Autoimmune processes are involved in a large proportion of thyroid disorders such as Graves’ disease, Hashimoto’s disease, simple goiter and nongoitrous thyroiditis. ‘The Thyroid and Autoimmunity’ by Drexhage and Wiersinga comprises the proceedings of the International Symposium on Thyroid and Autoimmunity, Amsterdam, March 19-21, 1986. As the authors mention, the aim of the symposium was to review the state of the art 1986 on what is presently known about autoimmune aspects of thyroid disease. The book contains excellent and comprehensive reviews on main areas of present investigation as well as brief communications of ongoing research work. The role of autoantibodies and other humoral factors (e.g. interleukin-1) in the pathogenesis of Graves’ disease is extensively discussed; clear evidence is provided that TSH-receptor antibodies with both blocking and stimulating activities can be identified in the same patients. However, many complex questions as to the mechanism by which antibody-antigen interactions initiate changes in thyroid function, structure or both are still a matter of research. Development and subsequent course of the disease is multifactorial with both immunogenetic (HLA-antigens) and environmental factors (infections, iodine intake) playing important roles.

Also well described and illustrated are the autoimmune features of hypothyroidism. Antibodies directed to several components of the thyroid follicular cell have now been identified, the antigens being thyroglobulin, microsomal antigen, the second colloid antigen and the TSH receptor. Moreover, direct cytotoxicity induced by T-lymphocytes also appears to be implicated in the progressive destruction of the thyroid. The increasing evidence suggesting that autoimmune mechanisms may play a part in the pathogenesis of both sporadic-nontoxic and endemic-goiter is dealt with in a thorough manner. Possible fascinating relationships between iodine intake, intrathyroidal metabolism and thyroid autoimmunity are discussed.

Endocrine ophthalmopathy is another main topic presented in the proceedings. From the evidence published so far it is clear that endocrine ophthalmopathy is an autoimmune disorder which is usually, but not invariably associated with autoimmune thyroid disease, and that humoral as well as cellular immune mechanisms are involved in the pathogenesis of the disease.

Apart from the main topics mentioned, general aspects on immune dysregulation in thyroid disease as well as therapeutic implications are covered. This book should be required reading for all endocrinologists interested in basic and clinical aspects of thyroid diseases and will certainly stimulate the development of new concepts in the rapidly growing field of autoimmunity.

G.A. Spinas, Basel
Volume 1 of Advances in Pineal Research is the proceedings of an international symposium entitled ‘The pineal gland: current state of pineal research’ held in Olsztyn, Poland, in September 1985. Three categories of chapters are presented: functional morphology of the pineal gland, multiple physiological interactions of the pineal gland with mainly endocrine glands, and finally biochemistry and pharmacology of the pineal gland. Some new data have been presented, but most of the papers are reviews of the field, such as the interrelations between the posterior pituitary and the pineal, convulsions and the pineal, and the use of gerbils in pineal research. Finally, some aspects of human pineal pathology are presented. Most of the chapters are written by leaders in the field.

This book is of value as it represents the proceedings of a symposium during which many new data were also presented in short manuscripts. Most of the chapters are concise as relevant to the current trends in the pineal research.

Charles L. Ralph (ed.) Comparative Endocrinology - Developments and Directions Progress in Clinical and Biological Research, vol. 205
Alan R. Liss, New York 1986
XII + 190 pp.; E 29.-
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‘Comparative Endocrinology – Developments and Directions’ is the 205th volume in the series ‘Progress in Clinical and Biological Research’. The eight chapters cover a wide range of subjects, namely a historical summary, neuropeptides in brain, endocrine and genetic regulation of vitellogenesis in Drosophila, action of prolactin in teleosts, structure activity studies of gonadotropin-releasing hormone in teleosts, amphibians, reptiles and mammals, suitability of the mammalian model in comparative reproductive endocrinology, growth hormone in birds and embryonic diapause in a marsupial. These chapters represent the main lectures given at the 10th International Symposium on Comparative Endocrinology which explains the extreme diversity of the topics covered. However, in spite of the apparent unrelated collection of aspects studied, this volume shows that comparative endocrinologists, by studying endocrine effects in a diversity of species outside the standard laboratory animals, are discovering new and unusual modes of action of hormones which provide insight into endocrine function which may be of potential use in biomedical research. Consequently, this book can be recommended to all interested in endocrinology.