set forth in this text are in accord with current recommendations and practice at the time of publication. However, in view of ongoing research, changes in government regulations, and the constant flow of information relating to drug therapy and drug reactions, the reader is urged to check the package insert for each drug for any change in indications and dosage and for added warnings and precautions. This is particularly important when the recommended agent is a new and/or infrequently employed drug.

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Arthur Everitt

Foreword

The concept that hormones modulate the rate of aging has been slow to gain acceptance despite it’s sensational beginning in 1889 with the rejuvenation experiments of Brown-Sequard using testicular extracts. There is now an overwhelming body of research data supporting the role of hormones in aging.

Some exciting developments during the last decade have revealed longterm damaging actions of steroid hormones on neuroendocrine regulatory neurons of the hypothalamus and hippocampus. These observations raise the possibility that hormonal feedback may not only be regulating hypothalamic-pituitary-peripheral endocrine function but simultaneously contributing to its aging. Whether these long-term actions of hormones constitute a regulation of neuroendocrine aging or represent a wear and tear breakdown of sensitive cells is controversial.

The study of regulation requires the use of experimental animals such as the rat and mouse. Human studies are limited mainly to measurement of age changes in circulating hormone levels and structural age changes in endocrine glands. Gone are the days when human data could be obtained from patients with endocrine disorders untreated for decades. Today such information can only be obtained from laboratory animals exposed to hypophysectomy, thyroidectomy, brain lesions or other operations and/or subjected to slow release hormone or neurotransmitter therapy for a large
part of their life span. This volume presents a considerable amount of experimental data showing that hormones, and nutrients with which they interact, play a major role in determining the rate of aging in most tissues of the body, including the neuroendocrine system.

November, 1987 A. V. Everitt and J R. Walton