

DRUG METABOLISM AND DISPOSITION

A Publication of the American Society for Pharmacology and Experimental Therapeutics

April 2016

Vol. 44, No. 4

CONTENTS

MINIREVIEW

- Design and Interpretation of Human Sulfotransferase A1 Assays. *Ting Wang, Ian Cook, and Thomas S. Leyh* . . . 481

SYMPOSIUM REPORT

- The Role of Protein-Protein and Protein-Membrane Interactions on P450 Function. *Emily E. Scott, C. Roland Wolf, Michal Otyepka, Sara C. Humphreys, James R. Reed, Colin J. Henderson, Lesley A. McLaughlin, Markéta Paloncýová, Veronika Navrátilová, Karel Berka, Pavel Anzenbacher, Upendra P. Dahal, Carlo Barnaba, James A. Brozik, Jeffrey P. Jones, D. Fernando Estrada, Jennifer S. Laurence, Ji Won Park, and Wayne L. Backes* 576

ARTICLES

- Efflux Transport Characterization of Resveratrol Glucuronides in UDP-Glucuronosyltransferase 1A1 Transfected HeLa Cells: Application of a Cellular Pharmacokinetic Model to Decipher the Contribution of Multidrug Resistance-Associated Protein 4. *Shuai Wang, Feng Li, Enxi Quan, Dong Dong, and Baojian Wu* 485
- Effect of Ondansetron on Metformin Pharmacokinetics and Response in Healthy Subjects. *Qing Li, Hong Yang, Dong Guo, Taolan Zhang, James E. Polli, Honghao Zhou, and Yan Shu* 489
- CYP267A1 and CYP267B1 from *Sorangium cellulosum* So ce56 are Highly Versatile Drug Metabolizers. *Fredy Kern, Yogan Khatri, Martin Litzenburger, and Rita Bernhardt* 495
- Mechanistic Modeling of Pitavastatin Disposition in Sandwich-Cultured Human Hepatocytes: A Proteomics-Informed Bottom-Up Approach. *Anna Vildhede, André Mateus, Elin K. Khan, Yurong Lai, Maria Karlgren, Per Artursson, and Maria C. Kjellsson* 505
- Hepatic Transporter Expression in Metabolic Syndrome: Phenotype, Serum Metabolic Hormones,

- and Transcription Factor Expression. *Ajay C. Donepudi, Qiuqiong Cheng, Zhenqiang James Lu, Nathan J. Cherrington, and Angela L. Slitt* . . . 518

- Determination of Human Hepatocyte Intrinsic Clearance for Slowly Metabolized Compounds: Comparison of a Primary Hepatocyte/Stromal Cell Co-culture with Plated Primary Hepatocytes and HepaRG. *Britta Bonn, Petter Svanberg, Annika Janefeldt, Ia Hultman, and Ken Grime* 527
- Inactivation of CYP2A6 by the Dietary Phenylpropanoid *trans*-Cinnamic Aldehyde (Cinnamaldehyde) and Estimation of Interactions with Nicotine and Letrozole. *Jeannine Chan, Tyler Oshiro, Sarah Thomas, Allyson Higa, Stephen Black, Aleksandar Todorovic, Fawzy Elbarbry, and John P. Harrelson* 534

- Stereoselective Glucuronidation of Bupropion Metabolites In Vitro and In Vivo. *Brandon T. Gufford, Jessica Bo Li Lu, Ingrid F. Metzger, David R. Jones, and Zeruesenay Desta* 544

- Sacubitril Is Selectively Activated by Carboxylesterase 1 (CES1) in the Liver and the Activation Is Affected by CES1 Genetic Variation. *Jian Shi, Xinwen Wang, Jenny Nguyen, Audrey H. Wu, Barry E. Bleske, and Hao-Jie Zhu* 554

- Biomarkers of Flutamide-Bioactivation and Oxidative Stress In Vitro and In Vivo. *Marieke Teppner, Franziska Boess, Beat Ernst, and Axel Pähler* . . . 560

- Identification of Human Sulfotransferases Involved in Lorcaserin *N*-Sulfamate Formation. *Abu J. M. Sadeque, Safet Palamar, Khawja A. Usmani, Chuan Chen, Matthew A. Cerny, and Weichao G. Chen* 570

- Nonsterol Isoprenoids Activate Human Constitutive Androstane Receptor in an Isoform-Selective Manner in Primary Cultured Mouse Hepatocytes. *Elizabeth A. Rondini, Zofia Duniec-Dmuchowski, and Thomas A. Kocarek* 595

Continued on next page

- ☐ Identification of Epoxide-Derived Metabolite(s) of Benzbromarone. *Kai Wang, Hui Wang, Ying Peng, and Jiang Zheng* **607**

SHORT COMMUNICATION

- ☐ Simvastatin Hydroxy Acid Fails to Attain Sufficient Central Nervous System Tumor Exposure to Achieve a Cytotoxic Effect: Results of a Pre-clinical Cerebral Microdialysis Study. *Yogesh T. Patel, Megan O. Jacus, Abigail D. Davis, Nidal Boulos, David C. Turner, Pradeep K. Vuppala, Burgess B. Freeman, 3rd, Richard J. Gilbertson, and Clinton F. Stewart* **591**

ERRATA

- Correction to: "Using the BacMam Baculovirus System to Study Expression and Function of Recombinant Efflux Drug Transporters in Polarized Epithelial Cell Monolayers". **517**
- Correction to "Effects of Phenobarbital on Expression of UDP-Glucuronosyltransferase 1a6 and 1a7 in Rat Brain". **605**
- Correction to: "A Novel Loading Method for Doxycycline Liposomes for Intracellular Drug Delivery: Characterization of In Vitro and In Vivo Release Kinetics and Efficacy in a J774A.1 Cell Line Model of *Mycobacterium smegmatis* Infection". . **606**

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

About the cover: Nucleotide-linked cap closure determines substrate selection. See the article by Leyh et al., ([dx.doi.org/10.1124/dmd.115.068205](https://doi.org/10.1124/dmd.115.068205)).