

Contents

Part I Development

1 The Genomics of Turner Syndrome and Sex-Biased Neuropsychiatric Disorders	3
Phoebe M.Y. Lynn, Evangelia Stergiakouli, and William Davies	
2 Mental Retardation and Human Chromosome 21 Gene Overdosage: From Functional Genomics and Molecular Mechanisms Towards Prevention and Treatment of the Neuropathogenesis of Down Syndrome	21
Mohammed Rachidi and Carmela Lopes	
3 Epigenetic Programming of Stress Responses and Trans-Generational Inheritance Through Natural Variations in Maternal Care: A Role for DNA Methylation in Experience-Dependent (Re)programming of Defensive Responses	87
Ian C.G. Weaver	
4 Prenatal Viral Infection in Mouse: An Animal Model of Schizophrenia	113
S. Hossein Fatemi and Timothy D. Folsom	
5 Proteomic Actions of Growth Hormone in the Nervous System	137
Steve Harvey and Marie-Laure Baudet	

Part II Learning and Memory

6 Gene Expression and Signal Transduction Cascades Mediating Estrogen Effects on Memory	161
Kristina K. Aenlle and Thomas C. Foster	

7	Diagnostic Genome Profiling in Mental Retardation	177
	David A. Koolen, Joris A. Veltman, and Bert B.A. de Vries	
8	Genomic Imprinting and Sexual Experience-Dependent Learning in the Mouse	195
	William T. Swaney and Eric B. Keverne	
9	Proteomic Analysis of the Postsynaptic Density	227
	Ayse Dosemeci	
Part III Behavior		
10	Functional Genomic Dissection of Speech and Language Disorders	253
	Sonja C. Vernes and Simon E. Fisher	
11	Studying Human Circadian Behaviour Using Peripheral Cells	279
	Lucia Pagani, Anne Eckert, and Steven A. Brown	
12	Genome-Wide Expression Profiles of Amygdala and Hippocampus in Mice After Fear Conditioning	303
	Zheng Zhao and Yinghe Hu	
Part IV Psychiatric Disorders		
13	Genetic Studies of Schizophrenia	333
	Brien Riley	
14	Proteomics of the Anterior Cingulate Cortex in Schizophrenia	381
	Danielle Clark, Irina Dedova, and Izuru Matsumoto	
15	Proteome Effects of Antidepressant Medications	399
	Lucia Carboni, Chiara Piubelli, and Enrico Domenici	
Part V Neurological Disorders		
16	MicroRNAs in Neurodegenerative Disorders	445
	Catherine L. Clelland and James D. Clelland	
17	Specific and Surrogate Cerebrospinal Fluid Markers in Creutzfeldt–Jakob Disease	455
	Gianluigi Zanusso, Michele Fiorini, Pier Giorgio Righetti, and Salvatore Monaco	

18 Genome-Wide Expression Studies in Autism-Spectrum Disorders: Moving from Neurodevelopment to Neuroimmunology..... 469
Roberto Sacco, Antonio M. Persico, Krassimira A. Garbett, and Károly Mirnics

19 Protein Expression Profile of Alzheimer’s Disease Mouse Model Generated by Difference Gel Electrophoresis (DIGE) Approach..... 489
Daria Sizova

20 Proteomic Analysis of CNS Injury and Recovery..... 511
Günther K.H. Zupanc and Marianne M. Zupanc

21 MALDI Imaging of Formalin-Fixed Paraffin-Embedded Tissues: Application to Model Animals of Parkinson Disease for Biomarker Hunting..... 537
Isabelle Fournier, Julien Franck, Céline Meriaux, and Michel Salzet

22 Comparative Proteomic Analysis as a Method to Investigate Inflammatory and Neuropathic Pain 557
Ellen Niederberger

Index..... 583



<http://www.springer.com/978-1-4419-7196-8>

Genomics, Proteomics, and the Nervous System

Clelland, J.D. (Ed.)

2011, XVI, 592 p., Hardcover

ISBN: 978-1-4419-7196-8