SHORT COMMUNICATIONS

Glucuronidation of the Antiretroviral Drug Efavirenz by UGT2B7 and an in Vitro Investigation of Drug-Drug Interaction with Zidovudine. Anne-Sophie Bélanger, Patrick Caron, Mario Harvey, Peter A. Zimmerman, Rajeev K. Mehlotra, and Chantal Guillemette ........................ 1793

Aromatic Substitution Reaction of 2-Chloropyridines Catalyzed by Microsomal Glutathione S-Transferase 1. Kazuko Inoue, Tomoyuki Ohe, Kenichi Mori, Takeshi Sagara, Yasuyuki Ishii, and Masa- to Chiba ......................................................... 1797


ARTICLES

Bioactivation of Minocycline to Reactive Intermediates by Myeloperoxidase, Horseradish Peroxi- dase, and Hepatic Microsomes: Implications for Minocycline-Induced Lupus and Hepatitis. Baskar Mannargudi, David McNally, William Reynolds, and Jack Uetrecht ................................. 1806

Age- and Sex-Related Expression and Activity of Carboxylesterase 1 and 2 in Mouse and Human Liver. Hao-Jie Zhu, David I. Appel, Yan Jiang, and John S. Markowitz ................................. 1819


Up-Regulation of UDP-Glucuronosyltransferase (UGT) 1A4 by 17β-Estradiol: A Potential Mechanism of Increased Lamotrigine Elimination in Pregnancy. Huqing Chen, Kyunghee Yang, Say oung Choi, James H. Fischer, and Hyunyoung Jeong ........................................................................ 1841

In Vitro Inhibition of Multiple Cytochrome P450 Isoforms by Xanthone Derivatives from Mangosteen Extract. Robert S. Foti, Josh T. Pearson, Dan A. Rock, Jan L. Wahlstrom, and Larry C. Wienkers ............................................................... 1848

Involvement of Human Organic Cation Transporter 1 in the Hepatic Uptake of 1-(2-Methoxyethyl)-2- methyl-4,9-dioxo-3-(pyrazin-2-ylmethyl)-4,9-dihydro-1H-naphtho[2,3-d]imidazolium Bromide (YM155 Monobromide), a Novel, Small Molecule Survivin Suppressant. Megumi Iwai, Tsuyo shi Minematsu, Shinichi Narikawa, Takashi Usui, and Hidetaka Kamimura ............................................................... 1856

Modulation of the Partition Coefficient between Octanol and Buffer at pH 7.4 and pKₐ to Achieve the Optimum Balance of Blood Clearance and Volume of Distribution for a Series of Tetrahydro pyran Histamine Type 3 Receptor Antagonists. Tanya Hay, Rhys Jones, Kevin Beaumont, and Mark Kemp ............................................................... 1864

Changes in mRNA Expression Levels of Solute Car rier Transporters in Inflammatory Bowel Disease Patients. Kacper A. Wojtal, Jyrki J. Eloranta, Petr Hraz, Heike Gutmann, Jürgen Drewe, Alex Staumann, Christoph Beglinger, Michael Fried, Gerd A. Kullak-Ublick, and Stephan R. Vavricka ............................................................... 1871

CONTENTS

Drug Metabolism AND Disposition

A Publication of the American Society for Pharmacology and Experimental Therapeutics

September 2009 Vol. 37, No. 9

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: subscriptions@aspet.org; web site: 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.: $400.00; outside the U.S.: $479. Single copy: $36. 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 Services, 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 SIC Data Bases Copyright © 2009 by the American Society for Pharmacology and Experimental Therapeutics. All rights reserved. Printed in the U.S.A.
Effect of Membrane Cholesterol on BSEP/Bsep Activity: Species Specificity Studies for Substrates and Inhibitors. Emese Kis, Eniko Ioja, Tunde Nagy, Lajos Szente, Krisztina Herédi-Szabó, and Péter Krajcsi

Methadone Induces the Expression of Hepatic Drug-Metabolizing Enzymes through the Activation of Pregnane X Receptor and Constitutive Androstan Receptor. Antonia H. Tolson, Haishan Li, Natalie D. Eddington, and Hongbing Wang


Metabolism of Ticlopidine in Rats: Identification of the Main Biliary Metabolite as a Glutathione Conjugate of Ticlopidine S-Oxide. Shinji Shimizu, Ryo Atsumi, Tsunenori Nakazawa, Yuko Fujimaki, Kenichi Sudo, and Osamu Okazaki


An in Vitro Evaluation of the Victim and Perpetrator Potential of the Anticancer Agent Laromustine (VNP40101M), Based on Reaction Phenotyping and Inhibition of Cytochrome P450 Enzymes. Alaa-Eldin F. Nassar, Ivan King, Brandy L. Paris, Lois Ndikum-Moffor, Rebecca Campbell, Etsuko Usuki, Jennifer Skibbe, Dan Brobst, Brian W. Ogilvie, and Andrew Parkinson

Inhibition of Human CYP2B6-Catalyzed Bupropion Hydroxylation by Ginkgo biloba Extract: Effect of Terpene Trilactones and Flavonols. Aik Jiang Lau and Thomas K. H. Chang

3-Ketocholanoic Acid Is the Major In Vitro Human Hepatic Microsomal Metabolite of Lithocholic Acid. Anand K. Deo and Stelvio M. Bandiera

Influence of N-Terminal Domain Histidine and Proline Residues on the Substrate Selectivities of Human UDP-Glucuronosyltransferase 1A1, 1A6, 1A9, 2B7, and 2B10. Oranun Kerdpin, Peter I. Mackenzie, Kushari Bowalgaha, Moshe Finel, and John O. Miners

Culture Period-Dependent Change of Function and Expression of ATP-Binding Cassette Transporters in Caco-2 Cells. Emi Kamiyama, Daisuke Sugiyama, Daisuke Nakai, Shin-ichi Miura, and Osamu Okazaki

Thyroid Hormone Is Necessary for Expression of Constitutive Androstane Receptor in Rat Hepatocytes. Hidekazu Ooe, Junko Kon, Hideki Oshima, and Toshihiro Mitaka

A Zone Classification System for Risk Assessment of Idiosyncratic Drug Toxicity Using Daily Dose and Covalent Binding. Shintaro Nakayama, Ryo Atsumi, Hideo Takakusa, Yoshimasa Kobayashi, Atsushi Kurihara, Yoko Nagai, Daisuke Nakai, and Osamu Okazaki

Genetic Polymorphisms in the TATA Box and Upstream Phenobarbital-Responsive Enhancer Module of the UGT1A1 Promoter Have Combined Effects on UDP-Glucuronosyltransferase 1A1 Transcription Mediated by Constitutive Androgen Receptor, Pregnane X Receptor, or Glucocorticoid Receptor in Human Liver. Ye Li, David Buckley, Shuang Wang, Curtis D. Klaassen, and Xiao-bo Zhong

Supplemental material is available online at http://dmd.aspetjournals.org.