

Book Review

Redox–Genome Interactions in Health and Disease

J. Fuchs, M. Podda and L. Packer (Eds) Marcel Dekker, New York, 2003

This is volume 11 in the series *Oxidative Stress and Disease*, and it maintains the high quality of its predecessors. It deals with two main topics, cellular redox regulation and oxidative stress in diseases of genetic origin. After an excellent introduction by the editors, well-written chapters by expert authors deal with how to measure redox state (with a special focus on cyclic voltammetry), thiol-disulphide exchange, thioredoxin, redox regulation of signal transduction and gene expression, the role of reactive species in facilitating (or in some cases, preventing!) apoptosis, mitochondrial free radical production in relation to ageing, oxidative DNA damage, redox state in carcinogenesis, and how genetic variations affect antioxidant defence enzymes and oxidative stress.

Diseases considered in the second part of the book include mitochondrial DNA mutations, cystic fibrosis, iron overload (haemochromatosis, thalassaemia), sickle-cell anaemia, cataract, macular degeneration, retinitis pigmentosa, Downs syndrome, Alzheimer's disease, Huntington's disease, motor neurone disease, colon carcinoma, diabetes, hypertension, atherosclerosis, and rheumatoid arthritis. The book ends with an adequate, but not totally-comprehensive, index.

Overall, this is an excellent book. I recommend it strongly.

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