

## Preface

# Endocrinology of Aging



Johannes D. Veldhuis, MD  
*Guest Editor*

Successful aging is an implicit expectation in all cultures. Healthy aging, even in the absence of significant comorbidity, is marked by gradual attrition of muscle and bone mass, reduced physical stamina, increased visceral adiposity, skin fragility, insulin resistance, elevation of blood pressure and detectable cognitive impairment. The concept of successful aging implies a limited pace and severity of deficits that predict frailty, cardiovascular risk, disability, and morbidity.

The fundamental biologic basis of aging is not known. In fact, virtually all measures of somatic structure and function undergo subtle decremental changes. A pivotal contemporary issue is the extent to which the aging-related decline in specific regulatory systems (eg, neurohormonal axes) exacerbates or obviates the impact of the primary aging process.

In this issue of the *Endocrinology and Metabolism Clinics of North America*, scholars in key subdisciplines of endocrinology and metabolism review current knowledge of neuroendocrine adaptations in aging. The focus includes thyroid hormones, water and electrolyte balance, male and female reproductive aging, and somatotrophic hormones. Each contribution highlights present understanding and poses questions for further study. For example, more complex multisignal mechanisms of control are emerging in the gonadal, somatotrophic, and thyrotrophic axes. The enhanced conceptual platform presages the development of nonsteroidal and nonpeptidyl interventions to forestall depletion of anabolic hormones in elderly adults. The putative beneficiaries would be patients at increased risk of frailty, disability, and

morbidity. A major objective will be to define safety, practicability, benefit, and relevant indications.

Johannes D. Veldhuis, MD  
*Endocrine Research Unit  
Department of Internal Medicine  
Mayo School of Graduate Education  
General Clinical Research Center  
Mayo Clinic  
200 First Street SW  
Room 5-194 Joseph  
Rochester, MN 55905, USA*

*E-mail address: [veldhuis.johannes@mayo.edu](mailto:veldhuis.johannes@mayo.edu)*