

been doused somewhat by recent evidence that genetically engineered human insulin is associated with an impaired recognition of hypoglycaemia.

Although this book gives broad coverage, an important therapeutic area not mentioned is that of the renin-angiotensin system. Some of the peptide analogues of angiotensin II are potent receptor antagonists and would have had great potential as pharmaceuticals but for their poor pharmacokinetic characteristics and unwanted pharmacological effects. Many of the shortcomings of these peptides have been overcome by the more traditional approach of designing and synthesising small drug molecules. A further omission relates to the use of transgenic

cattle, sheep and goats to produce human proteins in their milk. This process, termed 'pharming', is at the experimental stage and offers considerable potential for the large scale production of these pharmaceuticals.

Despite these criticisms, the book represents a useful introduction to polypeptide and protein drugs. It is up to date (many 1990 references), attractively presented and well illustrated. Although I suspect some of the chapters will contain too much technical detail for the more general reader, many pharmaceutical scientists will find it a valuable addition to their libraries.

M.S. Lennard

Biological Oxidation of Nitrogen in Organic Molecules — Progress in Pharmacology and Clinical Pharmacology, Volume 8, No. 3; Edited by P. Hlavica and L.A. Damani; Gustav Fischer Verlag; Stuttgart/New York, 1991; x + 351 pages; DM179.00

Study of a nitrogenous chemical, namely 2-acetylaminofluorene, by the Weisburgers some two decades ago led to the appreciation of the role of the metabolism in the manifestation of toxicity/carcinogenicity, and interest in these compounds has not subsided. On the contrary, the discovery of various carcinogenic heterocyclic amines in food, being formed during the process of cooking, sparked new world-wide interest in the metabolism and toxicology of these compounds.

The book comprises the Proceedings of an International Symposium held in Munich in September, 1989 and constitutes the 3rd part of the 8th volume in the series 'Progress in Pharmacology and Clinical Pharmacology'. There are more than thirty contributions, primarily by scientists from academia, divided into three sections. The first deals with the occurrence and analytical techniques used in the determination of *N*-oxidised metabolites, ranging from TLC to NMR spectroscopy. The enzyme systems catalysing *N*-oxidation are the subject of the second section. It is

quite refreshing to see so much emphasis being given to the flavin monooxygenase system, frequently outshone by its more illustrious neighbour, the cytochromes P-450 which, surprisingly are largely ignored in this book despite being the most important oxidases mediating the metabolic activation of most carcinogenic nitrogenous chemicals, a regrettable omission. The final section is concerned with the toxicological consequences of phase I and II metabolism of these compounds *in vivo* and *in vitro*, and the molecular mechanisms leading to cell toxicity.

Despite being a multi-author effort, the editors ensured that the style is uniform throughout, each chapter is preceded by a summary, and an invaluable attribute is the inclusion of the chemical structures of the substrates in question, enabling the reader to obtain maximum benefit. Overall, an informative and up-to-date book, excellently illustrated and immaculately presented that will grace any bookshelf, large or small.

C. Ioannides

Immunodiagnosis of Cancer, 2nd Edition Immunology Series, Volume 53; Edited by R.B. Herberman and D.W. Mercer; Marcel Dekker; New York, 1990; xxiv + 712 pages; \$180.00

This rather weighty tome, running to 712 pages, has undergone a radical metamorphosis since the first edition was published a little over ten years ago. This reflects the many advances we have made in understanding the underlying cell biology of the malignant process. The rapid evolution of immunodiagnostic methods in the detection and characterization of cancer has also contributed profoundly to this change. Back in 1979, monoclonal antibodies were still little more than interesting research tools which had yet to make the strategic leap to become the backbone of many modern diagnostic assays. With 39 chapters contributed by as many individuals/groups it must have been a Herculean task for the editors to ensure dead-lines were met. For this they have my undying admiration as I know only too well how difficult it can be to ensure contributors meet deadlines. The invention of the

fax machine has exacerbated this problem, since many an editor has received illegible eleventh hour drafts from authors, who now feeling they have done their duty under perceived considerable editorial duress, disappear into research laboratories or on extending vacations beyond the reach of normal communication channels.

In general terms the book is well balanced with the initial five chapters covering experimental designs, focusing on areas such as predictive value of tests and their statistical analysis. This section provides a thorough theoretical grounding to the diagnostic tests that so many of us use on a routine basis. Chapters six to fourteen deal with the basis of diagnostic methodology with the aim of giving the reader an insight into the underlying 'chemistry' of immunodiagnostic tests. This topic is largely dealt with on a

Clinical pharmacology is the science of drugs in humans and their optimal clinical use in patients. It is underpinned by the basic science of pharmacology, with an added focus on the application of pharmacological principles and quantitative methods in the real human patient's population. It has a broad scope, from the discovery of new target molecules to the effects of drug usage in whole populations. Edited by W. Fleischhaker and D. Brooks. Springer Verlag: Berlin, 2003. Pages 117. ISBN: 3-211-83903-8. Price ??89 | Find, read and cite all the research you need on ResearchGate.Â H. and Pathologists in eight countries. Second edition1991. Springer-Verlag: Berlin. ISBN 3 540 53880 1. Price Soft cover DM94.00. - Volume 106 Issue 1 - John Booth. Read more. Article.