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Nota di contenuto	Front cover; Contents; Series Preface; Preface; The Editors; Contributors; Chapter 1. Neuroprotection after Cardiac Arrest by Avoiding Acute Hyperoxia and by Antioxidant Genomic Postconditioning; Chapter 2. The Neuroprotective Role of Micronutrients in Parkinson's Disease; Chapter 3. Phytoestrogens and Brain Health; Chapter 4. Food Antioxidants and Alzheimer's Disease; Chapter 5. Micronutrient Antioxidants, Cognition, and Neuropathology: A Longitudinal Study in the Canine Model of Human Aging Chapter 6. Excitatory Amino Acids, S-Nitrosylation, and Protein Misfolding in Neurodegenerative Disease: Protection by Memantine and NitroMemantine at NMDA-Gated ChannelsChapter 7. Cognitive and Behavioral Consequences of Iron Deficiency in Women of Reproductive Age; Chapter 8. Micronutrient Needs of the Developing Brain: Priorities and Assessment; Chapter 9. Therapeutics of Alzheimer's Disease Based on Metal Bioavailability; Chapter 10. Lipoic Acid as a Novel Treatment

for Mild Cognitive Impairment and Early-Stage Alzheimer's Disease
Chapter 11. Zinc and the Cytoskeleton in Neuronal Signaling
Chapter 12. Tocotrienol Neuroprotection: The Most Potent Biological Function of All Natural Forms of Vitamin E; Chapter 13. Fruits, Nuts, and Brain Aging: Nutritional Interventions Targeting Age-Related Neuronal and Behavioral Deficits; Chapter 14. Modulation of Multiple Pathways Involved in the Maintenance of Neuronal Function by Fisetin; Chapter 15. Dietary Flavonoids as Neuroprotective Agents; Chapter 16. Actions of Bioactive Phytochemicals in Cell Function and Alzheimer's Disease Pathology
Chapter 17. Does Ginkgo biloba Extract Exert an Effect on Alzheimer's Disease Progression? Chapter 18. Green Tea Polyphenols Protect Neurons against Alzheimer's Disease and Parkinson's Disease; Chapter 19. Transport of Flavonoids into the Brain; Chapter 20. Prevention and Treatment of Neurodegenerative Diseases by Spice-Derived Phytochemicals; Chapter 21. Neurohormetic Properties of the Phytochemical Resveratrol; Chapter 22. Sirtuin1 and Resveratrol; Chapter 23. Acetyl-L-Carnitine and Ferulic Acid Action in Aging and Neurodegenerative Diseases
Chapter 24. Evidence Required for Causal Inferences about Effects of Micronutrient Deficiencies during Development on Brain Health: DHA, Choline, Iron, and Vitamin D* Chapter 25. Omega-3 Fatty Acids and Brain Function in Older People; Chapter 26. Iron and Monoamine Oxidase in Brain Function and Dysfunction: Development of Neuroprotective-Neurorescue Drugs; Chapter 27. Antioxidative Defense of Brain Microglial Cells; Chapter 28. Branched-Chain Amino Acids and Brain Metabolism; Index; Back cover

Sommario/riassunto

Under the direction of leading experts in oxidative stress, this book addresses cutting-edge areas of research regarding micronutrients and the brain. It discusses identification of brain-specific micronutrients that support function and molecular mechanisms underlying neuroprotectant activity. The book covers age-related metabolic pathways, mitochondrial nutrients, and neurodegeneration. Additional chapters cover flavonoids, cell signaling, and neuronal functions, as well as the role of choline, amino acids, metals, and other micronutrients in brain health and function. The text places a particular emphasis on lipoic acid, which is shown to be a therapeutic agent in neuropathologies.--Publisher's description.
