

Contents

Mechanisms Versus Diagnoses	1
John P. Blass	
Molecular Mechanisms of Neuronal Death	17
Elena Ribe Garrido, Lianna Heidt, Nike Beaubier, and Carol M. Troy	
Animal Models of Neurodegenerative Diseases	49
Imad Ghorayeb, Guylène Page, Afsaneh Gaillard, and Mohamed Jaber	
Vitamins Deficiencies and Brain Function	103
Chantal Bémeur, Jane A. Montgomery, and Roger F. Butterworth	
Brain Edema in Neurological Diseases	125
Eduardo Candelario-Jalil, Saeid Taheri, and Gary A. Rosenberg	
Monoamine Transporter Pathologies	169
Natalie R. Sealover and Eric L. Barker	
Glutamate and Glutamine in Brain Disorders	195
Lasse K. Bak, Arne Schousboe, and Helle S. Waagepetersen	
Rho-Linked Mental Retardation Genes	213
Nael Nadif Kasri and Linda Van Aelst	
Cognitive Deficits in Neurodegenerative Disorders: Parkinson's Disease and Alzheimer's Disease	243
Ivan Bodis-Wollner and Herman Moreno	
NF-κB in Brain Diseases	293
Cheng-Xin Gong	
Trinucleotide-Expansion Diseases	319
Arthur J. L. Cooper and John P. Blass	
CNS Cytokines	359
Jane Kasten-Jolly and David A. Lawrence	

Neurochemistry of Autism	383
Timothy D. Folsom and S. Hossein Fatemi	
RNA Pathologies in Neurological Disorders	399
Kinji Ohno and Akio Masuda	
Neurochemistry of Endogenous Antinociception	417
Gyongyi Horvath	
Biology of Demyelinating Diseases	537
Danielle Pham-Dinh and Nicole Baumann	
Brain Protein Oxidation and Modification for Good or for Bad in Alzheimer's Disease	585
Rukhsana Sultana and D. Allan Butterfield	
Oxidative Stress and Alzheimer Disease: Mechanisms and Therapeutic Opportunities	607
Siddhartha Mondragón-Rodríguez, Francisco García-Sierra, Gemma Casadesus, Hyoun-gon Lee, Robert B. Petersen, George Perry, Xiongwei Zhu, and Mark A. Smith	
Tau and Tauopathies	633
R. Mathew, G. Srinivas, and P. S. Mathuranath	
Zinc and Zinc Transport and Sequestration Proteins in the Brain in the Progression of Alzheimer's Disease	669
Mark A. Lovell	
The Genetics of Alzheimer's Disease and Parkinson's Disease	695
Lynn M. Bekris, Chang-En Yu, Thomas D. Bird, and Debby Tsuang	
Nicotinic Receptors in Brain Diseases	757
Jerry A. Stitzel	
Lysosomal Storage Diseases	785
Gregory M. Pastores	
Genetic Signaling in Glioblastoma Multiforme (GBM): A Current Overview	799
Walter J. Lukiw and Frank Culicchia	
Index	823



<http://www.springer.com/978-1-4419-7103-6>

Neurochemical Mechanisms in Disease

Blass, J.P. (Ed.)

2011, XV, 844 p., Hardcover

ISBN: 978-1-4419-7103-6