic ApplicationModelling Nutrient Digestion and Utilisation in Farm AnimalsA Stepwise Approach for Decision-making in Bioequivalence StudiesSimulation for Designing Clinical TrialsXenobioticaJournal of the Japanese Society of Computational StatisticsApplications of Pharmacokinetic Principles in Drug DevelopmentPharmacokineticsJournal of the American Statistical AssociationComparative PharmacokineticsBasic PharmacokineticsBayesian Analysis of Somatic Cell Score Lactation Patterns in Holstein Cows Using Nonlinear Mixed Effects ModelsThe Biology of TumorsBasic Pharmacokinetics and PharmacodynamicsThe Onderstepoort Journal of Veterinary ResearchPharmacokinetic-Pharmacodynamic Modeling and SimulationPharmocokineticsModulation of Multidrug Transporters--a Potential Pharmacokinetic Mechanism of Clinical Drug-drug InteractionsMixed ModelsTechnometricsBiometricsIntroduction to Drug Disposition and PharmacokineticsInternational journal of hypothermiaRegional Pharmacokinetics of the Cytoprotective Agent AmifostinePharmacokinetic-Pharmacodynamic Modeling and SimulationModeling in Biopharmaceutics, Pharmacokinetics and PharmacodynamicsAdrenal CortexHandbook of Clinical PharmacokineticsDrug InvestigationStatistical Thinking for Non-Statisticians in Drug RegulationDrug Metabolism and Drug InteractionsUCSF NewsDrug Use in Renal DiseaseBasic Pharmacokinetics and PharmacodynamicsNonlinear Least Squares for Linear Compartmental ModelsBiopharmaceutics and Clinical PharmacokineticsEssential PharmacokineticsPharmacokineticsPharmacokinetic Analysis

Developing Solid Oral Dosage Forms

Novel Drug Delivery and Its Therapeutic Application

"The book takes the reader from basic concepts to a point where those who wish to will be able to perform pharmacokinetic calculations and be ready to read more advanced texts and research papers"--

Modelling Nutrient Digestion and Utilisation in Farm Animals

For more than 30 years, modelling has been an important method for integrating, in a flexible, comprehensive and widely applicable way, basic knowledge and biological concepts on digestion and metabolism in farm animals. The purpose of this book is to present the 'state of art' in this area. The chapters are written by leading teams and researchers in this field of study, mainly from Europe, North America and Australasia. Considerable progress has been made in topics dealing with: modelling methods, feeding behaviour, digestion and metabolic processes in ruminants and monogastric animals. This progress is clearly illustrated by the emergence of a new paradigm in animal nutrition, which has moved from the aim to cover the requirements of the animal to explaining and predicting the responses

of the animals to diets (e.g., productivity and efficiency, impact on quality of products, environmental aspects, health and well-being). In this book several chapters illustrate that through empirical models, meta-analysis is an efficient tool to synthesize information gathered over recent decades. In addition, compared with other books on modelling farm animal nutrition, two new aspects received particular attention: expanding knowledge of the individual animal to understanding the functioning and management of herds, and the consideration of the environmental impact of animal production. This book is a valuable source of information for researchers, nutritionists, advisors, and graduate students who want to have up-to-date and concise information on mathematical modelling applied to farm animals.

A Stepwise Approach for Decision-making in Bioequivalence Studies

The Ninth Annual Pezcoller Symposium entitled "The Biology of Tumors" was held in Rovereto, Italy, June 4-7, 1997. It focused on the genetic mechanisms underlying het erogeneity of tumor cell populations and tumor cell differentiation, on interactions be tween tumor cells and cells of host defenses, and the mechanisms of angiogenesis. With presentations at the cutting edge of progress and stimulating discussions, this symposium addressed issues related to phenomena concerned with cell regulation and cell interactions as determined by activated genes through the appropriate and timely media tion of gene products. Important methodologies that would allow scientists to measure dif ferentially genes and gene products and thus validate many of the mechanisms of control currently proposed were considered, as were the molecular basis of tumor recognition by the immune system, interactions between cells and molecular mechanisms of cell regula tion as they are affected by or implemented through these interactions. The molecular and cellular mechanisms of tumor vascularization were also discussed. It was recognized that angiogenesis provides a potential site of therapeutic intervention and this makes it even more important to understand the mechanisms underlying it. We wish to thank the participants in the symposium for their substantial contribu tions and their participation in the spirited discussions that followed. We would also like to thank Drs.

Simulation for Designing Clinical Trials

International research specialists discuss their work with pharmaceuticals in this text, focusing on the mechanisms and assessment of drug absorption and delivery. The book also explores the ways in which a drug should be administered to provide self-regulating and programmed delivery.

Xenobiotica

Journal of the Japanese Society of Computational Statistics

This is a second edition to the original published by Springer in 2006. The comprehensive volume takes a textbook approach systematically developing the

field by starting from linear models and then moving up to generalized linear and non-linear mixed effects models. Since the first edition was published the field has grown considerably in terms of maturity and technicality. The second edition of the book therefore considerably expands with the addition of three new chapters relating to Bayesian models, Generalized linear and nonlinear mixed effects models, and Principles of simulation. In addition, many of the other chapters have been expanded and updated.

Applications of Pharmacokinetic Principles in Drug Development

Pharmacokinetics

Journal of the American Statistical Association

Providing more than just a comprehensive history, critical vocabulary, insightful compilation of motivations, and clear explanation of the state-of-the-art of modern clinical trial simulation, this book supplies a rigorous framework for employing simulation as an experiment, according to a predefined simulation plan, that reflects good simulation p

Comparative Pharmacokinetics

This is an essential guide to the study of absorption, distribution, metabolism and elimination of drugs in the body.

Basic Pharmacokinetics

A natural hierarchy exists in pharmacokinetic-pharmacodynamic modeling culminating in population pharmacokinetic models, which are a specific type of nonlinear mixed effects model. The purpose of this book is to present through theory and example how to develop pharmacokinetic models, both at an individual and population level. In order to do so, however, one must first understand linear models and then build to nonlinear models followed by linear mixed effects models and then ultimately nonlinear mixed effects models. This book develops in that manner – each chapter builds upon previous chapters by first presenting the theory and then illustrating the theory using published data sets and actual data sets that were used in the development of new chemical entities collected by the author during his years in industry. A key feature of the book is the process of modeling. Most books and manuscripts often present the final model never showing how the model evolved. In this book all examples are presented in an evolutionary manner.

Bayesian Analysis of Somatic Cell Score Lactation Patterns in Holstein Cows Using Nonlinear Mixed Effects Models

This book presents a novel modeling approach to biopharamceutics,

pharmacokinetics and pharmacodynamic phenomena. It shows how advanced physical and mathematical methods can expand classical models in order to cover heterogeneous drug-biological processes and therapeutic effects in the body. Throughout, many examples are used to illustrate the intrinsic complexity of drug administration related phenomena in the human, justifying the use of advanced modeling methods.

The Biology of Tumors

Basic Pharmacokinetics and Pharmacodynamics

Praise for the First Edition “This book will serve to greatly complement the growing number of texts dealing with mixed models, and I highly recommend including it in one’s personal library.” —Journal of the American Statistical Association Mixed modeling is a crucial area of statistics, enabling the analysis of clustered and longitudinal data. Mixed Models: Theory and Applications with R, Second Edition fills a gap in existing literature between mathematical and applied statistical books by presenting a powerful examination of mixed model theory and application with special attention given to the implementation in R. The new edition provides in-depth mathematical coverage of mixed models’ statistical properties and numerical algorithms, as well as nontraditional applications, such as regrowth curves, shapes, and images. The book features the latest topics in statistics including modeling of complex clustered or longitudinal data, modeling data with multiple sources of variation, modeling biological variety and heterogeneity, Healthy Akaike Information Criterion (HAIC), parameter multidimensionality, and statistics of image processing. Mixed Models: Theory and Applications with R, Second Edition features unique applications of mixed model methodology, as well as: Comprehensive theoretical discussions illustrated by examples and figures Over 300 exercises, end-of-section problems, updated data sets, and R subroutines Problems and extended projects requiring simulations in R intended to reinforce material Summaries of major results and general points of discussion at the end of each chapter Open problems in mixed modeling methodology, which can be used as the basis for research or PhD dissertations Ideal for graduate-level courses in mixed statistical modeling, the book is also an excellent reference for professionals in a range of fields, including cancer research, computer science, and engineering.

The Onderstepoort Journal of Veterinary Research

Pharmacokinetic-Pharmacodynamic Modeling and Simulation

Pharmocokinetics

Modulation of Multidrug Transporters--a Potential Pharmacokinetic Mechanism of Clinical Drug-drug Interactions

Mixed Models

Technometrics

This book presents a collection of articles that represent individual and expert perspectives in both preclinical and clinical development, including case studies on real-life examples of successful drugs that add value to the pharmacokinetic principles learned and applied. Unlike existing books that focus on pharmacokinetic theory, the current book emphasizes application of pharmacokinetic principles in new drug development.

Biometrics

Introduction to Drug Disposition and Pharmacokinetics

International journal of hypothermia

Now in a revised edition, Comparative Pharmacokinetics: Principles, Techniques, and Applications presents the principles and techniques of comparative and veterinary pharmacokinetics in a detailed yet practical manner. Developed as a tool for ensuring that pharmacokinetics studies are properly designed and correctly interpreted, the book provides complete coverage of the conceptual basis of pharmacokinetics as used for quantifying biological processes from the perspectives of physiology and medicine. New chapters have been added on quantitative structure permeability relationships and bioequivalence, and a number of existing chapters have been significantly revised and expanded to provide a current resource for veterinary and comparative pharmacokinetics.

Regional Pharmacokinetics of the Cytoprotective Agent Amifostine

Statistical Thinking for Non-Statisticians in Drug Regulation, Second Edition, is a need-to-know guide to understanding statistical methodology, statistical data and results within drug development and clinical trials. It provides non-statisticians working in the pharmaceutical and medical device industries with an accessible introduction to the knowledge they need when working with statistical information and communicating with statisticians. It covers the statistical aspects of design, conduct, analysis and presentation of data from clinical trials in drug regulation and improves the ability to read, understand and critically appraise statistical methodology in papers and reports. As such, it is directly concerned with the day-to-day practice and the regulatory requirements of drug development and clinical trials. Fully conversant with current regulatory requirements, this second edition includes five new chapters covering Bayesian statistics, adaptive designs, observational studies, methods for safety analysis and monitoring and statistics for diagnosis. Authored by a respected lecturer and consultant to the pharmaceutical industry, Statistical Thinking for Non-Statisticians in Drug Regulation is an ideal

guide for physicians, clinical research scientists, managers and associates, data managers, medical writers, regulatory personnel and for all non-statisticians working and learning within the pharmaceutical industry.

Pharmacokinetic-Pharmacodynamic Modeling and Simulation

Adrenal Cortex presents a critical review of functional and structural zonation of the cortex. It discusses the regulation of adrenocortical function by control of growth and structure. It also addresses the adrenal cortex in the fetus and neonate. It demonstrates the cellular mechanisms involved in the acute and chronic actions of ACTH. Some of the topics covered in the book are the molecular structures of mineralocorticoid and glucocorticoid receptors; description of adrenarche and adrenal hirsutism; types of congenital enzymatic defects of the adrenal; aetiology and management of Cushing's

Modeling in Biopharmaceutics, Pharmacokinetics and Pharmacodynamics

Updated with new chapters and topics, this book provides a comprehensive description of all essential topics in contemporary pharmacokinetics and pharmacodynamics. It also features interactive computer simulations for students to experiment and observe PK/PD models in action. • Presents the essentials of pharmacokinetics and pharmacodynamics in a clear and progressive manner • Helps students better appreciate important concepts and gain a greater understanding of the mechanism of action of drugs by reinforcing practical applications in both the book and the computer modules • Features interactive computer simulations, available online through a companion website at: https://web.uri.edu/pharmacy/research/rosenbaum/sims/ • Adds new chapters on physiologically based pharmacokinetic models, predicting drug-drug interactions, and pharmacogenetics while also strengthening original chapters to better prepare students for more advanced applications • Reviews of the 1st edition: “This is an ideal textbook for those starting out and also for use as a reference book ." (International Society for the Study of Xenobiotics) and “I could recommend Rosenbaum’s book for pharmacology students because it is written from a perspective of drug action . . . Overall, this is a well-written introduction to PK/PD . “ (British Toxicology Society Newsletter)

Adrenal Cortex

Developing Solid Oral Dosage Forms is intended for pharmaceutical professionals engaged in research and development of oral dosage forms. It covers essential principles of physical pharmacy, biopharmaceutics and industrial pharmacy as well as various aspects of state-of-the-art techniques and approaches in pharmaceutical sciences and technologies along with examples and/or case studies in product development. The objective of this book is to offer updated (or current) knowledge and skills required for rational oral product design and development. The specific goals are to provide readers with: Basics of modern theories of physical pharmacy, biopharmaceutics and industrial pharmacy and their applications throughout the entire process of research and development of oral dosage forms Tools and

approaches of preformulation investigation, formulation/process design, characterization and scale-up in pharmaceutical sciences and technologies New developments, challenges, trends, opportunities, intellectual property issues and regulations in solid product development The first book (ever) that provides comprehensive and in-depth coverage of what's required for developing high quality pharmaceutical products to meet international standards It covers a broad scope of topics that encompass the entire spectrum of solid dosage form development for the global market, including the most updated science and technologies, practice, applications, regulation, intellectual property protection and new development trends with case studies in every chapter A strong team of more than 50 well-established authors/co-authors of diverse background, knowledge, skills and experience from industry, academia and regulatory agencies

Handbook of Clinical Pharmacokinetics

With its clear, straightforward presentation, this text enables you to grasp all the fundamental concepts of pharmacokinetics and pharmacodynamics. This will allow you to understand the time course of drug response and dosing regimen design. Clinical models for concentration and response are described and built from the basic concepts presented in earlier chapters. Your understanding of the material will be enhanced by guided computer exercises conducted on a companion website. Simulations will allow you to visualize drug behavior, experiment with different dosing regimens, and observe the influence of patient characteristics and model parameters. This makes the book ideal for self-study. By including clinical models of agonism, indirect drug effects, tolerance, signal transduction, and disease progression, author Sara Rosenbaum has created a work that stands out among introductory-level textbooks in this area.You'll find several features throughout the text to help you better understand and apply key concepts: Three fictitious drugs are used throughout the text to progressively illustrate the development and application of pharmacokinetic and pharmacodynamic principles Exercises at the end of each chapter reinforce the concepts and provide the opportunity to perform and solve common dosing problems Detailed instructions let you create custom Excel worksheets to perform simple pharmacokinetic analyses Because this is an introductory textbook, the material is presented as simply as possible. As a result, you'll find it easy to gain an accurate, working knowledge of all the core principles, apply them to optimize dosing regimens, and evaluate the clinical pharmacokinetic and pharmacodynamic literature.

Drug Investigation

Statistical Thinking for Non-Statisticians in Drug Regulation

Drug Metabolism and Drug Interactions

For a decade and a half, Biopharmaceutics and Clinical Pharmacokinetics has been used in theclassrooms around the world as an introductory textbook on biophannaceutics and phannacokinetics.Now, the new Fourth Edition, Revised and

Expanded further enhances the preceding editions'proven features, introducing significant advances in clinical pharmacokinetics, pharmacokineticdesign of drugs and dosage forms, and model-independent analyses.Still usable without prior knowledge of calculus or kinetics, this successfully implemented workbookmaintains a carefully graduated "building block" presentation, incorporating sample problemsand exercises throughout for a thorough understanding of the material.Biopharmaceutics and Clinical Pharmacokinetics features a growth-oriented format that systematicallydevelops and interrelates all subject matter .. . introduces basic theory and fields of application emphasizes model-independent pharmacokinetic analyses presents biopharmaceutical aspectsof product design and evaluation .. . offers a unique approach to teaching dosage regimen design andindividualization . .. and considers structural modification of drug molecules for problems associatedwith pharmacokinetics.As a comprehensive coverage of the basic principles and the recent achievements in the field, noother textbook does as much for students of pharmacy, pharmacology, medicinal chemistry, andmedicine, or for scientists who desire a simple but thorough introduction to theory and application.

UCSF News

Drug Use in Renal Disease

Basic Pharmacokinetics and Pharmacodynamics

Essential Pharmacokinetics: A Primer for Pharmaceutical Scientists is an introduction to the concepts of pharmacokinetics intended for graduate students and new researchers working in the pharmaceutical sciences. This book describes the mathematics used in the mammillary model as well as the application of pharmacokinetics to pharmaceutical product development, and is useful as both a self-study and classroom resource. Content coverage includes detailed discussions of common models and important pharmacokinetic concepts such as biological half-life, clearance, excretion, multiple dosage regimens and more. Numerous equations, practical examples and figures are incorporated to clearly illustrate the theoretical background of pharmacokinetic behavior of drugs and excipients. Shows how to apply basic pharmacokinetic methods to evaluate drugs, excipients and drug products Uses guided practice questions, mathematical concepts and real-world examples for self-assessment and retention purposes Illustrates how to write and evaluate drug registration files

Nonlinear Least Squares for Linear Compartmental Models

This insightful work provides a useful introduction to the very large and important field of pharmacokinetics. The authors have selected the Time Constant Approach as a unifying view within which to present important application areas. In addition to providing consistency, their approach provides the novice with an intuitive time view that is meaningful from the outset. This approach allows one to get a "feel" for the data and to relate it to other data in a direct and accessible manner. The

Time Constant Approach provides a synthesis of the noncompartmental and compartmental methods, with the advantages of both. It starts by defining a physiologically meaningful model based on the pharmacokinetic processes involved. The Time Constant Approach recognizes pharmacokinetics as a number of processes that move drugs between physiological compartments, each process occurring at its own characteristic length of time, to correlate descriptive pharmacokinetic events with time constants of pharmacokinetic processes. While analogous to the three most common testing approaches for pharmacokinetics (the noncompartmental, compartmental and statistical moment approaches) the Time Constant Approach possesses many advantages.

Biopharmaceutics and Clinical Pharmacokinetics

Essential Pharmacokinetics

Pharmacokinetics

Pharmacokinetic Analysis

ROMANCE ACTION & ADVENTURE MYSTERY & THRILLER BIOGRAPHIES & HISTORY CHILDREN'S YOUNG ADULT FANTASY HISTORICAL FICTION HORROR LITERARY FICTION NON-FICTION SCIENCE FICTION