interest, but whether the specific example(s) described in each instance provide a case for more general applicability only time will show. Certainly in some instances one wonders to what extent the favourable properties of the particular system may give a false sense of optimism, although this caveat is specifically recognised in most cases.

It is clear then that in many areas this book overlaps with the volume on adrenergic receptor binding by Williams and Lefkowitz. However a wider area is covered in respect both to the neurotransmitters considered and also to the applications of the binding approach. As a guide to the uses, interpretation and pitfalls of receptor binding analysis I prefer the book by Williams and Lefkowitz, although the wider perspective given by consideration of other neurotransmitters and other approaches is missing. In many respects therefore the two books are complementary and both should be available to biochemists interested in this approach to receptor studies.

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Progress in Drug Metabolism: Volume 3

Edited by J. W. Bridges and L. F. Chasseaud
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x + 372 pages. £19.25

This series is intended to provide comprehensive, up-to-date and critical accounts of various aspects of the biological fate of drugs and xenobiotics. The third volume, which contains six reviews of a wide range of topics, admirably fulfils these intentions.

Three of the reviews concern aspects of methodology, namely: the use of high pressure liquid chromatography in pesticide analysis, the analysis of drugs in biological fluids and applications of nuclear magnetic spectroscopy. In each case the basic principles and limitations of the techniques are explained clearly and simply and their applications described. For high pressure liquid chromatography an extensive and detailed account of its application to the analysis of a wide range of pesticides has been compiled. The use of nuclear magnetic resonance spectroscopy in the identification of drug metabolites is discussed and it is shown how appropriate modern techniques often enable structures to be assigned to small quantities of metabolites. In the article on the analysis of drugs in biological fluids the authors demonstrate that there is an urgent need not so much for new methods as for a rational approach to the selection and validation of methods.

Three biochemical aspects of drug metabolism are also surveyed in this volume. Current information on the biotransformation of xenobiotics is presented and it is shown how this is being applied to the design of insecticides and the way in which metabolic studies can be extended to model ecosystems. There is a detailed account of the metabolic fate of synthetic pyrethroid insecticides in mammals. This includes a discussion of the development of compounds which are more rapidly detoxified in animals than in insects and have enhanced selective toxicity. Finally the biochemistry and distribution of expoxide hydratase in different tissues and animal species is described. This enzyme controls concentrations of mutagenic expoxide metabolites of polycyclic aromatic hydrocarbons in vitro and current approaches to establishing its role in vivo are discussed.

These reviews are approachable, informative and critical and should be of interest to students, specialists and those with a general interest in problems of drug metabolism and toxicity.

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