Drug Metabolism and Disposition: the biological fate of chemicals

November 1996 Vol. 24, No. 11

CONTENTS

ARTICLES

Identification of 2,6-Xylyidine as a Major Lidocaine Metabolite in Human Liver Slices. R. J. PARKER, J. M. COLLINS, AND J. M. STRONG ... 1167

Metabolism of Lisofylline and Pentoxifylline in Human Liver Microsomes and Cytosol. JAMES A. LILLBRIDGE, THOMAS F. KALHORN, AND JOHN T. SLATTERY ... 1174

Improved Bacterial Expression of the Human P Form Phenolsulfotransferase: Applications to Drug Metabolism. AMY J. LEWIS, MARGARET M. KELLY, U. KRISTINA WALLE, E. ALISON EATON, CHARLES N. FALANY, AND THOMAS WALLE ... 1180

Purification and Characterization of Rhesus Monkey Liver Amidolactase and Their Roles in the Metabolic Polymorphism for E6123, a Platelet-Activating Factor Receptor Antagonist. KAZUTOMI KUSANO, TAKAYUKI SEKO, SHIGERU TANAKA, YASUSHI SHIKATA, TOMOMI ANDO, SATOSHI IDA, MASAKIYO HOSOKAWA, TETSUO SATOH, TERUAKI YUZUI, AND TORU HORE ... 1186

Acetaminophen-Induced Hepatotoxicity: Analysis of Total Covalent Binding vs. Specific Binding to Cysteine. ANTHONY M. MATTHEWS, DEAN W. ROBERTS, JACK A. HINSON, AND NEIL R. PUMFORD ... 1192

Regulation of Cytochrome P450 Expression by Inhibitors of Hydroxymethylglutaryl-Coenzyme A Reductase in Primary Cultured Rat Hepatocytes and in Rat Liver. THOMAS A. KOCAREK AND ANITA B. REDDY ... 1197

Pharmacokinetics and Metabolism in Rats of 2,4-Diamino-6-Benzoxo-5-Nitrosopyrimidine, an Inactivator of O-Alkylguanine-DNA Alkyltransferase. SANDEE K. ROY, ROBERT C. MOSCHEL, AND M. EILEEN DOLAN ... 1205

Role of Human Cytochrome P4502A6 in C-Oxidation of Nicotine. MIKI NAKAJIMA, TOSHINORI YAMAMOTO, KEN-ICHI NUNOYA, TSUYOSHI YOKOI, KAZUO NAGASHIMA, KAZUO INOUE, YOSHINIKO FUNAE, NORIAKI SHIMADA, TETSUYA KAMATAKI, AND YUKIO KUROIWA ... 1212

Cryopreservation of Rat and Mouse Hepatocytes: I. Comparative Viability Studies. NICOLA J. SWALES, CHAN LUONG, AND JOHN CALDWELL ... 1218

Cryopreservation of Rat and Mouse Hepatocytes: II. Assessment of Metabolic Capacity Using Testosterone Metabolism. NICOLA J. SWALES, TOM JOHNSON, AND JOHN CALDWELL ... 1224

Metabolism and Excretion of Trovafloxacin, a New Quinolone Antibiotic, in Sprague-Dawley Rats and Beagle Dogs: Effect of Bile Duct Cannulation on Excretion Pathways. DEEPAK K. DALVIE, NATASHA B. KHOSLA, KIMBERLY A. NAVETTA, AND KATHERINE E. BRIGHTY ... 1231

Pharmacokinetics and Steady-State Tissue Distribution of L- and D-Isomers of Nitroarginine in Rats. MOHAMMAD A. TABRIZI-FARD AND HO-LEUNG FUNG ... 1241

Formation of a Metabolic Intermediate Complex of Cytochrome P4502B1 by Clorgyline. UMA SHARMA, ELIZABETH S. ROBERTS, AND PAUL F. HOLLRENBERG ... 1247

Continued on next page
Role of Cytochrome P450 in Oxazaphosphorine Metabolism: Deactivation via N-Dechloroethylation and Activation via 4-Hydroxylation Catalyzed by Distinct Subsets of Rat Liver Cytochromes P450.
LI YU AND DAVID J. WAXMAN .............. 1254

Species and Organ Differences in First-Pass Metabolism of the Ester Prodrug L-751,164 in Dogs and Monkeys: In Vivo and In Vitro Studies.
THOMAYANT PRUEKSARITANONT, LYNN M. GORHAM, JOAN D. ELLIS, CARMEN FERNANDEZ-METZLER, POLLY DELUNA, JOHN R. GEHRET, KRISTIE L. STRONG, JEROME H. HOCHMAN, BEN C. ASKEW, MARK E. DUGGAN, JOHN D. GILBERT, JIUNN H. LIN, AND KAMLESH P. VYAS .............. 1263

SHORT COMMUNICATIONS

Structural Identification of Three Metabolites and a Degradation Product of the Macrolide Immunosuppressant Sirolimus (Rapamycin) by Electrospray-MS/MS after Incubation with Human Liver Microsomes. FRANK STREIT, UWE CHRISTIANS, HANS-MARTIN SCHEBEL, ANKE MEYER, AND KARL-FRIEDRICH SEWING .............. 1272

Excretion of Oral 9-Cis-Retinoic Acid in the Rat.
BEATRICE DISDIER, HOT BUN, MICHEL PLACIDI, AND ALAIN DURAND .............. 1279

Dithionite-Supported Hydroxylation of Palmitic Acid by Cytochrome P450BM-3. XIAOJUN FANG AND JAMES R. HALPERT .............. 1282