

Drug Metabolism and Disposition: the biological fate of chemicals

March 1996

Vol. 24, No. 3

CONTENTS

ARTICLES

- Hepatic First-Pass Uptake of Diphenhydramine: A Comparative Study between Fetal and Adult Sheep. G. R. TONN, E. KWAN, C. HALL, K. W. RIGGS, J. E. AXELSON, AND D. W. RURAK 273
- Dose-Related Distribution of Codeine and Its Metabolites into Rat Hair. STEVEN P. GYGI, FRANCIS COLÓN, REBECCA B. RAFTOGIANIS, RAYMOND E. GALINSKY, DIANA G. WILKINS, AND DOUGLAS E. ROLLINS 282
- Influence of the Degree of Renal Dysfunction on the Pharmacokinetic Properties of the Novel Recombinant Plasminogen Activator Reteplase in Rats. ULRICH MARTIN, LIESEL DOERGE, KARLHEINZ STEGMEIER, AND BERND MÜLLER-BECKMANN 288
- Oxidative and Reductive Metabolism of 9-*cis*-Retinoic Acid in the Rat: Identification of 13,14-Dihydro-9-*cis*-retinoic Acid and Its Taurine Conjugate. MICHAEL A. SHIRLEY, YOUSSEF L. BENNANI, MARCUS F. BOEHM, ALAN P. BREAU, CHARLES PATHIRANA, AND EDGAR H. ULM 293
- A Sensitive Method for Determination of Cytochrome P4502D6 Activity *in Vitro* Using Bupranolol as Substrate. G. APPANNA, B. K. TANG, R. MÜLLER, AND W. KALOW 303
- Role of Cytochrome P450 3A4 in Human Metabolism of MK-639, a Potent Human Immunodeficiency Virus Protease Inhibitor. MASATO CHIBA, MICHELLE HENSLEIGH, JOY A. NISHIME, SURESH K. BALANI, AND JIUNN H. LIN 307
- Effect of Probenecid on the Distribution, Metabolism, and Excretion of Cidofovir in Rabbits. KENNETH C. CUNDY, ZHEN-HONG LI, AND WILLIAM A. LEE 315
- Characterization of Rat Small Intestinal Cytochrome P450 Composition and Inducibility. QING-YU ZHANG, JANET WIKOFF, DEBORAH DUNBAR, AND LAURENCE KAMINSKY 322
- Purification and Properties of Two Rat Liver Phenobarbital-Inducible UDP-Glucuronosyltransferases that Catalyze the Glucuronidation of Opioids. BIRGIT L. COFFMAN, GLADYS R. RIOS, AND THOMAS R. TEPHLY 329
- Metabolism and Pharmacokinetics of *N*¹,*N*¹⁴-Diethylhomospertmine. RAYMOND J. BERGERON, WILLIAM R. WEIMAR, GABRIEL LUCHETTA, CHARLES A. SNINSKY, AND JAN WIEGAND 334
- CYP3A-Like Cytochrome P450-Mediated Metabolism and Polarized Efflux of Cyclosporin A in Caco-2 Cells: Interaction between the Two Biochemical Barriers to Intestinal Transport. LIANG-SHANG L. GAN, M. ARTHUR MOSELEY, BOBBIE KHOSLA, PATRICK F. AUGUSTJUNS, TIMOTHY P. BRADSHAW, R. WAYNE HENDREN, AND DHIREN R. THAKKER. 344
- Metoprolol Metabolism *via* Cytochrome P4502D6 in Ethnic Populations. JULIE A. JOHNSON AND BRAD S. BURLEW 350
- Glucuronidation of Amines and Hydroxylated Xenobiotics and Endobiotics Catalyzed by Expressed Human UGT1.4 Protein. MITCHELL D. GREEN AND THOMAS R. TEPHLY 356

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 prices exclude Japan. See **Information for Subscribers** for detailed instructions. The GST Tax Number for Canadian subscribers is 123394371. 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.)

Short-Term Maintenance of Phase I and II Metabolism in Precision-Cut Liver Slices in Dynamic Organ Culture. SEAN EKINS 364

SHORT COMMUNICATIONS

Influence of Age and Gender on Valproic Acid Glucuronidation in Rats. CUIPING CHEN, PATRICIA W. SLATTUM, KIM L. R. BROUWER, AND GARY M. POLLACK 367

Interactions of Melphalan with Glutathione and the Role of Glutathione S-Transferase. SANJAY AWASTHI, KRISHNA K. BAJPAI, JOHN T. PIPER, SHARAD S. SINGHAL, A. BALLATORE, W. E. SEIFERT, JR., YOGESH C. AWASTHI, AND G. A. S. ANSARI 371

Effects of the Novel Immunosuppressant Brequinar on Hepatic UDP-Glucuronic Acid Levels and UDP-Glucuronyltransferase Activities in the Rat. SHARON DIAMOND AND DAVID D. CHRIST. 375

