Record Nr. UNINA9910809126803321 Free radicals and diseases: gene expression, cellular metabolism and **Titolo** pathophysiology / / edited by Tilman Grune Pubbl/distr/stampa Amsterdam;; Oxford,: IOS Press, c2005 **ISBN** 1-280-50485-4 9786610504855 1-4294-0199-0 1-60750-118-X 600-00-0430-3 1-60129-099-3 Edizione [1st ed.] Descrizione fisica 1 online resource (viii, 193 pages): illustrations Collana NATO science series. Series I, Life and behavioural sciences, , 1566-7693 ; ; v. 367 GruneTilman Altri autori (Persone) Disciplina 616.07 Soggetti Free radicals (Chemistry) - Pathophysiology Active oxygen - Pathophysiology Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Nota di bibliografia Includes bibliographical references and index. Nota di contenuto Title page; Preface; Contents; DNA Lesions as Biomarkers of Inflammation and Oxidative Stress: A Preliminary Evaluation; Lipid Peroxidation Measurements - Methodological Approaches and Clinical Importance; Role of Oxidative Stress in Aging of the Yeast Saccharomyces cerevisiae; mtNOS: Regulation by Mitochondrial Membrane Potential; Mutliplicity of Mitochondrial Functioning; ROS-Induced Oscillations of Mitochondrial Transmembrane Potential in Cultured Rat Astocytes: The Effects of Nitric Oxide and Peroxynitrite on MnSOD (E. coli) The Proteasomal Degradation System and Its Role During Oxidative Stress; Peptide Methionine Sulfoxide Reductases in Aging and Oxidative Stress; Activation of Microglial Proteolysis; Vitamin E Metabolism; Significance of the alpha-Tocopherol Salvage Pathway; Induction and Inhibition of Apoptotic Pathways by Hydrogen Peroxide; Photooxidative

Processes in Skin: From Damage to Signaling; Role of Cholesterol or Homocysteine in the Development of Atherosclerosis: Effect of Vitamin

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E; Different Roles of Nitric Oxide in Regulation of Interscapular Brown Adipose Tissue Hyperplasia; Adaptation to Exercise-Induced Oxidative Stress; Clinical Use of Carotenoids - Antioxidative Protection versus Prooxidative Side Effects; Author Index

This publication contains an extensive overview of free radicals and diseases, including both basic science approaches and clinical applications. The research of the last decades has contributed substantially to the understanding role and function of these metabolites. It is the aim of the editors to include a large variety of biological models ranging from yeast over mitochondria, isolated cells and cell culture models to animals and humans. The topics discussed focus on the function and integrity of mitochondria under oxidative conditions, the role of protein oxidation and proteolysis in the