Record Nr. UNINA9910346675103321 Autore Srivastava Hari Mohan Titolo Mathematical Analysis and Applications / Hari Mohan Srivastava Pubbl/distr/stampa MDPI - Multidisciplinary Digital Publishing Institute, 2019 Basel, Switzerland:,: MDPI,, 2019 **ISBN** 9783038974017 3038974013 Descrizione fisica 1 electronic resource (220 p.) Lingua di pubblicazione Inglese **Formato** Materiale a stampa Monografia Livello bibliografico Sommario/riassunto Investigations involving the theory and applications of mathematical analytic tools and techniques are remarkably wide-spread in many diverse areas of the mathematical, physical, chemical, engineering and statistical sciences. In this Special Issue, we invite and welcome review, expository and original research articles dealing with the recent advances in mathematical analysis and its multidisciplinary applications.

Record Nr. UNINA9910298301003321 Autore Behl Christian Titolo Cell Aging: Molecular Mechanisms and Implications for Disease / / by Christian Behl, Christine Ziegler Pubbl/distr/stampa Berlin, Heidelberg:,: Springer Berlin Heidelberg:,: Imprint: Springer, , 2014 **ISBN** 3-642-45179-9 Edizione [1st ed. 2014.] Descrizione fisica 1 online resource (113 p.) Collana SpringerBriefs in Molecular Medicine, , 2197-7925 Disciplina 571.6 Soggetti Molecular biology Cytology Pathology Molecular Medicine Cell Biology Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Note generali Description based upon print version of record. Includes bibliographical references at the end of each chapters. Nota di bibliografia Nota di contenuto Aging and cell aging: an introduction -- Cell cycle: the life cycle of a cell -- Theories and mechanisms of aging -- Selected age-related disorders. Sommario/riassunto 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.