1. Record Nr. UNINA9910337522903321 Autore Swynghedauw Bernard Titolo The Biology of Senescence: A Translational Approach / / by Bernard Swynghedauw Pubbl/distr/stampa Cham:,: Springer International Publishing:,: Imprint: Springer,, 2019 **ISBN** 3-030-15111-5 Edizione [1st ed. 2019.] Descrizione fisica 1 online resource (127 pages) Practical Issues in Geriatrics, , 2509-6060 Collana Disciplina 305.26 571.878 Soggetti Geriatrics General practice (Medicine) Human genetics Geriatrics/Gerontology General Practice / Family Medicine **Human Genetics** Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Nota di contenuto 1. Introduction -- 2. The emerging medical landscape -- 3. Origins of ageing -- 4. The senescent cell -- 5. « Benign » clinical manifestations and their relationships with the senescent cell -- 6. Age-linked non transmissible diseases -- 7. The senescent cardiovascular system -- 8. « To treat» or prevent ageing -- 9. Senescence and darwinian evolution -- 10. Conclusions -- 11. Summary -- 12. Annexes -- 13. References. Sommario/riassunto This book describes the fundamental process of senescence, and reviews a new concept developed by a number of research groups that is based on cellular senescence and its secretome. This concept provides a basic explanation of the main physiological and pathological features of senescence, and delineates possibilities for "treating" it. Following an introduction to the emerging medical landscape, the increasing incidence of a new epidemiological group (age-related "chronic non-transmissible diseases"), and the multiple origins of aging, the book explores and characterizes the senescent cell, which is linked to benign and pathological age-related manifestations. In turn,

the closing chapters discuss how to "treat" or "prevent" the aging process, underscoring the central role of physical exercise and caloric reduction as compared to new senolytic approaches. Appendices are also provided, and address circadian rhythms, telomere shortening, diabetic cardiomyopathy, and senescence in plants and bacteria. Given its scope, the book will primarily be of interest to geriatricians, but will also appeal to a wider range of clinicians.