Drug Metabolism and Disposition: the biological fate of chemicals

October 1995 Vol. 23, No. 10

CONTENTS

LETTER TO THE EDITOR
Use of Gender and Oxygenation as Synonyms for Sex and Oxidation. STANLEY VICKERS ................................ 1007

REVIEW
Species Similarities and Differences in Pharmacokinetics. JIUNN H. LIN ............................................. 1008

ARTICLES
Interindividual Variation in Carboxylesterase Levels in Human Liver Microsomes. MASAKIYO HOSOKAWA, TAKAHIKO ENDO, MASAE FUJISAWA, SHUICHI HARA, NOBUHISA IWATA, YOSHINOBU SATO, and TETSUO SATOH ........................................... 1022


Human Liver Lauric Acid Hydroxylase Activities. PAMELA J. CASTLE, JAMES L. MERDINK, JANICE RICE OKITA, STEVEN A. WRIGHTON, and RICHARD T. OKITA ........................................................ 1037

Renal Catabolism of Recombinant Human Soluble CD4 after Intravenous Administration to Male Sprague-Dawley Rats. TIMOTHY W. HEPBURN, CHARLES B. DAVIS, JAMES J. URBANSKI, BRIAN R. SMITH, WILLIAM H. SCHAEFER, MICHAEL A. CARBONARO, and PETER J. BUGELSKI ........................................... 1044

Metabolism of Mofarotene in Hepatocytes and Liver Microsomes from Different Species: Comparison with in Vivo Data and Evaluation of the Cytochrome P450 Isoenzymes Involved in Human Biotransformation. B. VALLES, C. D. SCHILLER, P. COASSOLO, G. DE SOUSA, R. WYSS, D. JAECK, A. VIGER-CHOUXNET, and R. RAHMANI ........................................... 1051

Xenopus laevis: A Model System for the Study of Embryonic Retinoid Metabolism: III. Isomerization and Metabolism of All-trans-retinoic Acid and 9-cis-Retinoic Acid and Their Dysmorphogenic Effects in Embryos during Neurulation. JOAN CREECH KRAFT and MONT R. JUCHAU ........................................... 1058

Microdialysis Sampling for Hepatic Metabolism Studies: Impact of Microdialysis Probe Design and Implantation Technique on Liver Tissue. MALONNE I. DAVIES and CRAIG E. LUNTE ........................................... 1072

Human Breast Adenocarcinoma MCF-7/0 Cells Electroporated with Cytosolic Class 3 Alddehyde Dehydrogenases Obtained from Tumor Cells and a Normal Tissue Exhibit Differential Sensitivity to Mafosfamide. LAKSHIMAIAH SREEKUMAR and NORMAN E. SLADEK ........................................... 1080


Minimal Effects of Two Aldose Reductase Inhibitors, AL-1576 and AL-4114, after Subacute Topical- Ocular Dosing on Xenobiotic Biotransformation in Rabbits. SUNITA G. SASTRY, RUTH A. SANDERS, JAMES C. VELTMAN, and JOHN B. WATKINS III ........................................... 1094

Steroselective Disposition of Naproxen Glucuronide in the Rat. MASAHIRO IWAKI, ALFRED BISCHER, ANN C. NGUYEN, ANTONY F. MCDONAGH, and LESLIE Z. BENET ........................................... 1099

Continued on next page
Contents (cont'd.)

Disposition of DMP 811 (L-708,404), a Potent Angiotensin II Receptor Antagonist, in the Rat, Monkey, and Chimpanzee. Kanyin E. Zhang and Kamlesh P. Vyas ................................................ 1104


Metabolism and Pharmacokinetics of N\(^{\text{1}},N^{\text{11}}\)-Diethylnorspermine. Raymond J. Bergeron, William R. Weimar, Gabriel Lucchetta, Richard R. Streiff, Jan Wiegand, John Perrin, Katherine M. Schreier, Carl Porter, Guo Wei Yao, and Hristina Dimova ........................................ 1117

Identification of Human Cytochrome P450 Isozymes Responsible for the in Vitro Oxidative Metabolism of Finasteride. Su-er W. Huskey, Dennis C. Dean, Randall R. Miller, Gary H. Rasmusson, and Shu-et-Hing Lee Chiu ................. 1126

Metabolism as a Determinant of Species Susceptibility to 2,3,5-(Triglutathion-S-yl)hydroquinone-Mediated Nephrotoxicity: The Role of N-Acetylation and N-Deacetylation. Serrine S. Lau, Heather E. Kleiner, and Terrence J. Monks ............. 1136

In Vitro Hepatic Metabolism of ABT-418 in Chimpanzee (Pan troglodytes): A Unique Pattern of Microsomal Flavin-Containing Monooxygenase-Dependent Stereoselective N'-Oxidation. A. David Rodrigues, Michael J. Kukulka, James L. Ferrero, and John R. Cashman .... 1143


SHORT COMMUNICATIONS

Determination of Nicotine Metabolites in Rat Brain after Peripheral Radiolabeled Nicotine Administration: Detection of Nornicotine. Peter A. Crooks, Min Li, and Linda P. Dwoskin .... 1175

Influence of Lipophilicity on the Bioavailability and Disposition of Orally Active 3-Hydroxypyridin-4-one Metal Chelators. Robert A. Yokel, Andrea M. Fredenburg, Kathryn A. Meurer, and Thomas L. Skinner ........ 1178