

Contents

Series Preface.....	ix
Foreword.....	xi
Preface.....	xiii
Editor.....	xv
Contributors.....	xvii
Chapter 1 Neuroproteomics.....	1
<i>Oscar Alzate</i>	
Chapter 2 Banking Tissue for Neurodegenerative Research.....	17
<i>John F. Ervin</i>	
Chapter 3 Multidimensional Techniques in Protein Separations for Neuroproteomics.....	25
<i>Carol Haney Ball and Petra Levine Roulhac</i>	
Chapter 4 2-D Fluorescence Difference Gel Electrophoresis (DIGE) in Neuroproteomics.....	51
<i>Roberto Diez, Michael Herbstreith, Cristina Osorio, and Oscar Alzate</i>	
Chapter 5 Mass Spectrometry for Proteomics.....	71
<i>Carol E. Parker, Maria R. Warren, and Viorel Mocanu</i>	
Chapter 6 Mass Spectrometry for Post-Translational Modifications.....	93
<i>Carol E. Parker, Viorel Mocanu, Mihaela Mocanu, Nedyalka Dicheva, and Maria R. Warren</i>	
Chapter 7 MALDI Imaging and Profiling Mass Spectrometry in Neuroproteomics.....	115
<i>Malin Andersson, Per Andren, and Richard M. Caprioli</i>	
Chapter 8 Protein Interaction Networks.....	135
<i>Alexei Vazquez</i>	

Chapter 9	Knowledge-Based Analysis of Protein Interaction Networks in Neurodegenerative Diseases.....	147
	<i>Minoru Kanehisa, Vachiranee Limvipuvadh, and Mao Tanabe</i>	
Chapter 10	Redox Proteomics of Oxidatively Modified Brain Proteins in Mild Cognitive Impairment	163
	<i>Tanea T. Reed, Rukhsana Sultana, and D. Allan Butterfield</i>	
Chapter 11	Neuroproteomics in the Neocortex of Mammals: Molecular Fingerprints of Cortical Plasticity	197
	<i>Lieselotte Cnops, Tjing-Tjing Hu, Gert Van den Bergh, and Lutgarde Arckens</i>	
Chapter 12	A Neuroproteomic Approach to Understanding Visual Cortical Development.....	215
	<i>Leonard E. White</i>	
Chapter 13	Behaviorally Regulated mRNA and Protein Expression in the Songbird Brain	239
	<i>Miriam V. Rivas and Erich D. Jarvis</i>	
Chapter 14	Proteomics of Experience-Dependent Plasticity in the Songbird Auditory Forebrain.....	263
	<i>Raphael Pinaud, Oscar Alzate, and Liisa A. Tremere</i>	
Chapter 15	Applications of Proteomics to Nerve Regeneration Research	289
	<i>Mark W. Massing, Grant A. Robinson, Christine E. Marx, Oscar Alzate, and Roger D. Madison</i>	
Index		315