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Nota di contenuto	Cover; Title page; Foreword; Preface; Contributors; Contents; Oxidative Signaling and Glutathione Synthesis; Cell Survival and Changes in Gene Expression in Cells Unable to Synthesize Glutathione; Role of Glutathione in the Regulation of Liver Metabolism; Glutathione Transport in the Endo/Sarcoplasmic Reticulum; Role of Ascorbate in Oxidative Protein Folding; Cytophotometric Investigations on Oscillating Thiol-Disulfide Equilibria and Oxidized Protein Sulfur; Protection by Pantothenic Acid against Apoptosis and Cell Damage by Oxygen Free Radicals - The Role of Glutathione Thiols as Major Determinants of the Total Antioxidant Capacity;

Enzymes of the Thiol-dependent Hydroperoxide Metabolism in Pathogens as Potential Drug Targets; Is there a Role of Glutathione Peroxidases in Signaling and Differentiation?; Multidrug Resistance-associated Proteins: Export Pumps for Conjugates with Glutathione, Glucuronate or Sulfate; Detoxification of Electrophilic Compounds by Glutathione S-Transferase Catalysis: Determinants of Individual Response to Chemical Carcinogens and...; Transcriptional Regulation of Glutathione S-Transferase P1-1 in Human Leukemia  
Mechanism of -Glutamyltranspeptidase Folding and Activation in the Endoplasmic Reticulum; The Role of -Glutamyl Transpeptidase in the Biosynthesis of Glutathione; Role of -Glutamyltransferase in the Homeostasis of Glutathione during Oxidative and Nitrosative Stress; The Importance of gamma-Glutamyl Transferase in Lung Glutathione Homeostasis and Antioxidant Defense; The Role of gamma-Glutamyltranspeptidase in the Metabolism and Cytotoxicity of 4-Hydroxynonenal-Glutathione Conjugate: Evidence and Hypothesis; - Glutamyltransferase-Dependent Prooxidant Reactions: a Factor in Multiple Processes  
Serum gamma-Glutamyl Transpeptidase: a Prognostic Marker in Cardiovascular Diseases; Lipoic Acid: a Multifunctional Antioxidant; Is Glutathione an Important Neuroprotective Effector Molecule against Amyloid Beta Toxicity?; Antioxidants in Cancer Therapy: is there a Rationale to Recommend Antioxidants during Cancer Therapy?; Disulfide Exchange in CD4; Redox Regulation in Protein Folding and Chaperone Function; Reduction of the Endoplasmic Reticulum Accompanies the Oxidative Damage of Diabetes Mellitus; Analytical Developments in the Assay of Intra- and Extracellular GSH Homeostasis Signalling Potential and Protein Modifying Ability of Physiological Thiols; Redox Signaling and the Map Kinase Pathways; Redox Regulation of Mitochondrial Permeability Transition: Contrasting Effects of Lipoic Acid and its Positively Charged Analog LA-Plus; Redox State of Glutathione and Thioredoxin in Differentiation and Apoptosis; Redox Regulation of DNA Repair; Author Index

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Sommario/riassunto

This volume contains contributions by some of the leading scientists in the field of thiol oxidation/reduction (redox) biochemistry. It is focused on the biological/pathophysiological implications of newly-discovered functions of cellular thiols, such as glutathione in the first place.

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