CONTENTS

SHORT COMMUNICATIONS


Hepatic Uptake of the Magnetic Resonance Imaging Contrast Agent Gd-EOB-DTPA: Role of Human Organic Anion Transporters. Mirko Leonhardt, Markus Keiser, Stefan Oswald, Jens Kühn, Jia Jia, Markus Grube, Heyo K. Kroemer, Werner Siegmund, and Werner Weitschies ................. 1024

ARTICLES


Significant Increase in Phenacetin Oxidation on L382V Substitution in Human Cytochrome P450 1A2. Qingbiao Huang and Grazyna D. Szklarz ........ 1039

In Vivo Responses of the Human and Murine Pregnan X Receptor to Dexamethasone in Mice. Nico Scheer, Jillian Ross, Yury Kapelyukh, Anja Rode, and C. Roland Wolf ......................... 1046

Vectorial Transport of Nucleoside Analogues from the Apical to the Basolateral Membrane in Double-Transfected Cells Expressing the Human Concentrative Nucleoside Transporter hCNT3 and the Export Pump ABCC4. Maria Rius, Daniela Keller, Manuela Brom, Johanna Hummel-Eisenbeiss, Frank Lyko, and Dietrich Keppler .................. 1054

Transporter Studies with the 3-O-Sulfate Conjugate of 17α-Ethinylestradiol: Assessment of Human Kidney Drug Transporters. Yong-Hae Han, Dennis Busler, Yang Hong, Yuan Tian, Cliff Chen, and A. David Rodrigues ..................... 1064

Transporter Studies with the 3-O-Sulfate Conjugate of 17α-Ethinylestradiol: Assessment of Human Liver Drug Transporters. Yong-Hae Han, Dennis Busler, Yang Hong, Yuan Tian, Cliff Chen, and A. David Rodrigues .................. 1072

Characterization of HKI-272 Covalent Binding to Human Serum Albumin. Jianyao Wang, Xiao Xian Li-Chan, Jim Atherton, Lin Deng, Robert Espina, Linning Yu, Peter Horwatt, Steven Ross, Susan Lockhead, Syed Ahmad, Appavu Chandrasekaran, Aram Oganesian, JoAnn Scatina, Abdul Mutlib, and Rasmy Talaat ................................. 1083

Confidence Assessment of the Simcyp Time-Based Approach and a Static Mathematical Model in Predict-
Contents (cont’d.)

ing Clinical Drug-Drug Interactions for Mechanism-Based CYP3A Inhibitors. Ying-Hong Wang ...................................................... 1094

Differential Roles of Phase I and Phase II Enzymes in 3,4-Methylenedioxyamphetamine-Induced Cytotoxicity. Irene Antolini-Lobo, Jan Meulenbelt, Sandra M. Nijmeijer, Peter Scherpeniss, Martin van den Berg, and Majorie B. M. van Duursen ........................................ 1105

In Vitro-In Vivo Correlation and Translation to the Clinical Outcome for CJ-13,610, a Novel Inhibitor of 5-Lipooxygenase. J. Matthew Hutzel, Collette D. Linder, Roger J. Melton, John Vincent, and J. Scott Daniels ........................................... 1113

Energy Restriction Does Not Compensate for the Reduced Expression of Hepatic Drug-Processing Genes in Mice with Aging. Yu-Kun Jennifer Zhang, Kurt W. Saupe, and Curtis D. Klaassen .............................................. 1122


Identification of the Human UDP-Glucuronosyltransferases Involved in the Glucuronidation of Combreastatin A-4. Silvio Aprile, Erika Del Grosso, and Giorgio Grosa ........................................... 1141

Prediction of Human Intestinal First-Pass Metabolism of 25 CYP3A Substrates from In Vitro Clearance and Permeability Data. Michael Gertz, Anthony Harrison, J. Brian Houston, and Aleksandra Galetin ........................................... 1147

Use of the Øie-Tozer Model in Understanding Mechanisms and Determinants of Drug Distribution. Nigel J. Waters and Franco Lombardo ........................................... 1159

Metabolism of Fostamatinib, the Oral Methylene Phosphate Prodrug of the Spleen Tyrosine Kinase Inhibitor R406 in Humans: Contribution of Hepatic and Gut Bacterial Processes to the Overall Biotransformation. David J. Sweeney, Weiqun Li, Jeffrey Clough, Somasekhar Bhamidipati, Rajinder Singh, Gary Park, Muhammad Baloam, Elliott Grossbard, and David T.-W. Lau ........................................... 1166

The Nuclear Receptors Constitutive Active/Androstanese Receptor and Pregnane X Receptor Activate the Cyp2c55 Gene in Mouse Liver. Yoshihiro Konno, Hiroki Kamino, Rick Moore, Fred Lih, Kenneth B. Tomer, Darryl C. Zeldin, Joyce A. Goldstein, and Masahiko Negishi ........................................... 1177

Contribution of Rat Pulmonary Metabolism to the Elimination of Lidocaine, Midazolam, and Nifedipine. Makoto Aoki, Kazuho Okudaira, Makoto Haga, Ryuichiro Nishigaki, and Masahiro Hayashi ........................................... 1183

Metabolism and Disposition of [14C]BMS-690514 after Oral Administration to Rats, Rabbits, and Dogs. Hai Zheng Hong, Hong Su, Haojun Sun, Alban Allentoff, Jhooz V. Ekhato, Theodore Chando, Janet Carceres-Cortes, Vikram Roongta, Ramaswamy A. Iyer, W. Griffith Humphreys, and Lisa J. Christopher ........................................... 1189


Role of UDP-Glucuronosyltransferase Isoforms in 13-cis Retinoic Acid Metabolism in Humans. Sophie E. Rowbotham, Nicola A. Illingworth, Ann K. Daly, Gareth J. Veal, and Alan V. Boddy ........................................... 1211

Efavirenz Primary and Secondary Metabolism In Vitro and In Vivo: Identification of Novel Metabolic Pathways and Cytochrome P450 2A6 as the Principal Catalyst of Efavirenz 7-Hydroxylation. Evan T. Ogbum, David R. Jones, Andrea R. Masters, Cong Xu, Yingying Guo, and Zeruesenay Desta ........................................... 1218

Quantitative Prediction of Intestinal Metabolism in Humans from a Simplified Intestinal Availability Model and Empirical Scaling Factor. Keitano Kadowo, Takaumi Akabane, Kenji Tabata, Katsuhiko Gato, Shigeyuki Terashita, and Toshibo Teramura ........................................... 1230

Cytochrome P450-Mediated Bioactivation of the Etiopurpurin Malignant Melanoma Cell Line HaCat. Xuejun Wang, Yiling Wang, Daoyi Peng, and Guoqiang Qu ........................................... 1238

Shared Regulation of UGT1A7 by Hepatocyte Nuclear Factor (HNF) 1 and HNF4α. Ursula Ehmer, Sandra Kalthoff, Tim O. Lankisch, Nicole Freiberg, Michael P. Manns, and Christian P. Strassburg ........................................... 1246

ERRATA

Correction to “5'-Aminocarbonyl Phosphonates as New Zidovudine Depot Forms: Antiviral Properties, Intracellular Transformations, and Pharmacokinetic Parameters” ........................................... 1258

Correction to “Quantifying the Metabolic Activation of Nevirapine in Patients by Integrated Applications of NMR and Mass Spectrometries” ........................................... 1259

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

About the cover: Simplified scheme describing EE2 disposition after oral administration with focus on transport of EE2-Sul. See the article by Han et al. on page 1064 of this issue.