**Book review**


All cells have an innate response to physiological stress which results in the rapid synthesis of protective molecules termed heat shock or stress proteins. In the past 10 years, the heat shock response has figured prominently in the medical literature. A dominating concept has been that phylogenetic conservation of the highly immunogenic stress proteins leads to an inability of the immune system to discriminate between self and foreign antigens, thereby inducing immune mediated diseases ('autoimmunity'). Consequently, Stress proteins in medicine has a strong immunological bias. Moreover, as early investigations were carried out in arthritis, it is perhaps not surprising that almost one quarter of the chapters are dedicated to rheumatological diseases. However, the complexities of this rapidly expanding field are exemplified by the fact that, in the 36 chapters of this book, although reference lists are extensive, there is remarkably little overlap.

Structurally, the book has four sections. The first comprises five excellent introductory reviews on the classification, biochemistry, and immunopathogenicity of the stress proteins. There is excusable editorial indulgence, with a chapter dedicated to experimental arthritis! A second section of 15 chapters covers 'specific immune responses' to stress proteins. Here, the rheumatological bias is strong, with chapters on rheumatoid arthritis, juvenile chronic arthritis, systemic lupus erythematosus, Lyme disease and Behçet's disease. Nevertheless, infection, transplantation, infertility, and oncogenicity are explored, in addition to diabetes, Crohn's disease, and multiple sclerosis. The third section concentrates on involvement by association (stress protein expression in diseased tissue). Clinical conditions covered include asthma, cardiovascular and neuromuscular diseases, and gastroenteropathies. There is some overlap with Section 2. Despite its rather clumsy title of 'Stress proteins and interactions with proteins or cells in immunity', the last section, comprising the final four chapters of this book, describes immune recognition of stress proteins and innovative approaches to treatment.

Overall, this book provides a comprehensive overview of the association of stress proteins with disease and will prove a useful manual. All contributors are renowned experts in their particular specialties. Individual chapters are distinct in themselves and therefore can be studied in isolation; content and length are extremely variable, reflecting the extent of investigative research within different fields. As a result, the chapters have no specific format, which some may find irritating, though cross referencing, often a source of annoyance, is avoided. Indexing is adequate. To a certain extent, the title rather overstates the content, as the book concentrates almost exclusively on the hsp60 and hsp70 families; stress proteins other than the molecular chaperones are mentioned only briefly or in review. Moreover, the strong immunological bias is not immediately apparent.

The editors intend the book as a ... 'useful resource for readers as diverse as medical doctors, pathologists, cell biologists, immunologists, microbiologists' ... and certainly, as a reference work, there is much to delight. Although other books on stress proteins are available, many of these cover only biochemical aspects, or represent meeting reports. A major problem with compilations in a rapidly evolving field is that they are so outdated. Here, the editors have achieved a healthy balance between historical background, factual knowledge and informed conjecture. However, the rather high price of the book may deter a mildly interested or diverse readership.

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Stress proteins in medicine

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