

1. Record Nr.	UNINA9910755075703321
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Titolo	Ferroptosis in Health and Disease // edited by Daolin Tang
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2023
ISBN	3-031-39171-3
Edizione	[2nd ed. 2023.]
Descrizione fisica	1 online resource (489 pages)
Disciplina	571.936
Soggetti	Cytology Cell death Human physiology Proteins Stress (Physiology) Cell Biology Cell Death Human Physiology Protein Biochemistry Cellular Stress Mort cel-lular Citologia Llibres electrònics
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Chapter 1. Lipid Metabolism and Homeostasis in Ferroptosis -- Chapter 2. Iron Metabolism and Ferroptosis -- Chapter 3. Targeting Epigenetic Regulation of Ferroptosis in Cancer Therapy -- Chapter 4. The Role of Autophagy in Ferroptosis -- Chapter 5. Heat Shock Proteins and HSF1 in Ferroptosis -- Chapter 6. The Ongoing Search for a Biomarker of Ferroptosis -- Chapter 7. p53 and Ferroptosis -- Chapter 8. Ferroptosis in Cardiovascular Disease -- Chapter 9. Understanding Ferroptosis from a Free Radical Perspective -- Chapter 10. The NRF2-anti-ferroptosis Axis in Health and Disease -- Chapter 11. Epigenetic Modification in Ferroptosis -- Chapter 12. Organelle-specific

Mechanisms of Ferroptosis -- Chapter 13. Ferroptosis: A Promising Therapeutic Target for Cardiovascular Diseases -- Chapter 14. Ferroptosis in Central Nervous System Hypoxia–Ischemia -- Chapter 15. Involvement of Ferroptosis in Lupus Nephritis -- Chapter 16. Ferroptosis and Infectious Diseases -- Chapter 17. Selenium Metabolic Pathway in Ferroptotic Cell Death -- Chapter 18. Epigenetic and Post-Translational Regulation of Ferroptosis -- Chapter 19. Phospholipid Peroxidation in Health and Disease -- Chapter 20 -- PKCII–ACSL4 Axis Triggers Ferroptosis and Its Potential Implication in Ferroptosis-Related Diseases -- Chapter 21. Cancer Treatment with Ferroptosis by a Combination of Iron Nanoparticles and Gene Therapy -- Chapter 22. Inhibitors of Oxytosis/Ferroptosis: A New Class of Therapeutics for Alzheimer's Disease.

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### Sommario/riassunto

This updated and expanded volume gives new insights on ferroptosis – an iron-dependent form of non-apoptotic cell death. The collection of chapters discusses the two major pathways through which ferroptosis can occur: the extrinsic or transporter-dependent pathway and the intrinsic or enzyme-regulated pathway. Readers will gain an understanding of the multiple levels, on which this special cell death is regulated. Hence, the contributions will take a closer look at epigenetic, transcriptional, posttranscriptional and posttranslational layers. Among the described regulators and transcription factors are GPX4, ACSL4 and NFE2L2. This edited volume collects reviews related to current knowledge on the integrated molecular machinery of ferroptosis, thereby also describing how dysregulated ferroptosis is involved in human diseases.

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