

The following chapters are included:

- the chemistry of lipids;
- inherited defects of lipid metabolism;
- epidemiology of blood lipids and atherosclerosis;
- complications of hyperlipidaemia in the eye;
- complications of hyperlipidaemia at the arterial wall;
- secondary hyperlipidaemias;
- therapy;
- intervention trials;
- the lipid clinic.

This book would be useful for biologists, molecular biologists, and endocrinologists, as well as for advanced students.

**The Physiology of Reproduction, Volumes 1 and 2** (2-volume set), Second Edition. Editors-in-chief: E. Knobil and J. D. Neill, Associate Editors: G. S. Greenwald, C. L. Markert and D. W. Pfaff. Published December 1993, Raven Press, New York. Price: US\$454.00. No. of pages: 2750. ISBN: 0-7817-0086-8.

The revised, updated second edition of this classic work is a masterful distillation of breakthrough research on mammalian reproductive physiology. Among its nearly 100 contributors are many of the investigators directly responsible for the field's spectacular progress in recent years. Topics throughout the second edition have been added, condensed, expanded, or completely revamped to reflect new findings on reproductive physiology, endocrinology, and reproductive behaviour.

The 6 years that have elapsed between the first and second editions have seen dramatic and often unanticipated developments in some aspects of reproductive biology, with only little new understanding in others. But, as expected, the quantity and difficulty of the questions raised has increased manifold. We remain markedly ill-informed of the complex control systems that govern reproductive processes and surprised by the striking species differences in the accomplishment of common, fundamental reproductive tasks. The control of ovulation, the advent of puberty, and the initiation of parturition are but three cases in point.

The second edition provides extensive coverage of new research techniques and instruments; recent studies of interactions between hormones and genes; new findings on the structure of receptors; and newly identified endocrine and paracrine substances such as endothelins, interleukins, activins, inhibins, and prorenin. Included are accounts of the latest attempts to elucidate the neural mechanism underlying pulsatile secretion and identify the elusive pulse generator in the central nervous system. Close attention is also given to clinical advances, especially in manipulation of male and female reproductive systems to enhance or inhibit fertility. The main sections included are: *Volume 1*: the gametes, fertilization and early embryogenesis; the reproductive systems; the male; the pituitary and the hypothalamus; *Volume 2*: reproduction behavior and its control; reproductive processes and their control.

This two-volume set would be very useful for those working in the fields of physiology, reproduction, endocrinology, paediatrics, biochemistry, and biology, as well as being a very good textbook for advanced students.

**Major Advances in Human Female Reproduction.** Edited by E. Y. Adashi and S. Mancuso. Sero Symposia Publications from Raven Press, Volume 73. Published August 1991, Raven Press, New York. Price at publication: US\$122.50. No. of pages: 426. ISBN: 0-88167-652-7.

Research in the field of human reproduction is a rapidly expanding branch of modern biology and medicine. Starting from classical concepts of endocrinology, the regulation of the mechanisms involved in the control of female reproductive function have been extensively investigated but they still remain incompletely understood. Developments in molecular and cellular biology, as well as major technological advances have led, however, to a better understanding of these processes and to a more timely application in the clinical practice of new concepts derived from basic studies, thus the linkage between basic and clinical events has become closer. This volume represents the *Proceedings of the International Symposium on Major Advances in Female Reproduction* held in Rome, Italy, in May 1990 and includes the following topics: puberty (pubertal development, neuroendocrine and paracrine events, external-related factors, pathophysiological aspects and clinical management), the follicular function (endocrine and paracrine regulation, inhibitors and stimulators), the corpus luteum (pulsatile secretion of hormones, factors modulating synthesis or function), achievements in neuroendocrinology, and female hyper-androgenism (pathophysiological events involved, and clinical management from a multidisciplinary approach).

This book would be useful for those working in the fields of gynecology, reproduction, endocrinology, biology and clinics, as well as for advanced students.

**The New Biology of Steroid Hormones.** Edited by R. B. Hochberg and F. Naftolin. Sero Symposia Publications from Raven Press, Volume 74. Published July 1991, Raven Press, New York. Price at publication: US\$131.50. No. of pages: 376. ISBN: 0-88167-653-5.

This volume contains the proceedings of a Sero Foundation Symposium held in Budapest, Hungary, in 1990.

In 1957, Elwood Jensen synthesized carrier free 6,7-<sup>3</sup>H-labelled estradiol, which allowed him to demonstrate that estradiol was concentrated in estrogen sensitive tissues against a blood gradient. This important discovery permitted experiments that shed light on the mechanism by which steroid hormones acted and thus the estrogen receptor was discovered. Later studies with other <sup>3</sup>H-steroids uncovered a common mechanism involving what is now known as the steroid/thyroid/vitamin receptor superfamily, and the role of steroid receptors in the activation of genomic transcription has been the subject of many recent meetings and publications. This volume presents extensive studies of newly discovered mechanisms of steroid hormone action that modulate the effects of these hormones independently of, or in addition to, classical steroid hormone receptor mechanisms. A major focus of the book is the ways in which the metabolism of the steroid molecule can modulate the hormonal signal. Important studies describe the metabolic pathways that transform steroid hormones into carcinogens and the effects