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-- Chapter 11. Cellular Senescence and Lung Diseases: From COPD to Fibrosis -- Chapter 12. Senescence and Sexual Aging: Implications for Men and Women -- Chapter 13. Senescence as a Therapeutic Target -- Chapter 14. Anti-Aging Therapeutics: From Nutraceuticals to Pharmaceuticals -- Chapter 15. Ethical Considerations and Societal Implications.

Sommario/riassunto

This book provides a comprehensive understanding of cellular senescence, which is a phenomenon, characterized by the irreversible arrest of cell growth and is accompanied by the secretion of various factors, collectively known as the senescence-associated secretory phenotype (SASP), which can have detrimental effects on surrounding cells and tissues. The book examines the role of cellular senescence as a driver of age-related disorders such as cancer, neurodegenerative diseases, cardiovascular conditions, and metabolic disorders. By elucidating the molecular mechanisms involved, the book aims to deepen our understanding of these complex diseases and identify potential therapeutic targets. The book also explores cutting-edge therapeutic modalities that target cellular senescence, ranging from small molecule inhibitors to gene-based therapies and regenerative approaches. The distinctive features of the book include its comprehensive approach, integration of multidisciplinary expertise, in-depth exploration of therapeutic modalities, evidence-based insights supported by scientific research, and a translational focus. The interdisciplinary collaboration ensures a holistic understanding of the subject matter, fostering a synergistic approach to addressing age-related disorders. The book not only discusses the potential of emerging therapeutic modalities but also emphasizes practical implications, providing a bridge between research and real-world applications. This book is useful to researchers, scientists, and academics in the fields of molecular biology, genetics, gerontology, and cellular biology.