

Contents

Preface	vii
Contributors	ix
1. Introduction by J. M. B. Bloodworth, Jr., M.D.	1
Definitions	1
Prostaglandins and Related Compounds ..	6
Lung as an Endocrine Organ	8
Somatomedins and Related Growth Factors ..	14
Neuroendocrinology	21
2. Mechanisms of Hormone Action by Ira D. Goldfine, M.D.	37
3. Neurohypophysis and Hypothalamus by H. L. Sheehan, M.D., D.Sc., and Kalman Kovacs, M.D.	45
Pathologic Techniques	45
Anatomy and Physiology	47
Pathology	63
4. Pathology of the Adenohypophysis by Calvin Ezrin, M.D., Kalman Kovacs M.D., and Eva Horvath, Ph.D.	101
5. New Approaches to the Study of the Human Pineal Organ by Michael A. Moskowitz, M.D., and Richard J. Wurtman, M.D.	133
6. Thyroid Gland by Sheldon C. Sommers, M.D.	155
7. The Parathyroid Glands by Abner Golden, M.D., and Donald M. Kerwin, M.D.	205
8. Endocrine Activities of Tumors (Ectopic Hormones) by Sheldon C. Sommers, M.D., and Victor E. Gould, M.D.	221
9. Effect of Steroids and Oral Contraceptives on the Female Reproductive Tract and Breast by Henry J. Norris, M.D., and George D. Hilliard, M.D.	245
Female Reproductive Tract	245
Oral Contraceptive Steroids	256
Breast	258
10. The Ovaries in Endocrine Disorders by George D. Hilliard, M.D., and Henry J. Norris, M.D.	267
Growth, Anatomy and Physiology	267
Functioning Ovarian Tumors	271
Endocrine Effects of Nonendocrine Tumors	285
Tumorous Hyperplasias Simulating Neoplasms	286
11. The Placenta (Maternal, Fetal, and Placental Endocrine Interaction) by Truls Brinck-Johnsen, M.Sc., Ph.D., and Kurt Beierschke, M.D.	293
12. The Testis by James H. Turner, M.B., Ch.B.	309
Morphology and Development	309
General Pathology	325
Evaluation of Testicular Function	331
Tumors of the Testis	341
13. Abnormalities of Sex Development by Stanley L. Inhorn, M.D., Lorraine F. Meissner, Ph.D., and John M. Opitz, M.D.	375
Sex Determination and Sex Differentiation	375
Abnormalities of Sex Determination	388
Abnormalities of Sex Differentiation	401
Hermaphroditism	412
Sex Reversal	413
14. The Adrenal Cortex by Sir Thomas Symington, M.D., F.R.S. (Ed.)	419
Structure and Function	419
General Pathology	428

15. <i>Adrenal Medulla and Paraganglia</i> by <i>Victor E. Gould, M.D., and Sheldon C. Sommers, <i>M.D.</i></i> 473	Hypercorticalism 438 Hypocorticalism 462	Juxtaglomerular Cell Tumors 746 Bartter Syndrome 749 Renal Medullary Interstitial Cells 750 Prostaglandins 755 Erythropoietin 756 Vitamin "D" Sequence 758 "Natriuretic Hormone" 758 Kallikrein-Kinin Sequence 759 Nonspecific Renal Degradation of Polypeptide Hormones 759 Appendix: Techniques for Study of Juxtaglomerular Cells 759	
16. <i>The Endocrine Cells of the Digestive and Respiratory Systems and Their Pathology</i> by <i>Juan Lechago, M.D., Ph.D.</i> 513	Background 513 Chemical Messengers and the Gut 515 Technical Aspects 520 Morphological Aspects 523 Pathological Aspects 531	19. <i>The Thymus</i> by <i>Sunita Arya, M.D., Enid F. Gilbert, M.D., Richard Hong, M.D., and J. M. B. Bloodworth, Jr., M.D.</i> 767	Embryology 767 Morphology at Birth 768 Thymus from Birth to Puberty 788 Involution and Stress 788 Neoplasms 789 Other Abnormalities 800 Immunity and the Thymus 801
17. <i>Endocrine Pancreas and Diabetes Mellitus</i> by <i>J. M. B. Bloodworth, Jr., M.D. and Marie Greider, Ph.D.</i> 556	Embryology and Normal Anatomy of the Human Pancreas 557 Islet Cell Tumors 586 Diabetes Mellitus and other Melitarias 613 Extrapancreatic Pathology Associated with Diabetes Mellitus 631	20. <i>Laboratory Tests in the Diagnosis of Selected Endocrine Disorders</i> by <i>Martha E. Stauffer, M.D.</i> 833	Pituitary and Hypothalamus 835 Thyroid Disease 840 Disorders of the Parathyroid Glands and Calcium Metabolism 843 Endocrine Disorders of Pancreas 846 Gonads and Infertility 850 Endocrine Disorders of the Gut 853 Adrenal Cortical Disease 855 Adrenal Medulla 859
18. <i>Endocrine Pathology of the Kidney</i> by <i>Luciano Barajas, M.D., J. M. B. Bloodworth, Jr., M.D., and Phyllis M. Hartroft, Ph.D.</i> 723	Juxtaglomerular Apparatus and the Renin-Angiotensin System. Normal and Pathologic Aspects 723 Granular Juxtaglomerular Cell 725 Pathology of Renovascular Hypertension 737 Juxtaglomerular Apparatus in Renal Hypoplasia 745	Appendix 862 Index 869	