

probably most interesting for biochemists but at the same time it appears rather superficial.

In the subsequent chapters factors predisposing to septic shock, such as age, genetic background and cytokine polymorphism are discussed, and Cavaillon describes various methods of cytokine measurements and their limited usefulness in the clinic. It is not quite clear why a separate section on the cytokine action in septic shock has been created because it contains rather unrelated chapters on nitric oxide, neutrophil aggregation, apoptosis and malnutrition. At the same time a synthetic overview of this problem is lacking.

In the last section of the book several authors (Zabel and Bahrami, Creery and Marshall) convincingly demonstrate that all methods used so far to inhibit synthesis of cytokines and reduce the symptoms septic shock are not efficient in the preclinical and clinical trials. The role of neutral-

ising antibodies to TNF- $\alpha$  and receptor constructs are discussed by Abraham, while potentials of gene therapy are reviewed by Rogy.

Despite some critical remarks of the reviewer it can be stated that the monograph represents not a haphazard accumulation of individual papers, as it sometimes happens, but a concise presentation of the problems by specialists. The subject will make interesting reading for researchers in biomedicine (immunology, cell biology) and for clinicians, especially from the field of critical care medicine. Although the progress in research on the mechanism of induction and action of cytokines is extremely fast, and thus textbook knowledge becomes quickly obsolete, the monograph "Cytokines in Severe Sepsis and Septic Shock" can be safely recommended to the readers because of its original contents.

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**Metallothionein IV, C.D. Klassen, ed., BirkhSigmauser Verlag, Basel, Boston, Berlin, 1999.**

Metallothioneins constitute the family of very exciting and biologically important proteins, essential for metal homeostasis. The recent developments both in biological and physico-chemical research on metallothioneins are impressive and require frequent updating. Thus, the articles collected by Curtis Klaassen after the 4th International Meeting (MT-97) in Kansas City and published in the book *Metallothionein IV* are of very high importance for those interested in the field of metallothioneins, bioinorganic chemistry, toxicology and related disciplines. The volume contains the results of the most recent works of most of the leading laboratories in the field. The articles are collected in eleven chapters starting from the one discussing nomenclature and structure, through analytical chemistry, transcription factors, brain diseases, oxidative stress, carcinogenesis, ending with the use of MT as biomarkers. Besides basic information, the most intriguing discussions concern transcription factors, roles of MT in copper metabolism, carcinogenesis and use of MT in diagnostics. The latter subject, although treated shortly and not at a sophisticated level, has a very high potential for the near future. Another future field of study, whose rele-

vance is emerging from the book, is the mechanism of metal exchange in MT. MT may have on one hand a critical impact on the anticancer drug resistance, on the other hand it may play an important role in cancer therapy by metal species. This is discussed thoroughly in the book. Also such topics like oxidative stress, so important in many pathologies, metal toxicology and ageing are presented well in the chapter "Role of metallothionein in oxidative stress."

Novel roles for MT are being found continuously, like those in the regulation of hormonal activity, male reproductive function and pregnancy. The main feature of MT, the protection against metals and radical-inducing chemicals is of course the major subject discussed in its various aspects through the whole book. In this field, relationships between MT and mitochondria, or the direct protection of DNA from oxidative damage by MT were reported, among others. It is impossible to present details of the book in a review, but some highlights given above should hopefully give an idea how important is *Metallothionein IV*.

This book has, however, some editorial defects. There is no authors index (although an alphabetical list of authors with their addresses is in-

cluded) and the subject index is poor. When trying to find a particular name or subject one needs patience and time. This is especially clear when one realises that the book has more than 640 pages and likely the same number of subjects treated. Unfortunately, the poor indexes are com-

mon for the books published after the conferences, so the latter comments are of a more general relevance.

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**Fatty acids and inflammatory skin diseases, J.-M. Schroder (ed.) Progress in Inflammation Research (PIR), Birkhauser Verlag, Basel, 1999, 177 pp., ISBN 3-7643-5847-5**

The book on the role of fatty acids in inflammatory skin diseases appears as one of the PIR series; four other devoted rather to the medical aspects of this problem have been published under the titles:

- "Medicinal fatty acids in inflammation", Kremer, J.M., eds., 1998, 154 pp.;
- "Chemokines and skin", Kownatzki, E., Norgauer, J., eds., 1998, 140 pp.;
- "Cytokines in severe sepsis and septic shock", Rede, H., Schlag, G., eds., 1998, approx. 300 pp.;
- "Inducible enzymes in the inflammatory response", Willoughby, D.A., Tomlison, A., eds., 1998, approx. 200 pp.

Those five books form a compendium of our recent knowledge on the inflammatory processes. I presume that the biochemists collaborating with hospitals would like to have all of them on their hand-shelf. In the reviewed book biosynthesis of fatty acids in the skin cells is presented together with their further modifications by metabolic enzymes and the oxidative burst induced by inflammations. An interesting hypothesis on transcellular leukotriene synthesis is presented in Fig. 6 (p. 24 and adjacent page). This hypothesis, sub-

stantiated by experimental data of other workers evoke our understanding about fatty acid products as signaling molecules. One chapter is devoted to the role of eicosanoids in psoriasis and atopic dermatitis and reflects the state of art: a lot of experimental data which do not lead to disclosing the complex chain of consecutive reactions. In contrast, the chapter "Modulation of inflammatory and hyper-proliferating processes" written by a nestor, V.A. Ziboh, is an excellent review with a clear idea and stimulating hypothesis. The chapter "Strategies for the analysis of fatty acid mediators of inflammation" could be very useful for the analytical researcher.

The book includes many chemical formulas of the presented compounds and schemes of reactions which facilitate understanding and are very helpful in the search for pertinent data.

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