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	Nota di contenuto	Evolutionary Genetic Bases of Longevity and Senescence -- Candidate Genes That Affect Aging Through Protein Homeostasis -- Autophagy and Aging -- A Genetic View of the Mitochondrial Role in Aging: Killing Us Softly -- GWAS and Meta-analysis in Aging/Longevity -- Exome and Whole Genome Sequencing in Aging and Longevity -- Models to Explore Genetics of Human Aging -- Systems Biology of Aging -- Epigenetics of Aging.
	Sommario/riassunto	The release of the complete version of the human genome sequence in 2003 has paved the way for defining gene function and genetic background for phenotypic variation in humans and allowed us to study the aging process in a new light. This new volume results from that research and focuses on the genetic and epigenetic process of aging. While the interpretation of the genome data is still in its initial stages, this new volume looks at the evolving understanding of molecular mechanisms involved in cellular processes, gene function associated

with complex traits, epigenetic components involve in gene control and the creation of hypothesis-free genome-wide approaches. Longevity Genes: A Blueprint for Aging explores the genetic and genomic elements that can maintain a long life such as DNA damage mechanisms, epigenetics and the way we can use this knowledge to generate customized treatments. It touches on some of the multidisciplinary approaches as well as genomic-wide association technology used to analyze complex traits. This book describes the hunt for genes affecting complex traits using a high throughput technology, with adequate consideration for the selection of an appropriate population, applications of statistical genetics and computational biology, and most importantly, considering phenotype-genotype association studies. Longevity Genes provides coverage of not only established aspects of genetics and aging, but also new approaches and perceptions in this important area of research.