

DRUG METABOLISM AND DISPOSITION

A Publication of the American Society for Pharmacology and Experimental Therapeutics

February 2006

Vol. 34, No. 2

CONTENTS

SHORT COMMUNICATIONS

- Glucuronidation of the Aspirin Metabolite Salicylic Acid by Expressed UDP-Glucuronosyltransferases and Human Liver Microsomes. GWENDOLYN E. KUEHL, JEANNETTE BIGLER, JOHN D. POTTER, AND JOHANNA W. LAMPE **199**
- Evaluation of Inhibitory Potencies for Compounds Inhibiting P-glycoprotein but without Maximum Effects: f_2 Values. JOHANNA WEISS AND WALTER EMIL HAEFELI **203**
- Estimation of Aldehyde Oxidase Activity in Vivo from Conversion Ratio of N^1 -Methylnicotinamide to Pyridones, and Intraspecies Variation of the Enzyme Activity in Rats. KAZUMI SUGIHARA, YOSHITAKA TAYAMA, KAZUHIRO SHIMOMIYA, DAISUKE YOSHIMOTO, SHIGERU OHTA, AND SHIGEYUKI KITAMURA **208**

ARTICLES

- In Vivo Metabolism of [14 C]Riboxistaurin in Dogs, Mice, and Rats Following Oral Administration and the Structure Determination of Its Metabolites by Liquid Chromatography/Mass Spectrometry and NMR Spectroscopy. ROBERT J. BARBUCH, KRISTINA CAMPANALE, CHAD E. HADDEN, MILTON ZMIJEWSKI, PING YI, DOUGLAS D. O'BANNON, JENNIFER L. BURKEY, AND PALANIAPPAN KULANTHAIVEL **213**
- Metabolism of Mometasone Furoate and Biological Activity of the Metabolites. S. SAHASRANAMAN, M. ISSAR, AND G. HOCHHAUS **225**
- Distinct Role of Bilobalide and Ginkgolide A in the Modulation of Rat CYP2B1 and CYP3A23 Gene Expression by *Ginkgo biloba* Extract in Cultured Hepatocytes. THOMAS K. H. CHANG, JIE CHEN, AND XIAO WEI TENG **234**

- Characterization of the in Vitro Metabolism of Selective Androgen Receptor Modulator Using Human, Rat, and Dog Liver Enzyme Preparations. WENQING GAO, ZENGRU WU, CASEY E. BOHL, JUN YANG, DUANE D. MILLER, AND JAMES T. DALTON **243**
- Interspecies Differences in Pharmacokinetics and Metabolism of *S*-3-(4-Acetylamino-phenoxy)-2-hydroxy-2-methyl-*N*-(4-nitro-3-trifluoromethyl-phenyl)-propionamide: The Role of *N*-Acetyltransferase. WENQING GAO, JEFFREY S. JOHNSTON, DUANE D. MILLER, AND JAMES T. DALTON **254**
- Role of Mrp2 in the Hepatic Disposition of Mycophenolic Acid and Its Glucuronide Metabolites: Effect of Cyclosporine. IAN S. WESTLEY, LEONIE R. BROGAN, RAYMOND G. MORRIS, ALLAN M. EVANS, AND BENEDETTA C. SALLUSTIO **261**
- Structural Elucidation of Human Oxidative Metabolites of Muraglitazar: Use of Microbial Bioreactors in the Biosynthesis of Metabolite Standards. DONGLU ZHANG, HAIYING ZHANG, NELLY ARANIBAR, RONALD HANSON, YANDE HUANG, PETER T. CHENG, SHUNG WU, SAMUEL BONACORSI, MINGSHE ZHU, ARUN SWAMINATHAN, AND W. GRIFFITH HUMPHREYS **267**
- Metabolism of the Psychotomimetic Tryptamine Derivative 5-Methoxy-*N,N*-Diisopropyltryptamine in Humans: Identification and Quantification of Its Urinary Metabolites. TOORU KAMATA, MUNEHIRO KATAGI, HIROE T. KAMATA, AKIHIRO MIKI, NORIAKI SHIMA, KEI ZAITSU, MAYUMI NISHIKAWA, EINOSUKE TANAKA, KATSUYA HONDA, AND HITOSHI TSUCHIHASHI **281**
- Brain Cyclosporin A Levels Are Determined by Ontogenic Regulation of *mdr1a* Expression. KERRY

Continued on next page

Drug Metabolism and Disposition (ISSN 0090-9556) is published monthly (one volume per year) by the American Society for Pharmacology and Experimental Therapeutics, 9650 Rockville Pike, Bethesda, MD 20814-3995; e-mail: info@aspet.org; Web site: http://www.aspet.org Periodicals postage paid at Bethesda, MD and at additional mailing offices. POSTMASTER: Send address changes to *Drug Metabolism and Disposition*, 9650 Rockville Pike, Bethesda, MD 20814-3995. Subscription Rates: U.S.: \$339.00 for institutions and \$177.00 for non-ASPET members. Outside the U.S.: \$408.00 for institutions and \$246.00 for non-ASPET members. Single copy: \$35.00. GST Tax Number for Canadian subscribers: BN:13489 2330 RT. Indexed or abstracted by *Biochemistry & Biophysics Citation Index*®, *Biological Abstracts*, *BIOSIS Previews Database*, *BioSciences Information Service*, *Current Awareness in Biological Sciences*, *Current Contents*®/*Life Sciences*, *EMBASE/Excerpta Medica*, *Index Medicus*, *International Pharmaceutical Abstracts*, *Medical Documentation Service*®, *Reference Update*®, *Research Alert*®, *Science Citation Index*®, *SciSearch*®, and *SIIC Data Bases*. Copyright © 2006 by the American Society for Pharmacology and Experimental Therapeutics. All rights reserved. Printed in the U.S.A.

B. GORALSKI, PHILIP D. ACOTT, ALBERT D. FRASER, DAVID WORTH, AND CHRISTOPHER J. SINAL	288	titition Coefficients: K_p , $K_{p,u}$, and $K_{p,uu}$. ANUBHA GUPTA, PIERRE CHATELAIN, ROY MASSINGHAM, E. NICLAS JONSSON, AND MARGARETA HAMMARLUND-UDENAES	318
Inhibition of Lung Cancer Cell Growth by Quercetin Glucuronides via G ₂ /M Arrest and Induction of Apoptosis. JEN-HUNG YANG, TE-CHUN HSIA, HSIU-MAAN KUO, PEI-DAWN LEE CHAO, CHI-CHUNG CHOU, YAU-HUEI WEI, AND JING-GUNG CHUNG . . .	296	Development of Novel Furanocoumarin Dimers as Potent and Selective Inhibitors of CYP3A4. E. ROW, S. A. BROWN, A. V. STACHULSKI, AND M. S. LENNARD	324
Demonstration of Docosahexaenoic Acid as a Bio-availability Enhancer for CYP3A Substrates: In Vitro and in Vivo Evidence Using Cyclosporin in Rats. VILASINEE HIRUNPANICH, JUN KATAGI, BEN-JABHORN SETHABOUPPHA, AND HITOSHI SATO	305	Distribution of (7 α)-21-[4-[(Diethylamino)methyl]-2-methoxyphenoxy]-7-methyl-19-norpregna-1,3,5(10)-trien-3-ol-20-[¹⁴ C]2-hydroxy-1,2,3-propanetricarboxylate and Its Metabolites after Single Oral Administration to Rats Bearing 7,12-Dimethylbenz(α)anthracene-Induced Mammary Tumor. HIDETOSHI YAMAYA, MAYUKO SAEKI, KEN-ICHIRO YOSHIDA, JIRO SHIBATA, SHINGO YANO, YOSHIKI SATO, ATSUSHI TAKAO, TAKASHI SHINDO, AMAN U. BUZDAR, AND SEKIO NAGAYAMA	331
Inefficient Repair of Tamoxifen-DNA Adducts in Rats and Mice. SUNG YEON KIM, NAOMI SUZUKI, Y. R. SANTOSH LAXMI, AND SHINYA SHIBUTANI . . .	311		
Brain Distribution of Cetirizine Enantiomers: Comparison of Three Different Tissue-to-Plasma Par-			