

Contents

Nucleosome Remodelling and Epigenome Diversification	1
Peter B. Becker	
Synaptic Epigenesis and the Evolution of Higher Brain Functions	11
Jean-Pierre Changeux	
Plasticity of the Circadian System: Linking Metabolism to Epigenetic Control	23
Lorena Aguilar-Arnal, Loredana Zocchi, Selma Masri Sayako Katada, and Paolo Sassone-Corsi	
Epigenetics and the Environmental Regulation of Genomic Structure and Function: Implications for Health	31
Carine I. Parent, Tie-Yuan Zhang, and Michael J. Meaney	
Epigenetic Inheritance in Mammals	55
Johannes Bohacek and Isabelle M. Mansuy	
Control of Neuronal Gene Transcription and Behavior by the Epigenetic Suppressor Complex G9a/GLP	63
Anne Schaefer	
The Role of Histone Acetylation in Long-Term Memory Storage	71
Shane G. Poplawski and Ted Abel	
DNA Methylation in Memory Formation	81
J. David Sweatt	
Epigenetic Mechanisms Regulating Memory Formation in Health and Disease	97
Li-Huei Tsai	

Genetics and Epigenetics of Autism Spectrum Disorders 105
Thomas Bourgeron

Analysis of MeCP2 Function in the CNS 133
Ege T. Kavalali and Lisa M. Monteggia

Epigenetic Mechanisms of Drug Addiction 145
Ian Maze and Eric J. Nestler

Index 161