

1. Record Nr.	UNINA9910141178703321
Titolo	Oxidative stress in vertebrates and invertebrates [[electronic resource]] : molecular aspects on cell signaling / / edited by Tahira Farooqui, Akhlaq A. Farooqui
Pubbl/distr/stampa	Hoboken, N.J., : Wiley, c2012
ISBN	1-283-31600-5 9786613316004 1-118-14814-2 1-118-14811-8 1-118-14813-4
Descrizione fisica	1 online resource (434 p.)
Altri autori (Persone)	FarooquiTahira FarooquiAkhlaq A
Disciplina	571.9/453
Soggetti	Oxidative stress - Molecular aspects Oxidative stress - Pathophysiology Vertebrates - Cytology Invertebrates - Cytology Vertebrates - Diseases - Molecular aspects Invertebrates - Diseases - Molecular aspects Cellular signal transduction
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Oxidative Stress In Vertebrates and Invertebrates: Molecular Aspects of Cell Signaling; Contents; Preface; Foreword; Acknowledgments; Contributors; Part I: Oxidative Stress in Vertebrates; 1: Generation of Reactive Oxygen Species in the Brain: Signaling for Neural Cell Survival or Suicide; 2: Free Radicals, Signal Transduction, and Human Disease; 3: Oxidative Stress and its Biochemical Consequences in Mitochondrial DNA Mutation-Associated Diseases: Implications of Redox Therapy for Mitochondrial Diseases 4: Oxidative Stress in Kainic Acid Neurotoxicity: Implications for the Pathogenesis of Neurotraumatic and Neurodegenerative Diseases5:

Survival Strategy and Disease Pathogenesis According to the Nrf2-Small Maf Heterodimer; 6: Caloric Restriction and Oxidative Stress; 7: Pathogenesis of Neurodegenerative Diseases: Contribution of Oxidative Stress and Neuroinflammation; 8: Neurosteroids in Oxidative Stress-Mediated Injury in Alzheimer Disease; 9: Oxidative Stress in Adult Neurogenesis and in the Pathogenesis of Alzheimer Disease; 10: Oxidative Stress and Parkinson Disease  
11: Oxidative Stress in Cardiovascular Diseases12: Oxidative Stress and Aging: A Comparison between Vertebrates and Invertebrates; 13: Oxidative Stress-Mediated Signaling Pathways by Environmental Stressors; 14: Selenoproteins in Cellular Redox Regulation and Signaling; 15: Antioxidant Therapy and its Effectiveness in Oxidative Stress-Mediated Disorders; 16: The Protective Role of Grape Seed Polyphenols Against Oxidative Stress in Treating Neurodegenerative Diseases; 17: Pharmacological and Therapeutic Properties of Propolis (Bee Glue); Part II: Oxidative Stress in Invertebrates  
18: Endocrine Control of Oxidative Stress in Insects19: Oxidative Stress in the Airway System of the Fruit Fly *Drosophila melanogaster*; 20: Molecular Mechanisms of Antioxidant Protective Processes in Honeybee *Apis mellifera*; 21: Molecular Basis of Iron-induced Oxidative Stress in the Honeybee Brain: A Potential Model System of Olfactory Dysfunction in Neurological Diseases; 22: Modulation of Oxidative Stress by Keap1/Nrf2 Signaling in Drosophila: Implications for Human Diseases  
23: Orchestration of Oxidative Stress Responses in *Drosophila melanogaster*: A Promoter Analysis Study of Circadian Regulatory Motifs24: The Protective Role of Sestrins Against Chronic TOR Activation and Oxidative Stress; 25: Current Advances in the Studies of Oxidative Stress and Age-Related Memory Impairment in *C. elegans*; 26: Oxidative Challenge and Redox Sensing in Mollusks: Effects of Natural and Anthropic Stressors; 27: Perspective and Directions for Future Studies; Index

---

#### Sommario/riassunto

This volume presents a unique comparative treatment of the role oxidative stress plays in vertebrates and invertebrates in multiple organ systems with regards to cell death, development, aging, and human diseases, and anti-oxidant therapy. It offers comprehensive reviews of the current understanding of oxidative stress-mediated physiology and pathology as well as directions for future research. It also provides current information on the role of oxidative stress in neurodegenerative diseases, cardiovascular diseases, and various types of cancer mediated by oxidative stress.

---