CONTENTS

SHORT COMMUNICATIONS

Comparative Levels of $O^6$-Methylguanine, Pyridyl-oxobutyl-, and Pyridylhydroxybutyl-DNA Ad-ducts in Lung and Liver of Rats Treated Chronically with the Tobacco-Specific Carcinogen 4-(Methylnitrosamino)-1-(3-pyridyl)-1-butanone. Pramod Upadhyaya, Bruce R. Lindgren, and Stephen S. Hecht .......................... 1147

The Role of Human Hepatic Cytochrome P450 Isozymes in the Metabolism of Racemic 3,4-Methylenedioxyethylamphetamine and Its Single Enantiomers. Markus R. Meyer, Frank T. Peters, and Hans H. Maurer .......................... 1152

ARTICLES

Fenofibrate Metabolism in the Cynomolgus Monkey using Ultraprecision Liquid Chromatography-Quadrupole Time-of-Flight Mass Spectrometry-Based Metabolomics. Aiming Liu, Andrew D. Patterson, Zongtao Yang, Xinying Zhang, Wei Liu, Fayang Qiu, He Sun, Kristopher W. Krausz, Jeffrey R. Idle, Frank J. Gonzalez, and Renke Dai ............. 1157

Pharmacokinetics of the Dipeptidyl Peptidase 4 Inhibitor Saxagliptin in Rats, Dogs, and Monkeys and Clinical Projections. Aberra Fura, Ashish Khanna, Viral Vyas, Barry Koplowitz, Shu-Ying Chang, Christian Caporuscio, David W. Boulton, Lisa J. Christopher, Kristina D. Chadwick, Lawrence G. Hamann, W. Griffith Humphreys, and Mark Kirby .................. 1164

Long-Lasting Inhibition of the Transporter-Mediated Hepatic Uptake of Sulfobromophthalein by Cyclosporin A in Rats. Yoshihisa Shitara, Yoshiko Nagamatsu, Satomi Wada, Yuichi Sugiyama, and Toshiharu Horie ............ 1172

Impact of Gut Microbiota on Intestinal and Hepatic Levels of Phase 2 Xenobiotic-Metabolizing Enzymes in the Rat. Walter Meirl, Silke Seesens, Regina Brigelius-Flohé, Michael Blaut, and Hansruedi Glatt .......................... 1179

Oxidized Metabolites of Oltipraz Exert Cytoprotective Effects against Arachidonic Acid through AMP-Activated Protein Kinase-Dependent Cellular Antioxidant Effect and Mitochondrial Protection. Young Nam Kwon, Sang Mi Shin, Il Je Cho, and Sang Geon Kim .................. 1187

Interactions of Olomoucine II with Human Liver Microsomal Cytochromes P450. Michal Siller, Pavel Anzenbacher, Eva Anzenbacherova, Karel Dolezal, Igor Popa, and Miroslav Strnad ........ 1198

Novobiocin Is a Potent Inhibitor for Human Organic Anion Transporters. Peng Duan and Guofeng You .................. 1203


Development of a High-Throughput Brain Slice Method for Studying Drug Distribution in the Central Nervous System. Markus Fridén, Frederick Ducrozet, Brian Middleton, Madeleine Antonsson, Ulf Bredberg, and Margareta Hammarlund-Udenaes .................. 1226

Contd. on next page
Contents (cont’d.)


Characterization of Dasatinib and Its Structural Analogs as CYP3A4 Mechanism-Based Inactivators and the Proposed Bioactivation Pathways. Xiaohai Li, Yuanjun He, Claudia H. Ruiz, Marcel Koenig, and Michael D. Cameron .................................................. 1242

Breast Cancer Resistance Protein Interacts with Various Compounds in Vitro, but Plays a Minor Role in Substrate Efflux at the Blood-Brain Barrier. Rong Zhao, Thomas J. Raub, Geri A. Sawada, Steven C. Kasper, James A. Bacon, Arlene S. Bridges, and Gary M. Pollack .......................................................... 1251


Expression Quantitative Trait Loci Mapping Identifies New Genetic Models of Glutathione S-Transferase Variation. Kevin R. Hayes, Brandon M. Young, and Mathew T. Pletcher ..................................................... 1269

Regulation of Expression and Activity of Rat Intestinal Multidrug Resistance-Associated Protein 2 by Cholestatic Estrogens. Agostina Arias, Silvina S. M. Villanueva, María L. Ruiz, Marcelo G. Luquita, Luis M. Veggi, José M. Pellegrino, Mary Vore, Viviana A. Catania, and Aldo D. Mottino ........................................... 1277

In Vitro and in Silico Identification and Characterization of Thiabendazole as a Mechanism-Based Inhibitor of CYP1A2 and Simulation of Possible Pharmacokinetic Drug-Drug Interactions. Roslyn S. Thelingwani, Simbarashe P. Zvada, Hugues Dolgos, Anna-Lena B. Unell, and Collen M. Masimirembwa .......................................................... 1286

The Major Human Pregnane X Receptor (PXR) Splice Variant, PXR.2, Exhibits Significantly Diminished Ligand-Activated Transcriptional Regulation. Yvonne S. Lin, Kazuto Yasuda, Mahfoud Assem, Cynthia Cline, Joe Barber, Chia-Wei Li, Vladyslav Kholodovych, Ni Ai, J. Don Chen, William J. Welsh, Sean Ekins, and Erin G. Schuetz .................................................. 1295


Key Residues Controlling Binding of Diverse Ligands to Human Cytochrome P450 2A Enzymes. N. M. DeVore, B. D. Smith, J. L. Wang, G. H. Lushington, and E. E. Scott .......................................................... 1319

Ligand Diversity of Human and Chimpanzee CYP3A4: Activation of Human CYP3A4 by Lithocholic Acid Results from Positive Selection. Santosh Kumar, Huan Qiu, Numan Oezguen, Holger Herlyn, James R. Halpert, and Leszek Wojnowski .......................................................... 1328

ACCELERATED COMMUNICATION


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

About the cover: Binding of thiabendazole into the active site of CYP1A2 (PDB 2HI4). See article by Thelingwani et al. on page 1286 of this issue.