

Oxidative Stress and Aging. R. G. Cutler, L. Packer, J. Bertram and A. Mori, eds. Birkhauser Verlag, P. B. No. 133, CH-4010, Basel, Switzerland. 1995. 396 pp. Price: US\$ 124.

I am never keen on reading a book on proceedings of a symposium or contributing an article for one such. I feel that the material therein is old, repetitive and sketchy. In most cases they reflect the author's viewpoint and in some cases a way of bypassing the stranglehold of difficult peers. The authors would be delighted to give the invited talks and participate in the discussions, but to provide a written text is another matter. It is a task for the editors to collect the articles in time. The present book had proved these beliefs wrong. The first international conference on oxidative stress and aging was held in Hawaii, USA in 1994 and this book published in the next year reflects its deliberations. The editors say that they had to select some articles out of many more received. The subject was covered well, the articles are uniformly informative and current. The most useful item in the book is the list of references including the titles, mostly from the last 10 years indicative of the novelty and burst of activity of the field.

The 35 articles are grouped in related areas under the following titles:

oxidative stress and cellular senescence, genetic stability and damage, DNA repair genetics and life span, protein and lipid oxidation, mitochondria, age-related diseases and cancer, neuro-degeneration, nutrition, nitric oxide. Two introductory articles by two of the editors gave a preview of the two parts, oxidative stress and aging. These are recommended for study to get an idea of the status of this field of study. The articles covered too many subjects such as apoptosis, vascular smooth muscle cell proliferation, DNA damage and repair, poly ADP-ribose polymerase, muscle damage, diabetes, carcinogenesis, Parkinson's disease, dietary antioxidants and reactive oxygen species including nitric oxide. The articles provide frontier information on the current research activities focussing on the free radical theory of aging. The recent findings would have found a place in one or the other article. Thus I believe this book will be of value for the workers in the field and those who want to be initiated.

I have noticed band-wagon spirit had set in already. Beliefs are overtaking experiments and form the basis of theories, mostly correct albeit some unproven. Some examples are NAD-depletion cause of cell death, superoxide radical 'damaging in itself', 'most destructive process initiated by hydroxyl radicals is lipid peroxidation', 'longevity determi-

nant processes', importance of cellular GSH and vitamin E as antioxidants, cellular damage of macromolecules inevitable, SOD, catalase and glutathione oxidase are antioxidant enzymes, life-span proportional by their cellular concentration (given on cover illustration), contradictory reports on anti-cancer effect β -carotene, dietary restriction prolongs life, tea-polyphenols powerful antioxidants.

On such articles and books, I look for illustrations that unify information from many publications, catch the eye and leave a strong impression. In this I was disappointed. Some of these, eg. pages 31 and 102, do not convey the message and the one before the preface page lists all the 'actors' but not the 'action'. The block on 'hydrogen peroxide removal' on page 3 has unbalanced equations – H_2O could have been shown as a product for glutathione peroxidase and O_2 should not have been shown as a substrate for catalase. I also found that summaries are printed in a very small print almost unreadable. Notwithstanding these, I recommend this book to those workers interested in the field of oxidant stress.

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