

Book review

Aging Interventions and Therapies, Editor: Suresh I.S. Rattan; World Scientific, Singapore, 2005; pp 418; hard back; price USD85; ISBN 981256084X.

The field of biomedical gerontology is the one where several disciplines, ranging from the basic sciences to clinical interventions, are making significant contributions. This book coalesces all such experiences, as announced in the title *Aging Interventions and Therapies*, and is worth high appreciation. The editor, Suresh Rattan, is one of the foremost innovators and forward thinkers in biogerontology, and has been greatly successful in compiling this collection of 19 chapters written by some of the internationally renowned researchers and some young upcoming scientists, clinicians and philosophers.

The book moves smoothly from an existentialist-philosophical approach by a philosopher Steven Horrobin, in which ethical, social, demographic and justice themes are tackled while prompting, whatever personal position are, the awareness against what it is stated “...there are many who exist with our presently limited span who do little or nothing with their lives” (pp. 15). Skin aging, a largely evanescent if not distorted topic, is scholastically approached by J. McCullough and K. Kelly who, together with the next chapter by the Beiersdorf team (T. Blatt, H. Wenk and F. Stäb) on industrial development of skin care products, pave the way for a long-awaited scientific upgrade of this aspect and with a solid reference background. The chapter on sarcopenia (G. Lynch et al.) and possible therapeutic strategies of prevention/treatment has the merit to touch all the relevant research lines supported by extensive literature. However, it would have been better if more space had been devoted to the hormone replacement therapy (HRT) aiming beyond the debated US HRT Womens’ Health Initiative trial.

Although not presented in a consecutive fashion, the chapters on nutritional intervention (K. Kitani), antioxidants (E. Le Bourg), hor-

monal therapies (M. Thakur), micronutrient supplementation (E. Mocchegiani et al.), pineal peptides (V. Anisimov and V. Khavinson) and melatonin (A. Bhatia) are well organized and the subject matter is thoroughly discussed. In particular, the chapter by Ken Kitani on nutrition is highly engaging with an extensive discussion about unhealthy and healthy foods, and questioning at times the need of food supplements. Although the question still remains on the effective nutritional value of our daily diet which is subjected to industrial processing with crops, harvesting and storage modifications. The chapter on the modulation of the aging process by calorie restriction (B.P. Yu) is clearly approached moving from historical background to very updated areas such as mitochondrial ROS production and bioenergetics or its interpretation as a biological hormesis phenomenon. The principle and practice of hormesis as an aging intervention is tackled by the editor (S. Rattan) who is also one of the leading researchers in this field. In a relatively short chapter, he has vividly depicted the molecular mechanisms of this novel concept and its potential applicability in therapeutic interventions.

An extensive outlook on the state-of-art on clinical perspectives (A. Syngle) against major age-related diseases is offered to the reader from what it seems the product of valuable professional accumulation of knowledge, although a wider reference list would have been desirable. This is followed by a dedicated chapter on the scientific basis of Ayurvedic medical approach to aging (B. Vohra and S. Gupta) which is highly welcome, given the mist around unconventional medicine. The chapter on the current status and hopes in the treatment of Alzheimer’s disease (U. Kumar) is excellent, well-balanced and

updated. Similarly, the chapter on telomere- and telomerase-based therapies (M. Cerone et al.) and the short but very educational one on stem cells and regenerative medicine (M. Kassem) fulfill the curiosity of the dedicated reader. The above topics rewinding the theme of the book to basic science make a perfect opportunity to smoothly move to the last two chapters, one by A. de Grey on his speculations on the foreseeability of engineering human bodies with negligible senescence, and the other by J. Olshansky and B. Carnes on the evolutionary and mathematical basis for quest for immortality and the biological limitations in achieving it.

In conclusion, this book tackles a frontier medicine and has the merit to have harmoniously “cross-linked” opinion leaders in many different aspects of the field, rendering it very amenable to students, basic scientists and clinicians, and is an absolute *must* for the dedicated researchers.

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