January 2011 Vol. 39, No. 1

CONTENTS

SHORT COMMUNICATIONS

□ S Cigarette Smoke Extract Induces CYP2B6 through Constitutive Androstane Receptor in Hepatocytes. Ikumi Washio, Makiko Maeda, Chika Sugihara, Ryota Shiga, Mitsuhiko Yoshida, Shinpei Nonen, Yasushi Fujio, and Junichi Azuma ........... 1

Pregnancy Decreases Rat CYP1A2 Activity and Expression. Alysa A. Walker, Leslie Dickmann, and Nina Isoherranen ............. 4

ARTICLES


□ S Whole-Body Physiologically Based Pharmacokinetic Model for Nutlin-3a in Mice after Intravenous and Oral Administration. Fan Zhang, Michael Tagen, Stacy Throm, Jeremy Mallari, Laura Miller, R. Kiplin Guy, Michael A. Dyer, Richard T. Williams, Martine F. Roussel, Katie Nemeth, Fangyi Zhu, Jiakan Zhang, Min Lu, John C. Panetta, Nidal Boulos, and Clinton F. Stewart ................. 15

□ S Activation of the Acute Inflammatory Response Alters Cytochrome P450 Expression and Eicosanoid Metabolism. Katherine N. Theken, Yangmei Deng, M. Alison Kannon, Tricia M. Miller, Samuel M. Poloyac, and Craig R. Lee ................. 22

Identification of Human Liver Cytochrome P450 Enzymes Involved in the Metabolism of SCH 530348 (Vorapaxar), a Potent Oral Thrombin Protease-Activated Receptor 1 Antagonist. Anita Ghosal, Xiaowen Lu, Natalia Penner, Lan Gao, Raghu Ramanathan, Swapan K. Chowdhury, Narendra S. Kishnani, and Kevin B. Alton ........... 30

□ S Inhibition of Human Sterol Δ7-Reductase and Other Postlanosterol Enzymes by LK-980, a Novel Inhibitor of Cholesterol Synthesis. Jure Ačimović, Tina Korošec, Matej Seliškar, Ingemar Björkhjem, Katalin Monostory, Pal Szabo, Jean-Marc Pascussi, Ales Belič, Uroš Ureš, Darko Kocjan, and Damjana Rozman ................. 39

Characterization of Digoxin Uptake in Sandwich-Cultured Human Hepatocytes. Emi Kimoto, Jonathan Chapka, Yongling Xiao, Yi-an Bi, and David B. Duignan ................. 47


A Baeyer-Villiger Oxidation Specifically Catalyzed by Human Flavin-Containing Monoxygenase 5. W. George Lai, Nadia Farah, George A. Moniz, and Y. Nancy Wong ................. 61

Brain-Penetrating Tumor Necrosis Factor Decay Receptor in the Mouse. Qing-Hui Zhou, Ruben J. Boado, Eric Ka-Wai Hui, Jeff Zhiquang Lu, and William M. Pardridge ................. 71

Histone Deacetylase Inhibitors Increase Human Arylamine N-Acetyltransferase-1 Expression in Human Tumor Cells. Scott Paterson, Kok L. Sin, Jacky M. Tiang, Rodney F. Minchin, and Neville J. Continued on next page
Butcher .......................................................... 77

The Aryl Hydrocarbon Receptor Pathway and the Response to 3-Methylcholanthrene Are Altered in the Liver of Adrenalectomized Rats. Anne K. Mullen Grey, and David S. Riddick ............ 83

Effects of Pregnane X Receptor (NR1I2) and CYP2B6 Genetic Polymorphisms on the Induction of Bupropion Hydroxylation by Rifampin. Jae Yong Chung, Joo-Youn Cho, Hyeong-Seok Lim, Jung-Ryul Kim, Kyung-Sang Yu, Kyoung Soo Lim, Sang-Goo Shin, and In-Jin Jang ................. 92

In Vitro Cytochrome P450-Mediated Metabolism of Exemestane. Landry K. Kamdem, David A. Flockhart, and Zeruesenay Desta ............ 98


Organic Cation Transporter-Mediated Renal Secretion of Ipratropium and Tiotropium in Rats and Humans. Takeo Nakanishi, Tsunemitsu Haruta, Yoshiyuki Shirasaka, and Ikumi Tamai ............ 117


Generation of Human Chiral Metabolites of Simvastatin and Lovastatin by Bacterial CYP102A1 Mutants. Keon-Hee Kim, Ji-Yeon Kang, Dong-Hyun Kim, Sun-Ha Park, Seon Ha Park, Dooil Kim, Ki Deok Park, Young Ju Lee, Heung-Chae Jung, Jae-Gu Pan, Taeho Ahn, and Chul-Ho Yun ............ 140

Identification of Clinically Used Drugs That Activate Pregnane X Receptors. Sunita J. Shukla, Srilatha Sakamuru, Ruili Huang, Timothy A. Moeller, Paul Shinn, Danielle VanLeer, Douglas S. Auld, Christopher P. Austin, and Menghang Xia .... 151

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

About the cover: Molecular binding surface area and binding site structural comparison of lovastatin and simvastatin in wild-type CYP102A1 and its mutants. See the article by Kim et al. on page 140 of this issue.