Drug Metabolism and Disposition:
the biological fate of chemicals

May 1996

CONTENTS

LETTERS TO THE EDITOR
Relevance of Routine Tissue Distribution Studies for Human Drugs. A. M. Monro ........................................... 507
Corpora Non Agunt Nisi in Loco. W. E. Stumpf ................. 507
Relevance of Routine Tissue Distribution Studies for Human Drugs: A Response. K. Yeleswaram ...................... 508

ARTICLES
Characterization of Microsomal Cytochrome P450 Enzymes Involved in the Oxidation of Xenobiotic Chemicals in Human Fetal Livers and Adult Lungs. Tsutomo Shimada, Hiroshi Yamazaki, Mayumi Mihira, Nobutaka Wakamiya, Yune-Fang Ueng, F. Peter Guengerich, and Yukiharu Inu ............ 515

The Aliphatic Oxidation of Salmeterol to α-Hydroxy-salmeterol in Human Liver Microsomes Is Catalyzed by CYP3A. Gary R. Manchee, Peter J. Eddershaw, Lisa E. Ranshaw, Deborah Herriot, Gilbert R. Park, Martin K. Bayliss, and Michael H. Tarbit .................................................. 555
Disposition of Valpromide, Valproic Acid, and Val- noctamide in the Brain, Liver, Plasma, and Urine of Rats. Simcha Blotnik, Felix Bergman, and Meir Bialer .......................................................... 560
Fate of 4'-Epiacetylamino-4'-deoxyavermectin B1 in Rats. Zhaojie Zeng, Nicholas W. Andrew, Marilyn L. Green-Erwin, and Bruce A. Halley ................... 572
P,P'-Dichlorodiphenyl Sulfone Metabolism and Disposition in Rats. James M. Mathews, Sherry L. Black, and H. B. Matthews ................................................... 579

Continued on next page

DRUG METABOLISM AND DISPOSITION (DMD/ISSN 0090-9556) is an official publication of The American Society for Pharmacology and Experimental Therapeutics and is published monthly beginning in January 1995 by Williams & Wilkins, 351 West Camden Street, Baltimore, MD 21201-2436. Second class postage paid at Baltimore, MD and at additional mailing offices. POSTMASTER: send address changes to DRUG METABOLISM AND DISPOSITION, 351 West Camden Street, Baltimore, MD 21201-2436. Subscription Rates: U.S.: Personal $90.00; Institutional $150.00; Single copy $24.00. Outside the U.S., except Japan: Personal $115.00; Institutional $175.00; Single copy $28.00. Foreign postage prices exclude Japan. See Information for Subscribers for detailed instructions. The GST Tax Number for Canadian subscribers is 12394371. Country of origin USA. PRICES ARE SUBJECT TO CHANGE. Indexed by Index Medicus, Current Contents (Life Sciences), Excerpta Medica, Reference Update/Research Information Systems, and BioSciences Information Service. Copyright © 1996 by the American Society for Pharmacology and Experimental Therapeutics.
Contents (cont’d.)

17β-Estradiol Metabolism by Hamster Hepatic Microsomes: Implications for the Catechol-O-methyl Transferase-Mediated Detoxication of Catechol Estrogens. Michael Butterworth, Serrine S. Lau, and Terrence J. Monks ........ 588

3-Hydroxymethylcholanthrene: Metabolic Formation from 3-Methylcholanthrene and Stereoselective Metabolism by Rat Liver Microsomes. Magang Shou and Shen K. Yang ................. 595

Characterization of the Cytochrome P450 Enzymes Involved in the in Vitro Metabolism of Dolasetron: Comparison with Other Indole-Containing 5-HT3 Antagonists. Patricia Sanwald, Murielle David, and James Dow .............. 602


SHORT COMMUNICATION

Hepatic Drug-Metabolizing Activities in Rats after 14 Days of Oral Administration of the Human Immunodeficiency Virus-Type 1 Protease Inhibitor Ritonavir (ABT-538). Gondi N. Kumar, Brian Grabowski, Ronald Lee, and Jon F. Denisien .................. 615