

development, including preclinical discovery and considerations, the rationale for different study designs, problems with study execution, and data analysis. Other issues that must be dealt with in the development process, including adverse drug reactions, special population groups, and control of trials are also discussed. The book contains additional sections on the ethical and regulatory considerations, compassionate use, orphan drug development, and use of the package insert. Finally, the book examines related issues, such as post-approval surveillance and market withdrawal of products.

The book serves well as a discussion of the clinical drug development process and will be of great value to anyone involved in regulatory affairs, clinical research, or pharmaceutical development.

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Clinical Pharmacy and Therapeutics. Fourth Edition. Edited by Eric T. Herfindal, Dick R. Gourley, and Linda Lloyd Hart. Williams and Wilkins: Baltimore. 1988. Textbook: xiii + 1096 pp, 22.2 × 28.5 cm, ISBN 0-683-03963; Workbook: xii + 269 pp, 21.4 × 27.6 cm, ISBN 0-683-03935. \$65.00 for the set.

Clinical Pharmacy and Therapeutics is a well-established therapeutics textbook. For years it has been one of the cornerstone textbooks for use in undergraduate therapeutics courses taught in schools of pharmacy. This fourth edition is significantly expanded to include new chapters on acute myocardial infarction, dialysis and renal transplantation therapy, autoimmune and other rheumatic diseases, Alzheimer's disease, and infections in the immunocompromised host. Approximately 19 new chapters have been added, bringing this edition to 15 sections and 66 chapters. The depth of coverage is similar to *Applied Therapeutics* and appropriate for undergraduate pharmacy students. *Clinical Pharmacy and Therapeutics* presents material in a traditional textbook format which students sometimes find easier to follow than the question and answer approach used in *Applied Therapeutics*. In contrast to *Pharmacotherapy: A Pathophysiologic Approach*, the coverage of material is not as extensive and is more oriented to community pharmacy practice. Topics such as gynecology, contraception, infertility, and teratogenicity of drugs, which are not well covered in *Pharmacotherapy: A Pathophysiologic Approach*, are provided appropriate coverage.

This edition includes a case-oriented workbook containing 115 cases organized by the corresponding section in the textbook. The cases are divided into two major categories, study and practice cases. The study cases consist of fully analyzed cases and those that have questions with answers provided. The practice cases either have specific questions for which the user is referred to the appropriate section in the textbook or they have neither questions nor answers. Each case uses the problem-oriented approach and there is ample space within the workbook for students to analyze each case using this format. The inclusion of the workbook provides this text with a distinct advantage over other therapeutics textbooks, particularly when required in courses that use a case-oriented format. The only area of potential improvement is in better coordination between the cases that ask specific questions and the location of the answers in the back of the

workbook; providing the location of the answer after each set of questions would be quite beneficial to the user. Overall, the fourth edition of *Clinical Pharmacy and Therapeutics* is significantly improved over previous editions. It is highly recommended for use as a primary textbook for undergraduate therapeutic courses.

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Fluorescent Biomolecules: Methodologies and Applications. Edited by David M. Jameson and Gregory D. Reinhart. Plenum: New York, 1989. X + 461 pp. 17 × 24.5 cm. ISBN 0-306-431130. \$89.50.

This book is derived from 18 papers and abstracts from 32 poster presentations given in September 1986 at a symposium held in Bocca di Magra, Italy, in honor of the seventieth birthday of Gregorio Weber. In addition, there is a chapter based on the closing remarks at the symposium by Professor Weber, one of the pioneers of the application of fluorescence spectroscopy to biological systems. It is noteworthy that Weber's closing remarks, which constitute an overview of the history and speculations on the future of biochemical fluorimetry, is one of the most readable and thought provoking chapters in the text.

Half of the 18 papers that comprise the major portion of the book are reasonably self-contained expositions giving overviews of specialized applications of fluorescence spectroscopy. These include the chapters by F. Bassani on applications of luminescence to the study of solids; by M. Piacentini on lifetime measurements of color centers by fluorimetry; by B. Valeur on energy transfer in bichromophoric molecules; by W. W. Mantulin on lipid transfer reactions; by M. Shinitzky on chirality in biological matter; by K. Jacobson, et al., on digitized fluorescence microscopy; by J. Eisinger on membrane fluidity and diffusive transport, and E. W. Voss on monoclonal antibody-fluorescent ligand interactions. It is these chapters that give the book its real substance. The remaining chapters are interesting but are accounts of individual research and as such are very specialized, probably belonging in journals rather than between hard covers. The abstracts, although occupying about twenty percent of the text, convey too little information to be of substantial use. A notable exception is the first abstract by A. U. Acuña and M. P. Lillo on a non-linear least squares treatment of the isothermal Perrin-Weber plot in terms of rotational correlation times. This abstract actually reads like a short paper in which all of the "chaff" has been eliminated; it gets to the point immediately. Many authors could take a lesson from this.

All in all, the book does represent a reasonable spectrum of the most modern techniques used in the fluorimetric study of biological systems.

It is reasonably priced as these specialized texts go and it should be part of the library of any serious investigator in the field.

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