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Book Review

Cytochrome P450

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This book is volume 105 of the Handbook of Experimental Pharmacology series. In their preface the editors state that their aim in producing this volume has been to provide as near as possible an all-encompassing compendium of the latest information on the many different aspects of the cytochrome P450 monooxygenase system. They have admirably achieved this aim; they have gathered together experts on cytochrome P450 of the many different phyla, mammalian species, and subcellular organelles studied, in order to allow comparison of all the different types of cytochrome P450 that exist. Further, in recognition of the great diversity of roles of cytochrome P450, they have included coverage of the biosynthetic forms as well as the xenobiotic metabolising forms of the cytochrome. They have also covered the tissue-specific forms of cytochrome P450. The volume also recognises the development of an unambiguous nomenclature system with which to identify the individual forms of cytochrome P450.

The 47 chapters of the book are divided into six sections: I. The Monooxygenase System: II. The Monooxygenase Reactions: III. Forms of Microsomal P450; IV. Modulation of Cytochrome

P450 Levels: V. Chemical Modification, Protein-Protein and Protein-Lipid Interaction: and VI. Biosynthetic Forms of Cytochrome P450. There are 78 international authors of the chapters and collectively they have compiled a unique volume which traces the history of cytochrome P450 from the early studies of R.T. Williams and B.B. Brodie in the late 1940s, through the isolation and reconstitution of a cytochrome P450 monooxygenase system by Lu and Coon in 1968, to current interest in the pivotal role of these enzyme systems in human and animal metabolism of therapeutic agents and their interactions with each other.

It is a weighty book, in information and knowledge, not in size. Each chapter is extensively referenced to the literature and there is a subject index. It is a book for the research worker in the field and for the post-graduate student who wishes to find out more specific detail about the ubiquitous P450 systems.

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