Practical Manual of Experimental and Clinical Pharmacology
Dedicated to
My parents, wife (Dr Sujata Upadhyay), son (Debayan Medhi) and all my students for their constant encouragement during my teaching career

Bikash Medhi

Dedicated to
Mentor “Dr Bikash Medhi” who always encouraged and motivated me to do well
My grandma and parents for their emotional caring support and entire family for their constant support whenever I needed
To all “True Friends” who are always with me and encouraged me to excel in life

Ajay Prakash
The purpose of the present book is to provide fundamental knowledge of practical aspects of the subject ranging from laboratory animals to clinical aspects and practical implications of various important recent advances. Learning pharmacology without animal experiment is not practically suitable though various computer assistance learning models are available for teaching experimental pharmacology as an integral part. The postgraduates perform animal experiments to learn and conduct research studies, finally to establish scientific facts and to make their career in the research field. Fundamental principles of pharmacology deal with essential points of pharmacology, animal experimentation methodology, and interpretation of results. Most important is to impart skill to budding pharmacologists, which is an essential area of teaching. In this book, reader could find some of the useful aspects, e.g. number of worked out examples which will help to translate theory into practice. Authors made a sincere attempt to include as much relevant information as possible with illustrated points and suitable examples to make this book comprehensive. Topics covered in this book have been carefully selected based on most of the recent improvised problems as per curriculum designed for pharmacology. We are hopeful that the present book will be helpful for all the postgraduates related to pharmacology, trainees, research workers during their day-to-day activities including allied health discipline and scientists in industrial drug discovery set-up and CRO. Several simple and newer experimental models have been incorporated which will help the students to engage in drug discovery in future. Besides this, several important points have been discussed in this book, e.g. ethics of animal experimentation, care of animals, preparation of solutions. Established technologies have been used in different experiments including cell culture in drug discovery. Clinical pharmacology and pharmacokinetics are special features of this book. Several clinical pharmacology topics including pharmacokinetics related to various aspects have been incorporated systematically which will provide exposure to pharmacology residents.

Lastly suggestions and criticism are most welcome.

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We would like to thank: Dr Monika Singla and Dr Sathish Kumar V (Department of Neurology), Dr Bikash Naredi (Pediatric Surgery), Dr Basanta Hazarika (Department of Pulmonary Medicine), Dr Pranab Bhattacharyya (Department of Cardiology), Dr Ajay Meena and Dr Neeraj (Department of General Surgery), Mr Subodh Kumar (Department of Biophysics), Dr YS Bansal and Mr Sunil Dutt Attrey (Department of Forensic Medicine), Dr Deonis Xess (Apollo Hospital), Mr Devinder Toor (School of Public Health), Dr Prasad Byrav DS, Dr Harjot Kaur and Ms Sazal Patyar (Department of Pharmacology), Postgraduate Institute of Medical Education and Research, Chandigarh for their help in scrutinizing the book. We wish to thank and express gratitude for those books and bibliography, we have consulted for preparing the manuscript of this book. We would like to thank Mr Tarun Duneja (Director–Publishing) of Jaypee Brothers Medical Publishers (P) Ltd for his continuous support and excellent coordination and also to staff of Jaypee Brothers for their hard work and efforts in handling the manuscript with accurate professional skills.
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