Book review

Introduction to Basics of Pharmacology and Toxicology

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Those books are the first multi-volume book to cover almost every field related to pharmacology.

The first volume has four sections and includes 34 chapters: general pharmacological principles (source and nature of drugs, drug discovery, pharmacodynamics, pharmacokinetics, and pharmacovigilance, interaction), special topics in pharmacology (pharmacogenetics, chronopharmacology, pharmacoepidemiology), toxicology, molecular biology in pharmacology.

The second volume has 11 parts and includes 70 chapters: autonomic nervous system, central and peripheral nervous system (drug therapy of psychosis and mania, drug dependence and abuse, etc.), autacoids and other chemical mediators (prostaglandins, leukotrienes, and related compounds, nitric oxide, purines, etc.), cardiovascular/renal, pulmonary, gastrointestinal, and endocrine pharmacology, hematopoietic system, chemotherapy of microbial diseases, pharmacotherapy of neoplastic diseases, miscellaneous topics (immunopharmacology, ocular and dermatological pharmacology, nutritional supplements and herbal medicines, immunoglobulins, and vaccines).

Pharmacology developed in the 19th century as a biomedical science that applied the principles of scientific experimentation to therapeutic conditions. Experimental pharmacology distributes the effects of various test substances studied on animal species, which is aimed at exploring safe therapeutic agents suitable for public health and the action and adverse effects of a test substance.

The third volume is designed for the fundamental concepts in experimental pharmacology, research methodology, and biostatistics. Through this book, the readers will learn about different drug discovery methods, experimental animals and their care, types of equipment, and the various bioassays used in experimental pharmacology. This volume contains unique parts on different drug screening methods for evaluating organ systems. It focuses on basic and advanced laboratory techniques and computer-simulated data, written extensively under the Biostatistics section. The methods used for drug analysis have been described in adequate detail with cross-references for further studies and comprehension. Overall, the book is designed systematically with four broad sections with extensive subdivisions for easy tracking, interpretation, and understanding.

**Significant issues in this book include:**

- Readers will learn about essential topics in pharmacology that are hard to find elsewhere, including issues related to environmental toxicology and the latest information on drug poisoning and treatment, analytical toxicology, toxicovigilance or fundamental principles of management of drug poisoning, and the use of molecular biology techniques in pharmacology, gene therapy, stem cell therapy.
- They present up-to-date information on chemical mediators and their significance and cover the diverse groups of drugs acting on different systems, medicines actions, clinical uses, adverse effects, interactions, and subcellular mechanisms of action.
- Certain sections provide medical professionals with the knowledge necessary to understand clinical research articles, design clinical studies, and learn essential concepts in biostatistics expeditiously and concisely. Basic principles and applications of simple analytical methods employed in drug analysis are well written under one section.

Those books are intended for academicians, researchers, pharmacological scientist, other health sciences officers, pharmacist and medical sciences students. They are one of your must-read books to gain comprehensive information and knowledge about pharmacology.

Enjoy the books!