

DRUG METABOLISM AND DISPOSITION

A Publication of the American Society for Pharmacology and Experimental Therapeutics

October 2008

Vol. 36, No. 10

CONTENTS

CENTENNIAL PERSPECTIVE

- The Development of Drug Metabolism Research as Expressed in the Publications of ASPET: Part 3, 1984–2008. *Patrick J. Murphy* **1977**

ARTICLES

- Identification of Human Hepatic Cytochrome P450 Enzymes Involved in the Biotransformation of Cholic and Chenodeoxycholic Acid. *Anand K. Deo and Stelvio M. Bandiera* **1983**

- Re-engineering of CYP2C9 to Probe Acid-Base Substrate Selectivity. *Guoying Tai, Leslie J. Dickmann, Nicholas Matovic, James J. DeVoss, Elizabeth M. J. Gillam, and Allan E. Rettie* **1992**

- Extractive Biotransformation for Production of Metabolites of Poorly Soluble Compounds: Synthesis of 32-Hydroxy-rifalazil. *Vadim V. Mozhaev, Lyudmila V. Mozhaeva, Peter C. Michels, and Yuri L. Khmel'nitsky* **1998**

- Involvement of the Pylamine Transporter, a Putative Organic Cation Transporter, in Blood-Brain Barrier Transport of Oxycodone. *Takashi Okura, Asami Hattori, Yusuke Takano, Takenori Sato, Margareta Hammarlund-Udenaes, Tetsuya Terasaki, and Yoshiharu Deguchi* **2005**

- Involvement of Multiple Transporters in the Hepatobiliary Transport of Rosuvastatin. *Satoshi Kitamura, Kazuya Maeda, Yi Wang, and Yuichi Sugiyama* **2014**

- Pharmacokinetics of the Novel Nicotinic Receptor Antagonist *N,N'*-Dodecane-1,12-diyl-bis-3-picolinium Dibromide in the Rat. *Zaineb A. Fadhel Albayati, Linda P. Dwoskin, and Peter A. Crooks* **2024**

- Suppression of CYP2B Induction by Alendronate-Mediated Farnesyl Diphosphate Synthase Inhibition in Primary Cultured Rat Hepatocytes. *Nancy M. Jackson and Thomas A. Kocarek* **2030**

- Stereoselective First-Pass Metabolism of Verapamil in the Small Intestine and Liver in Rats. *Kazuhiko Hanada, Yasutaka Ikemi, Kazutaka Kukita, Kiyoshi Mihara, and Hiroyasu Ogata* **2037**

- Biodistribution and Plasma Protein Binding of Zoledronic Acid. *H. Markus Weiss, Ulrike Pfaar, Alain Schweitzer, Hansjörg Wiegand, Andrej Skerjanec, and Horst Schran* **2043**

- Enzymatic Reduction and Glutathione Conjugation of Benzoquinone Ansamycin Heat Shock Protein 90 Inhibitors: Relevance for Toxicity and Mechanism of Action. *Wenchang Guo, Philip Reigan, David Siegel, and David Ross* **2050**

- Role of Vitamin D Receptor in the Lithocholic Acid-Mediated CYP3A Induction in Vitro and in Vivo. *Tsutomu Matsubara, Kouichi Yoshinari, Kazunobu Aoyama, Mika Sugawara, Yuji Sekiya, Kiyoshi Nagata, and Yasushi Yamazoe* **2058**

- Metabolism, Pharmacokinetics, and Excretion of a Cholesteryl Ester Transfer Protein Inhibitor, Torcetrapib, in Rats, Monkeys, and Mice: Characterization of Unusual and Novel Metabolites by High-Resolution Liquid Chromatography-Tandem Mass Spectrometry and ¹H Nuclear Magnetic Resonance. *Chandra Prakash, Weichao Chen, Michelle Rossulek, Kim Johnson, Chenghong Zhang, Thomas O'Connell, Michael Potchoiba, and Deepak Dalvie* **2064**

Continued on next page

- Enhancement of Zidovudine Uptake by Dehydroepiandrosterone Sulfate in Rat Syncytiotrophoblast Cell Line TR-TBT 18d-1. *Tomohiro Nishimura, Yoshiaki Seki, Kazuko Sato, Takuya Chishu, Noriko Kose, Tetsuya Terasaki, Young-Sook Kang, Yoshimichi Sai, and Emi Nakashima* **2080**
- Effect of Albumin on the Biliary Clearance of Compounds in Sandwich-Cultured Rat Hepatocytes. *Kristina K. Wolf, Kenneth R. Brouwer, Gary M. Pollack, and Kim L. R. Brouwer* **2086**
- CYP2C8- and CYP3A-Mediated C-Demethylation of (3-[[[4-*tert*-Butylbenzyl)-(pyridine-3-sulfonyl)-amino]-methyl]-phenoxy)-acetic Acid (CP-533,536), an EP2 Receptor-Selective Prostaglandin E2 Agonist: Characterization of Metabolites by High-Resolution Liquid Chromatography-Tandem Mass Spectrometry and Liquid Chromatography/Mass Spectrometry-Nuclear Magnetic Resonance. *Chandra Prakash, Weiwei Wang, Thomas O'Connell, and Kim A. Johnson* **2093**
- Biotransformation of the Chemopreventive Agent 2',4',4'-Trihydroxychalcone (Isoliquiritigenin) by UDP-Glucuronosyltransferases. *Jian Guo, Ang Liu, Hongmei Cao, Yan Luo, John M. Pezzuto, and Richard B. van Breemen* **2104**
- ☐ Carbonyl Reductase 1 Is a Predominant Doxorubicin Reductase in the Human Liver. *Nina Kassner, Klaus Huse, Hans-Jörg Martin, Ute Gödtel-Armbrust, Annegret Metzger, Ingolf Meineke, Jürgen Brockmüller, Kathrin Klein, Ulrich M. Zanger, Edmund Maser, and Leszek Wojnowski* **2113**
- Metabolic Activity of Cytochrome P450 Isoforms in Hepatocytes Cryopreserved with Wheat Protein Extract. *Mélanie Grondin, Francine Hamel, Fathey Sarhan, and Diana A. Averill-Bates* **2121**
- In Silico Modeling of Nonspecific Binding to Human Liver Microsomes. *Hua Gao, Lili Yao, Heather W. Mathieu, Ying Zhang, Tristan S. Maurer, Matthew D. Troutman, Dennis O. Scott, Roger B. Ruggeri, and Jing Lin* **2130**
- ☐ Multiple Substrate Binding by Cytochrome P450 3A4: Estimation of the Number of Bound Substrate Molecules. *Yury Kapelyukh, Mark J. I. Paine, Jean-Didier Maréchal, Michael J. Sutcliffe, C. Roland Wolf, and Gordon C. K. Roberts* **2136**
- Lipopolysaccharide Increases Cell Surface P-glycoprotein That Exhibits Diminished Activity in Intestinal Epithelial Cells. *Jayshree Mishra, Qiuye Zhang, Jessica L. Rosson, John Moran, John M. Dopp, and Brien L. Neudeck* **2145**

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

About the cover: Relationship of microsomal unbound fraction with hydrophobicity (a, ACD LogD; b, clogP) (blue +, basic; red ▲, acidic; ○, neutral). See article by Gao et al. on page 2130 of this issue.