December 2008

CONTENTS

SHORT COMMUNICATIONS


The Combination of Chemical and Antibody Inhibitors for Superior P450 3A Inhibition in Reaction Phenotyping Studies. Dan A. Rock, Robert S. Foti, and Josh T. Pearson ................................. 2410

Structural Characterization of Novel Adenine Nucleotide Phosphatase Congeners of Imatinib in Incubations with Rat and Human Liver Microsomes. Shuguang Ma, Raju Subramanian, Yang Xu, Michael Schrag, and Magang Shou ........................................ 2414

Differential Allelic Expression in Leukoblast from Patients with Acute Myeloid Leukemia Suggests Genetic Regulation of CDA, DCK, NT5C2, NT5C3, and TP53. L. P. Jordheim, T. Nguyen-Dumont, X. Thomas, C. Dumontet, and S. V. Tavtigian ............ 2419


ARTICLES

CYP2C9-Catalyzed Metabolism of S-Warfarin to 7-Hydroxycoumarin in Vivo and in Vitro in Chimeric Mice with Humanized Liver. Tae Inoue, Kayoko Nitta, Kazumi Sugihara, Toru Horie, Shigeyuki Kitamura, and Shigeru Ohta ........................................ 2429


Quantitative Tissue and Gene-Specific Differences and Developmental Changes in Nat1, Nat2, and Nat3 mRNA Expression in the Rat. David F. Barker, Jason M. Walraven, Elizabeth H. Ristagno, Mark A. Doll, J. Christopher States, and David W. Hein ........................ 2445

Systemic Functional Expression of N-Acetyltransferase Polymorphism in the F344 Nat2 Congenic Rat. David W. Hein, Jean Bendaly, Jason R. Neale, and Mark A. Doll ........................................ 2452


Purification and Characterization of Flavin-Containing Monoxygenase Isoform 3 from Rat Kidney Microsomes. Rachel M. Novick and Adnan A. Elfarra ........................................ 2468

Metabolism of 5-Isopropyl-6-(5-methyl-1,3,4-oxadiazol-2-yl)-N-(2-methyl-1H-pyrrolo[2,3-b]pyridin-5-yl)pyrrolo[1,2-f][1,2,4]triazin-4-amine (BMS-645737): Identification of an Unusual N-Acetylglucosamine Conjugate in the Cynomolgus Monkey. Benjamin M. Johnson, Amrita V. Kamath, John E. Leet, Xiaohong Liu, Rajeev S. Bhide, Ravindra W. Tejwani, Yueping Zhang, Ligang Qian, Donna D. Wei, Louis J. Lombardo, and Yue-Zhong Shu ........................................ 2475

Continued on next page
Contents (cont’d.)

An Assessment of Drug-Drug Interactions: The Effect of Desvenlafaxine and Duloxetine on the Pharmacokinetics of the CYP2D6 Probe Desipramine in Healthy Subjects. Albena Patroneva, Sandra M. Connolly, Penny Fatato, Ron Pedersen, Qin Jiang, Jeffrey Paul, Christine Guico-Pabia, Jennifer A. Isler, Michael E. Burczynski, and Alice I. Nichols ............................................... 2484

Involvement of Intestinal Uptake Transporters in the Absorption of Azithromycin and Clarithromycin in the Rat. Eric Garver, Erin D. Hugger, Shawn P. Shearn, Anuradha Rao, Paul A. Dawson, Charles B. Davis, and Chao Han ................. 2492

Aryl Hydrocarbon Receptor-Dependent Induction of Flavin-Containing Monoxygenase mRNAs in Mouse Liver. Trine Celius, Steven Roblin, Patricia A. Harper, Jason Matthews, Paul C. Boutros, Raimo Pohjanvirta, and Allan B. Okey .............. 2499

A Double Transgenic Mouse Model Expressing Human Pregnan X Receptor and Cytochrome P450 3A4. Xiaochao Ma, Connie Cheung, Kristopher W. Krausz, Yatrik M. Shah, Ting Wang, Jeffrey R. Idle, and Frank J. Gonzalez .............. 2506

Confirmation That Cytochrome P450 2C8 (CYP2C8) Plays a Minor Role in (S)-(+) - and (R)-(−) -Ibuprofen Hydroxylation in Vitro. Shu-Ying Chang, Wenying Li, Sarah C. Traeger, Bei Wang, Donghui Cui, Hongjian Zhang, Bo Wen, and A. David Rodrigues ......................... 2513

Pharmacokinetics, Distribution, Metabolism, and Excretion of Deferasirox and Its Iron Complex in Rats. Gerard J. M. Bruin, Thomas Faller, Hansjörg Wiegand, Alain Schweitzer, Hanspeter Nick, Josef Schneider, K.-Olaf Boernsen, and Felix Waldmeier ......................... 2523

2-Diethylaminoethyl-2,2-diphenylvalerate·HCl (SKF525A) Revisited: Comparative Cytochrome P450 Inhibition in Human Liver Microsomes by SKF525A, Its Metabolites, and SKF-Acid and SKF-Alcohol. Michael R. Franklin and Laura B. Hathaway ........................................... 2539

Interindividual Variation in Relative CYP1A2/3A4 Phenotype Influences Susceptibility of Clozapine Oxidation to Cytochrome P450-Specific Inhibition in Human Hepatic Microsomes. Wei V. Zhang, Fabrizio D’Esposito, Robert J. Edwards, Iqbal Ramzan, and Michael Murray ........ 2547

Activation of the Aryl Hydrocarbon Receptor by the Calcium/Calmodulin-Dependent Protein Kinase Kinase Inhibitor 7-Oxo-7H-benzimidazo[2,1-a]benz-[de]isoquinoline-3-carboxylic Acid (STO-609). Patricia Monteiro, David Gilot, Sophie Langouet, and Olivier Fardel ..................... 2556

Lacteal Secretion, Fetal and Maternal Tissue Distribution of Dasatinib in Rats. Kan He, Michael W. Lago, Ramaswamy A. Iyer, Wen-Chyi Shya, William G. Humphreys, and Lisa J. Christopher .... 2564

Structural Determinants of Substrate Specificity Differences between Human Multidrug Resistance Protein (MRP) 1 (ABCC1) and MRP3 (ABCC3). Caroline E. Grant, Mian Gao, Marianne K. DeGorter, Susan P. C. Cole, and Roger G. Deleeys ... 2571

Key Residues Controlling Phenacetin Metabolism by Human Cytochrome P450 2A Enzymes. Natasha M. DeVore, Brian D. Smith, Michael J. Urban, and Emily E. Scott ......................... 2582

N-(4-[2-(1,2,3,4-Tetrahydro-6,7-dimethoxy-2-isouinolyl)ethyl]-phenyl)-9,10-dihydro-5-methoxy-9-oxo-4-acridine Carboxamide (GF120918) As a Chemical ATP-Binding Cassette Transporter Family G Member 2 (Abcg2) Knockout Model to Study Nitrofurantoin Transfer into Milk. Lipeng Wang, Markus Leggas, Mamta Goswami, Philip E. Empey, and Patrick J. McNamara .... 2591

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

About the cover: Comparison of the active sites of CYP2A6 (purple, PDB IZ10, molecule B), CYP2A6 I208S/I300F/G301A/G369S with phenacetin (green, molecule A), and CYP2A13 (orange, PDB 2P85, molecule A). See article by DeVore et al. on page 2582.