

BOOK REVIEWS

Hormones and Their Actions—Part II, Specific Actions of Protein Hormones. Edited by B. A. COOKE, R. J. B. KING and H. J. VAN DER MOLEN. *New Comprehensive Biochemistry*, Vol. 18B (General Editors: A. NEUBERGER and L. L. M. VAN DEENEN). Published 1988 by Elsevier, Amsterdam. No. of pages: 366. ISBN: 0-444-80997-X.

This book in the *New Comprehensive Biochemistry* series is the second of two volumes concerning the mechanism of action in target tissues by different hormones and contains the following main chapters:

- G proteins and transmembrane signalling;
- Inositol phospholipids and cellular signalling;
- The role of calcium binding proteins in signal transduction;
- Mechanism of action of Ca²⁺-dependent hormones;
- Mechanism of action of pituitary hormone releasing and inhibiting factors;
- Mechanism of gonadotropin releasing hormone action;
- The mechanisms of action of luteinizing hormone:
 - I. Luteinizing hormone-receptor interactions;
 - II. Transducing systems and biological effects;
- Mechanism of action of FSH in the ovary;
- The mechanism of ACTH in the adrenal cortex;
- Mechanism of action of angiotensin II;
- Mechanism of action of glucagon;
- Mechanism of action of growth hormone;
- Mechanism of action of prolactin;
- Structure and function of the receptor for insulin;
- A comparison of the structures of single polypeptide chain growth factor receptors that possess protein tyrosine kinase activity.

This volume would be very useful for people working in general endocrinology, gynecology, molecular biology, and biochemistry, as well as for advanced students.

Molecular Endocrinology. By FRANKLYN F. BOLANDER. Published 1989 by Academic Press, San Diego and London. No. of pages: 318. ISBN: 0-12-111230-6. Price \$39.50.

In the last years there has been an enormous advance in different aspects of molecular biology in hormone action. This book is a synthesis of up-to-date information on this problem and the main objectives are as follows: (1) to present a succinct summary of molecular endocrinology, (2) to offer a perspective and synthesis of this information, and (3) to introduce certain useful techniques to the reader. Although this text attempts to cover, in one place, all of the major facets of this field, it is not meant to be an all-inclusive

compendium. Rather, it covers basic principles using selected examples. This allows for a streamlined text, where major concepts are preeminent. However, the information should be easily transferable to other systems that may be of more interest to the reader.

The book is composed of the following chapters under several main headings:

- Introduction and general endocrinology;
- Receptors: kinetics; nuclear receptors; membrane receptors; receptor regulation;
- Transduction: cyclic nucleotides; calcium, calmodulin, and phospholipids; miscellaneous second messengers; nontranscriptional effects of hormones;
- Gene regulation by hormones: transcriptional regulation; histone and nonhistone protein modifications; posttranscriptional control;
- Special topics: molecular evolution of the endocrine system; hormones and oncogenes; molecular bases of endocrinopathies.

This would be a very useful book for biophysicists, biochemists, molecular biologists, and advanced students.

Recombinant DNA Laboratory Manual. By JUDITH W. ZYSKIND and SANFORD I. BERNSTEIN. Published 1989 by Academic Press, San Diego and London. No. of pages: 195. ISBN: 0-12-78400-7. Price \$24.95.

This book contains very interesting and practical information about the methodology of recombinant DNA which is one of the most useful techniques at present in molecular biology.

The following main chapters contain all kinds of methodological details:

- Bacterial growth parameters;
- Isolation and analysis of bacterial and *Drosophila* chromosomal DNA.
- Plasmid DNA isolation and agarose gel analysis;
- Introduction of DNA into cells;
- Tn5 mutagenesis of pBR329;
- DNA cloning in M13;
- DNA sequencing;
- DNA gel blotting, probe preparation, hybridization, and hybrid detection;
- Lambda phage manipulations:
 - (A) phage plating and plaque transfer;
 - (B) bacteriophage lambda miniprep.

This manual would be very useful for molecular biologists, physiologists, biochemists, and advanced students.