

Top 100 Longevity Books

1. Ageing Populations in Post-Industrial Democracies
2. Ageless quest
3. Aging and age-related diseases
4. Aging and Money
5. Aging and the heart
6. Aging: an introduction to gerontology
7. Aging, Biotechnology and the Future
8. Aging by Design
9. Aging: genetic and environmental influences
10. Aging in Comparative Perspective
11. Aging interventions and therapies
12. Aging of cells in and outside the body
13. Aging of the genome
14. Aging: Oxidative Stress and Dietary Antioxidants
15. Aging, Risk and Globalization
16. Aging: the paradox of life
17. A means to an end: the biological basis
18. Animal models of human cognitive aging
19. Apoptosis, senescence and cancer
20. Are Chronic Degenerative Diseases Part of the Ageing Process?
21. Autophagy
22. Biology of Aging
23. Behavioral Neurobiology of Aging
24. Biogerontology: mechanisms and interventions
25. Biological aging: methods and protocols
26. Biological Aging: Methods and Protocols (2nd Ed.)
27. Biology of aging: observations and principles
28. Biology of aging
29. Cell Aging
30. Cell Aging: Molecular Mechanisms and Implications for Disease
31. Cell growth, differentiation and senescence
32. Cell Senescence: Methods and Protocols
33. Cells, aging, and human disease
34. Cellular aging and cell death
35. Challenging Aging
36. Cheating Time: Science, Sex, and Aging
37. Controversial issues in Aging
38. Current Directions in Adulthood and Aging
39. Decoding Longevity
40. Diet-brain connection
41. Endocrine aspects of successful aging
42. Epidemiology in Old Age
43. Epigenetics of aging
44. Fundamentals of Geriatric Psychiatry
45. Gender, Social Inequalities, and Aging
46. Genes and aging
47. Gerontological aspects of genome peptide regulation
48. Handbook of gerontology: evidence-based approaches
49. Handbook on the Neuropsychology of Aging and Dementia
50. How and Why We Age
51. How we live and why we die
52. Human chromosomes and aging: from 80 to 114 years
53. Immunity, Tumors and Aging: The Role of HSP70
54. Immunology of Aging
55. Inflammation and Oxidative Stress in Neurological Disorders
56. Introduction to Aging: A Positive, Interdisciplinary Approach
57. Life-span extension: single-cell organisms to man
58. Longevity and quality of life
59. Longevity records: life spans
60. Longevity, senescence, and the genome
61. Longevity: the biology and demography of life span
62. Mapping the progress of Alzheimer's and Parkinson's disease
63. Molecular Aspects of Aging: Understanding Lung Aging
64. Molecular biology of aging
65. Molecular mechanisms of Werner's syndrome
66. New Horizons in Geriatric Medicine
67. Oxidative stress and age-related neurodegeneration
68. Oxidative stress and neurodegenerative disorders
69. Parkinson's Disease: Behavioural and Cognitive Aspects
70. Pathogenesis of neurodegenerative disorders
71. Perspectives on Alzheimer's Disease
72. Population aging: the transformation of societies
73. Protein misfolding and disease
74. Protein Oxidation and Aging
75. Reversing human aging
76. Senescence: Dominant or Recessive in Somatic Cell Crosses?
77. Sexuality and aging: clinical perspectives
78. Stem Cell Aging: Mechanisms, Consequences, Rejuvenation
79. Studies on Alzheimer's Disease
80. Successful Aging: Asian Perspectives
81. Telomeres and telomerase in aging, disease, and cancer
82. Telomeres: biological functions, sequencing and aging
83. The aging mind: opportunities in cognitive research
84. The biology of human longevity
85. The Biostatistics of Aging
86. The Encyclopedia of aging - Volume I+II
87. The evolution of aging
88. The evolution of human life history
89. The late life legacy of very early life
90. The Practical Handbook of Clinical Gerontology
91. The realities of aging: an introduction to gerontology
92. The role of mitochondria in human aging and disease
93. The SAGE Handbook of Aging, Work and Society
94. The science of aging: theories and potential therapies
95. The scientific conquest of death
96. The Telomere Effect
97. Trends in Alzheimer's disease research
98. Understanding ageing
99. Understanding aging and diversity: theories and concepts
100. World Population Ageing: 2013

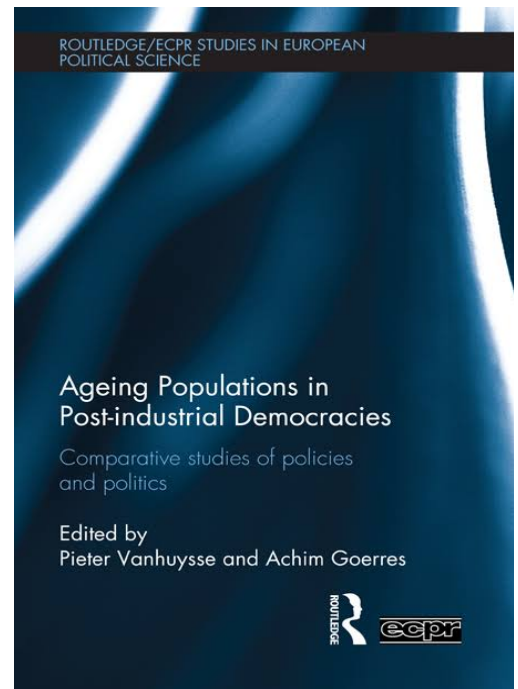
Ageing Populations in Post-Industrial Democracies: Comparative Studies of Policies and Politics

Author: Vanhuysse, Pieter & Goerres, Achim

Published: 2014

Publisher: Routledge

Website: <http://www.routledge.com/books/details/9781138803473/>



Description:

Most advanced democracies are currently experiencing accelerated population ageing, which fundamentally changes not just their demographic composition; it can also be expected to have far-reaching political and policy consequences.

This volume brings together an expert set of scholars from Europe and North America to investigate generational politics and public policies within an approach explicitly focusing on comparative political science. This theoretically unified text examines changing electoral policy demands due to demographic ageing, and features analysis of USA, UK, Japan, Germany, Italy and all major EU countries.

As the first sustained political science analysis of population ageing, this monograph examines both sides of the debate. It examines the actions of the state against the interests of a growing elderly voting bloc to safeguard fiscal viability, and looks at highly-topical responses such as pension cuts and increasing retirement age. It also examines the rise of 'grey parties', and asks what, if anything, makes such pensioner parties persist over time, in the first ever analysis of the emergence of pensioner parties in Europe.

Ageing Populations in Post-Industrial Democracies will be of interest to students and scholars of European politics, and to those studying electoral and social policy reform.

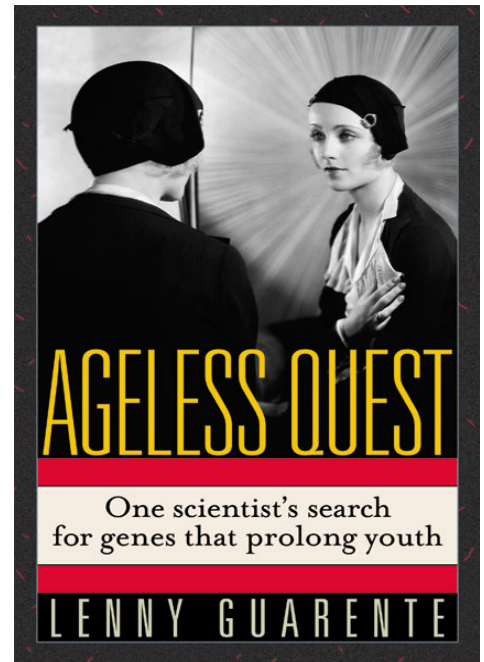
Ageless quest: one scientist's search for the genes that prolong youth

Author: Guarente, Lenny

Published: 2002

Publisher: Cold Spring Harbor Laboratory Press

Website: http://www.cshlpress.com/default.tpl?cart=1282915625119450353&fromlink=T&linkaction=full&linksortby=oop_title&--eqSKUdataq=427



Description:

Ageless Quest is a personal, sometimes controversial, account of the pursuit of a genetic 'cure' for aging by an expert in the field.

The author is the Novartis Professor of Biology at the Massachusetts Institute of Technology. Aging has always been regarded as a highly complex process with many degenerative changes leading to the cessation of life. But recent research has identified a relatively simple mechanism that governs the pace of aging. Lenny Guarente's Ageless Quest is a scientific detective story for the baby boom generation. It offers an insider's view of an area of potentially astonishing high reward—and equally high risk.

Aging and age-related diseases: the basics

Author: Karasek, Micha

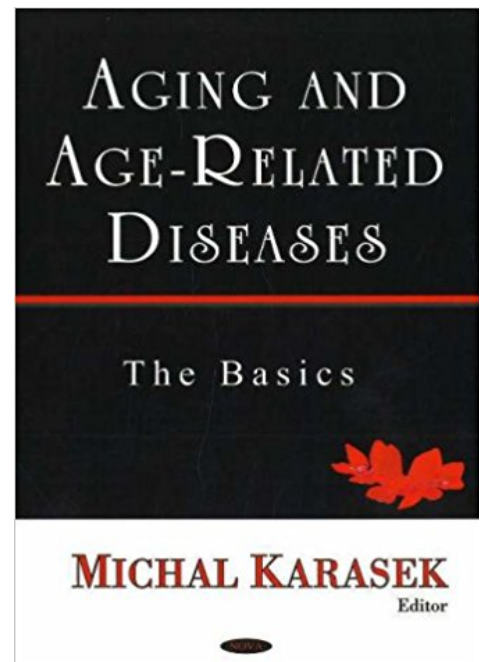
Published: 2006

Publisher: Nova Biomedical Books

Website: https://www.novapublishers.com/catalog/product_info.php?products_id=2645

Description:

Aging has become a great problem for many countries. Due to worldwide life prolongation the number of people over 60 years old has grown rapidly into a ten percent piece of the world population. The growing age of the world population raises many social, economical, and medical problems. The proportion of people in the economically active age groups to those who are over 65 is constantly decreasing. A major consequence of the increasing numbers of individuals in advanced age groups is increasing numbers of patients suffering from age-related diseases. The aim of this book is to present the basic data on human aging as well as on age-related diseases.



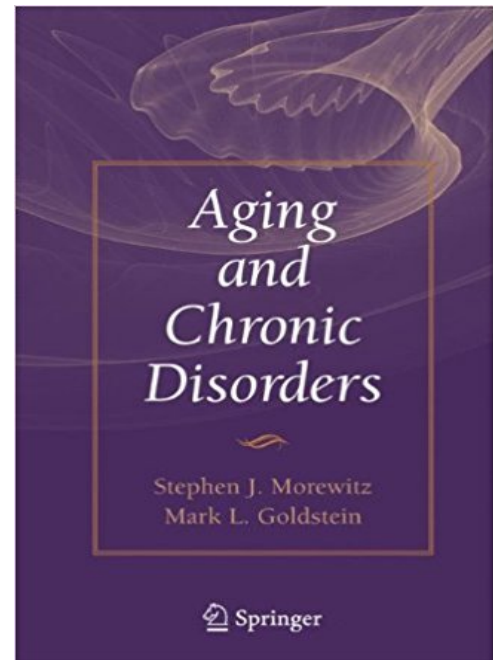
Aging and chronic disorders

Author: Morewitz, Stephen & Goldstein, Mark L.

Published: 2007 (H,E)2009 (P)

Publisher: Springer

Website: <http://www.springer.com/public+health/book/978-0-387-70856-0>



Description:

Aging and Chronic Disorders brings the most up-to-date answers into clear, readable focus. Focusing on the most prevalent conditions affecting older adults (diabetes, cardiovascular disease, cancer, osteoporosis, osteoarthritis, rheumatoid arthritis, low back pain, and fibromyalgia), Morewitz and Goldstein analyze disabilities and risk factors, stressors and coping strategies, treatment and rehabilitation methods, and patient education and self-management. Separate chapters are devoted to cognitive changes, psychological problems, and trends in health care utilization among seniors, and all chapters are amplified by current research findings and instructive case studies. As in their recent work, *Chronic Diseases and Health Care*, the authors have geared their coverage to reflect the field's most pressing goals:

- Provide health care that is both clinically effective and cost-effective.
- Help elders be more proactive and self-sufficient.
- Reduce the burden on caregivers.
- Improve patients' access to health resources and social support.
- Improve older adults' quality of life.

With its wide range of issues, *Aging and Chronic Disorders* is a major resource for clinicians and students in primary care, gerontology, nursing, rehabilitation, epidemiology, public health, and mental health. Public health administrators and policymakers should find important insights here as well.

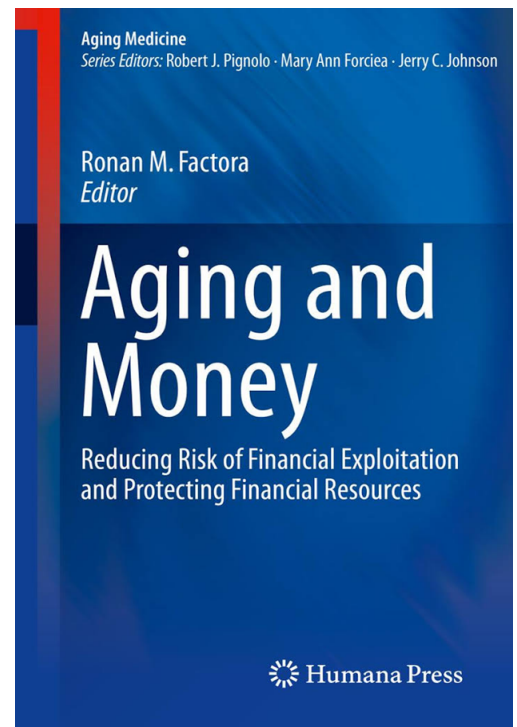
Aging and Money: Reducing Risk of Financial Exploitation and Protecting Financial Resources

Author: Factora, Ronan M. (Ed.)

Published: 2014

Publisher: Humana Press

Website: <http://www.springer.com/gp/book/9781493913190>



Description:

Increasingly, we hear of more and more elders falling victim to financial exploitation. Although this form of elder abuse has been recognized for years, its incidence, prevalence, and impact on the common individual has been only more recently brought to the spotlight. Despite these circumstances, recognition of risk factors and indicators of financial exploitation are not widely disseminated. Additionally, once situations are identified and confronted, the knowledge of what to do next is lacking. These gaps are present within the medical community, law-enforcement, and the finance community – areas where opportunities for recognition and intervention are common. Our elders often have no idea of what to do when they see their own risk or when they fall victim. *Aging and Money: Reducing Risk of Financial Exploitation and Protecting Financial Resources* helps clinicians to integrate identification of such indicators of abuse into their geriatric assessment as well as guide them in performing an assessment of an individual's financial decision making capacity when appropriate. *Aging and Money: Reducing Risk of Financial Exploitation and Protecting Financial Resources* is an essential new text that provides the practicing clinician with information on identifying risk factors and clinical clues associated with financial exploitation and how to incorporate these steps into their practice.

Aging and the heart: a post-genomic view

Author: Marín-García, José; Goldenthal, M.J. & Moe, G.W.

Published: 2007

Publisher: Springer

Website: <http://www.springer.com/medicine/cardiology/book/978-0-387-74071-3>

Description:

Cardiac aging, like aging in general, is a complex process. Numerous cellular and molecular changes contribute to the expression of the multiple phenotypes of aging, «the different faces» of cardiac aging. In this book, the genetic and molecular basis of cardiovascular aging will be discussed. In addition, a comprehensive assessment of the bioenergetic changes that occur in human and animal models of cardiac aging as well as current diagnostic and future therapeutic modalities will be undertaken.



Aging: an introduction to gerontology

Author: Aiken, Lewis R.

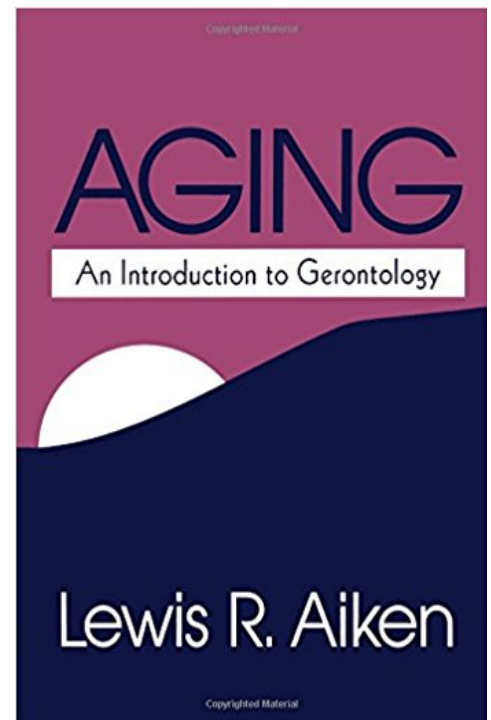
Published: 1995

Publisher: Sage Publications Inc.

Website: <http://www.sagepub.com/booksProdDesc.nav?prodId=Book4475&>

Description:

The aging process is a complex, sometimes mysterious evolution we will all experience: In this interdisciplinary text, author Lewis R. Aiken acquaints you with the elements and effects influencing people in the later stages of life. Beginning with an historical overview of gerontology, Aiken discusses both pragmatic and philosophical concerns within the field. Factors impacting the process and results of aging are carefully outlined and explicated; these address such areas as biology, psychology, sociology, economics, and politics. The interpersonal variability of the older population is stressed throughout the book, recognizing gender, ethnic, racial, and cultural differences. Each chapter concludes with a thorough review of the material covered, a series of questions and activities designed to enhance the learning experience, and a list of suggested readings that expand on the topics being discussed. Clearly written, authoritative, rich in information and integration of research material in a wide range of disciplines, *Aging: An Introduction to Gerontology* is valuable for undergraduate, certificate, and community college programs in gerontology as well as graduate courses in applied professional disciplines.



Aging, Biotechnology and the Future

Author: Read, Catherine Y.;
Green, Robert C. & Smyer, Michael A.

Published: 2008

Publisher: The Johns Hopkins University Press

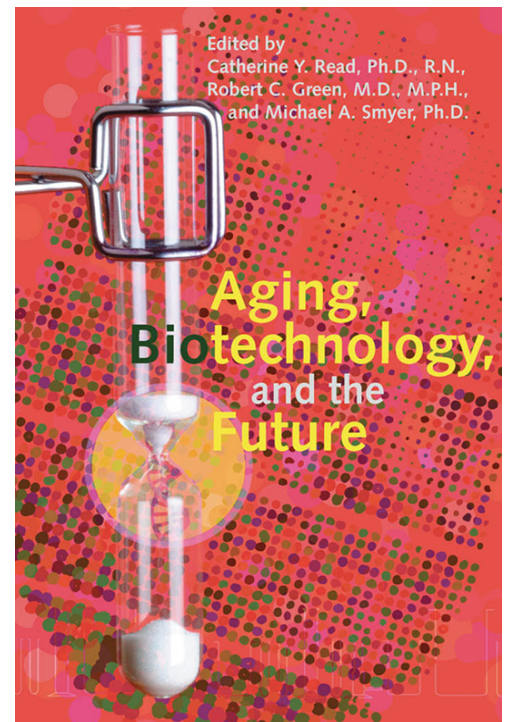
Website: <http://jhupbooks.press.jhu.edu/ecom/MasterServlet/GetItemDetailsHandler?iN=9780801887888&qty=1&source=2&viewMode=3&loggedIN=false&JavaScript=y>

Description:

This wide-ranging, multidisciplinary collection examines how advances in medicine and technology are affecting the aging process and the lives of elderly persons.

In analyzing the state of biotechnology, these essays applaud the positive—extended longevity and the potential for greater quality of life—while probing such ethical quandaries as presymptomatic genetic testing, therapeutic cloning, antiaging technologies, and the transhumanist movement. The volume includes discussions about the respective roles of health care professionals, government, and individuals in shaping a workable regulatory framework and unifying multiple perspectives to make the biotechnology revolution beneficial to all.

Featuring contributions from renowned scholars of religion, ethics, philosophy, psychology, law, medicine and nursing, and gerontology, *Aging, Biotechnology, and the Future* illuminates the promises and perils of growing old in the biomedical age.



Aging by Design: How New Thinking on Aging Will Change Your Life

Author: Goldsmith, Theodore

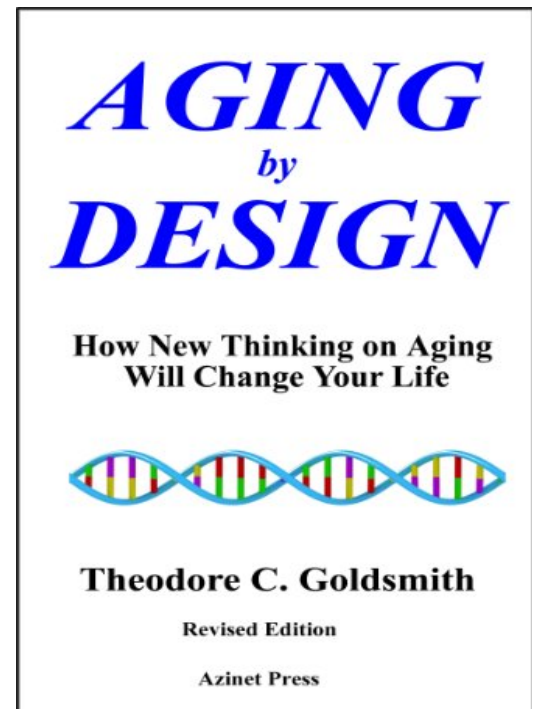
Published: 2014

Publisher: Azinet Press

Website: http://www.azinet.com/aging/aging_by_design.pdf

Description:

Why do we age? How do we age? These questions have baffled scientists for centuries and remain unresolved. The answer to the “how” question is critical to our ability to successfully prevent and treat age-related diseases like cancer and heart disease that now cause the majority of all deaths in the developed world. Because of major difficulties in directly experimentally determining causes of aging, the answer to the “why” question is critical to guiding research efforts directed toward identifying and altering processes involved in age-related diseases. Evolution theory plays a critical role in the “why” issue because it attempts to explain why each living organism has its particular design and therefore why different species display different aging characteristics and different life spans. This short book describes the history and current status of attempts to explain why we age extending from Darwin’s 1859 theory to the present day. The author provides colorful and interesting descriptions of the theorists, their theories, the discoveries and the controversies that have led us to the current situation: Although there is very wide scientific agreement about most aspects of evolution theory, four different theories now exist concerning the fine details that apply to aging. These four theories lead to radically different concepts regarding the actual biological mechanisms behind the aging process and consequently the mechanisms behind age-related diseases. The book goes on to discuss observations and experiments that offer clues as to the nature of biological aging mechanisms. These include apparently non-aging animals, worm experiments, rat blood-exchange experiments, caloric restriction experiments, octopus experiments, and the discovery of genes that cause aging. Goldsmith then leads us through an analysis that concludes, based on the direct evidence and current status of the evolution theories, that programmed aging is the aging theory that best matches all of the evidence. We age because we are designed to age. We are designed to age because a limited life span conveys an evolutionary benefit. Most current medical researchers believe in non-programmed aging and much of the evidence for programmed aging comes from non-human sources. If the programmed theory of biological aging, first proposed in 1882, is indeed correct, it has major implications regarding the way we think about and seek to prevent or treat age-related diseases. It also suggests that it may well be possible in the relatively near term to generally delay the aging process. Which theory is correct could therefore greatly affect many people now alive! The book describes some current programmed aging researchers, research activities, and results. A final question is discussed: How could we be living in the twenty-first century and still not have scientific agreement on even the fundamental nature of aging? The author suggests that several “non-science factors” including the sequence in which various theories were developed and the perception that the issue was “academic” have influenced thinking and delayed the development of scientific agreement.



Aging: genetic and environmental influences

Author: Bergemann, Cindy S.

Published: 1997 (H,P)

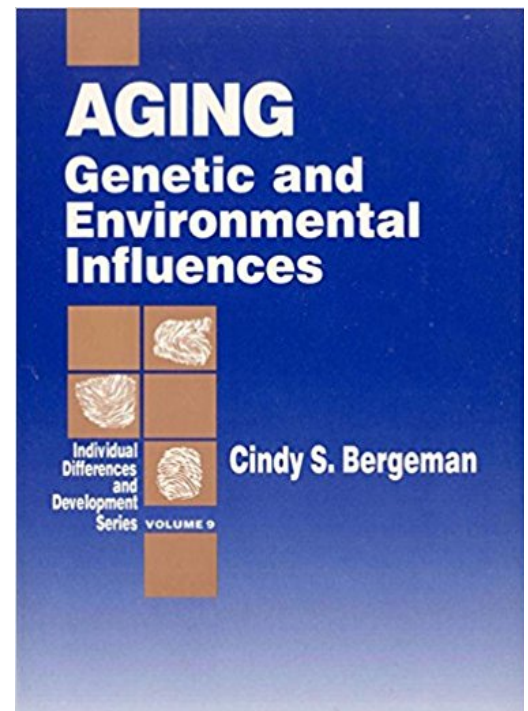
Publisher: Sage Publications Inc.

Website: http://www.amazon.de/Aging-Environmental-Influences-Differences-Development/dp/0803973772/ref=sr_1_1?ie=UTF8&s=books-intl-de&qid=1282029107&sr=1-1

Description:

Why do people age differently? Gerontological research has indicated that there are large individual differences in personality, cognitive functioning, physical health, psychological well-being and quality of life in old age. This book explores this variability.

Following an overview of family, adoption and twin studies of genetic and environmental influences on ageing, the author examines such topics as: longevity and health research; cognitive functioning, personality and psychopathology; and social support, life events and family environment measures. The book concludes with a summary of finding from gerontological behavioural genetics.



Aging in Comparative Perspective: Processes and Policies

Author: Cook, Ian Gillespie, Halsall, Jamie

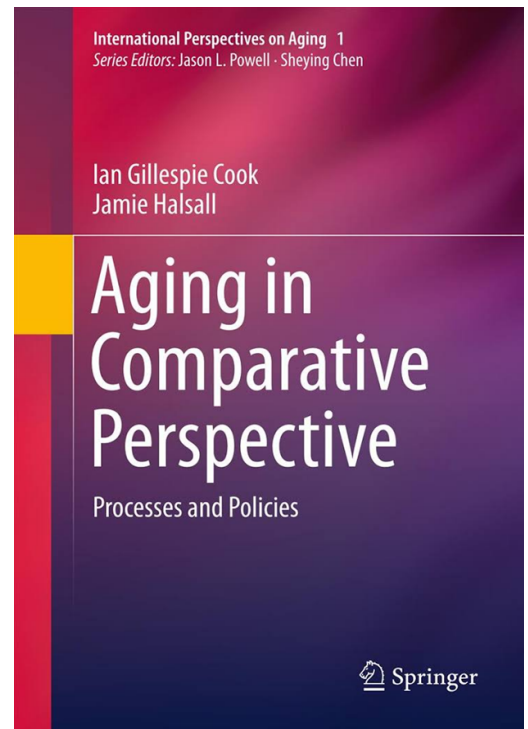
Published: 2014

Publisher: Springer

Website: <http://www.springer.com/gp/book/9781461419778>

Description:

This book examines the key aging processes in seven countries (United States, United Kingdom, Sweden, Japan, China, Nepal, and South Africa) and the main policies that have been, and are being, developed to deal with this rapid change in the demographic profile. It addresses the problems that are identified as well as the positive aspects of aging within each of these contrasting societies. Thus it makes a significant contribution to the major debates about growing old across the globe.



Aging interventions and therapies

Author: Rattan, Suresh I.S.

Published: 2005

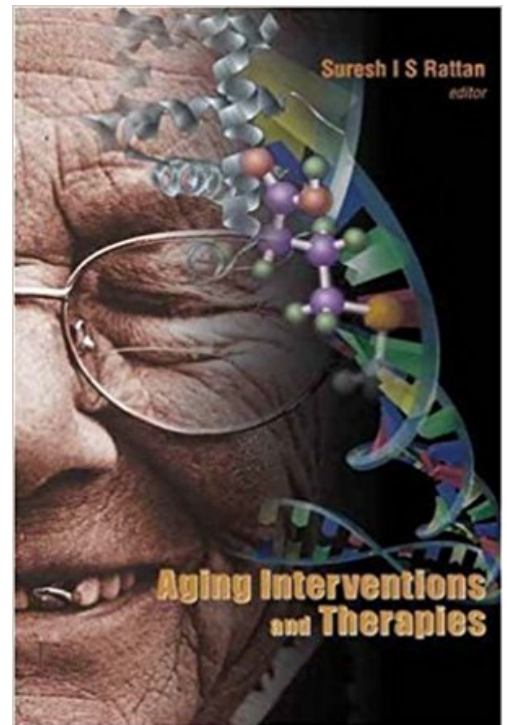
Publisher: World Scientific Publishing Company

Website: <http://www.worldscientific.com/worldscibooks/10.1142/5690>

Description:

This comprehensive volume surveys the molecular, cellular, hormonal, nutritional, medical and lifestyle strategies being tested and applied for the prevention, intervention and treatment of age-related diseases. With authoritative contributions not just from researchers in academic institutions and pharmaceutical and cosmeceutical industries, but also practicing clinicians of both mainstream and alternative medicine, demographers and bioethicists, this book provides unique scientific, ethical and social perspectives on the discussion of aging intervention. In addition, the latest technologies in development, which will have serious bearings on future aging interventions, are reviewed.

Aging Interventions and Therapies is ideal for graduates and undergraduates in universities and medical and nursing colleges, as well as post-graduates researching different aspects of aging and anti-aging. The topics covered are also highly relevant for professionals in the pharmaceutical, cosmeceutical, nutrition and healthcare industries, and practicing clinicians looking for a reliable and up-to-date resource on aging intervention and therapy.



Aging of cells in and outside the body

Author: Kaul, S. & Wadhwa, Renu

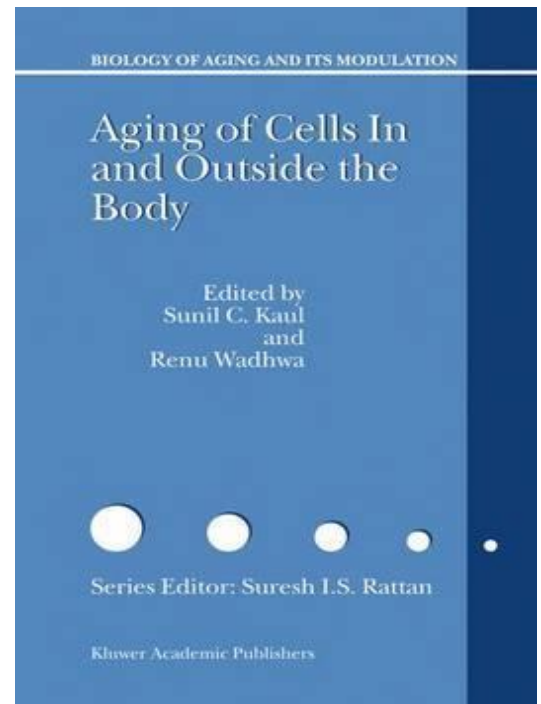
Published: 2003

Publisher: Springer

Website: <http://www.springer.com/life+sciences/cell+biology/book/978-1-4020-1375-1>

Description:

This book provides updated knowledge on the basic features and mechanisms of cellular aging established since its first manifestation at cellular level 40 years ago. Contributions of genetic and environmental factors, failure of genetic and cellular repair mechanisms, and the epigenetic modifications determine the final lifespan of cells. This book also provides an understanding on how aging mechanisms in mice, a most frequently used model, differ with that of humans who receive better tumor surveillance because of stringent controls on aging mechanisms. It also appraises the use of modern technology for aging studies and its intervention. This book serves as an excellent reading on cellular aging for undergraduate students, researchers and experts of this area.



Aging of the genome: the dual role of DNA in life and death

Author: Vijg, Jan

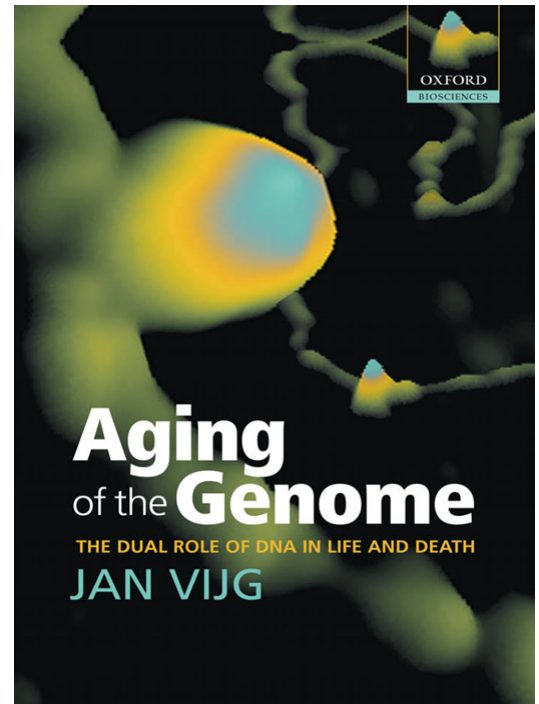
Published: 2007

Publisher: Oxford University Press, USA

Website: <http://ukcatalogue.oup.com/product/9780198569220.do?keyword=aging&sortby=bestMatches>

Description:

Authored by a world-renowned specialist in the field. Describes the mechanisms of aging in a clear and accessible manner. Emphasises the role of DNA damage and genomic instability in aging and aging-related disease, integrating theoretical and empirical evidence. Discusses the design of strategies to retard or reverse the deleterious effects of aging. Ideal graduate seminar course material



Aging: Oxidative Stress and Dietary Antioxidants

Author: Preedy Victor R.

Published: 2014

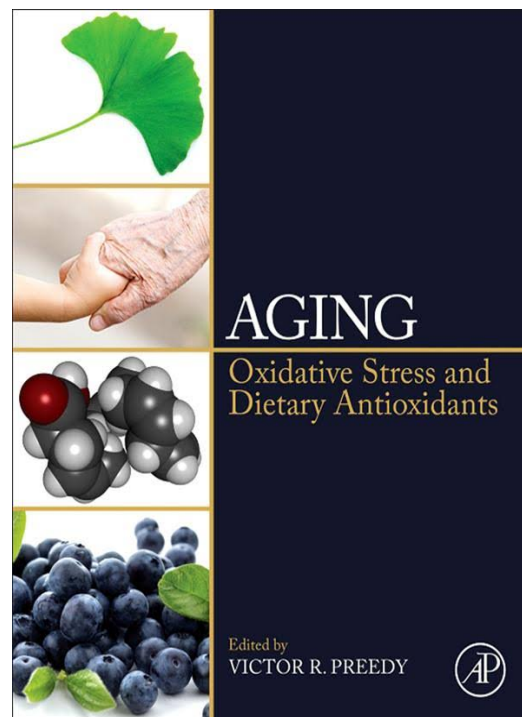
Publisher: Academic Press

Website: http://store.elsevier.com/product.jsp?isbn=9780124059337&_requestid=465826

Description:

Aging: Oxidative Stress and Dietary Antioxidants bridges the trans-disciplinary divide and covers in a single volume the science of oxidative stress in aging and the potentially therapeutic use of natural antioxidants in the diet or food matrix. The processes within the science of oxidative stress are described in concert with other processes, such as apoptosis, cell signaling, and receptor mediated responses. This approach recognizes that diseases are often multifactorial, and oxidative stress is a single component of this.

Gerontologists, geriatricians, nutritionists, and dieticians are separated by divergent skills and professional disciplines that need to be bridged in order to advance preventative as well as treatment strategies. While gerontologists and geriatricians may study the underlying processes of aging, they are less likely to be conversant in the science of nutrition and dietetics. On the other hand, nutritionists and dietitians are less conversant with the detailed clinical background and science of gerontology. This book addresses this gap and brings each of these disciplines to bear on the processes inherent in the oxidative stress of aging.



Aging, Risk and Globalization

Author: Powell, Jason L.

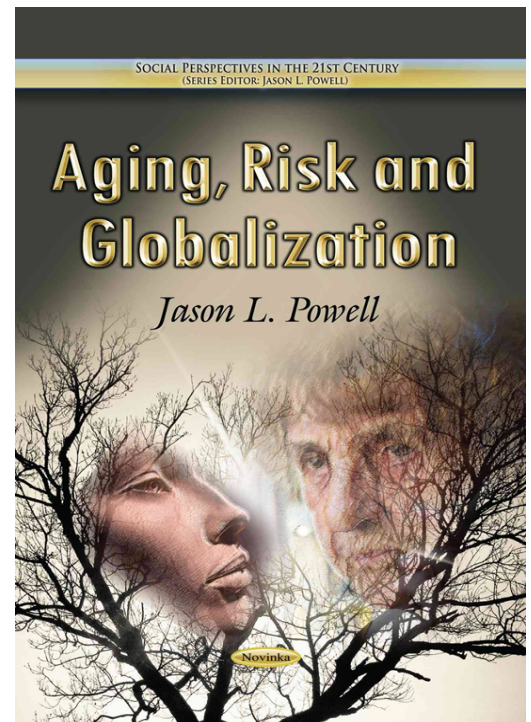
Published: 2013

Publisher: Nova Science Pub Inc

Website: https://www.novapublishers.com/catalog/product_info.php?products_id=45189

Description:

This book examines the concept of aging. It interrogates how it has been co-opted and absorbed by bio-medical approaches to gerontology. The book explores how the concept of risk is a major feature of how aging has been constructed and positioned by bio-medical experts, a transition to a «risk society» and the implications of populational aging in global society.



Aging: the paradox of life: why we age

Author: Holliday, Robin

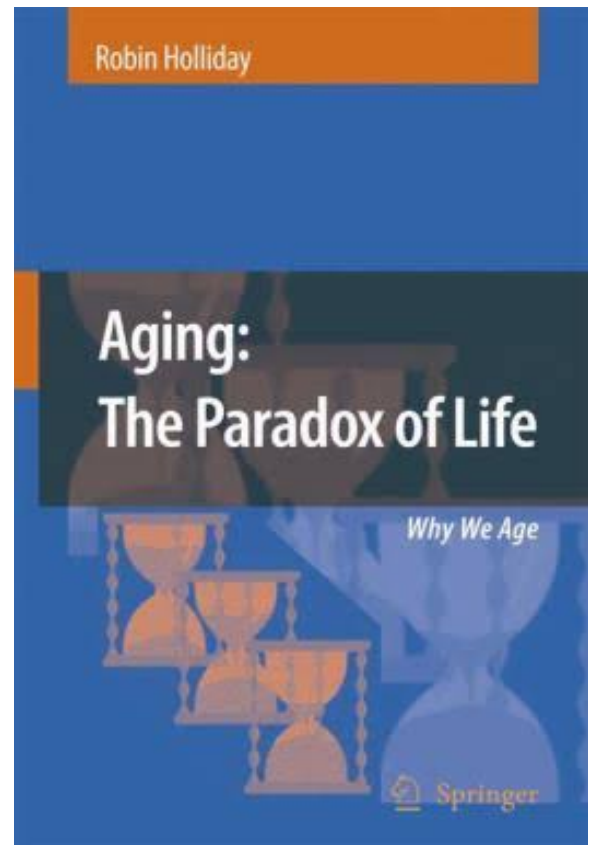
Published: 2007 (H,E)2009 (P)

Publisher: Springer

Website: <http://www.springer.com/medicine/family/book/978-1-4020-5640-6>

Description:

For centuries people have been puzzled by the inevitability of human aging. For most of the second half of the twentieth century aging remained a mystery, or an unsolved biological problem. At the end of the 20th century a remarkable scientific discovery emerged. It was not a single discovery in the usual sense, because it was based on a series of important interconnected insights over quite a long period of time. These insights made it possible for the very first time to understand the biological reasons for aging in animals and man. It can already be said, however, that the many observations and insights that explain aging will not be accepted as established knowledge for a long time. The field is still full of scientists, and non-scientists, who are just happy to go on speculating about the «mystery» of aging. The aim of this book is to dispel ignorance by explaining in non-technical language what are the reasons for aging and the myth of excessive prolongation of life.



A means to an end: the biological basis of aging and death

Author: Clark, William R.

Published: 1999 (H)2002 (P)

Publisher: Oxford University Press, USA

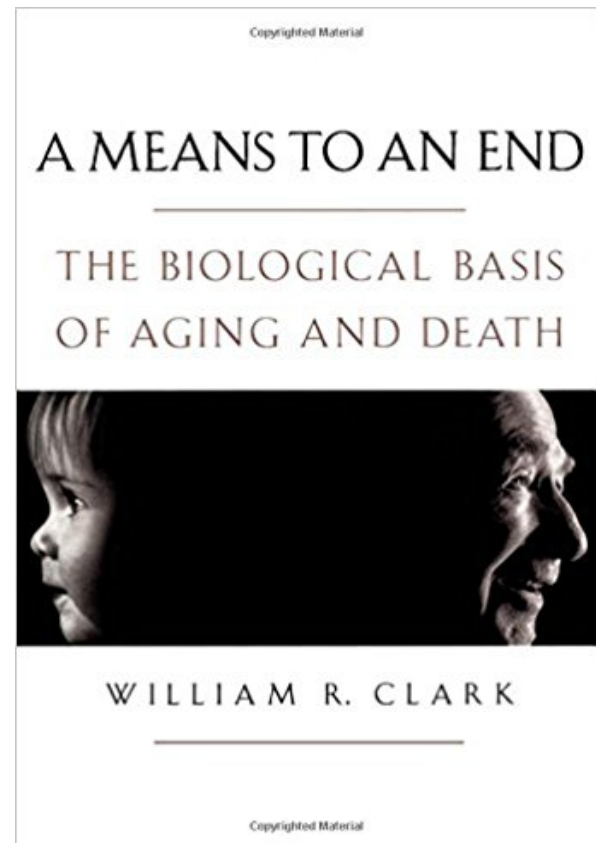
Website: <http://ukcatalogue.oup.com/product/9780195153750.do?keyword=A+means+to+an+end50&sortBy=bestMatches>

Description:

Why do we age? Is aging inevitable? Will advances in medical knowledge allow us to extend the human lifespan beyond its present limits? Because growing old has long been the one irreducible reality of human existence, these intriguing questions arise more often in the context of science fiction than science fact. But recent discoveries in the fields of cell biology and molecular genetics are seriously challenging the assumption that human lifespans are beyond our control.

With such discoveries in mind, noted cell biologist William R. Clark clearly and skillfully describes how senescence begins at the level of individual cells and how cellular replication may be bound up with aging of the entire organism. He explores the evolutionary origin and function of aging, the cellular connections between aging and cancer, the parallels between cellular senescence and Alzheimer's disease, and the insights gained through studying human genetic disorders—such as Werner's syndrome—that mimic the symptoms of aging. Clark also explains how reduction in caloric intake may actually help increase lifespan, and how the destructive effects of oxidative elements in the body may be limited by the consumption of antioxidants found in fruits and vegetables. In a final chapter, Clark considers the social and economic aspects of living longer, the implications of gene therapy on senescence, and what we might learn about aging from experiments in cloning.

This is a highly readable, provocative account of some of the most far-reaching and controversial questions we are likely to ask in the next century.



Animal models of human cognitive aging

Author: TBizon, Jennifer L. & Woods, Alisa

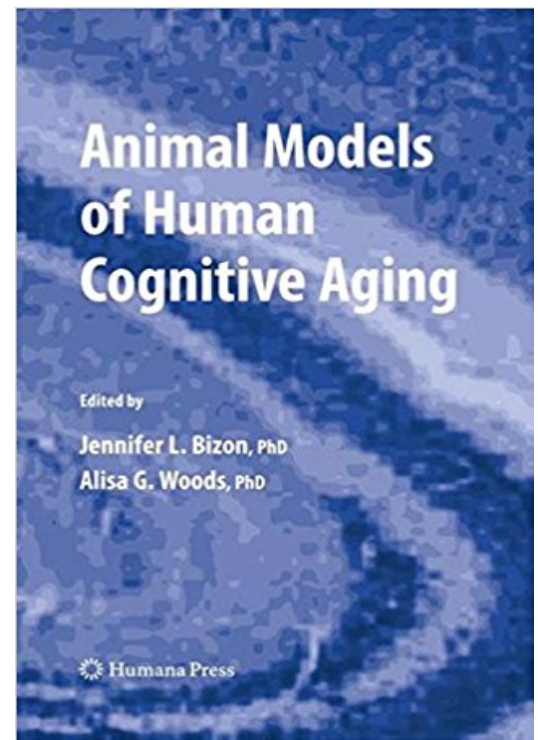
Published: 2008

Publisher: Springer

Website: <http://www.springer.com/biomed/neuroscience/book/978-1-58829-996-3>

Description:

Significant improvements in lifestyle and medical science are leading to an ever increasing elderly population in the United States and other developed nations. The U.S. census bureau estimates the number of people over 65 will nearly double by 2030, and that the elderly population will comprise nearly one-fifth of the world's entire population within the next twenty years. In *Animal Models of Human Cognitive Aging*, Jennifer Bizon, Alisa Woods, and a panel of international authorities comprehensively discuss the use of animal models as a tool for understanding cognitive changes associated with the aging process. The book provides substantive background on the newest and most widely used animal models in studies of cognition and aging, while detailing the normal and pathological processes of brain aging of humans in relation to those models. Additional chapters comprehensively review frontal cortical deficits and executive function in primates as related to humans, and the use of transgenic modulation in mice to model Alzheimer's and other age-related diseases. Groundbreaking and authoritative, *Animal Models of Human Cognitive Aging* provides a valuable resource for Neuroscientists, Gerontological Scientists, and all aging medicine researchers, while serving as a primer for understanding current brain aging studies.



Apoptosis, senescence and cancer

Author: Gewirtz, David A.; Shawn E. Holt, Shawn E. & Grant, Steven

Published: 2007

Publisher: Humana Press

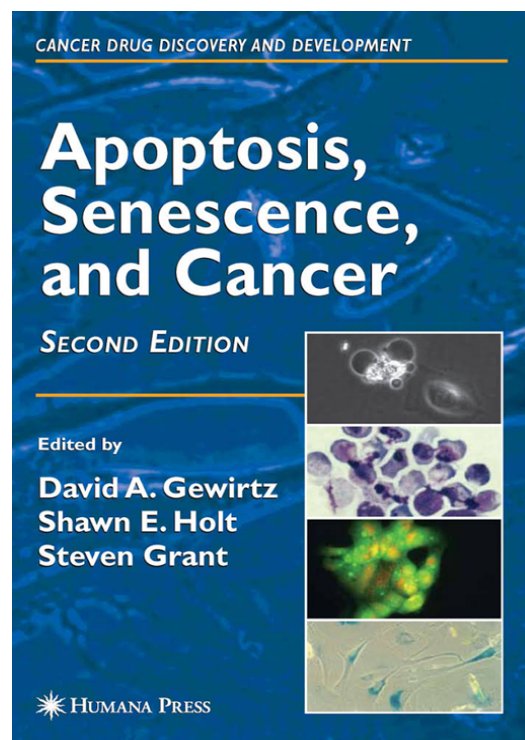
Website: <http://www.springer.com/medicine/radiology/book/978-1-58829-527-9>

Description:

Apoptosis, Senescence and Cancer provides insight into established practices and research into apoptosis and senescence by thoroughly examining novel and emerging techniques and research in the fields of cell death pathways, senescence growth arrest, drugs and resistance, DNA damage response, and other topics which still hold mysteries for researchers.

The volume is divided into six easy to follow sections. The first is Apoptosis and Alternative Modes of Cell Death, followed by chapters on Telomeres and Telomerase, Senescence, Genomic Instability and Tumorigenesis. The third part covers DNA Damage Response, Signaling Pathways and Tumorigenesis, while the fourth delves into Resistance and Sensitization. The book concludes with Established Cancer Therapies and a section which looks toward the future with Recent and Developing Cancer Therapies.

In total, this volume provides basic scientists and clinicians with a deeper and more complete understanding of the cellular responses of malignancies which may determine the effectiveness of treatment, both in the initial stages of the disease as well as in disease recurrence.



Are Chronic Degenerative Diseases Part of the Ageing Process?: Insights from Comparative Biology

Author: Singer, Michael A.

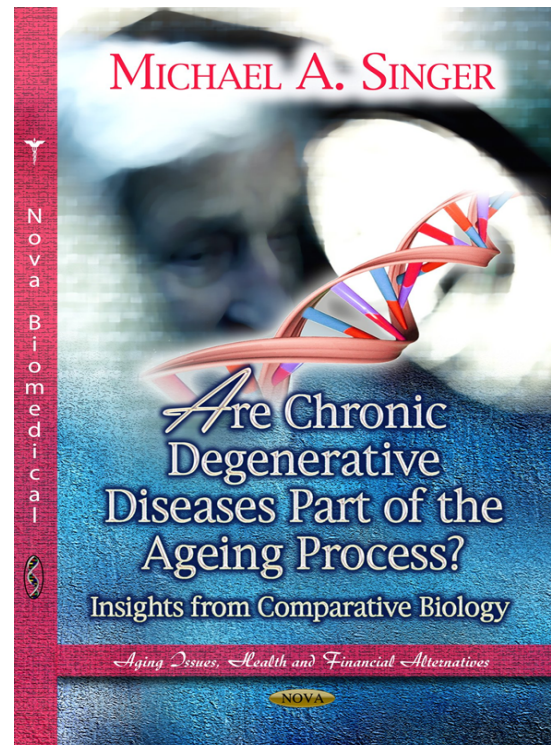
Published: 2013

Publisher: Nova Science Pub Inc

Website: https://www.novapublishers.com/catalog/product_info.php?products_id=39550

Description:

Most of the DNA in the human genome does not encode proteins but is involved in regulatory functions. In addition, the human genome is characterized by an extensive array of structural DNA variants arising from de novo mutations plus accumulated structural variants transmitted through an individual's lineage. The result is that each person has a unique genome which is expressed as that person's unique phenotype. Ageing can be understood on both the species and individual level. Each species has a programmed ageing and mortality pattern, but within those broad species-specific boundaries there is considerable individual variation. At the individual level, ageing reflects the integrated effects of that individual's unique mix of DNA structural variants, unique experience-specific epigenetic marks and imperfectly repaired genomic and cellular damage. This book examines human "chronic degenerative" diseases which are not diseases, but rather variations of the ageing process across individuals.



Autophagy: Cancer, Other Pathologies, Inflammation, Immunity, Infection, and Aging: Volume 2 - Role in General Diseases

Author: Hayat, M.A.

Published: 2013

Publisher: Academic Press

Website: http://store.elsevier.com/product.jsp?isbn=9780124058774&_requestid=168771

Description:

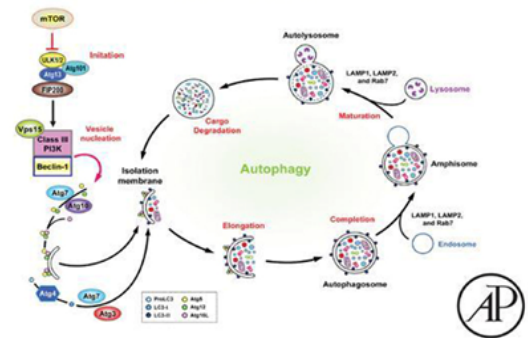
Autophagy: Cancer, Other Pathologies, Inflammation, Immunity, Infection, and Aging is a complete, authoritative examination of the role of autophagy in health and disease. Understanding this phenomenon is vital for the studies of cancer, aging, neurodegeneration, immunology, and infectious diseases. Comprehensive and forward thinking, this four-volume work offers a valuable guide to cellular processes while encouraging researchers to explore their potentially important connections. Understanding the role of autophagy is critical, considering its association with numerous biological processes, including cellular development and differentiation, cancer (both antitumor and protumor functions), immunity, infectious diseases, inflammation, maintenance of homeostasis, response to cellular stress, and degenerative diseases such as Alzheimer's, Parkinson's, Huntington's, amyotrophic lateral sclerosis, and prion diseases. Cell homeostasis is achieved by balancing biosynthesis and cellular turnover. In spite of the increasing importance of autophagy in various pathophysiological conditions mentioned above, this process remains underestimated and overlooked. As a consequence, its role in the initiation, stability, maintenance, and progression of these and other diseases (e.g., autoimmune disease) remains poorly understood.

AUTOPHAGY

CANCER, OTHER PATHOLOGIES,
INFLAMMATION, IMMUNITY,
INFECTION, AND AGING

VOLUME 2

EDITED BY
M. A. HAYAT



Biology of Aging

Author: McDonald, Roger B.

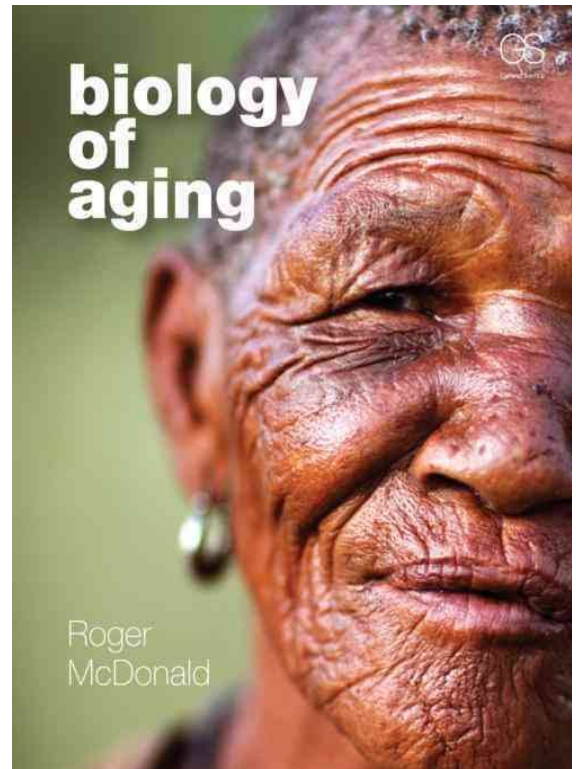
Published: 2013

Publisher: Garland Science

Website: <http://www.garlandscience.com/product/isbn/9780815342137?fromSearchResults=fromAlphaSearchResults>

Description:

Biology of Aging presents the biological principles that have led to a new understanding of the causes of aging and describes how these basic principles help one to understand the human experience of biological aging, longevity, and age-related disease. Intended for undergraduate biology students, it describes how the rate of biological aging is measured; explores the mechanisms underlying cellular aging; discusses the genetic pathways that affect longevity in various organisms; outlines the normal age-related changes and the functional decline that occurs in physiological systems over the lifespan; and considers the implications of modulating the rate of aging and longevity. The book also includes end-of-chapter discussion questions to help students assess their knowledge of the material.



Behavioral Neurobiology of Aging

Author: Pardon, Marie-Christine & Bondi, Mark W.

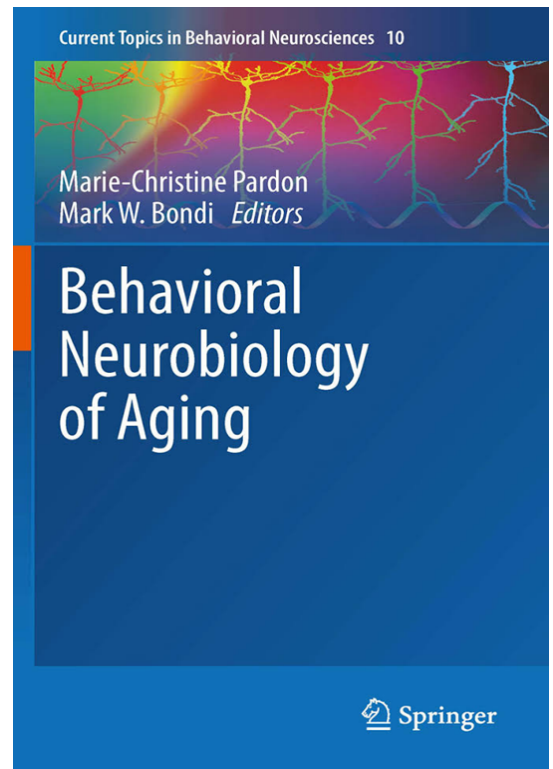
Published: 2012

Publisher: Springer

Website: <http://www.springer.com/biomed/neuroscience/book/978-3-642-23874-1>

Description:

This volume discusses the current state of research findings related to healthy brain aging by integrating human clinical studies and translational research in animal models. Several chapters offer a unique overview of successful aging, age-related cognitive decline and its associated structural and functional brain changes, as well as how these changes are influenced by reproductive aging. Insights provided by preclinical studies in mouse models and advanced neuroimaging techniques in humans are also presented.



Biogerontology: mechanisms and interventions

Author: Rattan, Suresh I.S. & Akman, Serif

Published: 2007

Publisher: Wiley-Blackwell

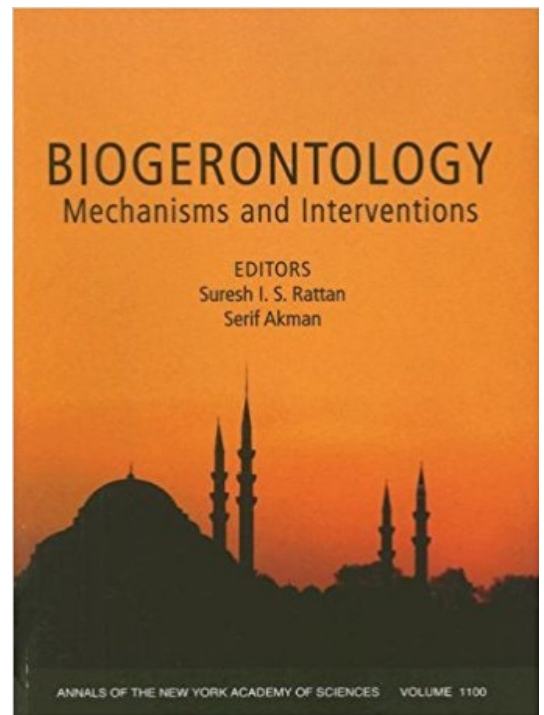
Website: <http://eu.wiley.com/WileyCDA/WileyTitle/productCd-1573316792.html>

Description:

Biological aging and interventional strategies are investigated with the eventual goal of extending healthy human lifespan and minimizing the incidence of diseases associated with aging.

Biogerontologists, evolutionary biologists, biodemographers, scientists in related basic research, clinicians, and dieticians came together in Istanbul, Turkey, to share their research and discuss the latest developments in this rapidly advancing field.

This volume presents chapters representative of the highlights of the meeting, including contributions in the following areas: (1) biological and nonbiological factors affecting lifespan and the quality of life; (2) ethical and social issues related to lifespan and health-span extension; (3) novel areas of understanding aging -- physiological, cellular, and molecular aspects; (4) new technologies to understand and modulate aging; (5) the latest successful approaches in the prevention and treatment of age-related diseases; and (6) aging intervention, prevention, and modulation by genes, natural and synthetic molecules, and lifestyle modifications.



Biological aging: methods and protocols

Author: Tollefsbol, Trygve O.

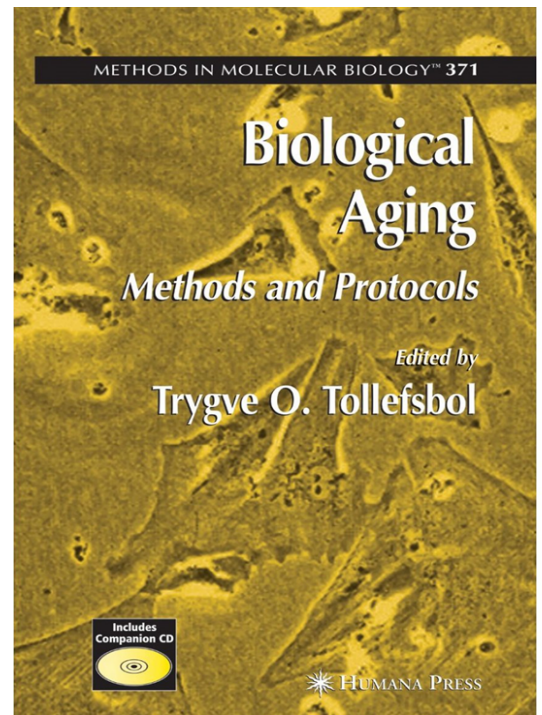
Published: 2007

Publisher: Humana Press

Website: <http://www.springer.com/medicine/family/book/978-1-58829-658-0>

Description:

Biological Aging: Methods and Protocols investigates the various processes that are affected by the age of an organism. Several new tools for the analysis of biological aging have been introduced recently, and this volume provides methods and protocols for these new techniques in addition to its coverage of established procedures. The editors have carefully selected only those topics that are considered mainstays of the field or are showing promise in revolutionizing this relatively new science. The three main areas of focus in this cutting-edge compendium of biological aging research are: methods that are basic to understanding the fundamental mechanisms of cellular aging; techniques used to intervene in the aging process; and approaches to analyzing the many molecular processes of biological aging. Researchers seeking new technology and techniques will find this volume of tremendous benefit as they move towards new directions in the exciting and expanding field of biological aging.



Biological Aging: Methods and Protocols (2nd Ed.)

Author: Tollefsbol, Trygve O.

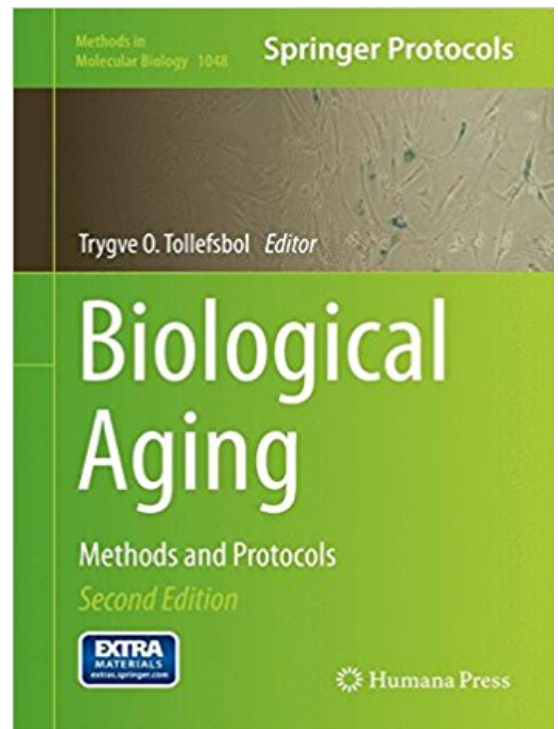
Published: 2013

Publisher: Humana Press

Website: <http://www.springer.com/life+sciences/cell+biology/book/978-1-62703-555-2>

Description:

The second edition of *Biological Aging: Methods and Protocols* expands upon the previous edition with current, detailed, useful and promising methods currently available to study aging. With new chapters on protocols that detail aging cell culture as well as many more contemporary approaches such as nuclear transfer, microarray and proteomics technologies. Written in the highly successful *Methods in Molecular Biology* series format, chapters include introductions to their respective topics, lists of the necessary materials and reagents, step-by-step, readily reproducible laboratory protocols, and key tips on troubleshooting and avoiding known pitfalls.



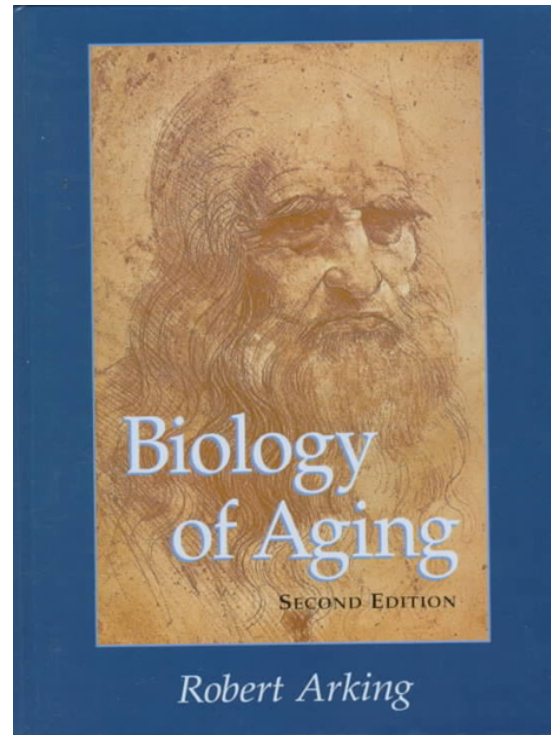
Biology of aging: observations and principles

Author: Arking, Robert

Published: 2006

Publisher: Oxford University Press, USA

Website: <http://ukcatalogue.oup.com/product/9780195167399.do?keyword=aging&sortby=bestMatches>



Description:

Clarified distinctions between the biological mechanisms involved in longevity determination and those involved in senescent processes. · A new conceptual framework around which we can organize all the new facts about aging. This will assist readers to make sense of the information and use the data to form their own ideas. · Increased knowledge of aging cells has led to new ideas on how a cell transits from a healthy state to a senescent state, while still allowing for high levels of intra- and inter-specific variability. · Discussion of senescent mechanisms assists the reader to understand that aging is a non-programmatic loss of function, likely arising from the loss of regulatory signals, and so is modifiable in the laboratory. · Because the standard evolutionary story does not fully explain the evolution of social organisms, this edition also includes recent work dealing with intergenerational resource transfers. · Lastly, if aging mechanisms are plastic, then the demand to move these anti-aging interventions into the human arena will inevitably grow. A discussion of the biological and ethical arguments on both sides of the question frames the question in an appropriate manner.

The mass of data related to aging is summarized into fifteen focused chapters, each dealing with some particular aspect of the problem. The last two chapters integrate all this material into a coherent view of how the relevant biological processes change over the life span. This view is expressed in two non-technical figures (you might say that the whole book exists to fully support Figs 9-4 & 14-9), whose meanings are elucidated as the reader progresses through the book.

Biology of aging

Author: Macieira-Coelho, Alvaro

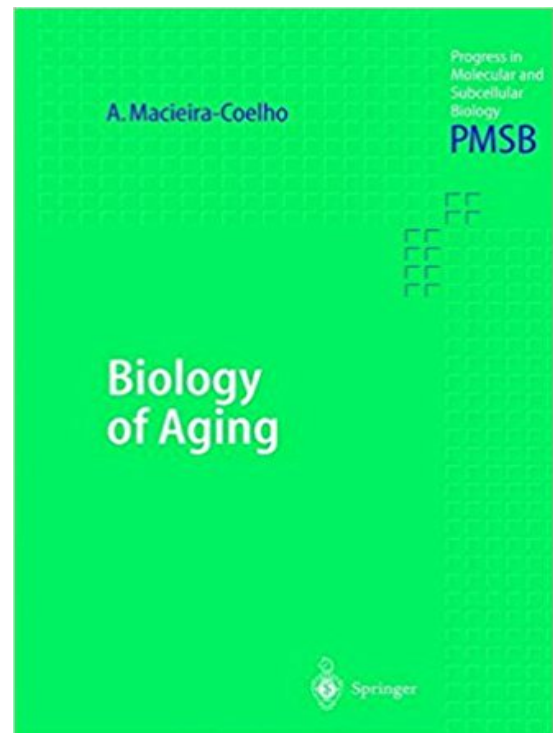
Published: 2003

Publisher: Springer

Website: <http://www.springer.com/medicine/family/book/978-3-540-43827-4>

Description:

This volume gives the reader a comprehensive overview of the fundamental and biological aspects of aging. First, the field is described from a historical perspective. Then, the author analyzes the three fundamental mechanisms of survival: energy utilization, molecular and cellular redundancy, and the organization of information. The genetics of aging is reviewed rejecting some simple-minded interpretations. A bridge is established between the molecular, cellular, and tissue modifications that have been reported in the literature, and the clinical manifestations of the aging syndrome. Special relevance is given to the problem of the supposed association between cancers and aging, giving a new interpretation of that relationship.



Cell Aging

Author: Perloft, Jack W. & Wong, Alexander H.

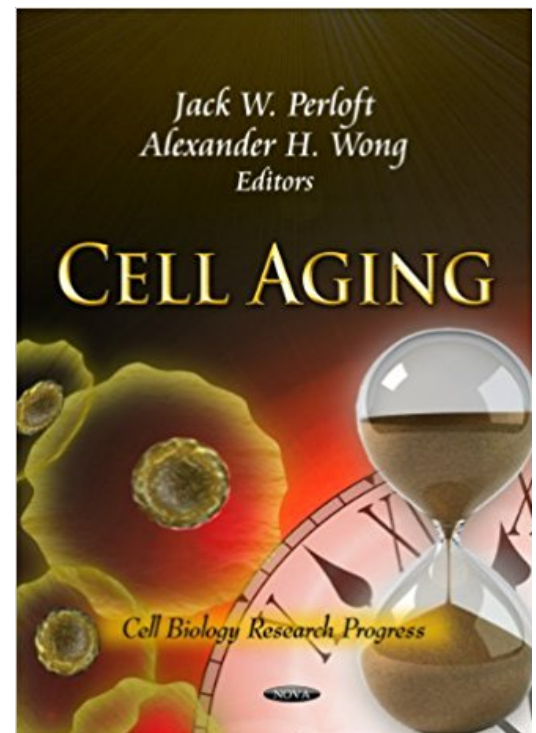
Published: 2012

Publisher: Nova Science Pub Inc.

Website: https://www.novapublishers.com/catalog/product_info.php?products_id=20685&osCsid=99c5df767f009847223d03ff2240a926

Description:

This book studies the cell aging of individual animals as observed by light and electron microscopic radioautography. Also discussed in this compilation is sarcopenia, which is the age-related loss of skeletal muscle mass, as well as recent advances in basic molecular mechanisms that underlie aging with findings that are shedding light on the pathogenesis of Alzheimer's disease. The authors also study Akt/protein kinase B (PKB), which plays a prominent role in the regulation of cellular homeostasis including cell survival, cell growth and gene expression; and understanding the process and mechanisms involved in erythrocyte senescence.



Cell Aging: Molecular Mechanisms and Implications for Disease

Author: Christian Behl, Christine Ziegler

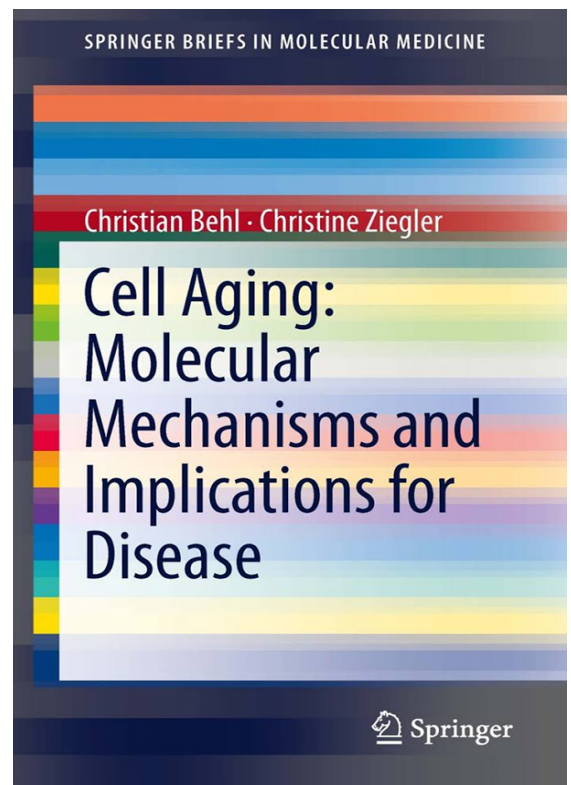
Published: 2014

Publisher: Springer

Website: <https://link.springer.com/book/10.1007/978-3-642-45179-9>

Description:

Aging represents a physiological and per se non-pathological and multifactorial process involving a set of key genes and mechanisms being triggered by different endogenous and exogenous factors. Since aging is a major risk factor in connection with a variety of human disorders, it is increasingly becoming a central topic in biochemical and medical research. The plethora of theories on aging – some of which have been discussed for decades – are neither isolated nor contradictory but instead can be connected in a network of pathways and processes at the cellular and molecular levels. This book summarizes the most prominent and important approaches, focusing on telomeres, DNA damage and oxidative stress as well as on the possible role of nutrition, the interplay between genes and environment (epigenetics) and intracellular protein homeostasis and introduces some genes that have actually extended life spans in animal models. Linking these different determinants of aging with disease, this volume aims to reveal their multiple interdependencies. We see that there is no single “perfect” theory of aging and that instead it is possible to define what the authors call the molecular aging matrix of the cell. A better knowledge of its key mechanisms and the mutual connections between its components will lead to a better understanding of age-associated disorders such as Alzheimer’s disease.



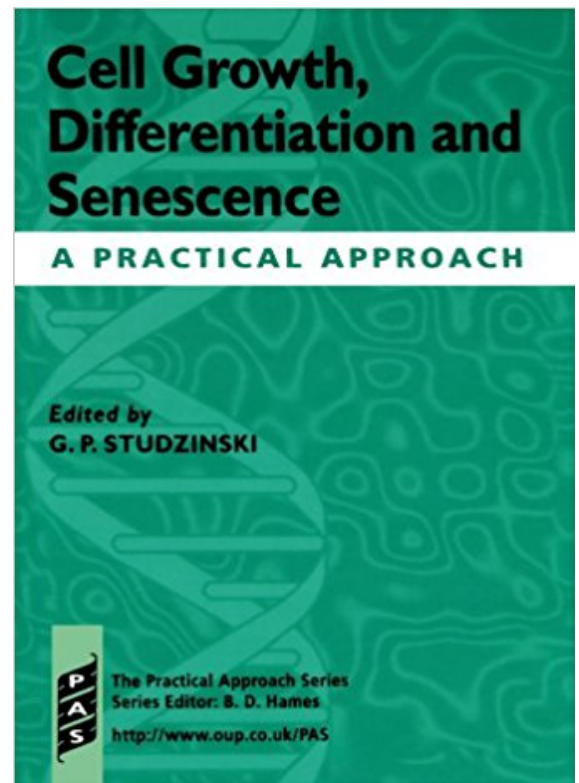
Cell growth, differentiation and senescence: a practical approach

Author: Studzinski, George P.

Published: 2000 (H) 1999 (P)

Publisher: Oxford University Press, USA

Website: <http://ukcatalogue.oup.com/product/9780199637690.do>



Description:

There are three main themes running through this volume. First, basic methods for measurement of cell proliferation are introduced and explained with reference to various systems, primarily in vitro, but in vivo procedures are also illustrated. The second theme is growth signalling, and is exemplified by methods for the analysis of transduction pathways for growth, beginning at the cell membrane and leading to the cell nucleus. The last theme presented here is growth cessation, illustrated by several systems for induction of cell differentiation, and of cell senescence. The emphasis throughout the book is on human cell systems, making it particularly relevant to scientists interested in human disease, especially cancer. Importantly, well proved methods for studying cell growth are supplemented by some novel approaches, e.g., studies of cell cycle checkpoints, cell spheroids, and nuclear architecture. Only two chapters have been retained, in an updated form from Cell Growth and Apoptosis, the predecessor volume. The book is written by a team of scientists highly experienced in procedures they describe, and offer details and hints found valuable in their own laboratories; thus, variants of the same general methods can be found in different chapters. These should be helpful to beginning as well as experienced investigators, and are designed to stimulate new approaches to old and new questions.

Cell Senescence: Methods and Protocols

Author: Galluzzi, Lorenzo; Vitale, Ilio; Kepp, Oliver & Kroemer, Guido

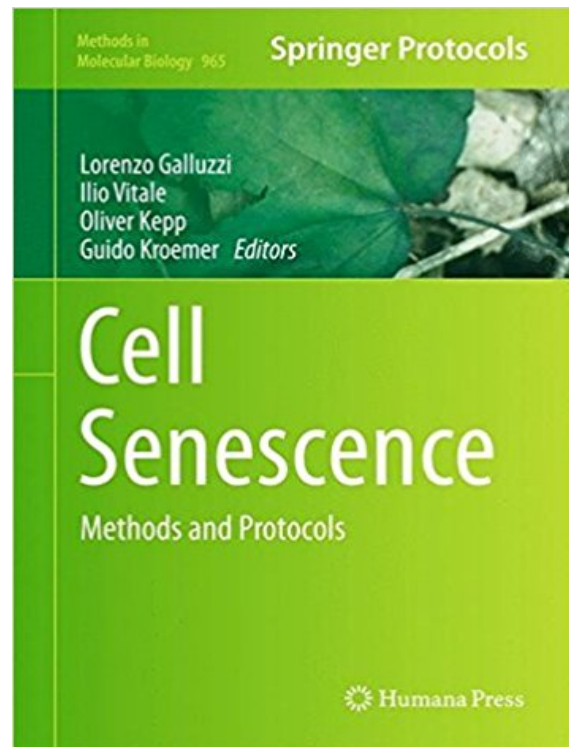
Published: 2014

Publisher: Humana Press, Springer

Website: <http://www.springer.com/life+sciences/cell+biology/book/978-1-62703-238-4>

Description:

Cell senescence is the process whereby cells permanently lose the possibility to proliferate without undergoing cell death, and occurs in a plethora of distinct model organisms. In *Cell Senescence: Methods and Protocols*, expert researchers in the field detail the methods that are now commonly used to study cell senescence, in model organisms encompassing bacteria, fungi, worms, flies, zebrafish, and mammalian cells. These techniques cover the study of all the morphological, biochemical and functional manifestations of senescence at the cellular level and include protocols for population analyses and high-throughput approaches in suitable model organisms. Written in the highly successful *Methods in Molecular Biology*TM series format, chapters include introductions to their respective topics, lists of the necessary materials and reagents, step-by-step, readily reproducible laboratory protocols, and key tips on troubleshooting and avoiding known pitfalls.



Cells, aging, and human disease

Author: Fossel, Michael B.

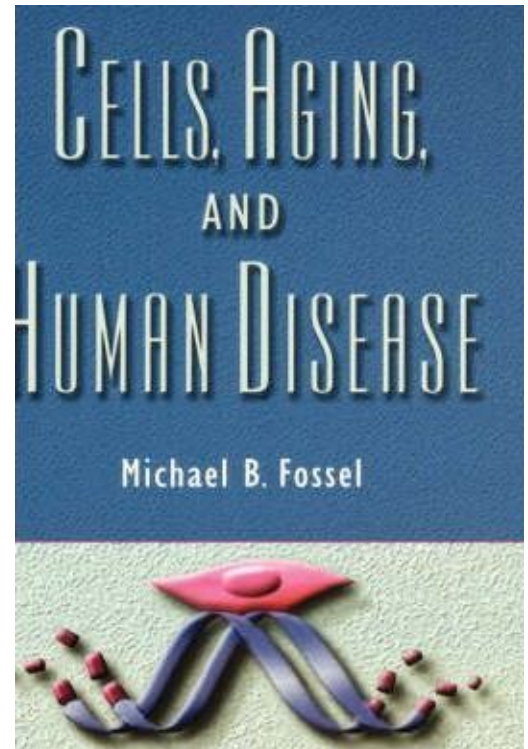
Published: 2004

Publisher: Oxford University Press, USA

Website: <http://ukcatalogue.oup.com/product/9780195140354.do?keyword=aging&sortby=bestMatches>

Description:

This is the first textbook to explain human aging from genes to clinical disease. With over 4,000 references, it explores both the fundamental processes of aging and the resultant tissue-by-tissue clinical pathology, detailing both breaking research and current state-of-the-art clinical interventions in aging and age-related disease. It is the only book on the market to emphasize the theory of aging as caused by cell senescence rather than the traditionally held wear-and-tear theory.



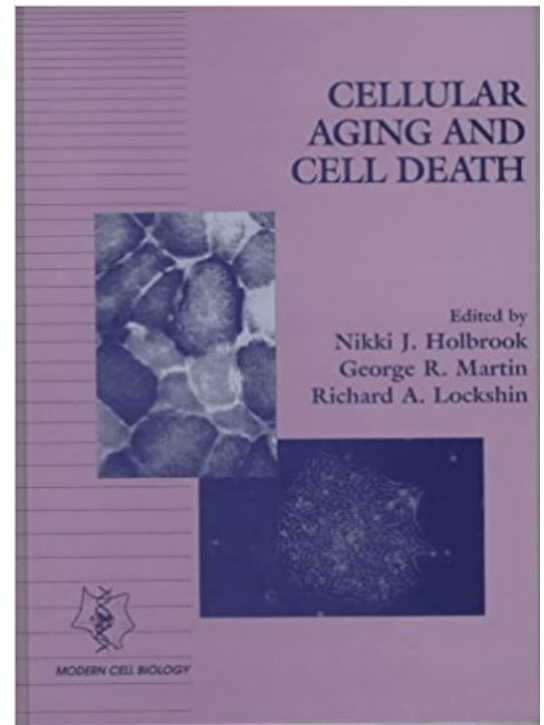
Cellular aging and cell death

Author: Holbrook, Nikki J.; Martin, George R. & Lockshin, Richard A.

Published: 1995

Publisher: Wiley-Liss

Website: <http://eu.wiley.com/WileyCDA/WileyTitle/productCd-0471121231.html>



Description:

Cellular Aging and Cell Death provides a thorough understanding of the mechanisms responsible for cellular aging, covering the recent research on programmed cell death and senescence, and describing their role in the control of cell proliferation and the aging process. This one-of-a-kind book is the first to combine the two hottest research areas of cell biology into one comprehensive text.

Leading experts contribute to give readers an authoritative overview of the distinct fields of cellular aging and programmed cell death, as well as to demonstrate how both fields are critical to understanding the aging process. They address the large and growing interest in apoptosis, especially with regard to the molecular signals that induce and regulate programmed cell death, and the role of apoptosis in a variety of age-associated diseases and disabilities. Throughout the book, a strong emphasis is placed on the interrelationship of the molecular, cellular, and physiological aspects of senescence.

Individual chapters discuss such topics as the role and regulation of apoptosis in development, the potential impact of cell death on such postmitotic tissues as nerve and muscle, and suggest that programmed cell death plays an important role in both pathological and nonpathological aspects of aging, including neurodegenerative diseases.

One important chapter focuses on the most recent research involving the study of telomeres, whose reduction in length with age and cell division may underlie cellular senescence. The subject of neuronal cell death is also put into the perspective of aging.

Cellular Aging and Cell Death bridges the rapidly growing fields of cellular aging and programmed cell death. This thorough, yet concise book will be of particular interest to graduate students and researchers within the fields of cell and developmental biology, neurobiology, immunology, and physiology. Physicians and medical students involved in the fields of gerontology and pathology will also find this an informative reference.

Challenging Aging: The Anti-senescence Effects of Hormesis, Environmental Enrichment, and Information Exposure

Author: Marios Kyriazis

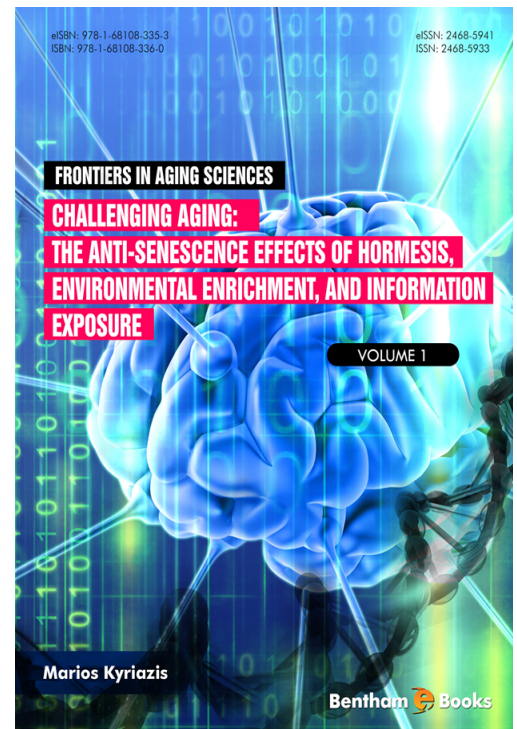
Published: 2016

Publisher: Bentham Science

Website: <https://ebooks.benthamscience.com/book/9781681083353/>

Description:

Age-related degeneration may be reduced or even eliminated, by positively challenging the human being, physically or cognitively, to up-regulate somatic repair functions. Exposure to meaningful information and a challenging environment act as hormetic stressors which, in the context of an increasingly technological setting, may invoke evolutionary mechanisms that lead to a persistent maintenance of homeostasis. Thus, there is a strong link between environmental factors and ongoing health, leading to an individual's ability to continually adapt to age related challenges. Challenging Aging: The Anti-senescence Effects of Hormesis, Environmental Enrichment, and Information Exposure explains the role of hormesis in anti-aging processes followed by information on vitagenes, epigenetics, environmental enrichment and germlines. The monograph also brings newer concepts and theories to the fore, such as 'environmental enrichment' and 'technoculture.' Medical professionals and general readers, alike, will gain a new perspective on the processes that counter aging processes in the human being.



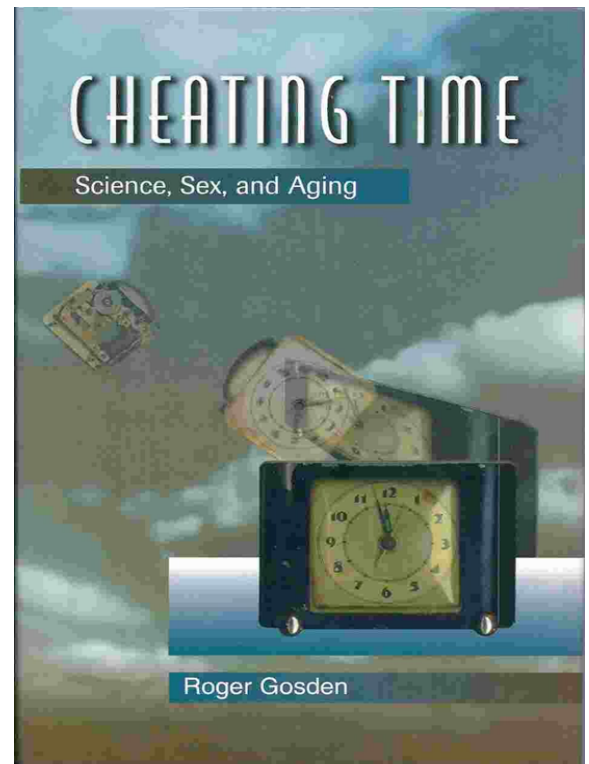
Cheating Time: Science, Sex, and Aging

Author: Gosden, Roger G.

Published: 1996

Publisher: W.H. Freeman & Co Ltd

Website: <https://www.amazon.de/Cheating-Time-Science-Sex-Aging/dp/0716730596>



Description:

The quest to prolong our youth has spurred numerous quack remedies and fraudulent claims, but it has also inspired serious scientific investigation, yielding important clues about the aging process and what might realistically be done to arrest it.

In *Cheating Time*, the acclaimed researcher Roger Gosden tells us what scientists have learned so far, particularly in the investigation of hormones and the paramount role they play in the aging process. As we discover, there may be a tradeoff between reproductive capacity and longevity; the hormones that govern our reproductive lives can turn on us in later years, when, paradoxically, we may suffer from a drop in hormone levels or from the cumulative effects of overexposure to these same hormones.

Drawing on his medical expertise, historical knowledge, and good humor, Gosden shares amusing anecdotes as he discusses fascinating theories and current research efforts that are giving us some good reasons to be optimistic. The trajectory of human life need not be one of inexorable decay and decline. While we cannot hope to attain eternal youth, we are in the process of discovering how to live longer lives in good health, how to extend our biological clocks a bit further, and how to cheat time.

Controversial issues in Aging

Author: Scharlach, Andrew E. & Kaye, Lenard W.

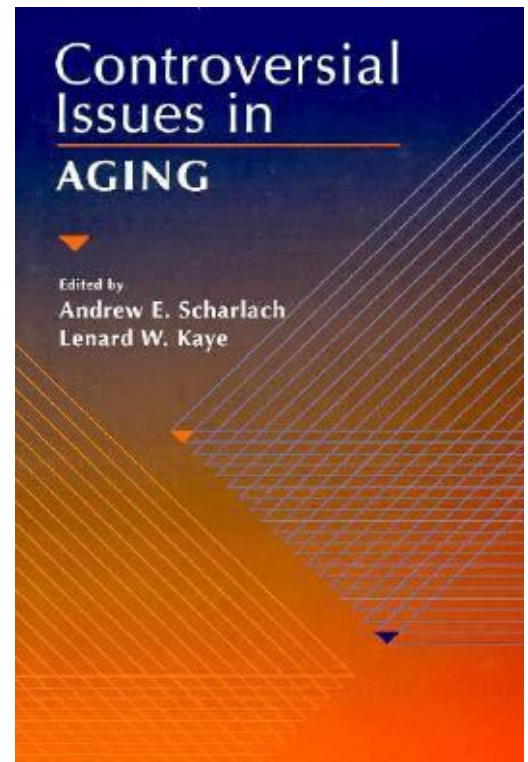
Published: 1996

Publisher: Pearson Education

Website: <http://www.pearson.ch/1471/9780205193813/Controversial-Issues-in-Aging.aspx>

Description:

Part of the Controversial Issues series, this text presents a series of clear and lively debates on current issues in gerontology, authored by leading academic authorities in the field. The text presents a broad overview of issues and questions facing the field, including areas of policy/programs, health, social services, professional and family life, and more. The debates are current and very readable; the text is "user-friendly," and was designed to stimulate student discussion, debate, as well as critical thinking. The text is a "must" for students considering careers in the field of gerontology. The non-technical, brief and lively format of the debates makes them accessible to all students. Issues covered include whether or not to legalize suicide; whether to reduce Social Security benefits; whether to institute means-testing for Medicare; whether affirmative action programs should be instituted for older persons; and the potential dismantling of the aging services network.



Current Directions in Adulthood and Aging

Author: APS (Association for Psychological Science) & Charles, Susan T.

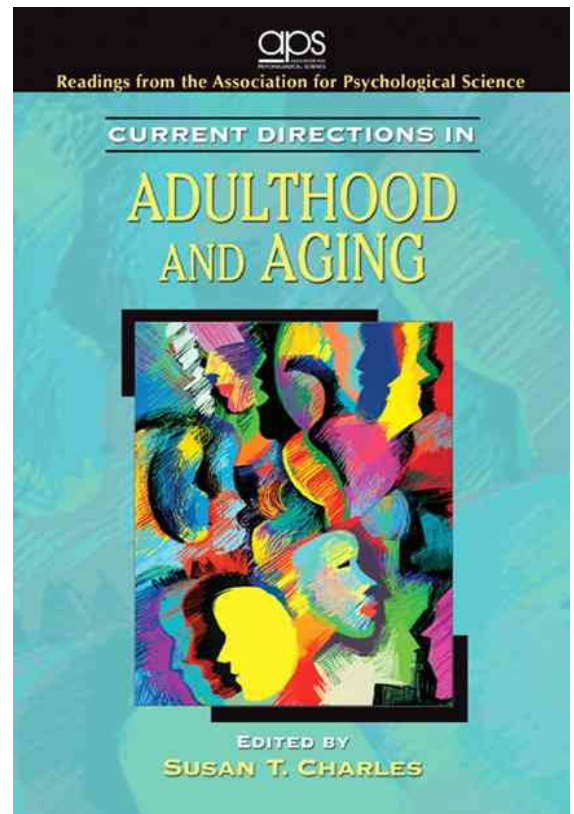
Published: 2008

Publisher: Pearson

Website: <http://www.pearsonhighered.com/educator/product/Current-Directions-in-Adulthood-and-Aging/9780205597499.page>

Description:

This new and exciting reader includes over 25 articles that have been carefully selected for the undergraduate audience, and taken from the very accessible Current Directions in Psychological Science journal. These timely, cutting-edge articles allow instructors to bring their students real-world perspective—from a reliable source—about today's most current and pressing issues in adulthood and aging.



Decoding Longevity

Author: Villeponteau, Bryant

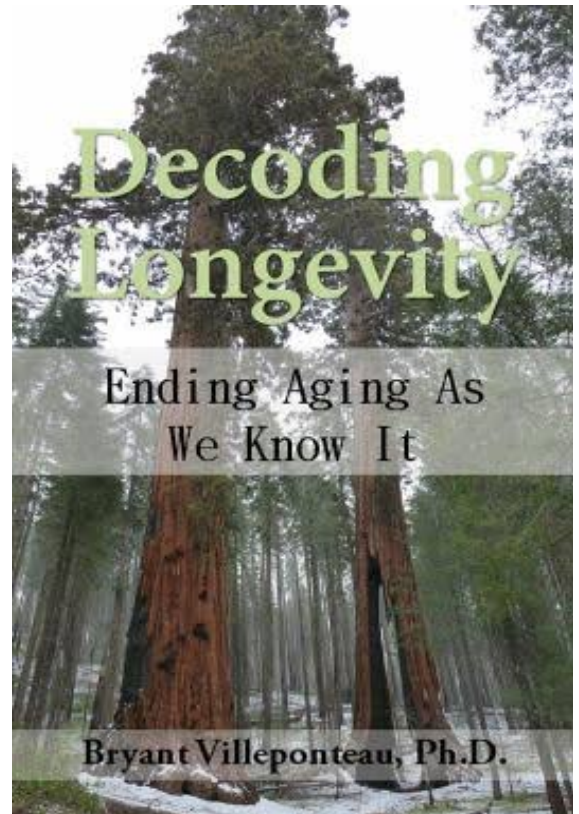
Published: 2014

Publisher: CreateSpace

Website: <https://www.createpace.com/4379564>

Description:

Have you ever wondered why we age and if you could slow its progression? In **DECODING LONGEVITY**, aging expert Dr. Bryant Villeponteau offers a full spectrum biological and genetic analysis of the aging process. He condenses a wealth of practical information for those interested in extending their health and longevity, including dietary, exercise, and supplement recommendations that could add decades to your healthspan. Dr. Villeponteau looks in detail at the last 20 years of aging research, and explores future developments, including the exponential increases in technologies that will provide powerful tools for extending healthy longevity over the next 20 to 40 years.



Diet-brain connection: impact on memory, mood, aging and disease

Author: Mattson, M.P.

Published: 2002

Publisher: Springer

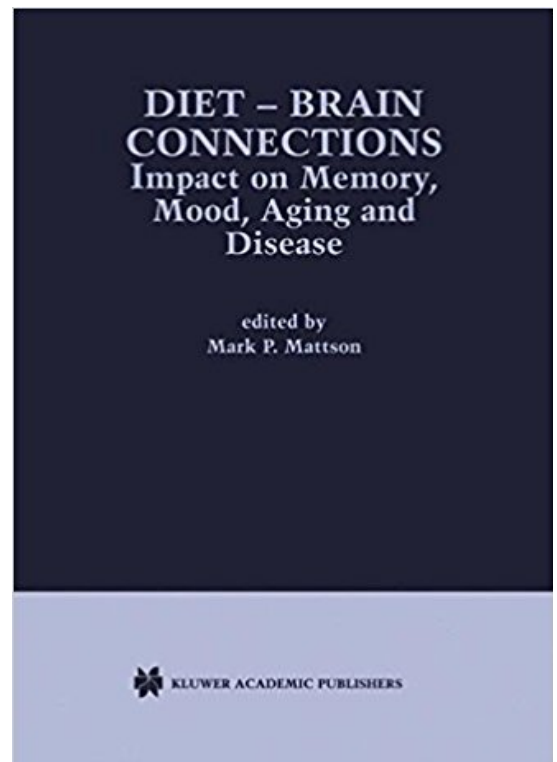
Website: <http://www.springer.com/biomed/neuroscience/book/978-1-4020-7129-4>

Description:

Diet-Brain Connections fills a void between the fields of nutrition, behavior and cellular and molecular neurosciences by providing an integrated collection of articles that critically dissect the link between what we eat and how the brain develops and functions in health and disease.

Key topics covered in depth include:

- caloric restriction benefit the brain and retard aging;
- effects of dietary antioxidants on brain function and aging;
- developmental and function consequences of different dietary fatty acids;
- biochemical links between dietary folic acid and psychiatric and neurodegenerative disorders;
- effects of nutritional deficit during early development and behavior disorders later in life; -neurochemical basis of the benefits of widely used dietary supplements including creatine and Gingko biloba;
- contribution of dietary toxins such as metals and pesticides to neurological disorders.



Endocrine aspects of successful aging: genes, hormones and lifestyles

Author: Chanson, Philippe; Epelbaum, Jacques; Lamberts, Steven & Christen, Yves

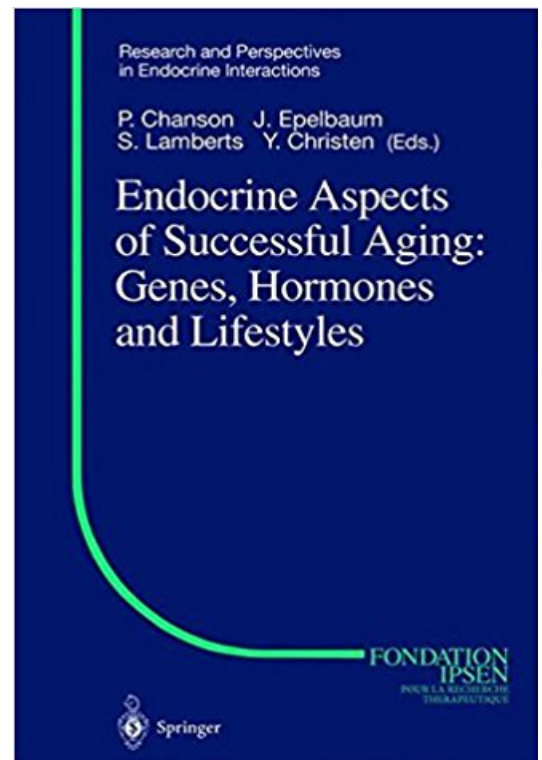
Published: 2004 (H,E)2010 (P)

Publisher: Springer

Website: <http://www.springer.com/biomed/book/978-3-540-40573-3>

Description:

At the beginning of the 20th century, life expectancy at birth in North America and Western Europe was around 50 years of age. Nowadays, women have gained more than 30 years of age and men are trailing closer. However, according to several scientists and sociologists, such as Louis Chauvel, the notion of a «greying society» is not entirely adequate since aging people are physically and socially younger and more active for a longer time. Of course, the other side of the medal is to tackle the challenge of preventing age-associated chronic diseases. In this book the extensive field of research on neuroendocrine aging has been reviewed, including data from molecular biology and on simple organisms as well as on the hormonal substitution strategies in humans. Aging is one of the most complex biological processes determined by the interactions between genetic and environmental factors.



Epidemiology in Old Age

Author: Ebrahim, Shah & Kalache, Alex

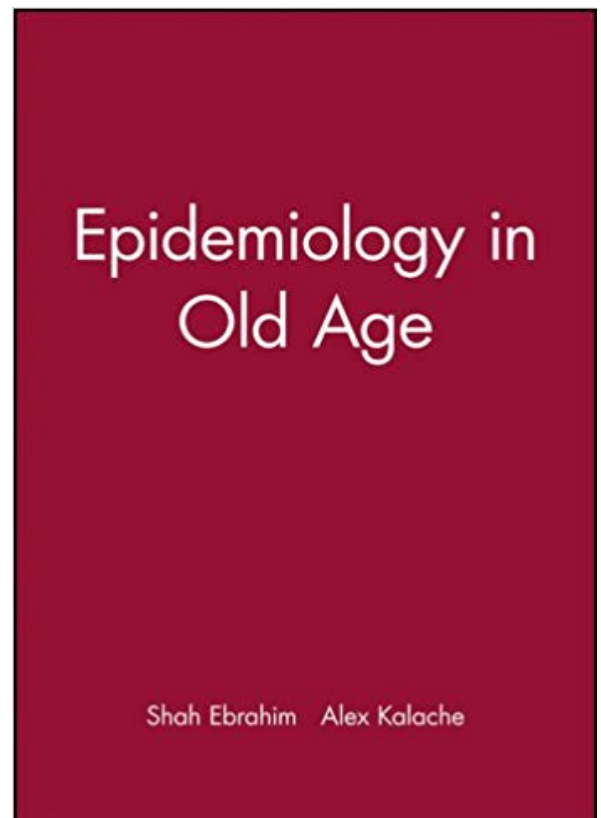
Published: 1996

Publisher: BMJ Books

Website: <http://eu.wiley.com/WileyCDA/WileyTitle/productCd-0727909487.html>

Description:

This major work with an internationally famous list of contributors deals with the ways in which needs assessment, service, evaluation, and public health and social policy may improve the care of elderly people in all societies. It discusses the methodology of epidemiological studies, risk factors, and the most common problems and diseases in old age.



Shah Ebrahim Alex Kalache

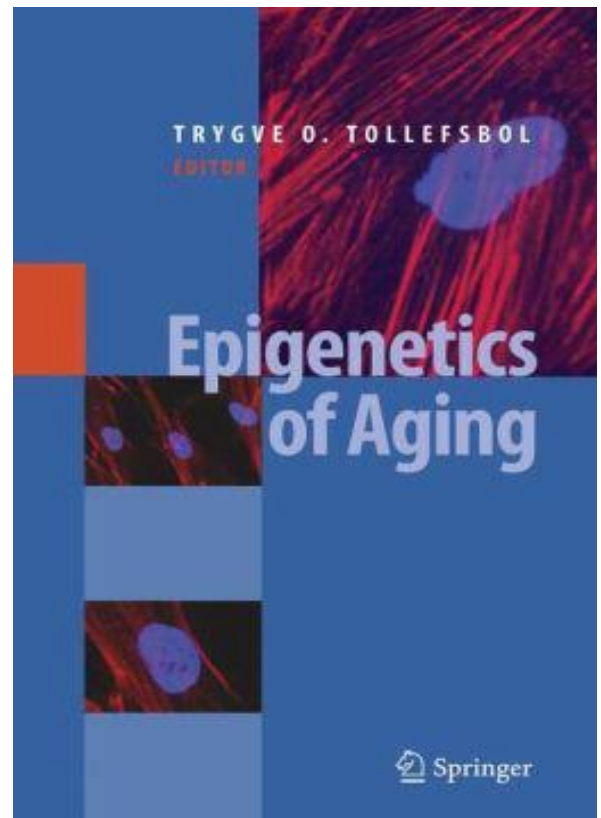
Epigenetics of aging

Author: Tollefsbol, Trygve O.

Published: 2009

Publisher: Springer

Website: <http://www.springer.com/biomed/human+genetics/book/978-1-4419-0638-0>



Description:

Revealing the molecular basis of aging has been one of the most challenging aspects of medical science, and now the epigenetics of aging is in a Renaissance phase. This seminal work covers the fascinating role of epigenetics in aging, ranging from basic epigenetic processes of aging to epigenetic drugs that may intervene in allow aging and age-related diseases.

Epigenetics of Aging presents in-depth analyses of DNA methylation, histone modifications, RNA alterations, and chromosomal defects that impact the aging process. It also includes detailed essays describing the impact of epigenetics on aging, the epigenetics of age-related diseases, and future directions and perspectives on the epigenetics of aging.

With chapters authored by leading researchers in the field, this seminal book on the epigenetics of aging:

- Ranges from basic science to clinical practice
- Describes the importance of epigenetics in numerous diseases of aging such as cancer, Alzheimer's disease, immune defects, and osteoporosis
- Includes the role of epigenetics in premature aging diseases such as progeria
- Highlights emerging aspects of epigenetics in aging, such as polycomb group genes and noncoding RNAs
- Covers sirtuins, chromatin alterations, and the role of epigenetic drift in aging
- Describes the impact of the environment and diet in modulating epigenetic processes during aging

Epigenetics of Aging is the first book in this exponentially expanding field, and will be an indispensable source of information for those with interests in epigenetics and/or aging. This authoritative core textbook for advanced students or medical scientists and practitioners details the fascinating and revolutionary field of the epigenetics of aging and covers the most recent advances that impact the longevity of living organisms.

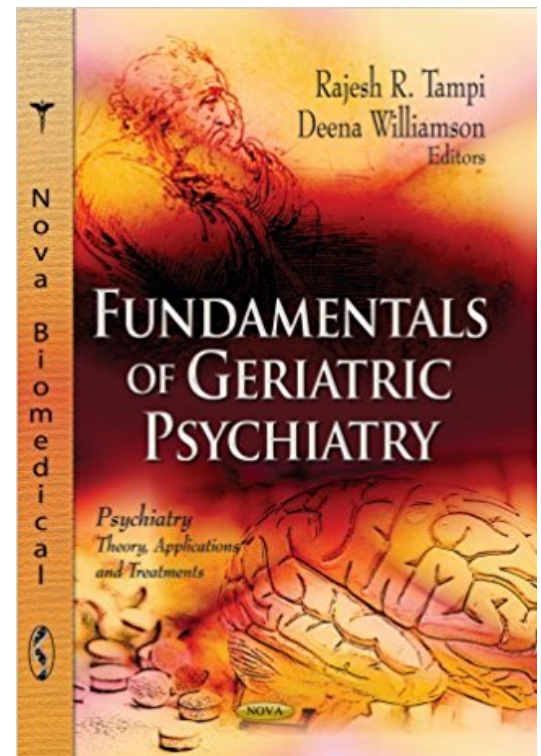
Fundamentals of Geriatric Psychiatry

Author: Tampi, Rajesh R & Williamson, Deena

Published: 2013

Publisher: Nova Science Pub Inc

Website: https://www.novapublishers.com/catalog/product_info.php?products_id=41022



Description:

The number of people over the age of 65 years in the United States is growing steadily. Currently, they constitute thirteen percent of the population of the United States. This number will double over the next thirty years. Psychiatric disorders are not uncommon in older adults. Dementia, depression, anxiety, psychotic disorders and substance abuse disorders are often encountered in this population. Substantial increase in the number of older adults with mental health issues and a sluggish economic climate has resulted in our healthcare system being overburdened. Adding to this critical situation is the fact that the growth in the number of trained clinicians caring for older adults with psychiatric disorders has not kept pace with the healthcare needs of this population. Available evidence indicates that although there has been an increase in the research database on psychiatric disorders in older adults, the translation of this latest research data into clinical practice occurs less frequently than desired. Keeping these issues in mind, the authors have written a concise textbook on geriatric psychiatry which encompasses the latest information on psychiatric disorders in late-life. It is written by experienced professionals who specialize in the care of older adults with psychiatric disorders. This book has the latest data in geriatric psychiatry interpreted and translated in an easy to read manner. There is also a practice test at the end of this book for clinicians taking certification examinations in geriatric psychiatry. This book is a must have for anyone who cares for older adults with mental illness, be it a caregiver, a student, a trainee, a novice clinician or a seasoned academic.

Gender, Social Inequalities, and Aging

Author: Calasanti, Toni M. & Slevin, Kathleen F.

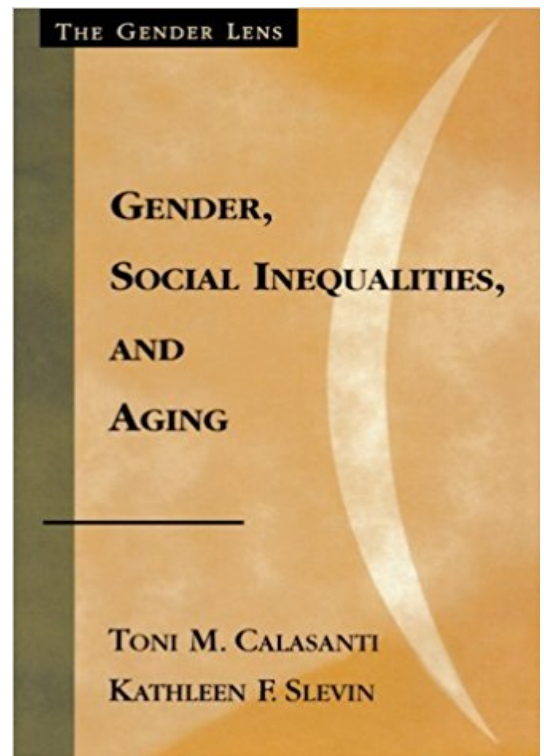
Published: 2001

Publisher: AltaMira Press

Website: <https://rowman.com/ISBN/9780759101869>

Description:

The experience of men and women in later life varies enormously, not only along lines of gender but also due to ethnicity, class, sexual orientation, and race. In this text on gender issues among the aging, Calasanti and Slevin explore these differences, their genesis, their meaning to men and women, and their treatment in the policy arena. The authors also take to task traditional research on aging and how it ignores these issues. The authors cover topics of work and retirement, body image, sexuality, health, family relationships, and informal care, among many others. The current research and nuanced theoretical approach presented in this brief book makes it the ideal text to correct the stereotypic and monolithic views of the elderly for courses in gender or aging



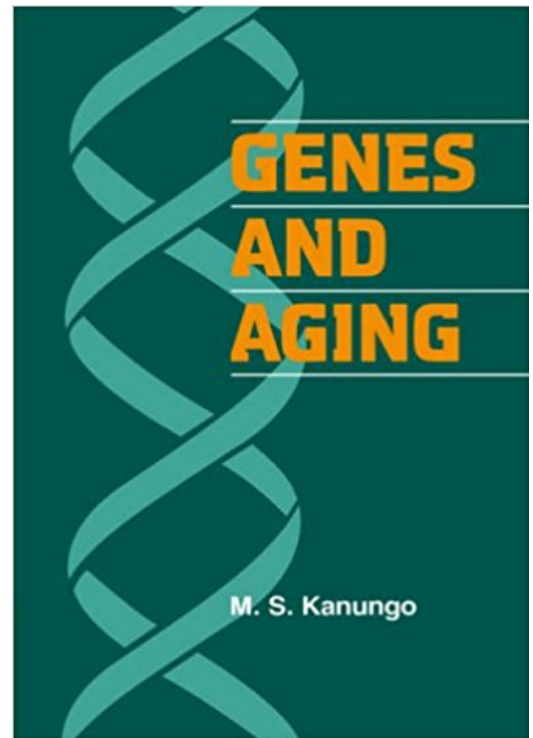
Genes and aging

Author: Kanungo, M.S.

Published: 2004 (H) 2005 (P)

Publisher: Cambridge University Press

Website: http://www.cambridge.org/gb/knowledge/isbn/item1115324/?site_locale=en_GB



Description:

The maximum life span of multicellular organisms varies greatly: for a fruitfly it is about 30 days, for a dog about 20 years, and for a human about 100 years. Despite these differences, all animals show a similar pattern of their life spans - growth, adulthood, and aging, followed by death. The basic cause of aging in multicellular organisms (eukaryotes) lies at the level of the genes, although nutrition and various types of stresses do influence the rate and pattern of aging. This book reviews the molecular biology of the gene in relation to aging. Until about a decade ago it was not possible to probe into the types of changes that occur in eukaryotic genes, due to their enormous complexity. The use of genetic engineering techniques, however, is beginning to unravel the changes that occur in the genes as an organism ages: such as the changing expression of specific genes under normal conditions and under various types of stress, the changes in the regulatory roles of the sequences in the promotor regions of genes, conformational changes that may occur in genes during aging, and the protein factors that are involved in the aging process. The author presents basic information on eukaryotic genes and follows this with details of the changes that occur in their structure and function during aging. He reviews the latest studies being carried out in various laboratories, outlines the gaps and deficiencies in our present knowledge and suggests the most profitable future areas of research. Genes and Aging is for all students and researchers interested in the molecular biology of aging.

Gerontological aspects of genome peptide regulation

Author: Goldsmith, Theodore

Published: 2005

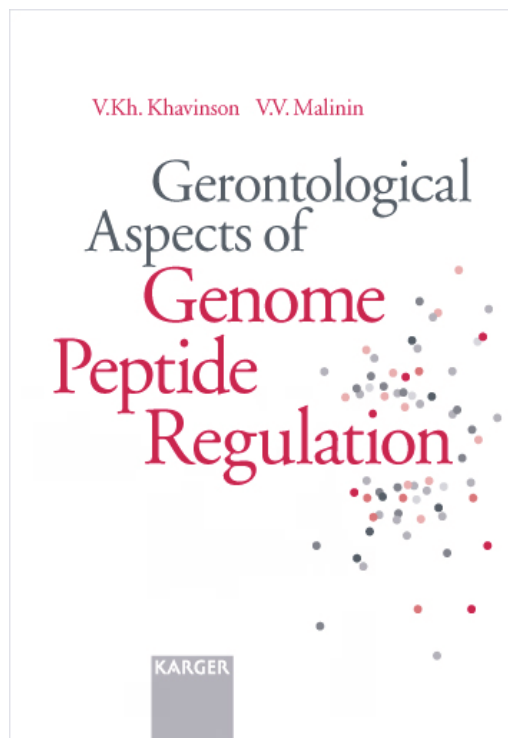
Publisher: S Karger AG

Website: <http://content.karger.com/ProdukteDB/produkte.asp?Aktion=showproducts&searchWhat=books&ProduktNr=230596>

Description:

This monograph highlights the gerontological aspects of the peptide regulation of gene expression. It focuses on the mechanisms of the geroprotective action of peptides related to chromatin activation, increase in telomerase enzyme activity, and elongation of telomeres in different cells. A key role in the initiation of the biological activity of peptide is its interaction with DNA which provides genetic stability and a normalization of the age-related metabolic shifts. Study of the genetic mechanisms of peptide action suggests a new concept which most comprehensively reflects on the evolutionary biological role peptide plays in the organism. The impact of peptides on the expression and structure of genes opens a new gate for the prevention of premature aging and age-related pathology which appears to be most promising in pharmacogenomics.

This monograph narrates not only the theoretical aspects and experimental data, but also outlines new approaches to the prevention of aging and age-related pathology, thus addressing a wide readership of gerontologists, geneticists, molecular biologists, biochemists, and pharmacologists alike.



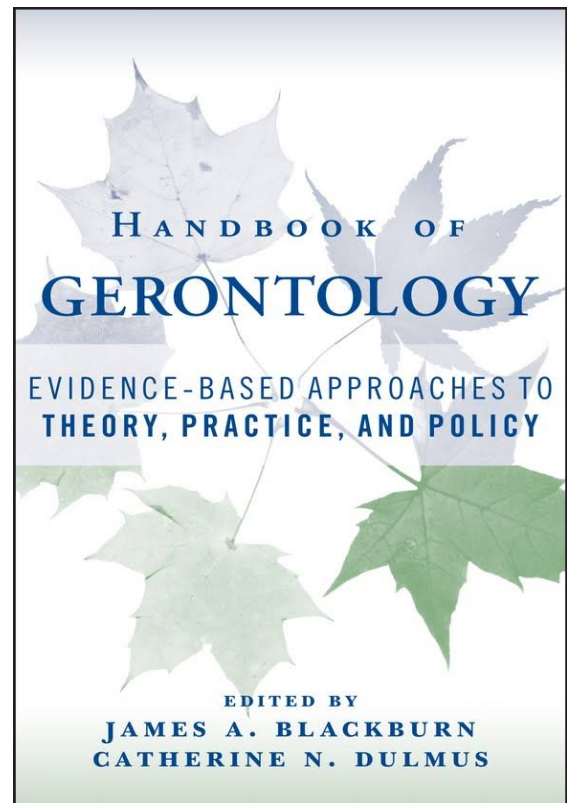
Handbook of gerontology: evidence-based approaches to theory, practice, and policy

Author: Blackburn, James A. & Dulmus, Catherine N.

Published: 2007

Publisher: Wiley

Website: <http://eu.wiley.com/WileyCDA/WileyTitle/productCd-0471771708.html>



Description:

The Handbook of Gerontology: Evidence-Based Approaches to Theory, Practice, and Policy provides an essential source of important theoretical and applied information on gerontology for all mental health professionals interested in optimizing the health and well-being of older adults. Interdisciplinary and incorporating the most current evidence-based practices in its focus, this timely book considers the many factors that affect the way this growing population experiences the world-and provides a positive and proactive guide to administering care.

Integrating the latest research findings with important practice implications for working with an older client population, the Handbook of Gerontology draws on a multidisciplinary team of expert contributors who provide coverage and insight into a diverse range of topics, including:

- A global perspective on aging
- Elder abuse
- Family caregiving
- Parenting grandchildren
- Depression
- Substance abuse
- Alzheimer's disease
- Successful aging and personality

Handbook on the Neuropsychology of Aging and Dementia

Author: Ravdin, Lisa D. & Katzen, Heather L.

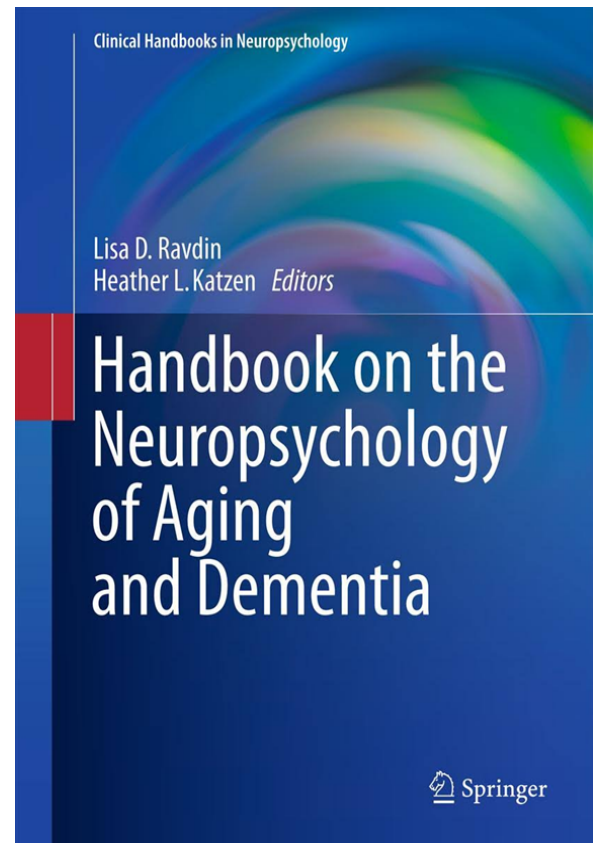
Published: 2012

Publisher: Springer

Website: <http://www.springer.com/psychology/neuropsychology/book/978-1-4614-3105-3>

Description:

With the aging of the baby boomers and medical advances that promote longevity, older adults are rapidly becoming the fastest growing segment of the population. As the population ages, so does the incidence of age related disorders. Many predict that 15% - 20% of the baby-boomer generation will develop some form of cognitive decline over the course of their lifetime, with estimates escalating to up to 50% in those achieving advanced age. Although much attention has been directed at Alzheimer's disease, the most common form of dementia, it is estimated that nearly one third of those cases of cognitive decline result from other neuropathological mechanisms. In fact, many patients diagnosed with Alzheimer's disease likely have co-morbid disorders that can also influence cognition (i.e., vascular cognitive impairment), suggesting mixed dementias are grossly under diagnosed. The Clinical Handbook on the Neuropsychology of Aging and Dementia is a unique work that provides clinicians with expert guidance and a hands-on approach to neuropsychological practice with older adults. The book will be divided into two sections, the first addressing special considerations for the evaluation of older adults, and the second half focusing on common referral questions likely to be encountered when working with this age group. The authors of the chapters are experts and are recognized by their peers as opinion leaders in their chosen chapter topics. The field of neuropsychology has played a critical role in developing methods for early identification of late life cognitive disorders as well as the differential diagnosis of dementia. Neuropsychological assessment provides valuable clinical information regarding the nature and severity of cognitive symptoms associated with dementia. Each chapter will reinforce the notion that neuropsychological measures provide the clinician with sensitive tools to differentiate normal age-related cognitive decline from disease-associated impairment, aid in differential diagnosis of cognitive dysfunction in older adults, as well as identify cognitive deficits most likely to translate into functional impairments in everyday life.



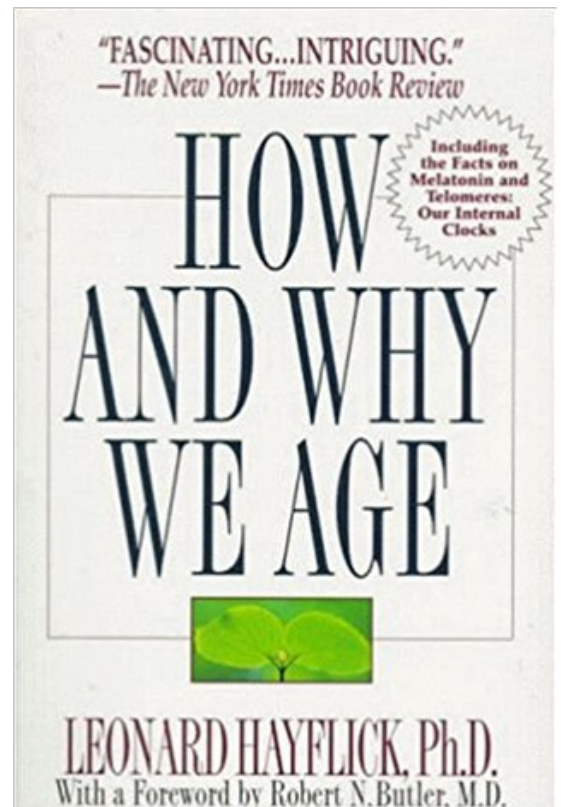
How and Why We Age

Author: Hayflick, Leonard

Published: 1996

Publisher: Ballantine Books

Website: <https://www.amazon.de/How-Why-Leonard-Hayflick-Ph-D/dp/0345401557>



Description:

Here, at last, preeminent cell biologist Leonard Hayflick presents the truth about human aging. Based on more than thirty years of pioneering research in the field, *How and Why We Age* explores not only how our major biological systems change as we grow older, but also examines the intangible alterations in our modes of thinking and feeling, our moods and sexual desires, our personality traits and our memories.

With the immediacy of the latest scientific discoveries, Dr. Hayflick explains how aging affects every part of the body, and dispels many of the most persistent aging myths, to show that: Hearts do not naturally get weaker with age.

Regular exercise and a low-fat diet won't slow aging.

Curing cancer would only add two years to the average sixty-five-year-old American life. Curing heart disease, however would add fourteen years.

Only five percent of people over the age of sixty-five are in nursing homes

No human has lived--or probably can live--past 120 years.

Gracefully written, clearly organized, and packed with essential facts and statistics, *How and Why We Age* is a landmark study of the aging process for readers of all ages.

How we live and why we die: the secret lives of cells

Author: Wolpert, Lewis

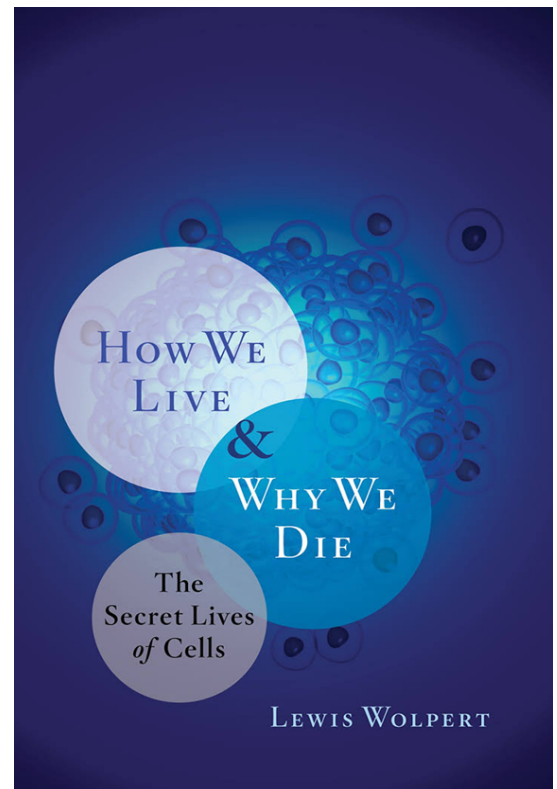
Published: 2009

Publisher: W.W. Norton & Company

Website: <http://books.wwnorton.com/books/detail.aspx?ID=12244>

Description:

Everything about our existence—movement and memory, imagination and reproduction, birth and, ultimately, death—is governed by our cells. They are the basis of all life in the universe, from the tiniest bacteria to the most complex animals. In the tradition of the classic *Lives of a Cell*, but with the benefit of the latest research, internationally acclaimed embryologist Lewis Wolpert demonstrates how human life derives from a single cell and then grows into a body, an incredibly complex society made up of billions of them. When we age, our cells cannot repair the damage they have undergone; when we get ill, it is because cells are so damaged they stop working and die. Wolpert examines the science behind topics that are much discussed but rarely understood—stem cell research, cloning, DNA, mutating cancer cells—and explains how all life evolved from just one cell. Lively and passionate, this is an accessible guide to understanding the human body and life itself.



Human chromosomes and aging: from 80 to 114 years

Author: Lezhava, Teimuraz

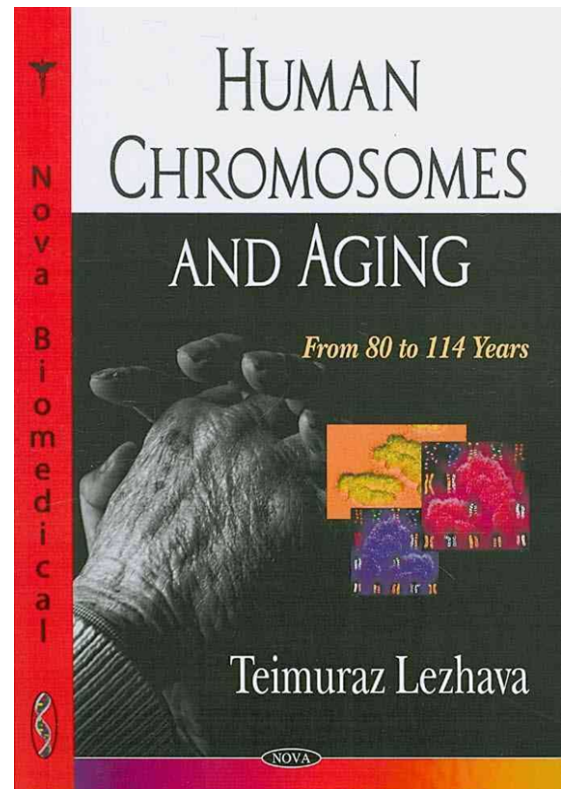
Published: 2006

Publisher: Nova Biomedical Book

Website: https://www.novapublishers.com/catalog/product_info.php?cPath=23_131_146&products_id=4284&osCsid=b

Description:

This book presents a comprehensive review of the morphology and function of chromosomes in elderly people. The wide range of topics includes cyclical chromosome properties, mutations, repair, progressive chromosome heterochromatinization with increasing age, roles of nucleolar organizer regions, sister chromatid exchanges, homolog relationships, heterochromatin regions and other chromosomal features in very old age. This ground-breaking book focuses on heterochromatinization as a key determinant of the genetic apparatus function during senescence and an area to seek life-prolonging interventions. The book illustrates and updates progress in the field of cytogenetics of aging. The book contains 16 tables and 25 figures.



Immunity, Tumors and Aging: The Role of HSP70 (SpringerBriefs in Biochemistry and Molecular Biology)

Author: Malyshev, Igor

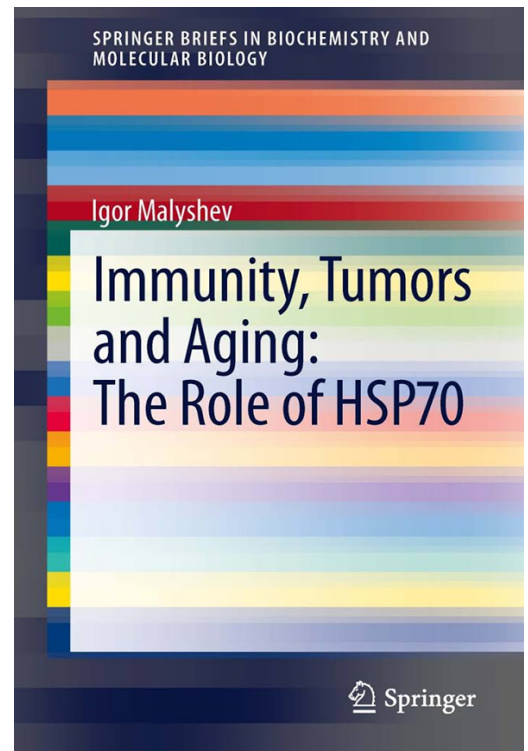
Published: 2013

Publisher: Springer

Website: [http://link.springer.com/book/10.1007/
978-94-007-5943-5](http://link.springer.com/book/10.1007/978-94-007-5943-5)

Description:

The book is dedicated to the topical area of biology and medicine and the role of stress proteins HSP70 in the regulation of intracellular protein homeostasis, signaling transduction and cell protection. The book is divided into chapters, which describe the discovery of HSP70 and its molecular structure, the mechanism of the synthesis and function in normal and damaged cells, examine the role of HSP70 in immunity, cancerogenesis, aging, Alzheimer's disease and cardiosurgery. In this book, the author looks at HSP70 as a factor which prevents the transformation of homeostasis mechanisms of intracellular proteins into a link in the pathogenesis of a disease.



Immunology of Aging

Author: Massoud, Ahmad & Rezaei, Nima

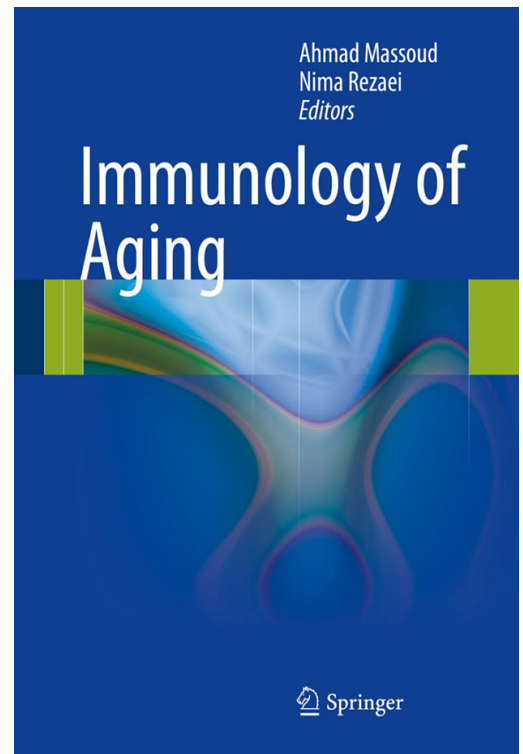
Published: 2014

Publisher: Springer

Website: <http://www.springer.com/medicine/internal/book/978-3-642-39494-2>

Description:

The rapidity of scientific progress over the last few years guarantees the utility of this new collection of state-of-the-art reviews on the immunology of aging, which is the result of extensive collaboration of more than sixty of the greatest thinkers and scholars in the field, in cooperation with a number of junior colleagues. The book summarizes current knowledge on the cellular and molecular aspects of the aging immune system and their clinical relevance, providing insights into the effects of the aging process on susceptibilities to those diseases most common among elders. The retrieval strategies used to slow down the decline in the immune system in the elderly are another subject detailed extensively. By providing a broad overview of immunosenescence and its consequences, as well as their potential modulation, this book will fill a gap in a timely manner. It will be of value to all immunologists, whether novice or experienced, as well as geriatricians and epidemiologists.



Inflammation and Oxidative Stress in Neurological Disorders: Effect of Lifestyle, Genes, and Age

Author: Akhlaq A. Farooqui

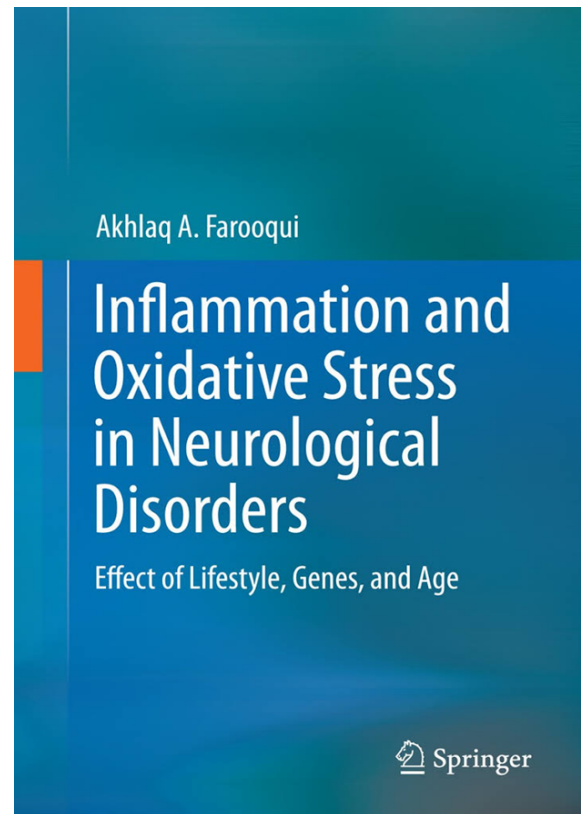
Published: 2014

Publisher: Springer

Website: <https://link.springer.com/book/10.1007/978-3-319-04111-7>

Description:

Consumption of healthy balanced diet (colored and green vegetables, fresh fruits, lean meats, fish, and whole grain) along with moderate exercise (30-45 min/day), and 6-7 hours of sleep results in a healthier blood pressure pattern and low cholesterol levels leading into a reduced risk of obesity related diseases, such as diabetes, and metabolic syndrome. Both these pathological conditions are not only the risk factors for heart disease, but also contribute and promote the risk for stroke, Alzheimer disease, and depression. A healthy lifestyle -- which includes a healthy diet with plenty of fruits and vegetables, moderate exercise for maintaining a healthy body weight, and optimal sleep may help in preventing not only diabetes, and metabolic syndrome, but delaying the pathogenesis of stroke, Alzheimer disease, and depression. Information on diet, exercise, and sleep is scattered throughout the literature in the form of original papers, reviews, and some books, which deal with the effects of diet, exercise, and sleep on viscera. This monograph is the first to describe the effect of neuroinflammation and oxidative stress in relation to diet, exercise, and sleep on brain. It describes the contribution of dietary carbohydrates, fats, protein, and nucleic acids in neuroinflammation and oxidative stress in the normal aged brain and in the brains of patients with neurological disorders. Inflammation and Oxidative Stress in the Brain presents readers with cutting edge and comprehensive information on the effect of diet, exercise, and sleep on neuroinflammation and oxidative stress in normal brains and brains from patients with neurological disorders. It is hoped that this monograph will be useful to postgraduate students, faculty, research scientists, nutritionists, exercise physiologists, and physicians, who are curious about the molecular mechanisms that link neuroinflammation and oxidative stress with the pathogenesis of neurotraumatic, neurodegenerative, and neuropsychiatric disorders.



Akhlaq A. Farooqui

Inflammation and Oxidative Stress in Neurological Disorders

Effect of Lifestyle, Genes, and Age

 Springer

Introduction to Aging: A Positive, Interdisciplinary Approach

Author: Sugar, Judith A.; Riekse, Robert; Holstege, Henry & Faber, Michael

Published: 2013

Publisher: Springer Publishing Company

Website: <http://www.springerpub.com/product/9780826108807#.Uqmx-CeO6wd>

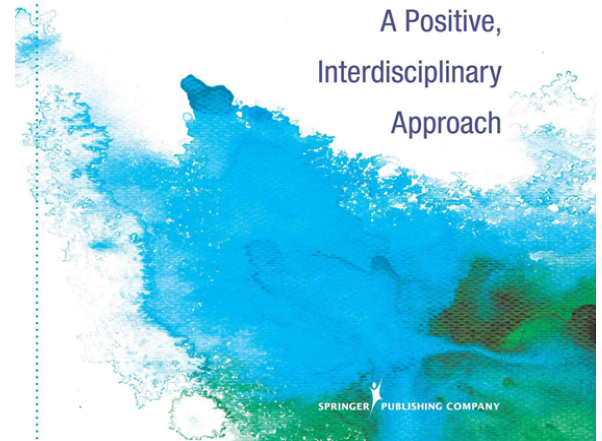
Description:

This new textbook creates a paradigm shift with a very practical approach to problem solving. Aging is an asset. Its focus on well care rather than just sick care by understanding physical fitness, sexual fitness, consumer fitness, nutritional fitness and social fitness among others, all point to aging as an asset leading to civic fitness and the potential for intergenerational support. This text may help springboard Gerontology into the 21st Century as the field creating excitement and hope for students and teachers alike.

Judith A. Sugar
Robert J. Riekse
Henry Holstege
Michael Faber

INTRODUCTION TO AGING

A Positive,
Interdisciplinary
Approach



Life-span extension: single-cell organisms to man

Author: Sell, Christian; Lorenzini, Antonello & Brown-Borg, Holly M.

Published: 2009

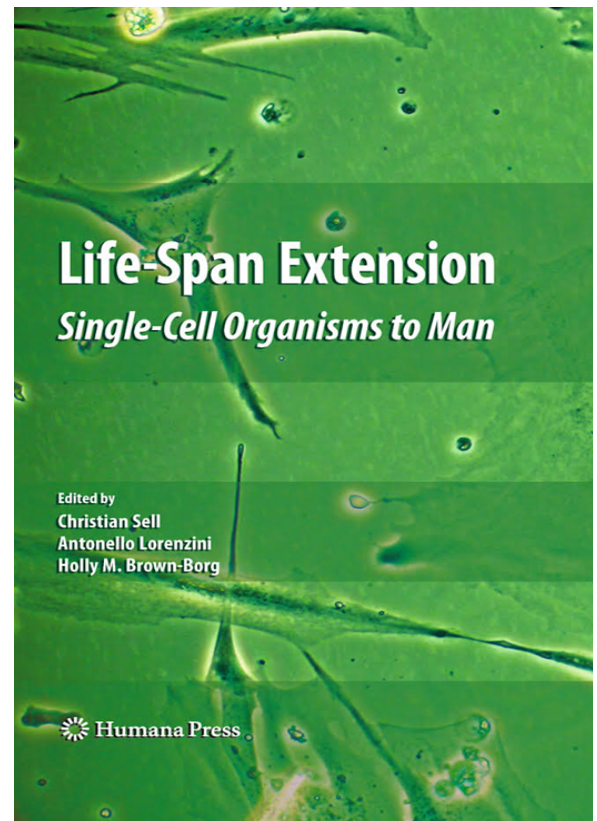
Publisher: Humana Press

Website: <http://www.springer.com/medicine/family/book/978-1-60327-506-4>

Description:

In recent years, remarkable discoveries have been made concerning the underlying mechanisms of aging. In *Life-Span Extension: Single-Cell Organisms to Man*, the editors bring together a range of illuminating perspectives from researchers investigating the aging process in a variety of species. This novel work addresses the aging process in species ranging from yeast to man and, among other subjects, features detailed discussions of the naked mole-rat, an exceptionally long-lived rodent; the relationship between dietary factors/food restriction and aging; and an evolutionary view of the human aging process.

Single mutations that extend life span have been identified in yeast, worms, flies, and mice, whereas studies in humans have identified potentially important markers for successful aging. At the same time, it has been discovered that the genes and pathways identified in these studies involve a surprisingly small set of conserved functions, most of which have been the focus of aging research for some time. For example, the mTOR pathway, a regulator of translation and protein synthesis, has been identified as a common longevity pathway in yeast and *Caenorhabditis elegans*. In mammals, this pathway intersects with neuroendocrine pathways and with the insulin/insulin-like growth factor pathways, which have been identified as major modulators of life span and aging in both invertebrates and mice. Novel, emerging technologies and the increasingly wide variety of systems that are now used to study aging and the mechanisms of aging provide enormous opportunities for the identification of common pathways that modulate longevity. It is these common pathways that are the focus of this important volume.



Longevity and quality of life: opportunities and challenges

Author: Butler, Robert N. & Jasmin, Claude

Published: 2001

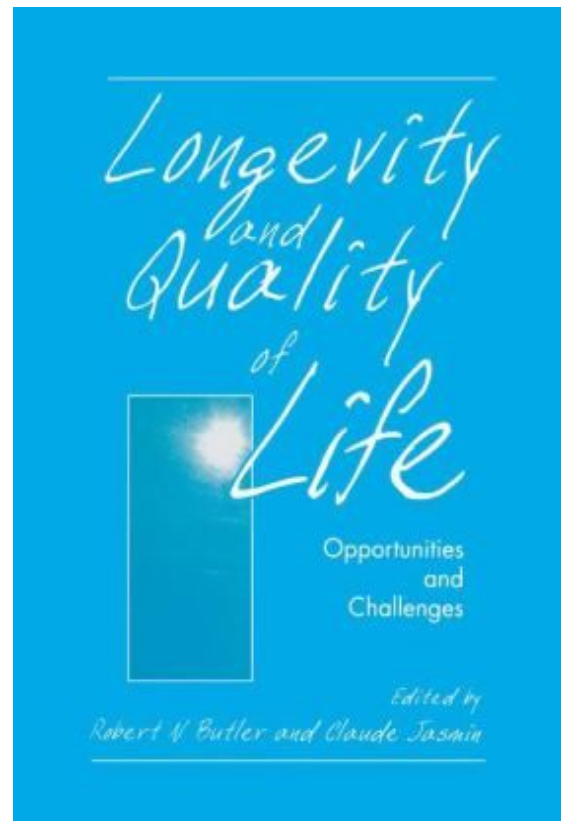
Publisher: Springer

Website: <http://www.springer.com/medicine/book/978-0-306-46315-0>

Description:

Nations around the world are experiencing a spectacular increase in longevity. Society as a whole is being challenged by issues arising from this revolution in longevity. Although the specter of the loneliness and existential suffering of older citizens is such that some people under the age of 65 find it difficult to conceive of a long-term future, persons over 85 have proven that aging does not necessarily preclude a healthy and productive life. Extraordinary progress in both curative and preventive medicine justifies optimism about the quality of life and state of well-being that can be enjoyed even in great old age. We should look to professionals in diverse fields to develop creative solutions to the inevitable issues that will arise with aging. Governments must prepare for the future health of their citizens by making long-term investments to educate all sectors of society in the value of good nutrition, exercise, and lifestyles that enhance well-being throughout life. Also, governments should realize that the main cause of health care expenditure is serious illness which occurs in persons of all ages, and not predominantly in older people. Early detection can help save lives, as well.

Health and longevity of life will ultimately end as a political issue. What is needed is long-term government investments necessary for a viable health policy. The question arises: will world leaders be able to commit to such a policy? Two major socioeconomic phenomena may have a regulating effect on this issue. The first is the emergence of pressure groups that have come into being in response to a particular health issue, such as AIDS. The second is the emergence of ethics committees in developed nations that deal solely with health issues.



Longevity records: life spans of mammals, birds, amphibians, reptiles and fish

Author: Carey, James R. & Judge, Debra S.

Published: 2001

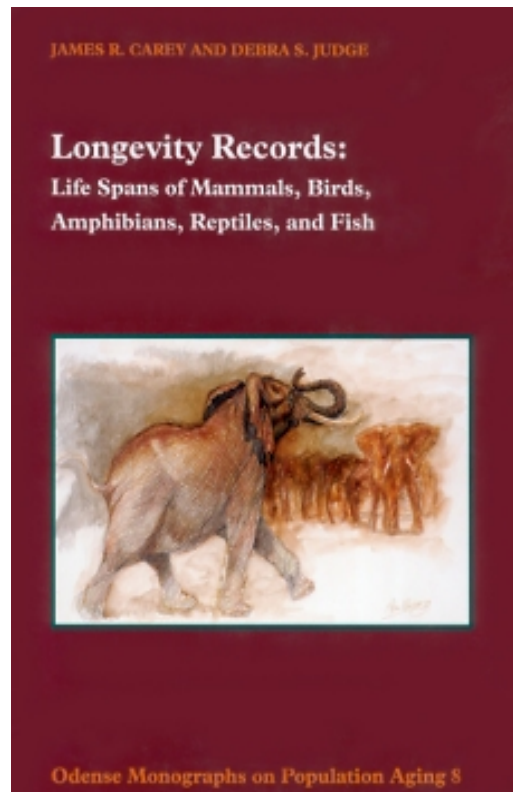
Publisher: University Press of Southern Denmark

Website: <http://www.universitypress.dk/shop/odense-monographs-on-1016p.html>

Description:

This book is the world's largest compendium of documented life spans in vertebrates. Record life spans for over 3000 species of mammals, birds, amphibians, reptiles, and fish indicate wild or captive status, sex (where available) and are linked to source references. A brief introduction addresses the concept of life span, summarizes methods for data gathering, criteria for inclusion, and provides a graphic summarization of within and among group variation in record life spans. The data is organized into four main tables: mammals, birds, reptiles and amphibians, and fishes. Each data table is preceded by a brief introduction summarizing important aspects of the life history of important subgroups (e.g. orders). Tables of life spans are organized alphabetically by order, family and genus. Scientific and common name indices facilitate finding record life spans for particular organisms.

The book is useful in demography, fisheries and wildlife biology, ecology, population and evolutionary biology, and gerontology.



Longevity, senescence, and the genome

Author: Finch, Caleb E.

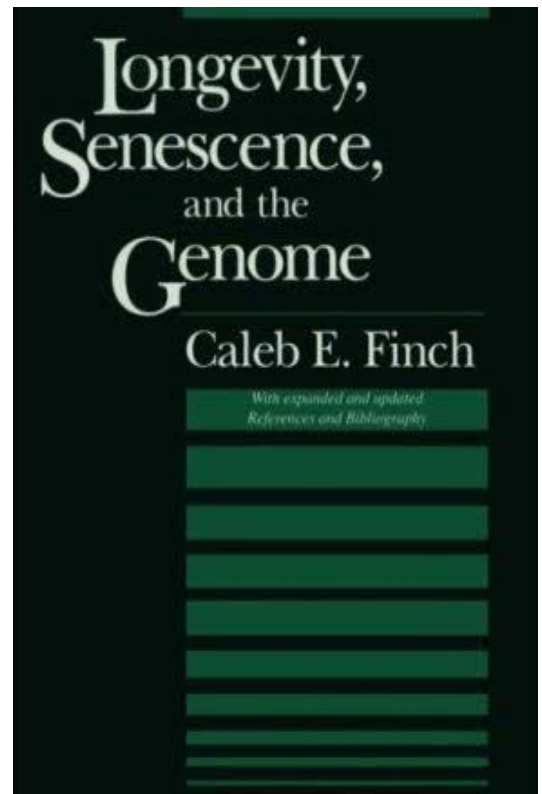
Published: 1991 (H)1994 (P)

Publisher: University of Chicago Press

Website: <http://www.press.uchicago.edu/ucp/books/book/chicago/L/bo3684707.html>

Description:

To enhance gerontology's focus on human age-related dysfunctions, Caleb E. Finch provides a comparative review of all the phyla of organisms, broadening gerontology to intersect with behavioral, developmental, evolutionary, and molecular biology. By comparing species that have different developmental and life spans, Finch proposes an original typology of senescence from rapid to gradual to negligible, and he provides the first multiphyletic calculations of mortality rate constants.



Longevity: the biology and demography of life span

Author: Carey, James R.

Published: 2003

Publisher: Princeton University Press

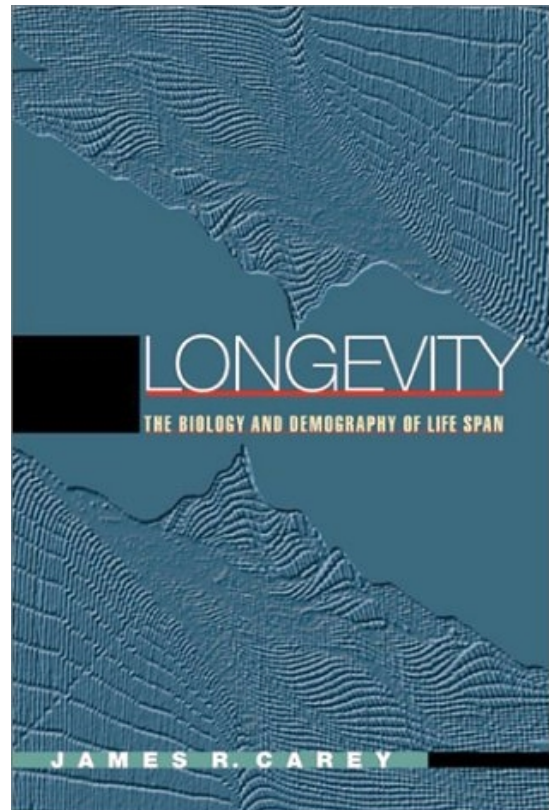
Website: <http://press.princeton.edu/titles/7568.html>

Description:

Despite our deep interest in mortality, little is known about why some individuals live to middle age and others to extreme old age. Life span, mortality, and aging present some of the most profound mysteries in biology. In *Longevity*, James Carey draws on unprecedented data to develop a biological and demographic framework for identifying the key factors that govern aging, life span, and mortality in humans and other animals.

Carey presents the results of a monumental, twelve-year, National Institute on Aging-funded research project on the determinants of longevity using data from the life tables of five million Mediterranean fruit flies, the most comprehensive set of life table studies ever on the mortality dynamics of a single species. He interprets the fruit fly data within the context of human aging and the aging process in general to identify the determinants of mortality. Three key themes emerge: the absence of species-specific life span limits, the context-specific nature of the mortality rate, and biodemographic linkages between longevity and reproduction.

A powerful foundation for the emerging field of biodemography and a rich framework for considering the future of human life span, *Longevity* will be an indispensable resource for readers from a range of fields including population biology, demography, gerontology, ecology, evolutionary biology, and medical research.



Mapping the progress of Alzheimer's and Parkinson's disease

Author: Mizuno, Yoshikuni; Fisher, Abraham & Hanin, Israel

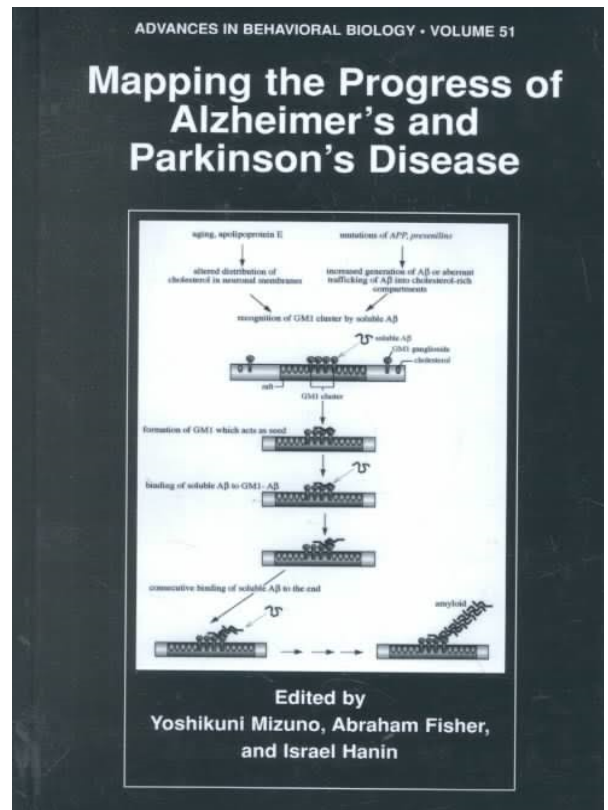
Published: 2002

Publisher: Springer

Website: <http://www.springer.com/biomed/neuroscience/book/978-0-306-46763-9>

Description:

The 5th International Conference on the Progress in Alzheimer's Disease and Parkinson's Disease took place from March 31 to April 5, 2001, in Kuroto, Japan. This international conference was organized as a joint Congress with the 9th International Catecholamine Symposium. A total of 1258 clinicians and researchers participated in this joint congress from 38 countries in the world. This book represents the proceedings of the 5th Conference on Alzheimer's and Parkinson's Disease. The International Conference on the Progress in Alzheimer's and Parkinson's Disease was first launched by Professor Abraham Fisher of Israel and Professor Israel Hanin of USA. The first conference was held in Eilat, Israel in 1985. The second conference was organized in Kyoto, Japan in 1989; the third one in Chicago, USA, in 1993, and the fourth one in Eilat, Israel in 1997. The International Catecholamine Symposium (ICS) is an international meeting devoted to the development of basic as well as clinical research on catecholamines. The first Catecholamine Symposium was held in Bethesda, USA in 1958. Since then this symposium has occurred every 5 years. Professor Toshiharu Nagatsu was appointed as the president of the 9th International Catecholamine Symposium, which was to be held in 2001 also in Japan. Therefore, we decided to organize a joint congress of the two meetings, because there is much overlap in research between Alzheimer's disease, Parkinson's disease, and catecholamines. We thank Professor Nagatsu very much for agreeing to organizing this joint congress.



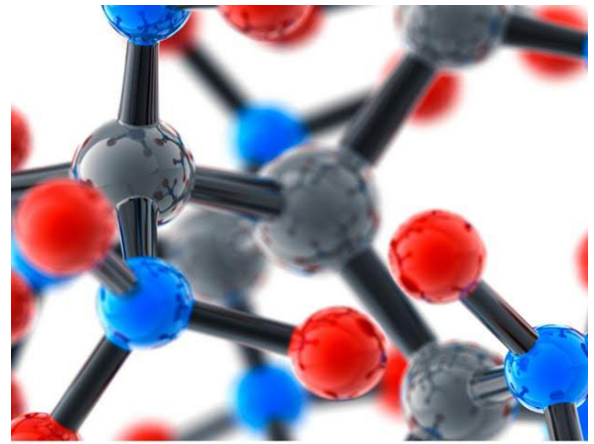
Molecular Aspects of Aging: Understanding Lung Aging

Author: Rojas, Mauricio; Meiners, Silke & Jourdan Le Saux, Claude

Published: 2014

Publisher: Wiley Blackwell

Website: <http://eu.wiley.com/WileyCDA/WileyTitle/productCd-1118396243.html>



MOLECULAR ASPECTS OF AGING

Understanding Lung Aging

Edited by Mauricio Rojas, Silke Meiners, Claude Jourdan Le Saux

WILEY Blackwell

Description:

A Molecular Aspects of Aging: Understanding Lung Aging covers recent research in the mechanisms that contribute to cellular senescence. Covering universal themes in aging, such as the exhaustion of stem cells and subsequent loss of the regenerative refueling of organs as well as immunosenescence, this text illuminates new directions for research not yet explored in the still poorly investigated area of molecular mechanisms of lung aging. The molecular nature of general aging processes is explored with targeted coverage on how to analyze lung aging through experimental approaches.

Molecular biology of aging

Author: Guarente, Leonard P.; Partridge, Linda & Wallace, Douglas C.

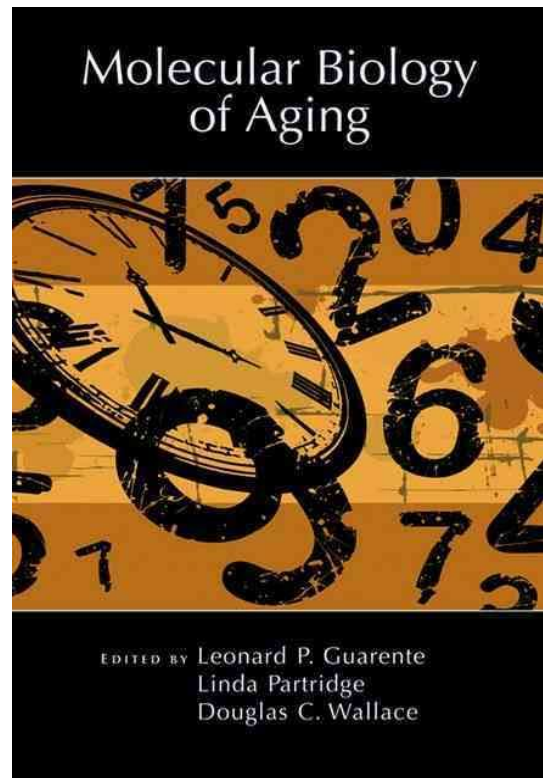
Published: 2007

Publisher: Cold Spring Harbor Laboratory Press

Website: http://www.cshlpress.com/default.tpl?cart=127650735180402733&fromlink=T&linkaction=full&linksortby=oop_title&--eqSKUdatarq=638

Description:

Research into the causes of aging, and strategies to delay that process, have gained much ground and attention in recent years. This collection from Cold Spring Harbor Perspectives in Biology covers the major threads in the molecular genetics of aging, including genes that regulate aging, causes of aging, evolutionary theories of aging, and the relationship between diet and aging. Among specific topics covered are calorie restriction, mitochondria, sirtuins, telomeres, stem cells, and cancer. Each chapter is written by one or more leaders in the field, and the book presents the current status of this exciting research area and provides an invaluable source of information in a single volume.



Molecular mechanisms of Werner's syndrome

Author: Lebel, Michel

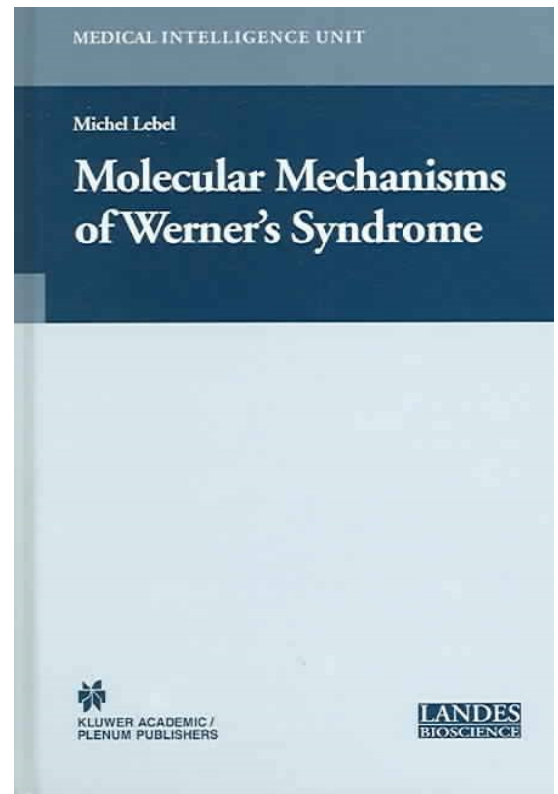
Published: 2004

Publisher: Springer

Website: <http://www.springer.com/medicine/family/book/978-0-306-48233-5>

Description:

During our short time on earth, we all undergo the highly complex process of aging, and with it, we experience the many physiological symptoms. Studies of premature aging have produced a great deal of information that gives some aspects of aging a better understanding. This book explores Werner's syndrome. To some, Werner's syndrome is considered a caricature of aging, but others will find it fascinating that only one mutated human gene (WRN) can bring about a multitude of complicated phenotypes that are usually associated with aging.



New Horizons in Geriatric Medicine

Author: Isik, Ahmet Turan; Mas, M. Refik; Karan, M. Akif & Grossberg, George T.

Published: 2014

Publisher: Nova Science Pub Inc

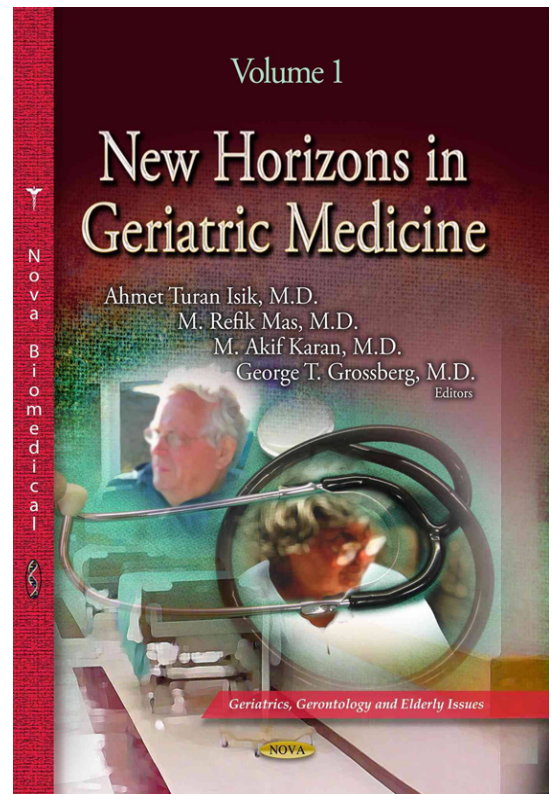
Website: https://www.novapublishers.com/catalog/product_info.php?products_id=45406&osCsid=6163ca4b905f9cdeffa7359c8dddc1e3

Description:

Old age is associated with a number of medico-social problems such as: hypertension, diabetes mellitus, thyroid disorders, osteoarthritis, tremor, pain, gait and balance impairment, incontinence, urinary tract infection, sarcopenia, osteoporosis, polypharmacy, pressure ulcers, sleeping problems, cardiocerebrovascular disorders, fluid and electrolyte disturbance, nutritional disorders, immunization and disease prevention rehabilitation and care. The management of these problems differs significantly between younger and older adults.

All of these problems are evaluated in this book in two parts with the contributions of experienced clinicians and researchers. In addition, cellular aging, comprehensive geriatric assessments, and medicolegal and ethical principles in geriatric medicine are also evaluated.

This book will be a valuable tool for all clinicians involved in the management of elderly people. (Imprint: Nova Biomedical)



Oxidative stress and age-related neurodegeneration

Author: Luo, Yuan & Packer, Lester

Published: 2005

Publisher: CRC

Website: <http://www.crcpress.com/product/isbn/9780849337253>

Description:

Despite the progress being made by researchers, Alzheimer's disease, along with other age-related neurodegenerative disorders, continues to exact a tremendous toll on our society. However, we are beginning to see a relationship that ties degenerative disorders to oxidative stress and lifestyle, suggesting the possibility for prevention and intervention through changes of individual habits, especially with regard to diet.

Oxidative Stress and Age-Related Neurodegeneration brings together expert researchers involved with recent developments across a variety of fields. In looking at causation, prevention, and therapy, they offer contributions addressing these questions:

What similarities and differences exist between normal aging and disease-related neurodegeneration in terms of susceptibility to and effects of oxidative stress?

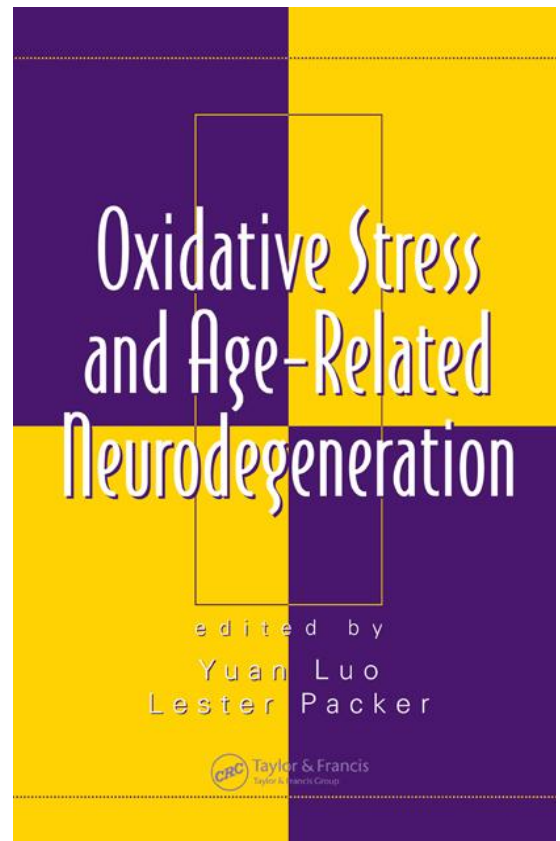
How can oxidative stress or its effects be attenuated?

Do antioxidants prevent or slow the progress of the disease?

Is there any role for natural micronutrients in the attenuation of oxidative stress and prevention of age-related neurodegeneration?

Some chapters look at the various ways research is getting to the core of neurodegenerative disease, including the use of proteomics, comparisons to related diseases, and examinations at the cellular and molecular levels. Other chapters focus on specific antioxidants and nutrients cited as being impactful, such as those found in *Ginkgo biloba*, green tea, blueberries, and grape seed extract.

Researchers in academia, industry, and clinical medicine, as well as students and scholars will find use for this timely collection, either as an introduction to our current understanding of neurodegeneration or as a reference for further research. Clinicians will also benefit, as this book explains the basis for many of the latest approaches to prevention and therapy.



Oxidative stress and neurodegenerative disorders

Author: Qureshi, G. Ali & Parvez, S. Hasan

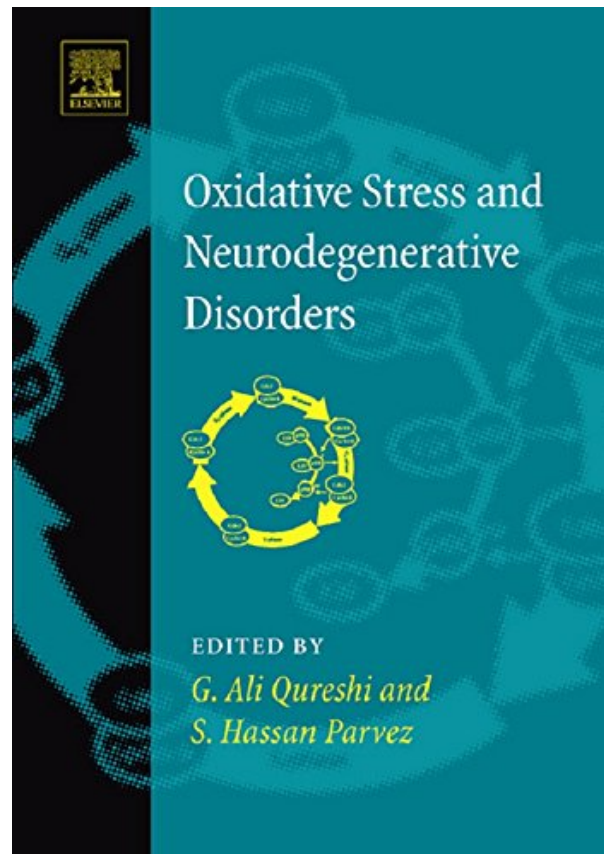
Published: 2007

Publisher: Elsevier Science

Website: <http://www.elsevier.com/wps/find/bookdescription.authors/710776/description>

Description:

Oxidative stress is the result of an imbalance in pro-oxidant/antioxidant homeostasis that leads to the generation of toxic reactive oxygen species. Brain cells are continuously exposed to reactive oxygen species generated by oxidative metabolism, and in certain pathological conditions defense mechanisms against oxygen radicals may be weakened and/or overwhelmed. DNA is a potential target for oxidative damage, and genomic damage can contribute to neuropathogenesis. It is important therefore to identify tools for the quantitative analysis of DNA damage in models on neurological disorders. This book presents detailed information on various neurodegenerative disorders and their connection with oxidative stress. This information will provide clinicians with directions to treat these disorders with appropriate therapy and is also of vital importance for the drug industries for the design of new drugs for treatment of degenerative disorders.



Parkinson's Disease: Behavioural and Cognitive Aspects (Geriatrics, Gerontology and Elderly Issues: Aging Issues, Health and Financial Alternatives)

Author: Moretti, Rita; Torre, Paola & Antonello, Rodolfo

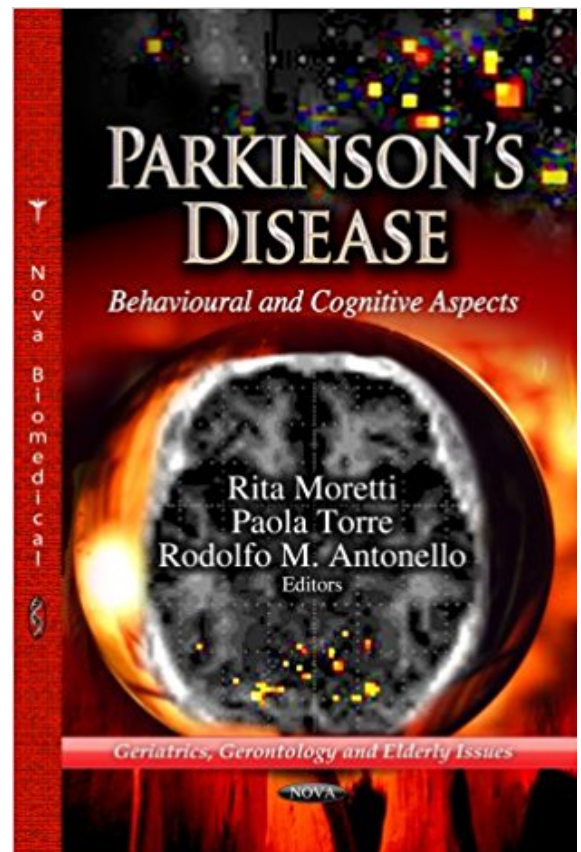
Published: 2014

Publisher: Azinet Press

Website: https://www.novapublishers.com/catalog/product_info.php?products_id=37083&osCsid=2a9023ac714bcf95fd3f32f939785dcd

Description:

Parkinson's disease is a progressive disorder of the nervous system that affects movement. It develops gradually, often starting with a barely noticeable tremor in just one hand. But, while tremors may be the most well-known sign of Parkinson's disease, the disorder also commonly causes a slowing or freezing of movement. The authors aim to reflect on different features of a poliedric structure, like Parkinson's disease, and try to help clinicians and students to reflect on these aspects that mainly interfere with the daily life experience of patients and caregivers. (Imprint: Nova Biomedical)



Pathogenesis of neurodegenerative disorders

Author: Mattson, M.P.

Published: 2001 (H,E)2010 (P)

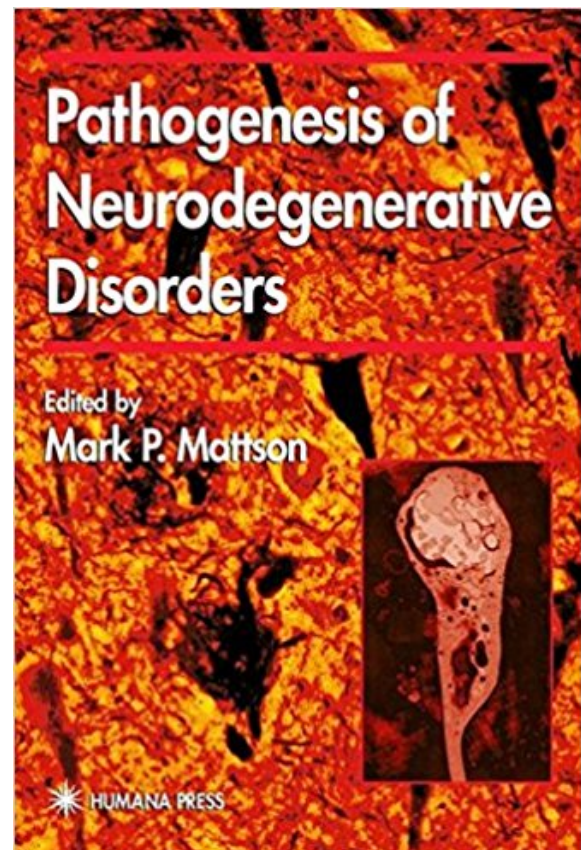
Publisher: Humana Press

Website: <http://www.springer.com/biomed/neuroscience/book/978-0-89603-838-7>

Description:

Recent scientific advances have dramatically expanded our understanding of the molecular, genetic, and environmental factors that either cause or contribute to a wide variety of age-related neurodegenerative disorders. In *Pathogenesis of Neurodegenerative Disorders*, leading experts detail the cellular and molecular cascades that cause selective degeneration of neuronal populations, and illuminate those factors that are critical to the facilitation or suppression of these neuropathologic processes. Working from studies of human patients, as well as from cell culture and animal models, the authors demonstrate a heretofore unrecognized convergence of the causative pathogenetic mechanisms for many clinically distinct neurological disorders. At center stage are the biochemical and molecular cascades that will ultimately lead to neuronal death-cascades involving oxyradical production, aberrant regulation of cellular ion homeostasis, activation of specific proteases, and activation of a stereotyped sequence of events involving mitochondrial dysfunction. Individual chapters examine how these mechanisms-along with genetic and environmental factors-operate in Alzheimer's and Parkinson's diseases, Down's syndrome, amyotrophic lateral sclerosis, ischemic stroke, spinal cord injury, and Duchenne muscular dystrophy.

Pioneering and richly insightful, *Pathogenesis of Neurodegenerative Disorders* offers a critical and integrative summary of the cutting-edge research findings that illuminate the common genetic, cellular, and molecular bases of many neurological disorders today that promise powerful new preventive and treatment approaches in future.



Perspectives on Alzheimer's Disease (Neurology- Laboratory and Clinical Research Developments)

Author: Corso, Jeremy A.

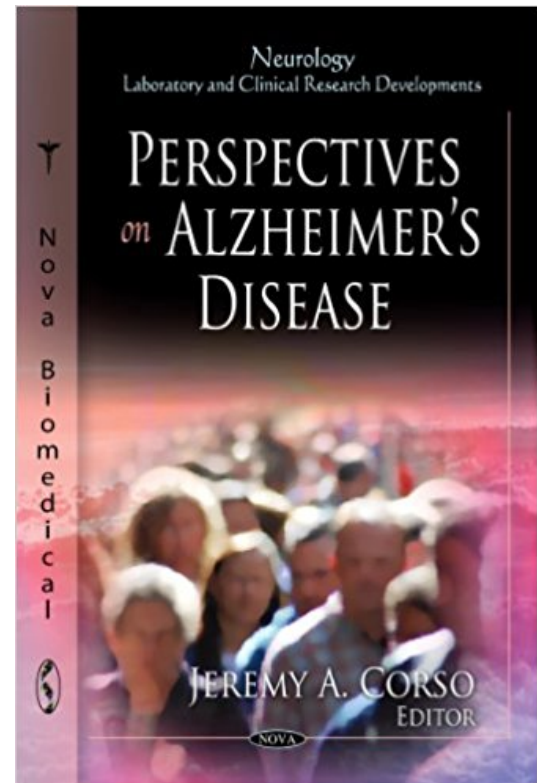
Published: 2013

Publisher: Nova Science Publishers

Website: https://www.novapublishers.com/catalog/product_info.php?products_id=21619&osCsid=2a9023ac714bcf95fd3f32f939785dcd

Description:

This new book presents and discusses current research in the study of Alzheimer's disease. Topics discussed include Alzheimer's disease in adults with Down Syndrome; semantic memory deficits assessment in Alzheimer's disease; mild cognitive impairment; cognitive rehabilitation in middle-aged Alzheimer patients; career and family issues in early-onset Alzheimer's disease and alterations to the working memory network in normal aging and Alzheimer's disease. (Imprint: Nova Biomedical Press)



Population aging: the transformation of societies

Author: Rowland, Donald T.

Published: 2012

Publisher: Springer

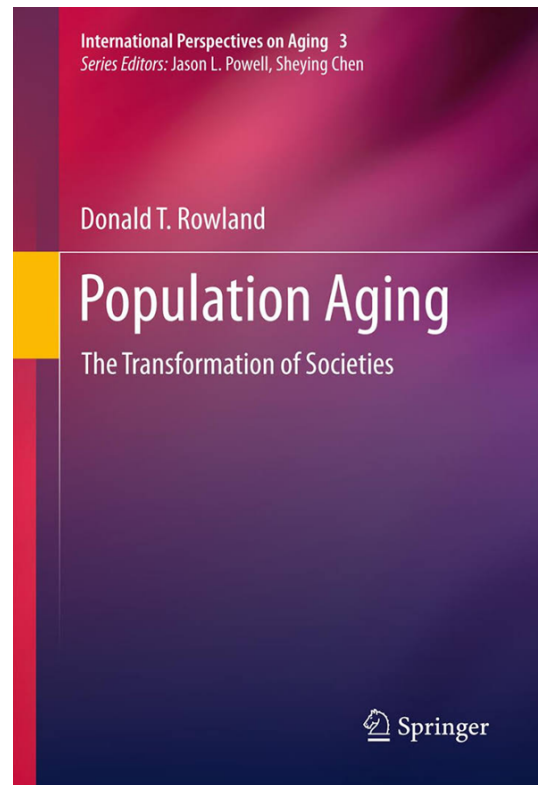
Website: <http://www.springer.com/social+sciences/population+studies/book/978-94-007-4049-5>

Description:

Population Aging: The Transformation of Societies presents an overview and international comparison of the causes, consequences and policy implications of one of the major processes of change in contemporary societies. It provides a foundation for understanding and reflecting on key demographic and social trends, together with related theoretical and policy frameworks that are important in explaining changes and designing informed responses. With particular reference to countries that have the oldest or largest aged populations, the book presents a synthesis of research on population aging, new analyses of trends and a discussion of the major social policy strategies.

Key topics include the new demography of aging, population health, family change, the Third Age, international policy concepts and strategies, and comparisons of countries – such as in terms of the relative risks they face from population aging and their resilience as changes occur. Overall, the book presents a broad interdisciplinary perspective on the determinants and consequences of population aging.

The book is written for an international audience of policy makers, educators and practitioners in health and welfare, together with students in the social sciences and health sciences. It provides an accessible and academically informed exposition of the field for people engaging with issues arising from population aging in their own country.



Protein misfolding and disease

Author: Bross, Peter & Gregersen, Niels

Published: 2003 (H)2010 (P)

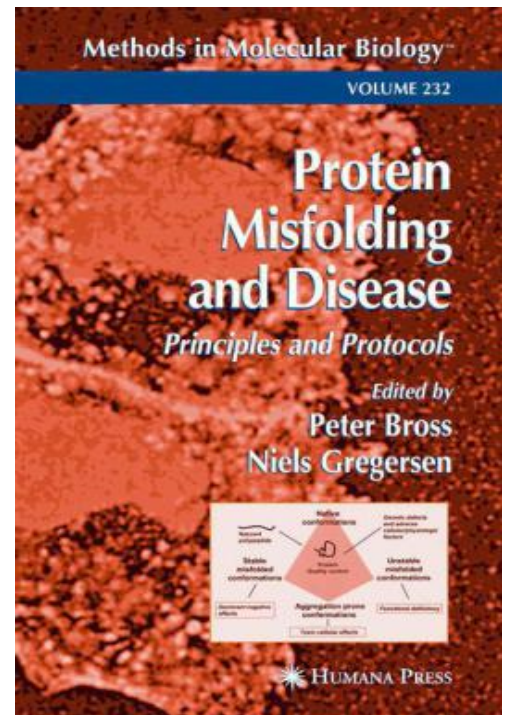
Publisher: Humana Press

Website: <http://www.springer.com/life+sciences/biochemistry+&+biophysics/book/978-1-58829-065-6>

Description:

It has now become clear that a large number of diseases with very different pathologies share a common framework of protein misfolding, accompanied by degradation and/or aggregation of the misfolded proteins. In *Protein Misfolding and Disease: Principles and Protocols*, notable experts in conformational disease review the latest thinking about the molecular processes underlying these diseases and describe cutting-edge biochemical, genomic, cellular, and chemical laboratory techniques for studying their genesis and pathologies. The authors apply their carefully refined methods to a variety of metabolic and neurodegenerative disorders, as well as to the aging process. The techniques presented are broadly applicable in many diverse disease contexts and may be used in both diagnosis and detailed research on new treatment strategies. Each tried and proven protocol includes insightful background notes, lists of required equipment and reagents, step-by-step instructions, and tips on troubleshooting and on how to avoid known pitfalls.

Comprehensive and cutting-edge, *Protein Misfolding and Disease: Principles and Protocols* offers both novice and experienced researchers a solid theoretical grounding in conformational disease and a remarkable set of analytical methodologies for uncovering its characteristics and generating new therapeutic approaches.



Protein Oxidation and Aging (Wiley Series in Protein and Peptide Science)

Author: Grune, Tilman; Catalgol, Betul; Jung, Tobias & Uversky, Vladimir

Published: 2013

Publisher: Wiley

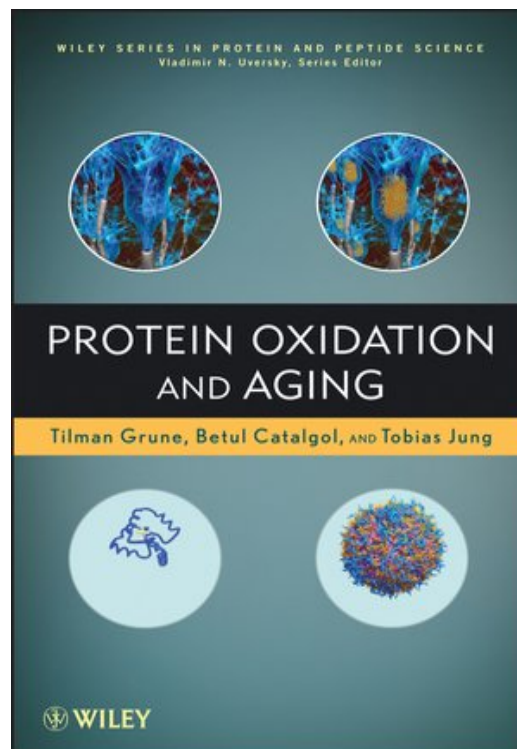
Website: <http://eu.wiley.com/WileyCDA/WileyTitle/productCd-0470878282.html>

Description:

Protein oxidation is at the core of the aging process. Setting forth a variety of new methods and approaches, this book helps researchers conveniently by exploring the aging process and developing more effective therapies to prevent or treat age-related diseases. There have been many studies dedicated to the relationship between protein oxidation and age-related pathology; now it is possible for researchers and readers to learn new techniques as utilizing protein oxidation products as biomarkers for aging.

Protein Oxidation and Aging begins with a description of the tremendous variety of protein oxidation products. Furthermore, it covers:

- Major aspects of the protein oxidation process
- Cellular mechanisms for managing oxidized proteins
- Role of protein oxidation in aging
- Influence of genetic and environmental factors on protein oxidation
- Measuring protein oxidation in the aging process
- Protein oxidation in age-related diseases
- References at the end of each chapter serve as a gateway to the growing body of original research studies and reviews in the field.



Reversing human aging

Author: Fossel, Michael

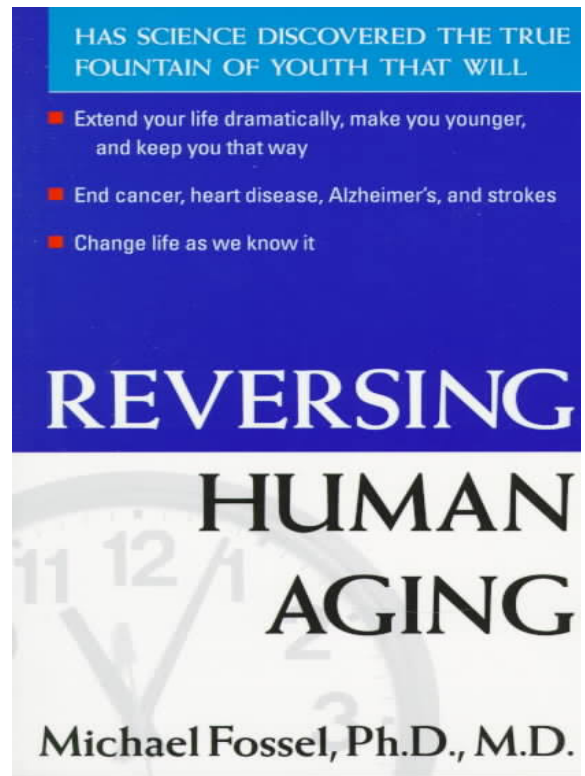
Published: 1997

Publisher: Quill

Website: <http://www.amazon.com/Reversing-Human-Aging-Michael-Fossel/dp/0688153844>

Description:

Explains the effects of aging on the human body and describes groundbreaking medical advances in age reversal, citing their potential cures for cancer, heart disease, Alzheimer's, and stroke



Senescence: Dominant or Recessive in Somatic Cell Crosses?

Author: Nichols, Warren

Published: 2012

Publisher: Springer

Website: <http://www.springer.com/medicine/internal/book/978-1-4684-2510-9>

Description:

This monograph, *Senescence; Dominant or Recessive In Somatic Cell Crosses?* represents the second annual workshop to promote theory and concept development in aging research. These workshops are part of a resource to bank cultured cells of special interest to aging research that was established at the Institute for Medical Research in Camden, New Jersey, by the National Institute on Aging in 1974. The underlying theme of the workshops is the use of cultured cells in a variety of somatic cell genetic systems designed to define mechanisms of *in vitro* cellular senescence and the possible insights that this may provide to the problems of *in vivo* aging. The concept also includes bringing together workers from a variety of disciplines to stimulate new and innovative thoughts and work in the area. The current workshop focuses on the relative role of nucleus and cytoplasm on determining the *in vitro* lifespan of human diploid cells as well as the relative influence of old and young cells when combined within a single cell structure. The techniques and procedures discussed should make significant contributions to understanding *in vitro* senescence and may lead to the mapping of an area or areas of the genome linked to senescence as is being accomplished with viral transformation of normal cells.

Senescence Dominant or Recessive in Somatic Cell Crosses?

Edited by
Warren W. Nichols
and
Donald G. Murphy

 Springer

Sexuality and aging: clinical perspectives

Author: Hillman, Jennifer

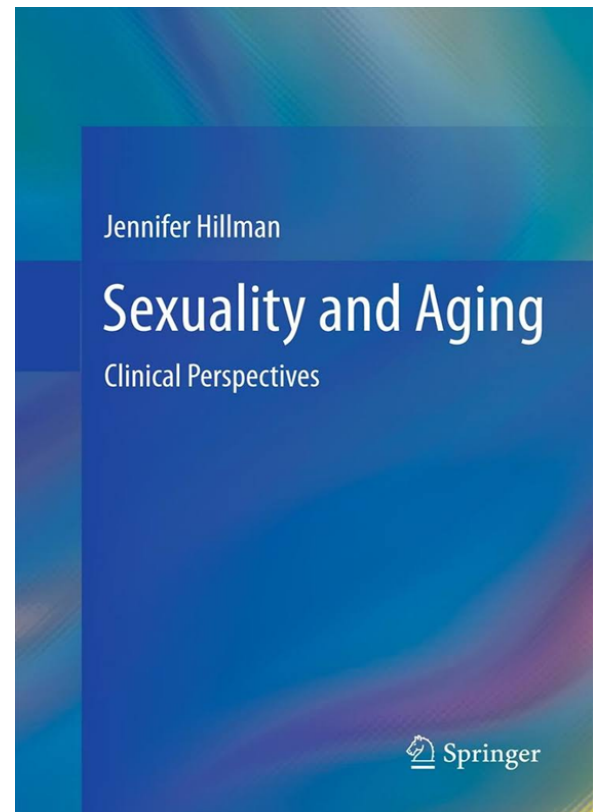
Published: 2012

Publisher: Springer

Website: <http://www.springer.com/psychology/personality+&+social+psychology/book/978-1-4614-3398-9>

Description:

Despite continuing ageist beliefs that sexuality is a privilege designed only for the young and physically healthy, research continues to indicate that the majority of older adults maintain interest in sexuality and may engage in fulfilling sexual behavior well into their last decade of life. Unfortunately, many professionals remain unaware of general knowledge of elderly sexuality, including the expected and normal physiological changes that can occur within the context of both male and female aging. The presence of chronic illness and other medical problems certainly can influence the expression of an aging adult's sexuality, and emergent research suggests that there are effective ways to cope with menopause, heart disease, arthritis, incontinence, diabetes, sleep disorders, breast cancer, prostate cancer, and erectile dysfunction (ED), among others. Dramatic changes have taken place within the last decade alone in terms of non-surgical treatment for incontinence and ED, with forms of sex therapy, biofeedback, and PDE-5 inhibitors. Regrettably, many aging adults and their care providers remain unaware of their increased risk factors for STDs, including HIV infection via lack of knowledge, changes in the vaginal lining, and typical declines in immune function. Estimates suggest that by the year 2020, more than half of all individuals living with HIV will be over the age of 50. Although some high quality professional books are available for clinicians, they tend to be disjointed research bibliographies, edited volumes on a narrowly focused aspect of elderly sexuality, or texts that are more than 10 years old. With the extent of new information available regarding sexuality and aging, an up to date, empirically based text is necessary.



Stem Cell Aging: Mechanisms, Consequences, Rejuvenation

Author: Geiger, Hartmut, Jasper, Heinrich, Florian, Maria Carolina (Eds.)

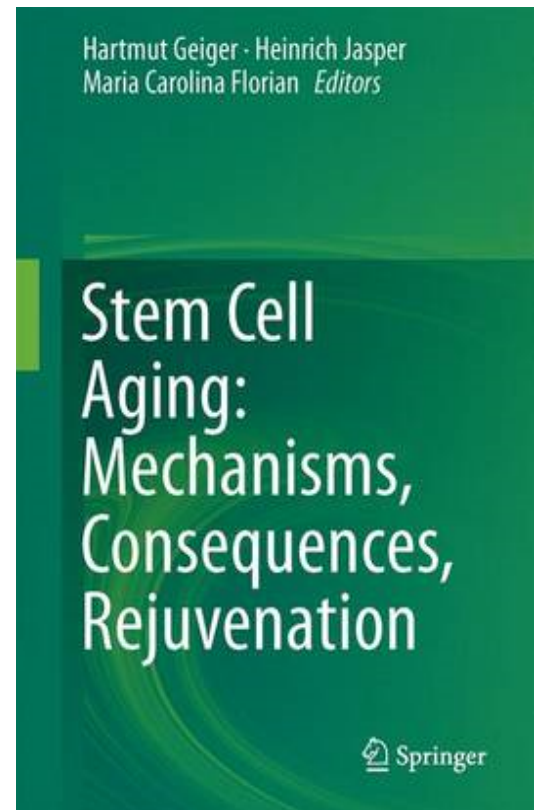
Published: 2015

Publisher: Springer

Website: <http://www.springer.com/gp/book/9783709112311>

Description:

Aging of somatic stem cells reduces cell function and results in dysfunctional organs and tissues, making it an underlying cause of diseases associated with aging. It might even be the primary cause for age-associated attrition of tissue function in organs that heavily rely on stem cells for maintaining homeostasis, like the skin, blood and intestines. Understanding the molecular and cellular mechanisms involved is critical for developing approaches to attenuate stem cell aging and could pave the way for improved quality of life among the elderly. Written by highly prominent experts in the field, this book presents the current state of knowledge on these mechanisms. It offers insights into stem cell function, explains in detail the mechanisms of stem cell aging in model organisms as well as mammalian systems and describes related diseases and approaches to attenuating stem cell aging or achieving rejuvenation. The book is intended for all scientists and clinicians working with stem cells, aging mechanisms or age-related diseases.



Studies on Alzheimer's Disease (Oxidative Stress in Applied Basic Research and Clinical Practice)

Author: Pratic, Domenico & Mecocci, Patrizia

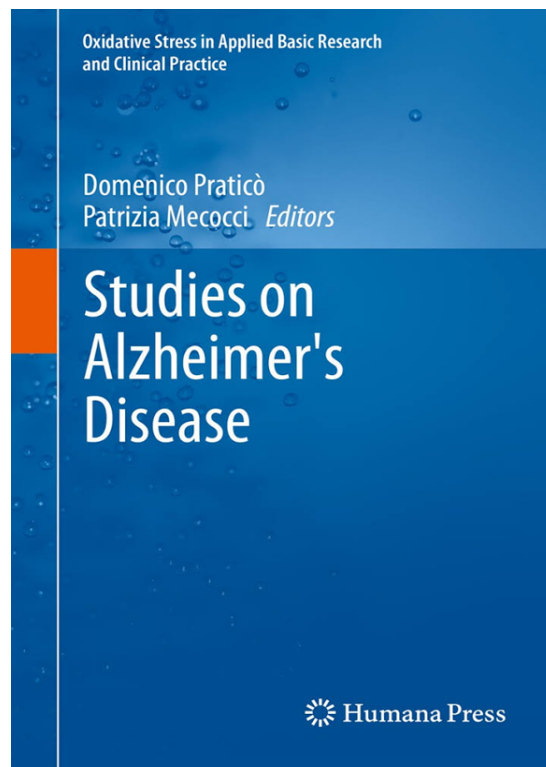
Published: 2013

Publisher: Humana Press

Website: <http://www.springer.com/life+sciences/cell+biology/book/978-1-62703-597-2>

Description:

This volume systematically reviews the basic science and clinical knowledge of the role of free radicals and antioxidants, collectively known as "oxidative stress," in the pathology of Alzheimer's disease. It describes the most current diagnostic tools, laboratory methods and technology, and suggests ways of prevention and treatment to emphasize the concept of the bench-to-bedside approach. Studies on Alzheimer's Disease provides thorough coverage of emerging technology and medical applications including discussions of biomarkers and antioxidants as therapeutic agents, and several more relevant aspects. In addition, this book promotes the concept of using biomarkers representative of oxidative stress reactions and free-radical damage and describes the effects of antioxidants in treating disease in clinical trials. This content is invaluable to both researchers and clinicians studying the development of and treating patients with Alzheimer's Disease.



Successful Aging: Asian Perspectives

Author: Cheng, S.-T., Chi, I., Fung, H.H., Li, L.W., Woo, J. (Eds.)

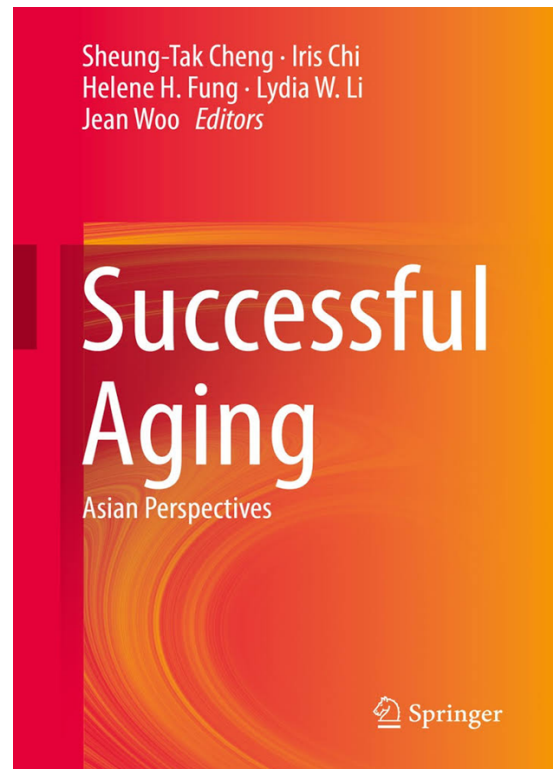
Published: 2014

Publisher: Springer

Website: <http://www.springer.com/gp/book/9789401793308>

Description:

This book brings together state-of-the-art research on successful aging in Asian populations and highlights how the factors that contribute to successful aging differ from those in the West. It examines the differences between the Asian and Western contexts in which the aging process unfolds, including cultural values, lifestyles, physical environments and family structures. In addition, it examines the question of how to add quality to longer years of life. Specifically, it looks at ways to promote health, preserve cognition, maximize functioning with social support and maintain emotional well-being despite inevitable declines and losses. Compared to other parts of the world, Asia will age more quickly as a result of the rapid socioeconomic developments leading to rising longevity and historically low fertility rates in some countries. These demographic forces in vast populations such as China are expected to make Asia the main driver of global aging in the coming decades. As a result, researchers, professionals, policymakers, as well as the commercial sector, in both East and West, are increasingly interested in gaining a deeper understanding of aging in Asia.



Telomeres and telomerase in aging, disease, and cancer: molecular mechanisms of adult stem cell ageing

Author: Rudolph, K. Lenhard

Published: 2007

Publisher: Springer

Website: <http://www.springer.com/biomed/human+genetics/book/978-3-540-73708-7>

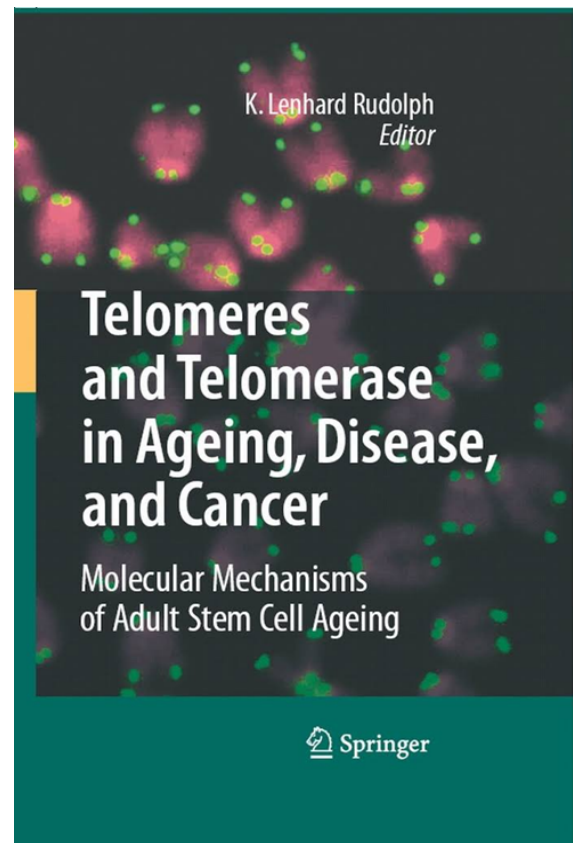
Description:

The understanding of the molecular mechanisms underlying the ageing process is essential to improve quality of life and 'health span' in the growing populations of the elderly.

Telomere shortening represents one of the basic aspects of ageing and telomere dysfunction could contribute to the accumulation of DNA damage during ageing. This book summarizes experimental evidence and clinical data indicating that telomere dysfunction influences human ageing, diseases and cancer. In addition, the book describes our current knowledge on checkpoints that limit cellular lifespan (senescence) and survival (apoptosis, crisis) in response to telomere dysfunction.

A special focus of the book is on adult stem cells. There is emerging evidence that adult stem cell ageing impairs organismal fitness and survival and contributes to cancer formation (cancer stem cells). The book summarizes basic mechanisms of adult stem cell ageing. Moreover, the authors describe evidence that telomere dysfunction impairs stem cell function by inducing cell intrinsic checkpoints as well as environmental alterations.

All of these subjects are of great interest for ageing researchers, physicians and students and should provide a rational basis for beginning to identify molecular targets for novel therapies that aim to improve quality of life during ageing.



Telomeres: biological functions, sequencing and aging

Author: Dominguez, Nicolas E. & Pereyra, Sofia M.

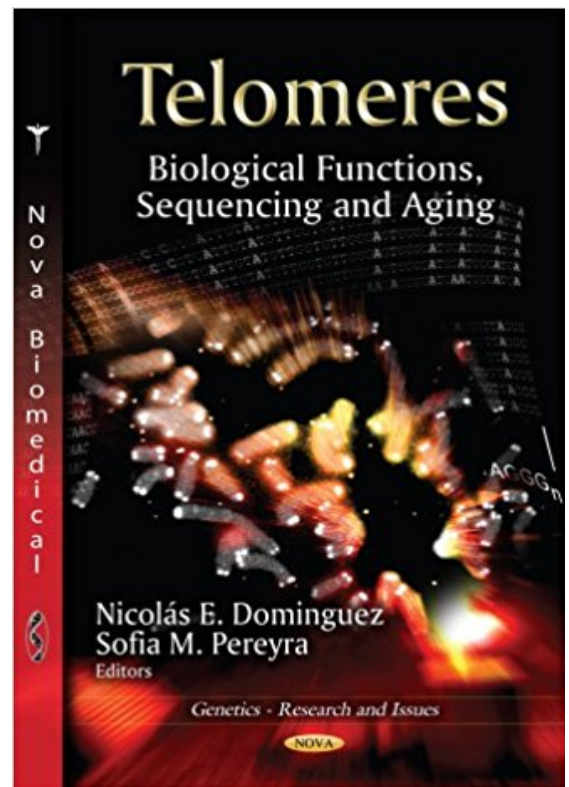
Published: 2012

Publisher: Nova Science Publishers Inc

Website: https://www.novapublishers.com/catalog/product_info.php?products_id=31315

Description:

Telomere is the nucleoprotein complex located at the endmost chromosomal terminus and one of the essential cis-acting structural elements of chromosomes. Telomeres are composed of DNA, proteins, and RNA. In this book, the authors present current research in the study of the biological functions, sequencing and aging of telomeres. Topics discussed include the biology of telomeres in multipotential stromal cells; telomere maintenance in the blight fungus *ustilago maydis*; telomere length in lymphoid malignancies; unraveling the genetic basis of the alternative lengthening of telomeres and the adjustment of telomeres by cell-matrix interaction.



The aging mind: opportunities in cognitive research

Author: Stern, Paul C. & Carstensen, Laura L.

Published: 2000

Publisher: National Academies Press

Website: http://www.nap.edu/catalog.php?record_id=9783

Description:

Possible new breakthroughs in understanding the aging mind that can be used to benefit older people are now emerging from research. This volume identifies the key scientific advances and the opportunities they bring. For example, science has learned that among older adults who do not suffer from Alzheimer's disease or other dementias, cognitive decline may depend less on loss of brain cells than on changes in the health of neurons and neural networks. Research on the processes that maintain neural health shows promise of revealing new ways to promote cognitive functioning in older people. Research is also showing how cognitive functioning depends on the conjunction of biology and culture. The ways older people adapt to changes in their nervous systems, and perhaps the changes themselves, are shaped by past life experiences, present living situations, changing motives, cultural expectations, and emerging technology, as well as by their physical health status and sensory-motor capabilities. Improved understanding of how physical and contextual factors interact can help explain why some cognitive functions are impaired in aging while others are spared and why cognitive capability is impaired in some older adults and spared in others. On the basis of these exciting findings, the report makes specific recommends that the U.S. government support three major new initiatives as the next steps for research.



The biology of human longevity

Author: Finch, Caleb E.

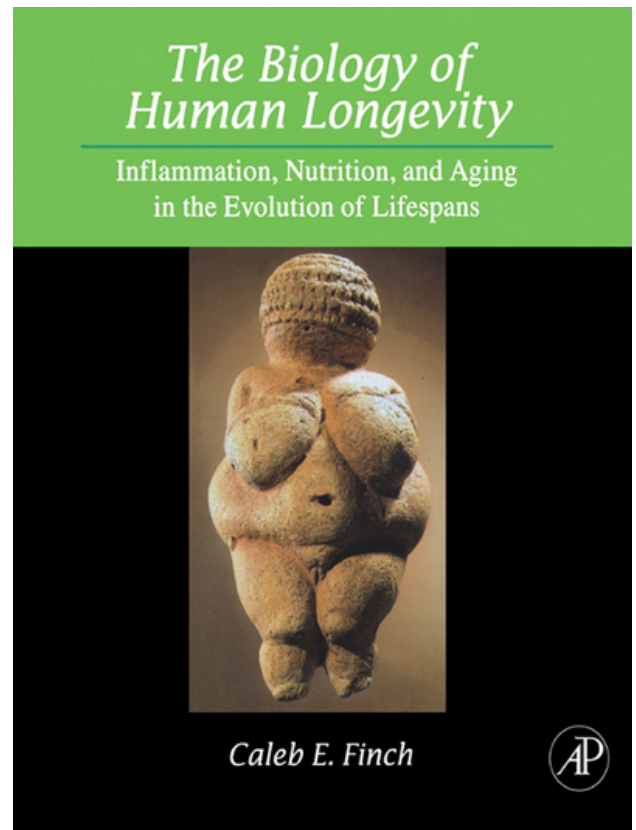
Published: 2007

Publisher: Academic Press

Website: <http://www.elsevierdirect.com/product.jsp?isbn=9780123736574>

Description:

Written by Caleb Finch, one of the leading scientists of our time, *The Biology of Human Longevity: Inflammation, Nutrition, and Aging in the Evolution of Lifespans* synthesizes several decades of top research on the topic of human aging and longevity particularly on the recent theories of inflammation and its effects on human health. The book expands a number of existing major theories, including the Barker theory of fetal origins of adult disease to consider the role of inflammation and Harmon's free radical theory of aging to include inflammatory damage. Future increases in lifespan are challenged by the obesity epidemic and spreading global infections which may reverse the gains made in lowering inflammatory exposure. This timely and topical book will be of interest to anyone studying aging from any scientific angle.



The Biostatistics of Aging: From Gompertzian Mortality to an Index of Aging-Relatedness

Author: Levy, Gilberto & Levin, Bruce

Published: 2014

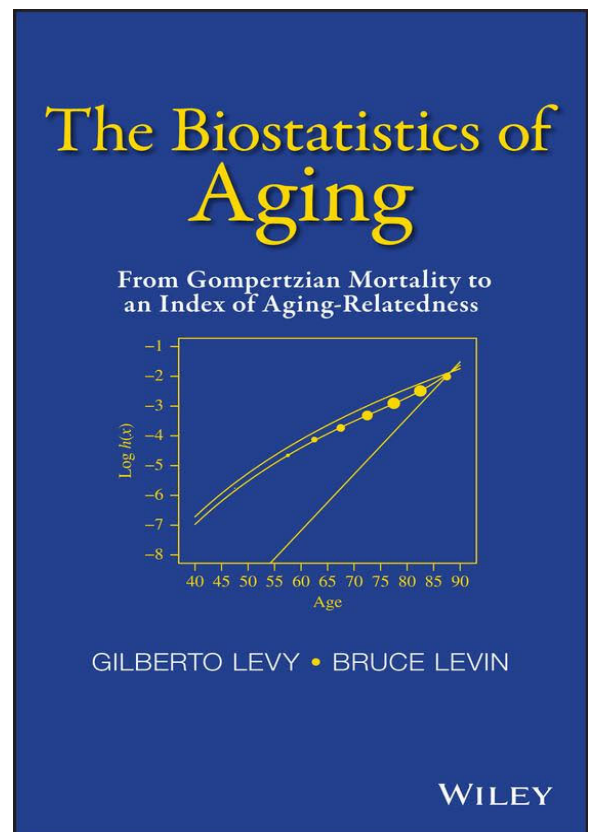
Publisher: Wiley

Website: <http://eu.wiley.com/WileyCDA/WileyTitle/productCd-1118645855.html>

Description:

Providing a thorough and extensive theoretical framework, *The Biostatistics of Aging: From Gompertzian Mortality to an Index of Aging-Relatedness* addresses the surprisingly subtletion—with consequential biomedical and public health relevance—of what it means for a condition to be related to aging. In this pursuit, the book presents a new quantitative method to examine the relative contributions of genetic and environmental factors to mortality and disease incidence in a population. With input from evolutionary biology, population genetics, demography, and epidemiology, this medically motivated book describes an index of aging-relatedness and also features:

- Original results on the asymptotic behavior of the minimum of time-to-event random variables, which extends those of the classical statistical theory of extreme values
- A comprehensive and satisfactory explanation based on biological principles of the Gompertz pattern of mortality in human populations
- The development of an evolution-based model of causation relevant to mortality and aging-related diseases of complex etiology
- An explanation of how and why the description of human mortality by the Gompertz distribution can be improved upon from first principles
- The amply illustrated analysis of real-world data, including a program for conducting the analysis written in the freely available R statistical software
- Technical appendices including mathematical material as well as an extensive and multidisciplinary bibliography on aging and aging-related diseases
- *The Biostatistics of Aging: From Gompertzian Mortality to an Index of Aging-Relatedness* is an excellent resource for practitioners and researchers with an interest in aging and aging-related diseases from the fields of medicine, biology, gerontology, biostatistics, epidemiology, demography, and public health.



The Encyclopedia of aging - Volume I+II

Author: Schulz, Richard; Noelker, Linda S.;
Rockwood, Kenneth & Sprott, Richard L.

Published: 2006

Publisher: Springer Publishing Company

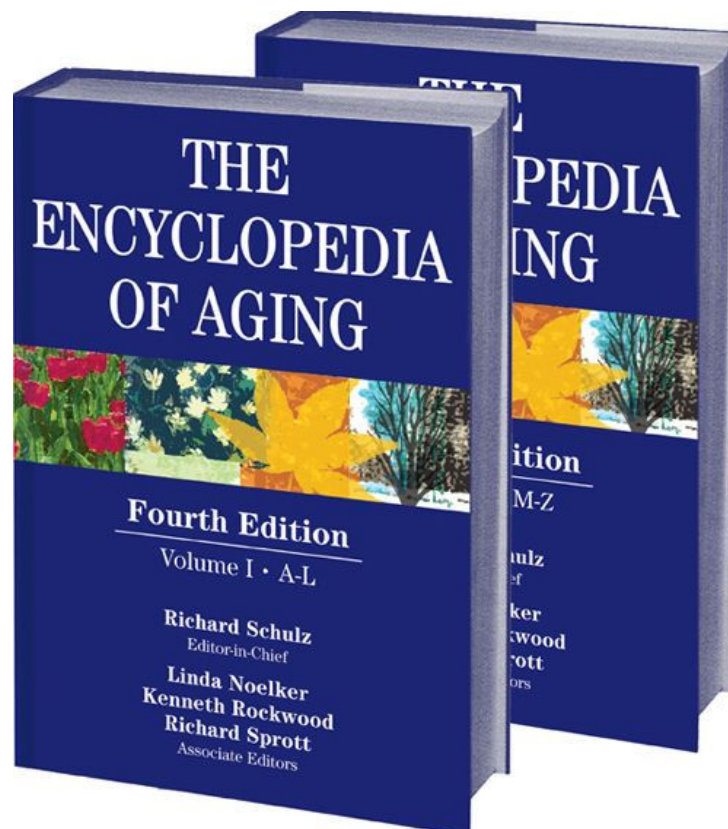
Website: [http://www.springerpub.com/
product/9780826148438](http://www.springerpub.com/product/9780826148438)

Description:

Since its inception in 1987, The Encyclopedia of Aging has proven to be the definitive resource for scholars and students across the burgeoning and increasingly interdisciplinary fields of gerontology and geriatrics. Like its three esteemed predecessors, the fourth edition contains concise, readable explorations of hundreds of terms, concepts, and issues related to the lives of older adults, as well as timely coverage of the many new programs and services for the elderly.

Updated, under the distinguished stewardship of editor-in-chief Richard Schulz to reflect the infusion of new information across the scientific disciplines, this new edition brings readers up-to-the-moment significant advances in biology, physiology, genetics, medicine, psychology, nursing, social services, sociology, economics, technology, and political science.

While retaining the format and standard of excellence that marked the first three editions, the fourth edition encompasses a wealth of new information from the social and health sciences. It contains the most current bibliography of an expanding literature, an exhaustive index, and extensive cross references. This much anticipated update of the field's most authoritative resource will take its place as an indispensable reference for specialists and non-specialists across a broad range of disciplines that now comprise the field of aging.



The evolution of aging

Author: Goldsmith, Theodore C.

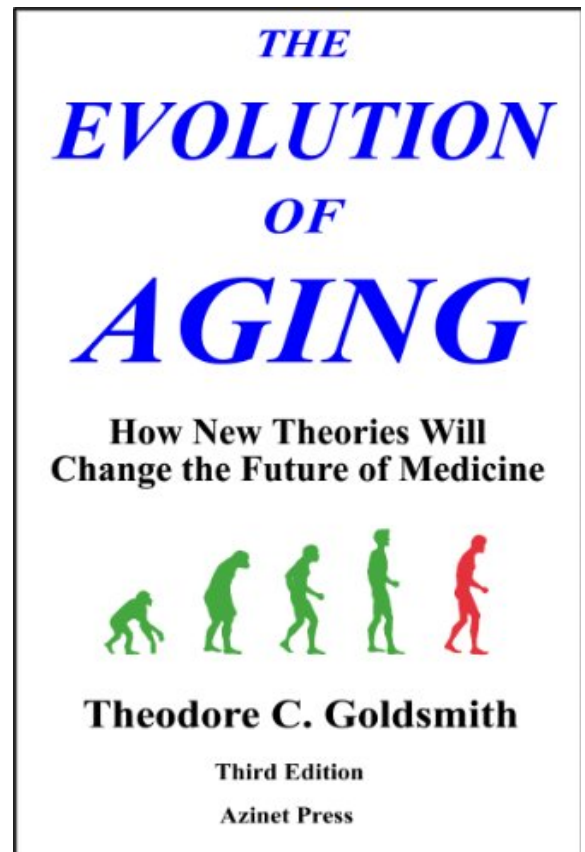
Published: 2006

Publisher: Azinet LLC

Website: http://www.azinet.com/aging/Aging_Book.html

Description:

The book covers various theories of aging, summaries of evolution theories, the impact of evolution theory on aging theories, effect of theories and attitudes on anti-aging research, and summaries of many scientific observations that influence thinking on the subject of aging.



The evolution of human life history

Author: Hawkes, Kristen & Paine, Richard R.

Published: 2006

Publisher: School of American Research Press

Website: http://sarweb.org/index.php?sar_press_evolution_of_human_life_history

Description:

Human beings may share 98 percent of their genetic makeup with their nonhuman primate cousins, but they have distinctive life histories. When and why did these uniquely human patterns evolve? To answer that question, this volume brings together specialists in hunter-gatherer behavioral ecology and demography, human growth, development, and nutrition, paleodemography, human paleontology, primatology, and the genomics of aging. The contributors identify and explain the peculiar features of human life histories, such as the rate and timing of processes that directly influence survival and reproduction. Drawing on new evidence from paleoanthropology, they question existing arguments that link humans' extended childhood dependency and long "post-reproductive" lives to brain development, learning, and distinctively human social structures. The volume reviews alternative explanations for the distinctiveness of human life history and incorporates multiple lines of evidence in order to test them.

The Evolution of Human Life History



Edited by Kristen Hawkes and Richard R. Paine

Contributors: Nancy Barrickman, Meredith L. Bastian, Nicholas Burton Jones, Barry Bogin, Jasper L. Boldsen, Kristen Hawkes, Nicholas P. Herrmann, Lyle W. Konigsberg, Elissa B. Krakauer, Richard R. Paine, Shannon L. Robson, Daniel W. Sellen, Matthew M. Skinner, Maria A. van Noordwijk, Gert P. van Schaik, Bernard Wood

The late life legacy of very early life

Author: Doblhammer, Gabriele

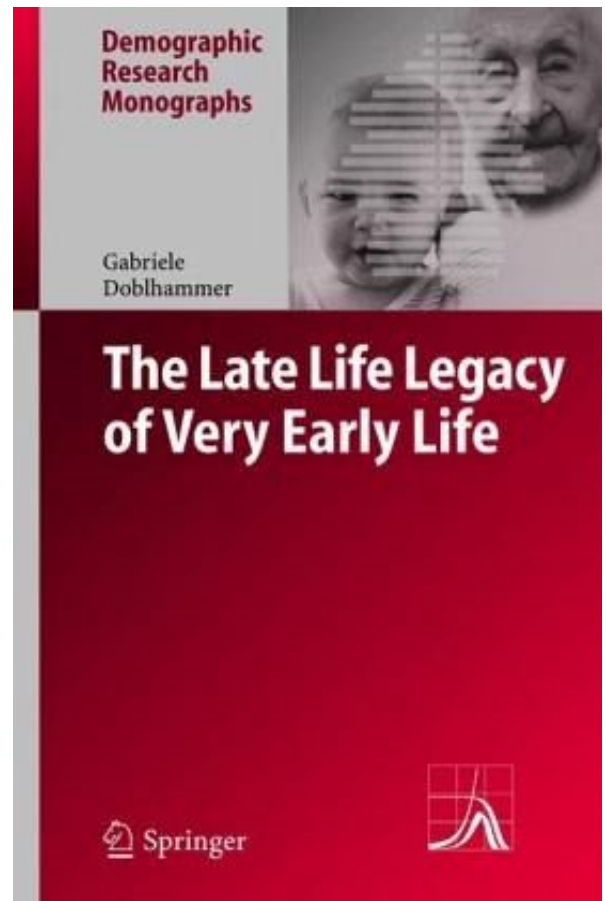
Published: 2004 (H,E)2010 (P)

Publisher: Springer.

Website: <http://www.springer.com/economics/population/book/978-3-540-22105-0>

Description:

The monograph demonstrates the widespread existence of differences in life span by month of birth in the elderly populations of contemporary societies. It provides evidence that the pattern is linked to the seasons of the year, by comparing the Northern and the Southern Hemisphere. It formulates and tests a series of explanations for the month-of-birth effect and rejects many of the most frequently offered explanations. In particular, it rejects those that attribute the month-of-birth effect to social or statistical confounding. It establishes a link between the month-of-birth pattern in the life span and the month-of-birth pattern in survival during the first year of life. It provides evidence that nutrition and infectious disease early in life play an important role in adult health and survival later in life and that the differences in life span by month of birth still exist in cohorts born today.



The Practical Handbook of Clinical Gerontology

Author: Carstensen, Laura L.; Edelstein, Barry A. & Dornbrand Laurie

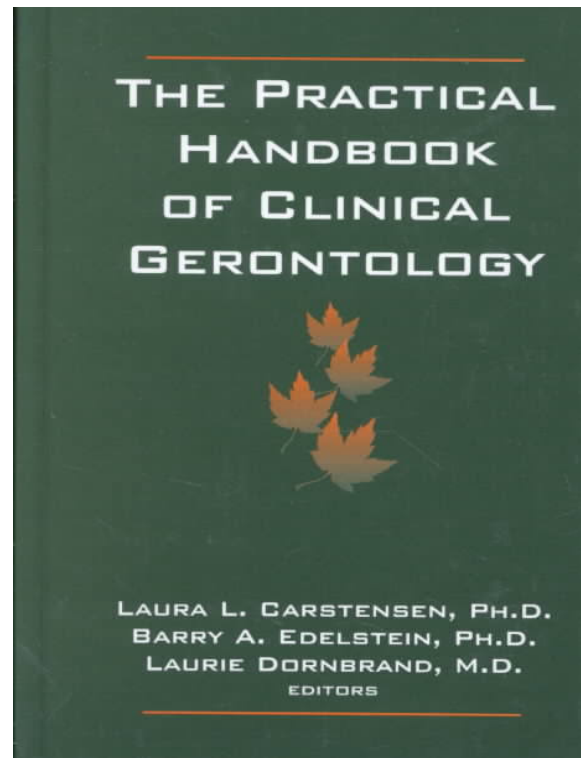
Published: 1997

Publisher: Sage Publications Inc

Website: <http://www.sagepub.com/books/Book4961?bookType=%22Reference%20Books%22&subject=100&sortBy=defaultPubDate%20desc&fs=1>

Description:

Applied gerontology and geriatrics always entail a multidisciplinary perspective and usually demand an interdisciplinary treatment approach. Providing a unique combination of perspectives, treatment approaches, and expertise, *The Practical Handbook of Clinical Gerontology* explores issues relevant to practitioners who work with the elderly. A leading cast of contributors--representing the fields of psychology, medicine, neuropsychology, nursing, and law--examines what is known about specific disorders and discusses treatment techniques and the development of intervention plans. This comprehensive volume begins with an overview of several broad topics pertinent to the treatment of older adults and discusses special considerations in assessment. It then presents up-to-date information on treatment of specific psychological and behavioral disorders of older adults. The final section covers interdisciplinary issues, including information about common medical problems, rehabilitation, and the psychopharmacological treatment of mental health problems. Written in a language that is accessible to a general health care audience, this extensive volume will be a valuable resource for mental health care providers, medical students, researchers, and graduate students in such fields as geriatrics, gerontology, nursing, psychology, and social work.



The realities of aging: an introduction to gerontology

Author: Kart, Cary S. & Kinney, Jennifer M.

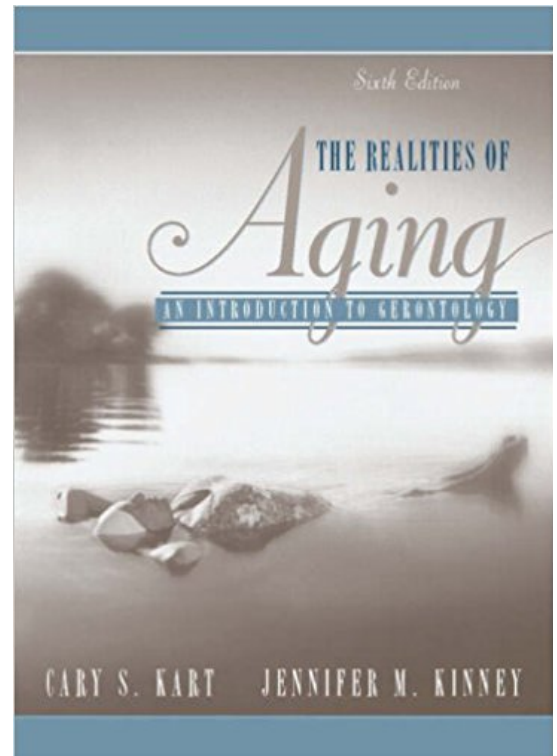
Published: 2000

Publisher: Allyn & Bacon

Website: <http://www.abebooks.de/9780205318025/Realities-Aging-Introduction-Gerontology-Kart-0205318029/plp>

Description:

A comprehensive, interdisciplinary introduction to the rapidly growing field of gerontology, this book provides the psychological, sociological, and biological aspects of aging. This respected book provides comprehensive coverage of gerontological issues while capturing the complexity inherent in the processes of aging. Emphasizes diversity in the experience of aging as a function of cultural, social, racial/ethnic, and individual variability. Takes a multidisciplinary approach. Provides many examples of aging in other cultures. Includes strong coverage of theories of aging. Contains classic research in gerontology as well as emerging conceptualizations and areas of research. For anyone interested in the study of aging or gerontology.



The role of mitochondria in human aging and disease: from genes to cell signaling

Author: Wei, Yau-Huei; Lee, Horng-Mo & Hsu, Chung Y.

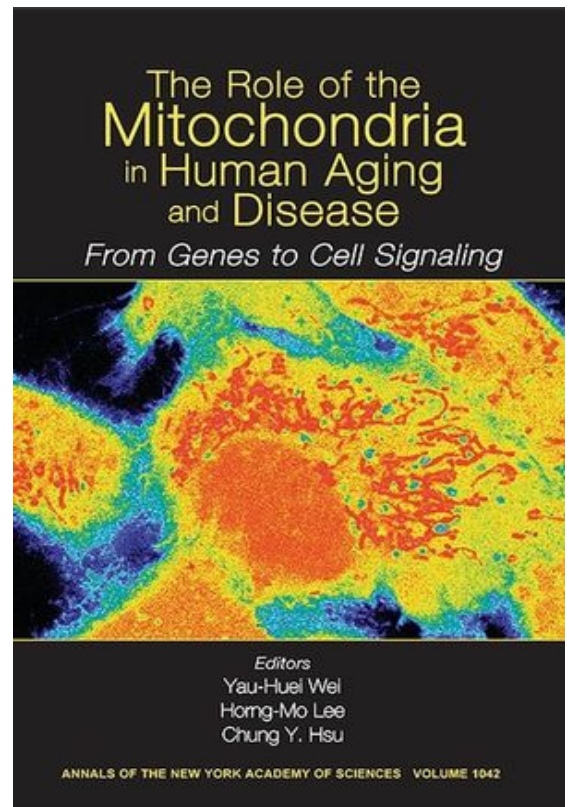
Published: 2005

Publisher: Wiley-Blackwell

Website: <http://eu.wiley.com/WileyCDA/WileyTitle/productCd-1573315427,descCd-tableOfContents.html>

Description:

Virtually every aspect of mitochondrial research and medicine is addressed in this volume, including mitochondrial function and dysfunction, free radical biology relevant to mitochondrial dysfunction, the role of mitochondria in apoptosis, and abnormal signaling processes and disease mechanisms associated with aging, mtDNA mutations, or mitochondrial damage



The SAGE Handbook of Aging, Work and Society

Author: Field, John; Burke, Ronald J. & Cooper, Cary L.

Published: 2013

Publisher: Sage Publication Inc

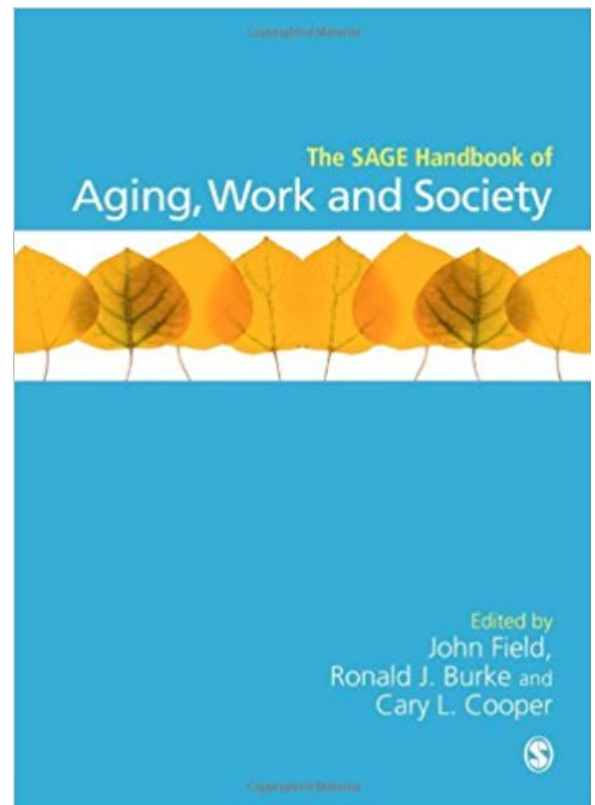
Website: <https://us.sagepub.com/en-us/nam/the-sage-handbook-of-aging-work-and-society/book237162>

Description:

Aging has emerged as a major and urgent issue for individuals, organisations and governments of our time.

In this well-timed and comprehensive handbook, key international contributors to the field of study come together to create a definitive map of the subject. Framed by an authoritative introductory chapter, the SAGE Handbook of Aging, Work and Society offers a critical overview of the most significant themes and topics, with discussions of current research, theoretical controversies and emerging issues, divided into sections covering:

- Key Issues and Challenges
- The Aging Workforce
- Managing an Aging Workforce
- Living in an Aging Society
- Developing Public Policy



The science of aging: theories and potential therapies

Author: Panno, Joseph

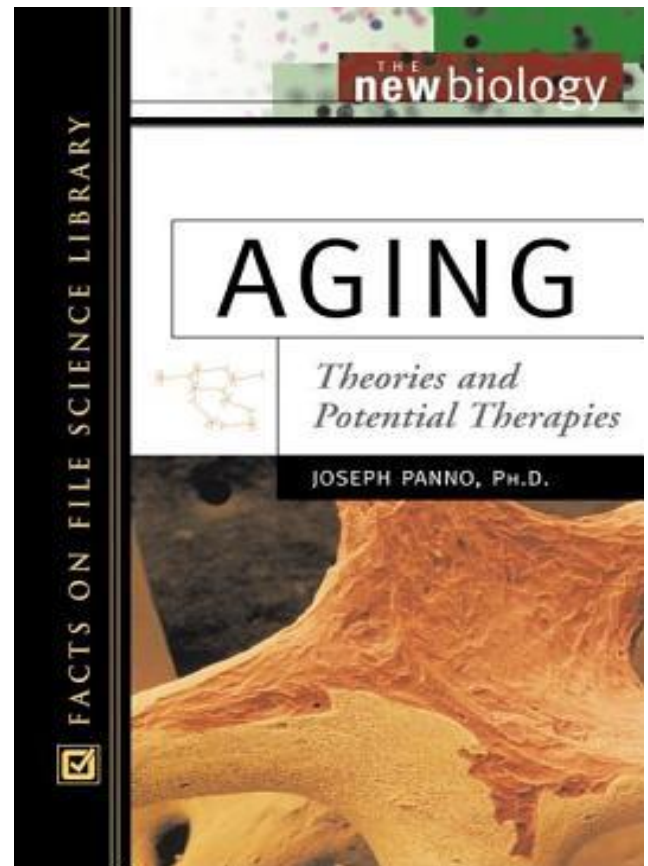
Published: 2006

Publisher: Checkmark Books

Website: http://www.amazon.com/Science-Aging-Theories-Potential-Therapies/dp/0816069301/ref=sr_1_35?s=STORE&ie=UTF8&qid=1283457409&sr=1-35

Description:

This work takes an inside look at the natural processes of aging and the technological developments in this field. There are almost as many theories about the aging process as there are researchers working in the field. This stems from the fact that scientists do not know why animals grow old and thus examine every aspect of an animal's physiology, biochemistry, and molecular biology in attempting to answer this important question. The current trend among biologists studying the way animals age is to keep the theories in mind, but to focus their attention on dominant age-related diseases, such as Alzheimer's or cardiovascular disease. The Science of Aging tackles this fascinating subject, from natural processes to technological developments, and describes past and present research on extending the human life span. Different theories about aging and the studies of the fruit fly and housefly, which have provided a basis of knowledge in this field, are presented in a clear and concise manner. effects of aging, the use of antioxidants is discussed as another area being pursued by scientists, and possible side effects and monetary expenses are also examined. This volume presents the full story about the hopes, efforts, progress, and realities of this timeless topic.



The scientific conquest of death

Author: Immortality Institute

Published: 2004

Publisher: Libros en Red

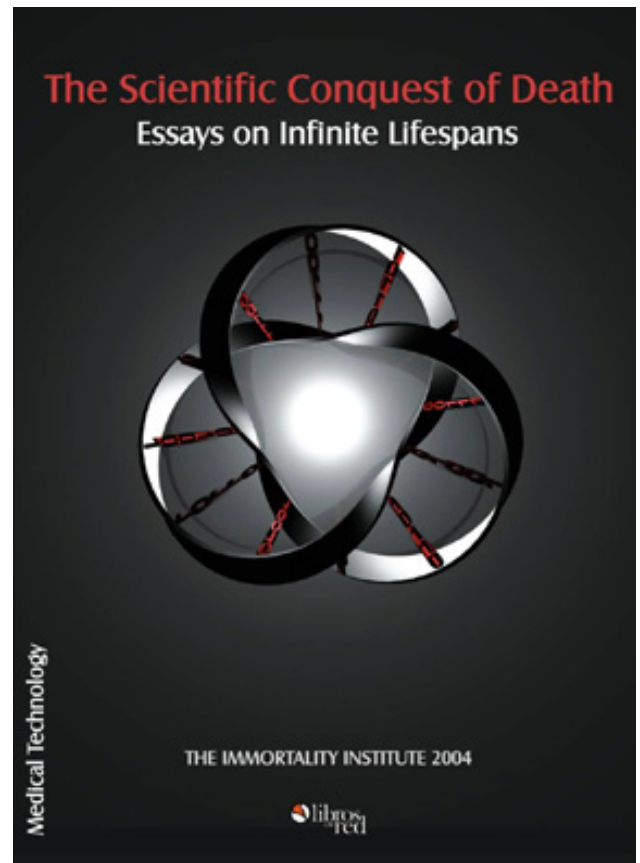
Website: <http://www.imminst.org/book>

Description:

This book is divided into two sections: science, (including biology, biomedicine, nanotechnology, digitalization and cryonics) and perspectives (including literature, history, philosophy, sociology and ethics).

This is not a strict division, as scientific possibilities are the starting point for all philosophy, and, in turn, the scientists in this book are not blind to the philosophical implications of their work. All essays are followed by their relevant citations.

All web hyperlinks are valid as of April 2004. Please do not hesitate to call the Institute if a link is out of date, as we might be able to help chase it down. Please also note that the Institute provides additional graphics, charts, and other relevant material online and free of charge to all purchasers of this book. This book concludes with remarks, an extensive bibliography for further reading, information on the contributing authors, and a few words of thanks. But – as we shall soon learn – there is no time to waste: Follow us into an exploration of the scientific conquest of death. The road to immortality is just the turn of a page away.



The Telomere Effect : A Revolutionary Approach to Living Younger, Healthier, Longer

Author: Dr. Elizabeth Blackburn, Dr. Elissa Epel

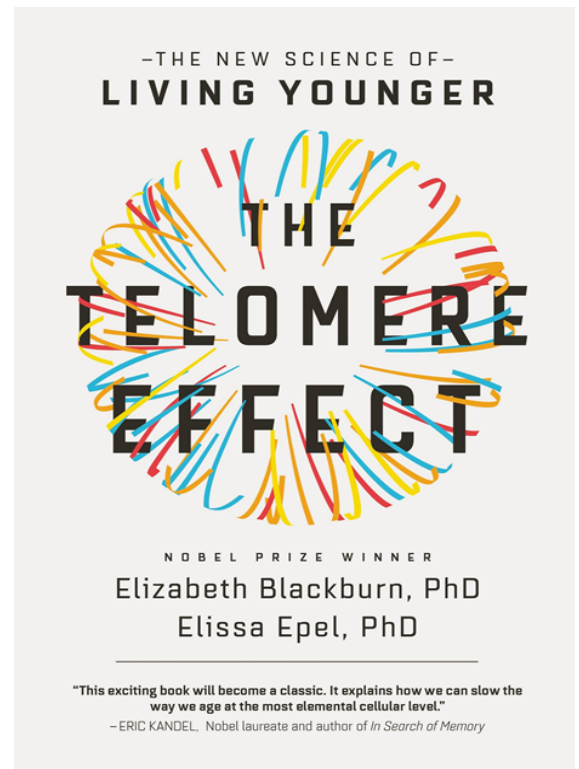
Published: Jan. 3, 2017

Publisher: Grand Central Publishing

Website: <https://www.hachettebookgroup.biz/titles/dr-elizabeth-blackburn/the-telomere-effect/9781455587971/>

Description:

The New York Times bestselling book coauthored by the Nobel Prize winner who discovered telomerase and telomeres' role in the aging process and the health psychologist who has done original research into how specific lifestyle and psychological habits can protect telomeres, slowing disease and improving life.



Trends in Alzheimer's disease research

Author: Welsh, Eileen M

Published: 2006

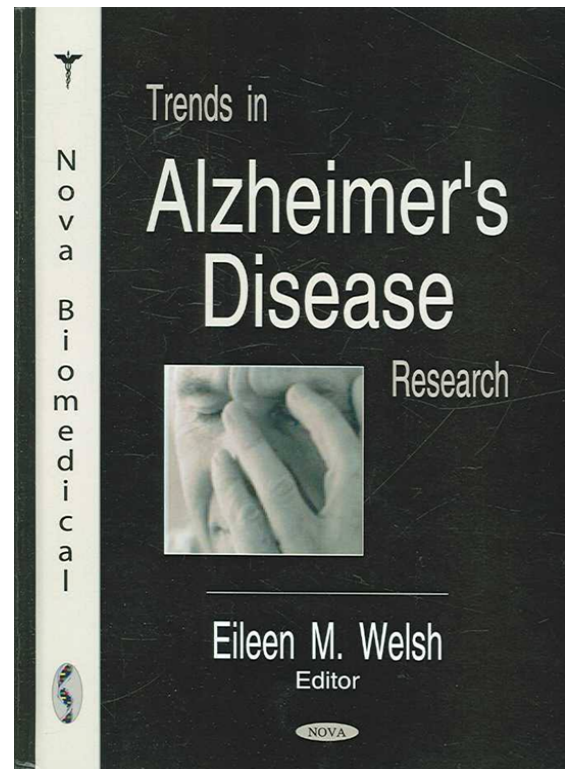
Publisher: Nova Science Publishers

Website: https://www.novapublishers.com/catalog/product_info.php?products_id=4174

Description:

Dementia is a brain disorder that seriously affects a person's ability to carry out daily activities. The most common form of dementia among older people is Alzheimer's Disease (AD), which involves the parts of the brain that control memory, thought and language. Age is the most important known risk factor for AD. The number of people with the disease doubles every 5 years beyond age 65. AD is a slow disease, starting with mild memory loss and ending with severe brain damage. The course the disease takes and how fast changes occur vary from person to person. On average, AD patients live from 8 to 10 years after they are diagnosed, though the disease can last for as many as 20 years.

Current research is aimed at understanding why AD occurs and who is at greatest risk for developing it, improving the accuracy of diagnosis and ability to identify who is at risk, developing, discovering and testing new treatments for behavioral problems in patients with AD. This new book gathers state-of-the-art research from leading scientists throughout the world which offers important information on understanding the underlying causes and discovering the most effective treatments for Alzheimer's Disease.



Understanding ageing

Author: Holliday, Robin

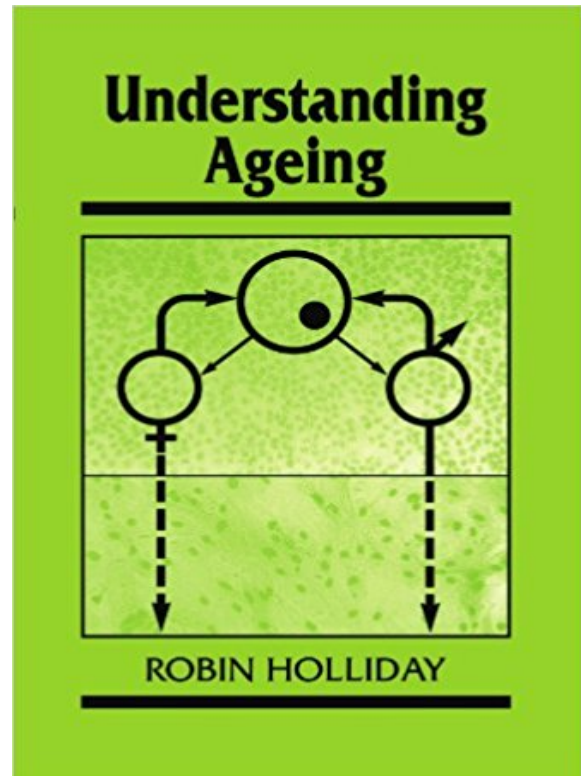
Published: 1995

Publisher: Cambridge University Press

Website: <http://www.cambridge.org/de/academic/subjects/life-sciences/cell-biology-and-developmental-biology/understanding-ageing?format=PB>

Description:

This book presents a completely novel approach to the understanding of ageing, which many believe is an unsolved problem in biology. It explains why ageing exists in animals, and reviews our understanding of it at the biological level. This includes a discussion of the origins and evolution of ageing. The book is not a review of research on ageing, but instead draws on material from a wide range of disciplines, including the very extensive biomedical information about age-related diseases in humans. Understanding Ageing argues that much research needs to be done on the cellular and molecular aspects of ageing, if the origins of these diseases are to be understood, and their prevention made possible. This thought-provoking book will appeal to all students and researchers who are interested in ageing, whether they are working in the clinical or basic research sphere.



Understanding aging and diversity: theories and concepts

Author: Kolb, Patricia

Published: 2012

Publisher: Routledge

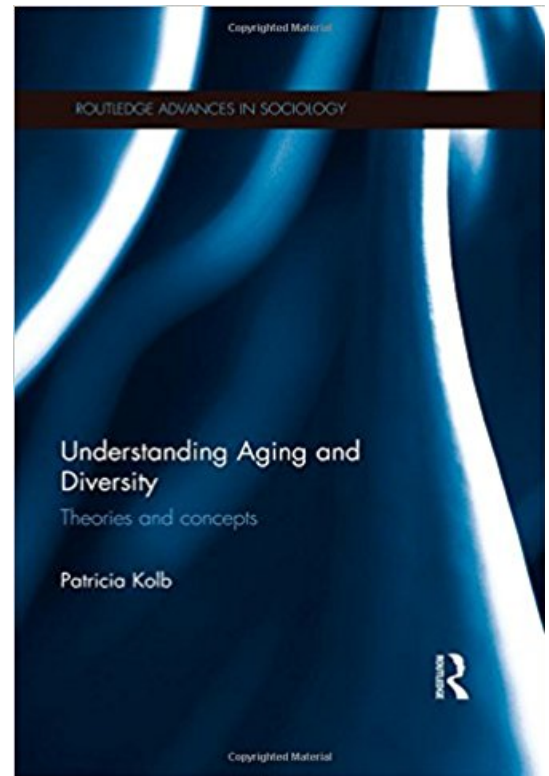
Website: <http://www.routledge.com/books/details/9780415678810/>

Description:

The demographic phenomena of increased life expectancy, increasing global population of older adults, and a larger number of older people as a proportion of the total population in nations throughout the world will affect our lives and the life of each person we know. The changes will result in challenges and benefits for societies and people of all ages. These events need to be understood, explained, and their consequences addressed; sociological theories about aging are an essential part of this process.

In *Understanding Aging and Diversity: Theories and Concepts*, Patricia Kolb presents important sociological theories and concepts for understanding experiences of older people and their families in a rapidly changing world. She explores concepts from phenomenology, critical theory, feminist theory, life course theory and gerotranscendence theory to explain important issues in the lives of older people. This book investigates similarities and differences in aging experiences, focusing in particular on the effects of inequality. Kolb examines the relationship of ethnicity, race, gender, sexual orientation and social class to international aging experiences.

This book explores the relationships between older people and social systems in different ways, and informs thinking about policy development and other strategies for enhancing the wellbeing of older adults. It will be useful for students and scholars of sociology, gerontology, social work, anthropology, economics, demography and global studies.



World Population Ageing: 2013

Author: United Nations

Published: 2014

Publisher: United Nations

Website: <http://www.un.org/en/development/desa/population/publications/ageing/WorldPopulationAgeingReport2013.shtml>

Description:

The World Population Ageing 2013 report is the fourth in a series. The first report was released in 2002 in conjunction with the Second World Assembly on Ageing. The present report, which updates the 2007 and 2009 editions, provides a description of global trends in population ageing and includes new features on the socio-economic and health aspects of ageing. This report is accompanied by an interactive database on the Profiles of Ageing 2013.

