

PREFACE

Historically, the field of endocrine research has always been at the forefront of scientific endeavors. The importance of these breakthroughs in research has been underscored by the bestowal of numerous Nobel Awards. In the field of diabetes alone, Nobel prizes have been awarded to researchers who discovered insulin, characterized the protein, and, using insulin as a paradigm, invented radioimmunoassays. Not surprisingly, therefore, biomedical researchers have always been attracted by the endocrine system and other similar systems of intercellular communication.

Over the past two decades, endocrine research has developed rapidly and adapted modern molecular and cellular biology techniques. These changes have allowed researchers in the field to maintain their edge. Thus endocrine disease-related genes have been characterized and mutations in these genes have helped explain common and less common endocrine disorders. Our understanding of the regulation of gene expression has been greatly enhanced by molecular techniques.

In an attempt to bring investigators up to date with the recent advances in this exploding field, we have decided to publish a yearly series on *Advances in Molecular and Cellular Endocrinology*. Internationally famous investigators have agreed to participate and their contributions are appreciated. Each volume has included reviews on different aspects of endocrinology.

Volume 3 has attempted to focus on topics that were not covered in the earlier volumes, namely the reproductive system, cytokines, the gastrointestinal tract, and the nervous system. Chapters covering the reproductive system include the inhibins and activins, the role of cytokines in ovarian function, and the role of growth hormone and insulinlike growth factors in mammary development. Cholecystokinin

and related proteins and their function in the gastrointestinal tract are discussed as are the somatostatin receptors and the brain angiotensin system. Since insulin's action remains a critical aspect of biology and medicine, two chapters included cover some of the more exciting new developments in this area of research.

Once again we have been fortunate to have such a brilliant group of international experts contributing to this volume and we hope that the readers benefit from this volume as much as they have from earlier volumes.

Derek LeRoith
Editor