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Essential Concepts in Toxicology

Essential Concepts in Toxicology by Prof P K Gupta (1st edition 2014, pp 364) Published by PharmaMed Press (A unit of BSP Books Pvt. Ltd) Hyderabad-500 095 (Phone: 040-23445605, 23445688. ISBN 978-81-7800-319-1(HB) E-mail: info@pharmamedpress.com

The role of toxicologists' in human and environmental health is well known. Keeping this in view, the author in his book, "Essential Concepts in Toxicology", has covered rightfully latest topics that are essential need for anyone involved in the study, teaching, and research in toxicology.

The book covers 364 pages subdivided into five units consisting of 34 chapters. Unit 1 includes six chapters that provide extensive coverage on basic concepts including commonly used definitions, historical prospective, scope of toxicology, and present status of toxicology in India. These chapters will be useful in understanding the fundamental principles including natural laws and approaches to toxicology. Unit 2 covers three chapters (7-9) dealing with absorption, distribution, excretion, biotransformation, and basic principles of toxicokinetics of xenobiotics. Unit 3 is specially focused on regulatory requirements and good laboratory practices (GLP) used for the safety evaluation of chemicals. This unit has seven chapters (10-16) with many novel ideas on recent topics such as toxicology testing *in vivo* and *in vitro* test procedures used in assessment of toxic potential of chemicals including developmental and reproduction toxicity, genotoxicity studies, preclinical testing procedures for pharmaceuticals, safety evaluation of biotechnology-derived products, and regulatory toxicology of biomaterial and medical devices used in medical practices. The main focus of Unit 4 (chapters 17–30) is on toxic agents derived from different sources such as pesticides, drugs, plant and animal toxins, neurotoxins, irritant poisons, cardiotoxicants, asphyxiants, food poisonings, and therapeutic drugs of abuse including latest information on problems related to adverse effects of radioactive materials on the health. A part of the book (Unit 5) is devoted to analytical, forensic, and diagnostic toxicology, which includes basic principles of specific and non-specific therapeutic measures of common poisonings.

For a long time, we all were waiting to have a book that could look at Indian toxicology from a fresh angle. The book is excellent, crisp, and concise, at the same time it covers all vital aspects of toxicology including GLP and regulatory toxicology. I hope that this book will facilitate the training of toxicologists who are required to have a multidisciplinary knowledge. This book will also prove to be useful in private commercial laboratories, in material science toxicology (biomedical and engineering disciplines), as educators (courses in pharmacy, medicine, dentistry, agricultural, and veterinary practice); and finally for collection, storing, and retrieving toxicology information. As such I feel that this book will be an asset for all pharmacy, medical, and veterinary students and other concerned group of readers having an interest in toxicology.

In brief, this book will be extremely useful to give a better understanding for use in formal courses in the graduate programs in toxicology or self-study by those individuals who wish to be accredited by various organizations concerned with toxicology. The format and printing of the book have been of high order. Photographs, line drawings, flow charts, and tables in the book are relevant and extremely useful. The language of the book is simple and easily understandable. I see a bright future for this book. The author deserves our compliments for preparing this easily readable text, which I hope will become popular among students, professionals, and other concerned group of readers having interest in toxicology.

I wish the book all success.

Dinesh Kumar
Principal Scientist, Division of Pharmacology and Toxicology, Indian Veterinary Research Institute, Uttar Pradesh, India.

Address for correspondence:
Dr. Dinesh Kumar,
Principal Scientist, Division of Pharmacology and Toxicology, Indian Veterinary Research Institute, Izatnagar - 243 122, Uttar Pradesh, India.
E-mail: dineshks17@ivri.res.in

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