

**Annual Review of Biochemistry, Volume 79.** Edited by Roger D. Kornberg, Christian R. H. Raetz, James E. Rothman, and Jeremy W. Thorner. Annual Reviews, Inc., Palo Alto, CA. 2010. xii + 851 pp. 19.5 × 24 cm. ISBN 978-0-8243-0979-7. \$89.00.

The prefatory chapter, an autobiographical article by Aaron Krug describing his work on the structure of the nucleosome and chromatin, provides a unique historical retrospective of the work. This chapter is followed by 27 reviews written by experts in the field. The book also contains indices of chapter titles and authors for Volumes 75–79. A minor change from the previous volume is a slight reduction in the number of reviews.

The volume is not divided thematically but rather contains a single section entitled “Recent Advances in Biochemistry”. Editor James Rothman indicates in the Preface that recent volumes, including Volume 79, have been used to highlight systems science, including genomics, proteomics, and metabolomics, as a complement to the frequently called “reductionist approach” to science. The focus is highlighted by chapters such as “Genomic Screening with RNAi: Results and Challenges” by Mohr et al. and “High-Throughput Metabolic Engineering: Advances in Small Molecule Screening and Selection” by Dietrich et al.

This volume will be an excellent addition to the libraries of those interested in basic biochemistry, as well as those interested in signal integration, nucleic acid pathways and stability, glycobiology, and general medicinal chemistry and pharmacology. The chapters of the book are well-composed and should be easy to understand for readers with even the most basic knowledge of biochemistry while providing depth of insight from which advanced readers will benefit. The chapters are well organized and complemented by rich, high-quality figures, diagrams, photographs, and micrographs. Each chapter is clearly outlined and ends with sections of “Summary Points” and “Future Issues,” which are convenient and can serve as points of discussion if a particular chapter is used in a teaching environment. The chapters are also extensively referenced and include keywords and abstracts.

In summary, Volume 79 is a high-quality and outstanding addition to the *Annual Reviews of Biochemistry* series. The quality of writing, organization, and rich visuals are combined to form a valuable resource that is enjoyable to use for those engaged in biochemical and biomedical research.

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**The Chemist’s Companion Guide to Patent Law.** By Chris P. Miller and Mark J. Evans. Wiley, Hoboken, NJ. 2010. xiv + 329 pp. 16 × 24 cm. ISBN 978-0-471-78243-8. \$99.95.

Patents have traditionally been a key element in the success of the pharmaceutical industry and its stakeholders, but their importance is now critical owing to the emergence of the “patent cliff” and the increasing efforts of generic manufacturers to identify fatal flaws in existing pharmaceutical patents. In the coming 5 years, patents protecting seven major products with combined sales of nearly \$50B will expire. Medicinal chemists and other drug discovery inventors have the most accurate knowledge of the prior art underlying their discoveries, and they are uniquely qualified to work closely with patent professionals to craft strong patents to protect their discoveries. It is important, therefore, that they fully understand such concepts as novelty and obviousness that are the targets of attack on pharmaceutical patents. The publication of this book is an important step in that direction. The training and work experience of the authors of this book include patent law, medicinal chemistry, and broad industrial activities in the synthetic, biotechnology, and drug development sectors. As explained in the preface, the presentation of their subject is similar to that used in law schools, comprising an “explanation surrounding a given topic coupled with discussions centered on actual federal court opinions”. I found this treatment to produce a lucid and informative discussion of U.S. patent law.

This volume is divided into nine chapters: Basics; Patent Procedures; Prior Art; Inventorship; Claims; Utility; Obviousness; Written Description (including enablement and best mode). Its effective text is written in a didactic but informal style, and it is illustrated by helpful structural formulas and examples of claims. The latter are not error-free, however; for example, on p 162 the first line under the structures states Y when Y’ is meant, making the lengthy discussion difficult to understand. The excellent Chapter 8, on the critically important topic of obviousness, is justifiably the longest one, comprising about a quarter of the book. It went to press too soon to include the 2010 Patent Office update of obviousness (<http://edocket.access.gpo.gov/2010/pdf/2010-21646.pdf>) which includes two dozen federal circuit cases, each with a “teaching point ... selected for [its] instructional value on the issue of obviousness”.

This well-priced, up-to-date publication is attractively printed and produced by the publisher. The many federal court decisions supporting the text are usefully collected in a separate citation index at the end of the volume. By contrast, the three-page subject index is glaringly incomplete and it should be expanded in a future edition. This book is especially recommended for chemists and other members of drug discovery teams, for graduate students, postdocs, for faculty members who have interests in drug discovery, for others who would like a one-volume review of U.S. patent law, and for the libraries that serve these groups.

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