
Contents

<i>Preface</i>	<i>v</i>
<i>Contributors</i>	<i>xi</i>
PART I INTRODUCTION FOR TRINUCLEOTIDE REPEAT DISEASES	
1 A Brief History of Triplet Repeat Diseases	3
<i>Helen Budworth and Cynthia T. McMurray</i>	
2 Huntington's Disease and Cell Therapies: Past, Present, and Future	19
<i>Chrystalina A. Antoniadou and Colin Watts</i>	
PART II ANALYSIS OF SYNAPTIC PLASTICITY	
3 Transcranial Two-Photon Imaging of Synaptic Structures in the Cortex of Awake Head-Restrained Mice	35
<i>Guang Yang, Feng Pan, Paul C. Chang, Frank Gooden, and Wen-Biao Gan</i>	
4 In Vivo Imaging of Synapse Plasticity in the Mouse Motor Cortex	45
<i>Yi Zuo, Xinzhu Yu, Kelly Tennant, and Theresa Jones</i>	
PART III TARGETING ON ES CELLS	
5 Pluripotent Hybrid Stem Cells from Transgenic Huntington's Disease Monkey	61
<i>Chuti Laowattamathron and Anthony W.S. Chan</i>	
6 Mesenchymal Stem Cells for Trinucleotide Repeat Disorders	79
<i>Geralyn Annett, Gerhard Bauer, and Jan A. Nolte</i>	
PART IV TARGETING ON RNA	
7 Lentiviral-Mediated Gene Transfer of siRNAs for the Treatment of Huntington's Disease.....	95
<i>Karine Cambon and Nicole Déglon</i>	
8 Purification of dFMR1-Containing Complexes Using Tandem Affinity Purification.....	111
<i>Keita Miyoshi, Akiyo Ogino, Mikiko C. Siomi, and Haruhiko Siomi</i>	
9 Combined FISH and Immunofluorescent Staining Methods to Co-localize Proteins and mRNA in Neurons and Brain Tissue	123
<i>Bin Ma and Naoko Tanese</i>	

PART V MODIFICATION OF PROTEINS AND DNAs

10	Epigenetic Modifications of the <i>FMRI</i> Gene	141
	<i>Elisabetta Tabolacci and Giovanni Neri</i>	
11	The CGG Repeat and the <i>FMRI</i> Gene.....	155
	<i>Renate K. Hukema and Ben A. Oostra</i>	
12	Study of Oxidative Damage and Antioxidant Systems in Two Huntington's Disease Rodent Models	177
	<i>Francisca Pérez-Severiano, Sergio Montes, Cristian Gerónimo-Olvera, and José Segovia</i>	
13	Regulation of Ataxin-1 Phosphorylation and Its Impact on Biology.....	201
	<i>Sarita Lagalwar and Harry T. Orr</i>	

PART VI TRINUCLEOTIDE REPEAT EXPANSION AND DETECTION

14	Towards Understanding Region-Specificity of Triplet Repeat Diseases: Coupled Immunohistology and Mass Spectrometry Imaging.....	213
	<i>Virginia Platt, Do Yup Lee, Christie A. Canaria, Ken Frankel, Susan Bernstein, and Cynthia T. McMurray</i>	
15	Antibodies and Intrabodies Against Huntingtin: Production and Screening of Monoclonals and Single-Chain Recombinant Forms	231
	<i>Ali Khoshnaw, Susan Ou, Jan Ko, and Paul H. Patterson</i>	
16	Cell Recovery from DM1 Transgenic Mouse Tissue to Study (CTG) _n Instability and DM1 Pathogenesis	253
	<i>Judith R. Brouwer, Laurent Foirey, and Geneviève Gourdon</i>	
17	Markerless Modification of Trinucleotide Repeat Loci in BACs.....	265
	<i>Kellie A. Benzow and Michael D. Koob</i>	
18	DRPLA: Recent Advances in Research Using Transgenic Mouse Models	277
	<i>Kazushi Suzuki, Toshiya Sato, Mitsunori Yamada, Hitoshi Takahashi, and Shoji Tsuji</i>	
	<i>Index</i>	293

Trinucleotide Repeat Protocols

Kohwi, Y.; McMurray, C.T. (Eds.)

2013, XIII, 296 p. 64 illus., 24 illus. in color., Hardcover

ISBN: 978-1-62703-410-4

A product of Humana Press