

# DRUG METABOLISM AND DISPOSITION

A Publication of the American Society for Pharmacology and Experimental Therapeutics

August 2015

Vol. 43, No. 8

## CONTENTS

### SHORT COMMUNICATIONS

- Identification and Functional Assessment of a New *CYP2C9* Allelic Variant *CYP2C9\*59*. *Da-Peng Dai, Shuang-Hu Wang, Chuan-Bao Li, Pei-Wu Geng, Jie Cai, Hao Wang, Guo-Xin Hu, and Jian-Ping Cai*. . . . . **1246**

- Danazol Inhibits Cytochrome P450 2J2 Activity in a Substrate-independent Manner. *Eunyoung Lee, Zhexue Wu, Jong Cheol Shon, and Kwang-Hyeon Liu*. . . . . **1250**

### SYMPOSIUM REPORT

- “Target-Site” Drug Metabolism and Transport. *Robert S. Foti, Rachel F. Tyndale, Kristine L. P. Garcia, Douglas H. Sweet, Swati Nagar, Satish Sharan, and Dan A. Rock*. . . . . **1156**

### ARTICLES

- Quantitative Polymerase Chain Reaction Analysis of the Mouse *Cyp2j* Subfamily: Tissue Distribution and Regulation. *Joan P. Graves, Artiom Gruzdev, J. Alyce Bradbury, Laura M. DeGraff, Huiling Li, John S. House, Samantha L. Hoopes, Matthew L. Edin, and Darryl C. Zeldin*. . . . . **1169**

- Ginsenosides Regulate PXR/NF- $\kappa$ B Signaling and Attenuate Dextran Sulfate Sodium-Induced Colitis. *Jun Zhang, Lijuan Cao, Hong Wang, Xuefang Cheng, Lin Wang, Lin Zhu, Tingting Yan, Yang Xie, Yuzheng Wu, Min Zhao, Sijing Ma, Mengqiu Wu, Guangji Wang, and Haiping Hao*. . . . . **1181**

- Metabolism and Disposition of Cabozantinib in Healthy Male Volunteers and Pharmacologic Characterization of Its Major Metabolites. *Steven Lacy, Bih Hsu, Dale Miles, Dana Aftab, Ronghua Wang, and Linh Nguyen*. . . . . **1190**

- Development of Murine *Cyp3a* Knockout Chimeric Mice with Humanized Liver. *Kota Kato,*

- Masato Ohbuchi, Satoko Hamamura, Hiroki Ohshita, Yasuhiro Kazuki, Mitsuo Oshimura, Koya Sato, Naoyuki Nakada, Akio Kawamura, Takashi Usui, Hidetaka Kamimura, and Chise Tateno*. . . . . **1208**

- Characterization of Species Differences in Tissue Diltiazem Deacetylation Identifies *Ces2a* as a Rat-Specific Diltiazem Deacetylase. *Takaya Kurokawa, Tatsuki Fukami, and Miki Nakajima*. . . . . **1218**

- The *CYP2C19* Intron 2 Branch Point SNP is the Ancestral Polymorphism Contributing to the Poor Metabolizer Phenotype in Livers with *CYP2C19\*35* and *CYP2C19\*2* Alleles. *Amarjit S. Chaudhry, Bhagwat Prasad, Yoshiyuki Shirasaka, Alison Fohner, David Finkelstein, Yiping Fan, Shuoguo Wang, Gang Wu, Eleni Aklillu, Sarah C. Sim, Kenneth E. Thummel, and Erin G. Schuetz*. . . . . **1226**

- 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. *Rebekah K. Franklin, Sarah A. Marcus, Adel M. Talaat, Butch K. KuKanich, Ruth Sullivan, Lisa A. Krugner-Higby, and Timothy D. Heath*. . . . . **1236**

- Early Changes in Cytochrome P450s and Their Associated Arachidonic Acid Metabolites Play a Crucial Role in the Initiation of Cardiac Hypertrophy Induced by Isoproterenol. *Hassan N. Althurwi, Zaid H. Maayah, Osama H. Elshenawy, and Aymen O. S. El-Kadi*. . . . . **1254**

- Pharmacokinetics and Metabolism of Delamanid, a Novel Anti-Tuberculosis Drug, in Animals and Humans: Importance of Albumin Metabolism In Vivo. *Katsunori Sasahara, Yoshihiko Shimokawa, Yukihiko Hirao, Noriyuki Koyama, Kazuyoshi Kitano, Masakazu Shibata, and Ken Umehara*. . . **1267**

- Metabolic Mechanism of Delamanid, a New Anti-Tuberculosis Drug, in Human Plasma. *Yoshihiko Shimokawa, Katsunori Sasahara, Noriyuki*

Continued on next page

Contents (cont'd.)

*Koyama, Kazuyoshi Kitano, Masakazu Shibata,  
Noriaki Yoda, and Ken Umehara . . . . .***1277**

Variability in Expression of CYP3A5 in Human Fetal  
Liver. *Carrie A. Vyhlidal, Robin E. Pearce,  
Roger Gaedigk, Justina C. Calamia, Diana L.  
Shuster, Kenneth E. Thummel, and J. Steven  
Leeder. . . . .***1286**

**ERRATA**

Correction to: “Activity Suppression Behavior Phenotype  
in SULT4A1 Frameshift Mutant Zebrafish”. . . . . **1284**

Correction to: “Constitutive Androgen Receptor-  
Null Mice Are Sensitive to the Toxic Effects of  
Parathion: Association with Reduced Cytochrome  
P450-Mediated Parathion Metabolism”. . . . . **1285**

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

*About the cover:* Immunohistochemistry of liver transplanted with human hepatocytes and intestine from Cyp3a KO chimeric mice and PXB-mice. See the article by Kato et al. ([dx.doi.org/10.1124/dmd.115.063479](https://doi.org/10.1124/dmd.115.063479)).