

BOOK REVIEWS

Hormonal Regulation of Growth, Sero Symposia Publications, Vol. 58. Edited by H. FRISCH and M. O. THORNER. Published 1989 by Raven Press, New York. No. of pages: 323. ISBN: 0-88167-426-5. Price: \$85.50.

This book covers recent advances achieved in this important problem of the control of growth. Major progress has been made during the last years in the area of growth hormone research. The symposium on "Hormonal Regulation of Growth", the proceedings of which are published in this volume, has taken into consideration various fields of research, such as the regulation of growth hormone secretion, mechanisms of growth hormone actions and therapeutic implications.

The contributions review the present knowledge and recent data on the physiology of growth hormone releasing hormone secretion, the direct and indirect actions of growth hormone and the interaction between growth hormone, its binding protein and the growth hormone receptor. New data on the regulation and function of the insulin-like growth factor (IGF) complete the present understanding of the mechanisms of growth hormone action. The following main topics are included:

- Regulation of growth hormone secretion;
- Mechanisms of growth hormone actions;
- Therapeutic implications.

The book has aimed to establish the essential context between research data from the laboratory and practical usefulness for clinicians. Although biosynthetic growth hormone is available now in abundance, little is known about possible beneficial effects in conditions other than classical growth hormone deficiency. It is a challenge now to establish in well defined clinical studies whether growth hormone will have additional clinical use.

This book would be very useful for endocrinologists, gynecologists, pediatricians and general clinicians.

The Adrenal and Hypertension: From Cloning to Clinic, Sero Symposia Publications, Vol. 57. Edited by E. MANTERO, R. TAKEDA, B. A. SCOGGINS, E. G. BIGLIERI and J. W. FUNDER. Published 1989 by Raven Press, New York. No. of pages: 496. ISBN: 0-88167-421-4. Price: \$106.00.

The determination of the structure of the mineralocorticoid and glucocorticoid hormones has been a major advancement in explaining the mechanism whereby cortisol may act as an effective mineralocorticoid hormone. Techniques are presented that make it possible to determine if receptor occupancy leads to post-receptor events.

Mineralocorticoid receptors were demonstrated at multiple sites within the central nervous system. Their involvement on human behaviour and blood pressure control at the central level are areas where much more information must be obtained.

Atrial natriuretic peptide has many physiologic actions on renal function, and in hormonal and blood pressure regulation. It is still not clear how this factor integrates with known systems for sodium and vascular control, and whether it is a response to a physiologic stimulus or whether it can, by itself, direct a physiologic response or produce a clinical abnormality.

The hypothalamic–pituitary–adrenal axis has been revisited with the information generated from studies with corticotropin-releasing hormone (CRH). CRH has strong links to central factors such as stress and the circadian rhythm. It has been useful in identifying the subtypes of Cushing's syndrome.

This volume contains the following main topics:

- Steroid biosynthesis;
- Na handling and steroid action;
- Hypothalamic–pituitary–adrenal axis and hypertension;
- Experimental and clinical hypertension.

This book would be very useful for endocrinologists, cardiologists, biologists, and people working in the field of molecular biology.

The Language of Biotechnology, A Dictionary of Terms. JOHN M. WALKER and M. COX. Published 1988 by the American Chemical Society, Washington, D.C. No. of pages: 256. ISBN: 0-8412-1490-5. Price: \$49.95 (Cloth-bound); \$29.95 (Paperback).

This is an interesting book with very useful and practical information concerning the terminology used in molecular biology, which is one of the most important aspects of scientific development at present. To define the term "biotechnology" or to describe the role of a biotechnologist is never easy. Such broad terms often mean different things to different people. As a starting point, biotechnology can be defined as the practical application of biological systems to the manufacturing and service industries and to the management of the environment.

The authors of this dictionary have attempted to define routinely used specialized language in the various areas of biotechnology. The clear and practical focus of the book offers an opportunity for researchers in varied fields to standardize their terminology. Involved scientists should be able to read and appreciate texts relating to a particular area of biotechnology, even when this area is unrelated to their own disciplines. Some of the subject areas covered are microbial biochemistry and physiology, molecular biology and genetics, genetic engineering, animal and plant cell culture, enzyme and protein technology, fermentation technology, biochemical engineering, process control, down-stream processing, and waste and environmental toxicology.

This book is very useful for all researchers working in the fields of molecular biology, biochemistry, biophysics and biology.

Growth Abnormalities, Sero Symposia Publications, Vol. 56. Edited by J. R. BIERICH, E. CACCIARI and S. RAITI. Published 1989 by Raven Press, New York. No. of pages: 496. ISBN: 0-88167-424-9. Price: \$101.00.

This book contains up-to-date information concerning the very important problem of growth which, as has been very well established, is a consequence of many

hormones and growth factors. The main topics covered are as follows:

- Intrauterine growth retardation;
- Pathology of pubertal development and growth;
- Environmental factors and growth;
- Final height in classical and nonclassical 21-hydroxylase deficiency adrenal hyperplasia;
- Short stature and somatomedins;
- Genetic syndromes and growth;
- Schedules for growth hormone treatments;
- Treatment with human growth hormone in GH-deficient infants and very young children;
- Side effects of growth hormone treatment;
- Effect of clonidine administration on linear growth and growth hormone concentrations in children with

constitutional growth delay;

- GRF (1–29) and GRF (1–44) tests in GH-deficient children;
- Growth abnormalities in the first year of life in small or gestational age infants;
- Growth hormone gene deletion without growth arrest in an infant treated with bio-methionyl GH;
- GH response after GHRH 1–29 stimulation in Turner syndrome;
- Growth factors in human foetal plasma during the second trimester of gestation: *in utero* study.

This book would be very useful for pediatricians, endocrinologists, gynecologists, and people working in the field of molecular biology.