

PREFACE

The limbic system, consisting mainly of the hippocampus, amygdala, and hypothalamus, is the system responsible for many important neurological disorders and functions such as stress, depression, obesity, and memory. Several hormones are involved in this system, notably the sex hormones and the corticosteroid receptors. Many of these aspects are reviewed in this volume.

The following are the opening manuscripts. C. H. Duman reviews "Models of Depression." R. T. Johnson, S. M. Breedlove, and C. L. Jordan discuss "Glia in the Amygdala." "Limbic Effects of High Frequency Stimulation of the Subthalamic Nucleus" is a contribution of Y. Temel. K. Kobayashi continues with "Hippocampal Mossy Fiber Synaptic Transmission and its Modulation."

Some overall effects on the system are discussed by R. P. Meyer, G. Pantazis, N. Killer, C. Burck, R. Schwab, M. Brandt, R. Knoth, and M. Gehlhaus in "Xenobiotics in the Limbic System - Affecting Brain's Network Function." Next, G. G. Skibo and A. G. Nikonenko offer "Brain Plasticity after Ischemic Episode." Then, "Hypothalamic Inflammation and Obesity" is reviewed by E. P. Araujo, M. A. Torsoni, and L. A. Velloso.

Neurohormone and neurotransmitter receptors come into play with several papers. M. J. Glass introduces "The Role of Functional Postsynaptic NMDA Receptors in the Central Nucleus of the Amygdala in Opioid Dependence." E. B. Bloss and R. G. Hunter review "Hippocampal Kainate Receptors." "The Role of Neurotrophic Factors in Behavioral Processes: Implications for the Treatment of Psychiatric and Neurodegenerative Disorders" is described by M. C. Pardon. "Postnatal Development of Hypothalamic Leptin Receptors" is the topic of E. C. Cottrell, J. G. Mercer, and S. E. Orzanne. M. R. Foy, M. Baudry, G. Akopian, and R. F. Thompson contribute "Regulation of Hippocampal Synaptic Plasticity by Estrogen and Progesterone." R. G. Paredes offers "Hormones and Sexual Reward." D. Mitsuhashi writes on "Sex Steroids and Acetylcholine Release in the Hippocampus" and T. Wojtowicz and J. W. Mozrzymas review "Estradiol and GABAergic Transmission in the Hippocampus." "Transcriptional Regulation of Hypothalamic Corticotropin-Releasing Factor Gene" is described by K. Kageyama and T. Suda. G. J. ter Horst writes on "Estrogen in the limbic system." A. M. Bao and D. F. Swaab discuss "Corticotrophin-Releasing Hormone and Arginine Vasopressin in Depression: Focus on the Human Postmortem Hypothalamus." "Postnatal Ontogeny of the Glucocorticoid Receptor in the Hippocampus" is described by A. Galeeva,