

DRUG METABOLISM AND DISPOSITION

A Publication of the American Society for Pharmacology and Experimental Therapeutics

December 2007

Vol. 35, No. 12

CONTENTS

SHORT COMMUNICATION

- Utility of the Coefficient of Determination (r^2) in Assessing the Accuracy of Interspecies Allometric Predictions: Illumination or Illusion? *Huadong Tang and Michael Mayersohn* **2139**

ARTICLES

- Characterization of *N*-Glucuronidation of 4-(5-Pyridin-4-yl-1*H*-[1,2,4]triazol-3-yl)pyridine-2-carbonitrile (FYX-051): A New Xanthine Oxidoreductase Inhibitor. *Koichi Omura, Takashi Nakazawa, Takahiro Sato, Takashi Iwanaga, and Osamu Nagata* **2143**
- Lack of Association between Common Polymorphisms in *UGT1A9* and Gene Expression and Activity. *Jacqueline Ramírez, Wanqing Liu, Snezana Mirkov, Apurva A. Desai, Peixian Chen, Soma Das, Federico Innocenti, and Mark J. Ratain* **2149**
- Breast Cancer Resistance Protein 1 Limits Fetal Distribution of Nitrofurantoin in the Pregnant Mouse. *Yi Zhang, Honggang Wang, Jashvant D. Unadkat, and Qingcheng Mao* **2154**
- Progress Curve Analysis of CYP1A2 Inhibition: A More Informative Approach to the Assessment of Mechanism-Based Inactivation? *D. A. Fairman, C. Collins, and S. Chapple* **2159**
- Multiple Human Isoforms of Drug Transporters Contribute to the Hepatic and Renal Transport of Olmesartan, a Selective Antagonist of the Angiotensin II AT1-Receptor. *Akihiro Yamada, Kazuya Maeda, Emi Kamiyama, Daisuke Sugiyama, Tsunenori Kondo, Yoshiyuki Shiroyanagi, Hayakazu Nakazawa, Teruo Okano, Masashi Adachi, John D. Schuetz, Yasuhisa Adachi, Zhuohan Hu, Hiroyuki Kusuhara, and Yuichi Sugiyama* **2166**
- A Shuffled CYP1A Library Shows Both Structural Integrity and Functional Diversity. *Wayne A. Johnston, Weiliang Huang, James J. De Voss, Martin A. Hayes, and Elizabeth M.J. Gillam* . . **2177**
- Identification of Human Liver Cytochrome P450 Enzymes Involved in Biotransformation of Vicriviroc, a CCR5 Receptor Antagonist. *Anima Ghosal, Ragu Ramanathan, Yuan Yuan, Neil Hapangama, Swapan K. Chowdhury, Narendra S. Kishnani, and Kevin B. Alton* **2186**
- Generation and Functional Characterization of Mice with a Disrupted *Glutathione S-Transferase, Theta 1* Gene. *Kazunori Fujimoto, Shingo Arakawa, Toshiyuki Watanabe, Hiroaki Yasumo, Yosuke Ando, Wataru Takasaki, Sunao Manabe, Takashi Yamoto, and Sen-ichi Oda* **2196**
- In Vitro Glucuronidation of Thyroxine and Triiodothyronine by Liver Microsomes and Recombinant Human UDP-Glucuronosyltransferases. *Zeen Tong, Hongshan Li, Igor Goljer, Oliver McConnell, and Appavu Chandrasekaran* **2203**
- Lymphatic Absorption of Subcutaneously Administered Proteins: Influence of Different Injection Sites on the Absorption of Darbepoetin Alfa Using a Sheep Model. *Jagannath Kota, Krishna K. Machavaram, Danielle N. McLennan, Glenn A. Edwards, Christopher J. H. Porter, and Susan A. Charman* **2211**
- Metabolism and Disposition of *n*-Butyl Glycidyl Ether in F344 Rats and B6C3F1 Mice. *L.-J. Chen, E. H. Lebetkin, E. I. Nwakupda, and L. T. Burka* **2218**
- Evaluation of the Assumptions of an Ontogeny Model of Rat Hepatic Cytochrome P450 Activity. *Jane Alcorn, Fawzy A. Elbarbry, Mohammed Z. Al-louh, and Patrick J. McNamara* **2225**

Continued on next page

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: info@aspet.org; Web site: http://www.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.: \$353.00 for institutions and \$184.00 for non-ASPET members. Outside the U.S.: \$423.00 for institutions and \$254.00 for non-ASPET members. Single copy: \$35.00. 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 Service*, *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 *SIIC Data Bases*. Copyright © 2007 by the American Society for Pharmacology and Experimental Therapeutics. All rights reserved. Printed in the U.S.A.

- [S] In Vitro Metabolism of the Analgesic Bicifadine in the Mouse, Rat, Monkey, and Human. *David A. Erickson, Stacy Hollfelder, Justin Tenge, Mark Gohdes, Jeffrey J. Burkhardt, and Philip A. Krieter* **2232**
- Cyclic Conversion of the Novel Src Kinase Inhibitor [7-(2,6-Dichloro-phenyl)-5-methyl-benzo[1,2,4]-triazin-3-yl]-[4-(2-pyrrolidin-1-yl-ethoxy)-phenyl]-amine (TG100435) and Its *N*-Oxide Metabolite by Flavin-Containing Monooxygenases and Cytochrome P450 Reductase. *Ahmed Kousba, Richard Soll, Shiyin Yee, and Michael Martin* **2242**
- [S] In Vitro Metabolism Study of Combretastatin A-4 in Rat and Human Liver Microsomes. *Silvio Aprile, Erika Del Grosso, Gian Cesare Tron, and Giorgio Grosa* **2252**
- Analysis of the Transcriptional Regulation and Molecular Function of the Aryl Hydrocarbon Receptor Repressor in Human Cell Lines. *Thomas Haarmann-Stemann, Hanno Bothe, Amitabh Kohli, Ulrich Sydlik, Josef Abel, and Ellen Fritsche* **2262**
- Characterization of the UDP Glucuronosyltransferase Activity of Human Liver Microsomes Genotyped for the *UGT1A1*28* Polymorphism. *Donglu Zhang, Duxi Zhang, Dan Cui, Janice Gambardella, Li Ma, Anthony Barros, Lifei Wang, Yunlin Fu, Sandhya Rahematpura, Julia Nielsen, Michael Donegan, Hongjian Zhang, and W. Griffith Humphreys* **2270**

[S] Supplemental material is available online at <http://dmd.aspetjournals.org>.

About the cover: Identification of functional XRE sites within intron 1 of the human AhRR gene. Schematic structure (not scaled) of the human AhRR gene and localization of the cloned regulatory region of intron 1. See the article by Haarmann-Stemann et al. on page 2262 of this issue.