

- The syndrome of hyperdeoxycorticosteronism.
- 19-Nor-deoxycorticosterone in genetic and experimental hypertension in rats and in human hypertension.
- Androgen- and estrogen-producing adrenocortical tumors causing hypertension.

The Adrenomedullary Hormones: Pheochromocytoma.

- Pheochromocytoma from the biochemical, pharmacokinetic, and pathophysiologic point of view.
- Localization of functioning sympathoadrenal lesions.
- Atrial natriuretic peptide (ANP) in human hypertension.

This book would be very useful for general clinicians, cardiologists, physiologists, and advanced students.

The Thyroid Gland. Comprehensive Endocrinology series. Edited by M. A. GREER. Published 1990 by Raven Press, New York. No. of pages: 608. ISBN: 0-88167-668-3. Price at Dec. 1990: \$119.00.

This book covers in detail areas of current interest including the development, structure and function of the thyroid, its regulation by and interaction with the nervous and immune systems, the metabolism and cellular interactions of thyroid hormone, the relative merits of clinical tests of thyroid function, and contemporary concepts of the etiology, pathogenesis, and treatment of common thyroid diseases. It provides in-depth critical reviews of recent breakthroughs in the understanding of the thyroid, as well as the clinical evaluation and management of thyroid disorders, the embryology, phylogeny, anatomy and physiology of the thyroid gland and the biochemistry of thyroid hormone formation and secretion. A detailed analysis of the regulation of thyroid function highlighting current concepts of thyrotropin-releasing hormone and the immune system is also included. There is an extensive section on extra-thyroidal hormone metabolism and thyroid hormone action including the latest research on plasma transport of thyroid hormone, cellular transport systems regulating thyroid hormone bioactivity, deiodination and conjugation in the hepatic metabolism of thyroid hormone, identification and structural analysis of thyroid deiodinases, and structure and mechanisms of action of thyroid hormone receptors. Other contributors discuss current approaches to diagnosis and management of nontoxic goiter, hyperthyroidism, hypothyroidism and thyroid cancer.

The chapters are gathered under three main headings:

- Control of thyroid function.
- Extrathyroidal hormone metabolism and thyroid hormone action.
- Diseases of the thyroid.

This volume will be valuable to anyone interested in a more complete understanding of the thyroid gland than is available in standard introductory texts, in particular to the basic scientist and clinician, as well as to pathologists and advanced students.

The Endocrine Pancreas. Comprehensive Endocrinology series. Edited by E. SAMOLS. Published 1990 by Raven Press, New York. No. of pages: 554. ISBN: 0-88167-722-1. Price at Jan. 1991: \$150.00.

This volume is a unique compendium of the latest information about the endocrine pancreas in mammals, including man, covering the structure of the endocrine pancreas; the physiology and pathophysiology of islet hormone synthesis and secretion; neural, hormonal, and metabolic regulation of the endocrine pancreas; immunologic factors in the pathogenesis, diagnosis, and treatment of insulin-dependent diabetes mellitus; and improved methods of pancreatic transplantation. The studies presented support the emerging view of the endocrine pancreas as a co-ordinated organ rather than a collection of individual cells in islets scattered throughout the exocrine pancreas.

The chapters are collected under four main headings:

- Structure of the endocrine pancreas;
- Hormone synthesis and secretion—normal physiology and pathophysiology;
- Regulatory mechanism—neural, hormonal, and metabolic;
- Prognosis and therapy when the endocrine pancreas decompensates.

A description of the anatomy of the islets of Langerhans is followed by a detailed analysis of the anatomy of islet innervation, with remarkable illustrations showing immunostained islets, nerves, and ganglia. The section on hormone synthesis and secretion includes studies on the biosynthesis of glucagon, the heterogeneity of islet hormones, and the many "novel" islet peptides other than insulin, glucagon, and somatostatin, as well as seminal research work on the metabolism of nutrients in islet cells, the key metabolic regulatory mechanisms in insulin secretion, abnormal glucagon secretion in diabetes, pancreatic islet abnormalities in the hypoglycemia, and insulin secretory abnormalities in non-insulin-dependent diabetes mellitus. Other chapters explain the significance of intra-islet and islet-acinar portal systems for metabolism and describe the functioning of the endocrine pancreas during pregnancy.

Important studies examine the influence of the intestine and central nervous system on the endocrine pancreas, analyze the regulation of pulsatile islet hormone secretion, and show that the major long-term clinical action of the sulfonyleureas is achieved through their effects on the pancreatic islets. A discussion of counterregulation when the endocrine pancreas is defective sheds new light on the cause of hypoglycemia during insulin therapy. Also included are new findings on the adverse effects of hyperglycemia on the islets and on phospholipid-derived regulators of insulin secretion.

The section on prognosis and therapy of diabetes mellitus highlights the value of autoantibodies as markers for identifying individuals at risk for insulin-dependent diabetes mellitus and demonstrates that the immunogenicity of isolated islets can be altered *in vitro* prior to transplantation. Full consideration is given to the applications, problems, and promise of the artificial pancreas and the benefits of pancreatic transplantation. The book also presents experimental and clinical data on new methods of islet isolation and transplantation.

This volume would be very useful for endocrinologists, physiologists, and diabetologists, as well as for advanced students.