GOODMAN'S THE PHARMACOLOGICAL BASIS OF THERAPEUTICS

JOEL G. HARDMAN = LEE E. LIMBIRD

CONSULTING EDITOR
ALFRED GOODMAN GILMAN

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The tenth edition of *Goodman and Gilman's The Pharma-cological Basis of Therapeutics* marks the sixtieth anniversary of this book. The objectives that guided the two original authors in writing the first edition have continued to guide authors and editors of subsequent editions, including this one. These objectives—stated in the preface to the first edition, which is reprinted herein—are: correlation of pharmacology with related medical sciences, reinterpretation of the actions and uses of drugs from the viewpoint of important advances in medicine, and placing of emphasis on the application of pharmacodynamics to therapeutics.

We are indebted to the new and returning contributors to this edition, who worked diligently to revise and update their chapters in a field that is undergoing change at a remarkable pace, and we are grateful to our consultants, who reviewed and made suggestions for improving many chapters. We also are pleased to acknowledge three other individuals who played indispensable roles in the preparation of this edition. Lauralea Edwards, D.Ph., provided thorough and well-researched reviews of the text for accuracy of pharmaceutical information and in addition assisted the editors in the early planning of the edition. Tracy Shields as editorial assistant worked tenaciously and efficiently and with much initiative in preparing the final chapter manuscripts submitted to the publisher and in documenting the accuracy of references. Lynne Hutchison served as managing editor for this edition. Her superb organization and management of the editorial office, effective and diplomatic interactions with contributors and the publisher, well-developed literary skills, and enthusiasm for the project made the many pieces of the book come together in a timely and accurate fashion. The completion of this edition would not have been possible, much less pleasurable, without the dedicated work of these talented women. We also appreciate the help of John Morriss and Kathleen McCullough of McGraw-Hill.

The timing of the publication of the tenth edition of this book, the first edition of the new millennium, is significant. We witness a spectacular revolution in biology and biomedical science that is coupled inexorably with unparalleled access to information. We are struck by a profound tension between knowledge and wisdom. We earnestly seek both. But they fight with each other, particularly when we teach, write, and reason. How do we transmit our intellectual heritage while sustaining the necessary context of insight and applicability? What is the next-generation biomedical textbook to be? Certainly not just a database; print pages will retain their place as a necessary medium of analysis and reason.

Our history provides guidance to meet this challenge. The first edition of this book often is credited with establishing pharmacology as a discipline. This accolade was not earned because of organized exposition of facts, but rather because of synthesis of pharmacological information and application of this synthesis to clinical science. The original authors of this book, Louis S. Goodman and Alfred Gilman, made many contributions as rescarchers, teachers, and sage advisors, but commentators note the creation of this work as their most notable accomplishment. This opinion is borne out by the continuation of the book through ten editions. The careful reader can find many scholarly passages in this edition that appeared in the first and second editions of this book. The seventh edition of this book (1985) was dedicated to Alfred Gilman shortly after his death. The eighth edition (1990) was dedicated to Louis Goodman as he retired from an active editorial role. Louis Goodman, the founder of this book, died on November 19, 2000. He is remembered fondly for his wisdom, scholarship, gruff sense of humor, impeccable sense of perfection, and infuriatingly successful motivational orations for those who would rise to the challenge.

We rededicate this edition to Louis S. Goodman and Alfred Gilman in recognition of their vision and many contributions and with the hope that the need met by the first edition of this book will be met by this and subsequent editions. A book such as this will remain extraordinarily valuable if its heritors adhere to its founding precepts envisioned by these two men.

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Preface to the First Edition

Three objectives have guided the writing of this book—the correlation of pharmacology with related medical sciences, the reinterpretation of the actions and uses of drugs from the viewpoint of important advances in medicine, and the placing of emphasis on the applications of pharmacodynamics to therapeutics.

Although pharmacology is a basic medical science in its own right, it borrows freely from and contributes generously to the subject matter and technics of many medical disciplines, clinical as well as preclinical. Therefore, the correlation of strictly pharmacological information with medicine as a whole is essential for a proper presentation of pharmacology to students and physicians. Furthermore, the reinterpretation of the actions and uses of well-established therapeutic agents in the light of recent advances in the medical sciences is as important a function of a modern textbook of pharmacology as is the description of new drugs. In many instances these new interpretations necessitate radical departures from accepted but outworn concepts of the actions of drugs. Lastly, the emphasis throughout the book, as indicated in its title, has been clinical. This is mandatory because medical students must be taught pharmacology from the standpoint of the actions and uses of drugs in the prevention and treatment of disease. To the student, pharmacological data per se are valueless unless he/she is able to apply this information in the practice of medicine. This book has also been written for the practicing physician, to whom it offers an opportunity to keep abreast of recent advances in therapeutics and to acquire the basic principles necessary for the rational use of drugs in his/her daily practice.

The criteria for the selection of bibliographic references require comment. It is obviously unwise, if not impossible, to document every fact included in the text. Preference has therefore been given to articles of a review nature, to the literature on new drugs, and to original contributions in controversial fields. In most instances, only the more recent investigations have been cited. In order to encourage free use of the bibliography, references are chiefly to the available literature in the English language.

The authors are greatly indebted to their many colleagues at the Yale University School of Medicine for their generous help and criticism. In particular they are deeply grateful to Professor Henry Gray Barbour, whose constant encouragement and advice have been invaluable.

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New Haven, Connecticut November 20, 1940

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