1. Record Nr. UNINA9910135983703321

Titolo	Topics in Biomedical Gerontology / / edited by Pramod C. Rath, Ramesh Sharma, S. Prasad
Pubbl/distr/stampa	Singapore : , : Springer Singapore : , : Imprint : Springer, , 2017
ISBN	981-10-2155-4
Edizione	[1st ed. 2017.]
Descrizione fisica	1 online resource (XXI, 355 p. 77 illus.)
Disciplina	618.97 612.67
Soggetti	Geriatrics Regenerative medicine Tissue engineering Geriatric nursing Human genetics Metabolism Molecular biology Geriatrics/Gerontology Regenerative Medicine/Tissue Engineering Geriatric Care Human Genetics Metabolomics Molecular Medicine
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	1. Identification of serum sirtuins as novel non-invasive protein markers for frailty -- 2.Age-related morphological changes in the human pancreas -- 3.Changing population of neurons and glia in the human cochlear nucleus during aging -- 4.Age-related changes in the expression level of insulin-like growth factor-1 and its related signaling pathway in mice -- 5.Differential expression of arginase I and its regulation by dexamethasone in the liver of mice as a function of age -- 6.Molecular and cellular basis of memory enhancing effects ofBacopa monnieri extract on diabetes mellitus induced memory

impairment in mice -- 7.Brain aging and oxidative pathology -- 8. Antiepileptic potential of dehydroepiendrosterone (DHEA) -- 9. Curcumin attenuates memory impairment by modulating the expression of CamKII during aging -- 10.Dietary restriction, an intervention for healthy aging -- 11.Study of anti-ageing property of moringaoleifera leaves in fish brain -- 12.Alterations in the structure and function of the chromatin during aging -- 13.Postnatal exposure of PBDE-209 impairs spatial memory in young mice:Relation of glutamate and oxidant-antioxidant homeostasis in the frontal cortex and hippocampus -- 14.Differential expression of long intergenic noncoding RNA (lincRNA) in the rat brain during aging -- 15.Dietary restriction up-regulates expression and activity of cardiac and skeletal muscle inorganic pyrophosphatase in mice as a function of age -- 16. Age-related changes in rat kidney antioxidant enzymes and oxidative stress parameters with special reference to catalase promoter methylation pattern -- 17.Recovery of age-related memory loss: hopes and challenges -- 18.Electrophysiological ageing of the brain : Ageing-related impairments in neuronal and cognitive functions -- 19.Role of autophagy in life-extension using Dictyostelium discoideum as a model system -- 20.SIRT-1: An emerging target for age-related neurodegenerative diseases -- 21.Neuroinflammation and the aging brain -- 22.Expression and regulation of Pax6 in brain of aging mice -- 23.Basic tenets of Ayurvedic Gerontology -- 24.Potential use of Ashwagandha (Withania somnifera) for alleviation of old age-associated problems.

Sommario/riassunto

This book presents a collection of articles on various aspects of current research on aging. These include model systems, cellular, biochemical and molecular aspects of experimental aging research, as well as selected intervention studies on age-related diseases. Aging is a global challenge to human society. Children are always in a hurry to become adults, while adults produce offspring and add to the gene pool. However, after adulthood or the attainment of reproductive maturity, all physiological parameters of the living organism start to undergo the aging process. Old age sets in slowly but surely, and usually continues for a prolonged period. If vigor and vitality are the main advantages of adulthood, old age offers the rewards of experience and maturity. Biologists ask questions such as: Why do we age? How do we become old? Is it possible to slow down, postpone or even prevent aging? In turn, medical experts ask: What are the diseases associated with old age? Are there medicines that can help affected elderly patients? In fact both groups are asking themselves how can we add more health to old age. Healthy aging is the dream of every individual. But to achieve this, it is fundamental that we first understand the cellular, biochemical and molecular basis of the aging process in mammalian cells, tissues and intact living organisms, which can serve as experimental model systems in Biomedical Gerontology. Once the biology of aging is understood at the genetic and molecular levels, interventional approaches to aging and its associated diseases may be easier to plan and implement at the preclinical level.