

DRUG METABOLISM AND DISPOSITION

A Publication of the American Society for Pharmacology and Experimental Therapeutics

February 2017

Vol. 45, No. 2

CONTENTS

MINIREVIEW

- Organic Anion Transporter 2: An Enigmatic Human Solute Carrier. *Hong Shen, Yurong Lai, and A. David Rodrigues* **228**

ARTICLES

- Role of Glucocorticoid Receptor and Pregnane X Receptor in Dexamethasone Induction of Rat Hepatic Aryl Hydrocarbon Receptor Nuclear Translocator and NADPH-Cytochrome P450 Oxidoreductase. *Sarah R. Hunter, Alex Vonk, Anne K. Mullen Grey, and David S. Riddick* **118**

- Species Differences in Human and Rodent PEPT2-Mediated Transport of Glycylsarcosine and Cefadroxil in *Pichia Pastoris* Transformants. *Feifeng Song, Yongjun Hu, Huidi Jiang, and David E. Smith* . . . **130**

- In Vitro and Clinical Evaluations of the Drug-Drug Interaction Potential of a Metabotropic Glutamate 2/3 Receptor Agonist Prodrug with Intestinal Peptide Transporter 1. *Y. Anne Pak, Amanda J. Long, William F. Annes, Jennifer W. Witcher, Mary Pat Knadler, Mosun A. Ayan-Oshodi, Malcolm I. Mitchell, Phillip Leese, and Kathleen M. Hillgren* **137**

- Microvilli Morphology Can Affect Efflux Active P-Glycoprotein in Confluent MDCKII-hMDR1-NKI and Caco-2 Cell Monolayers. *Zhou Meng, Sylvain Le Marchand, Deep Agnani, Matthew Szapacs, Harma Ellens, and Joe Bentz* **145**

- Target-Site Investigation for the Plasma Prolactin Response: Mechanism-Based Pharmacokinetic-Pharmacodynamic Analysis of Risperidone and Paliperidone in the Rat. *Shinji Shimizu, Sandra M. den Hoedt, Victor Mangas-Sanjuan, Sinziana Cristea, Jana K. Geuer, Dirk-Jan van den Berg, Robin Hartman, Francisco Bellanti, and Elizabeth C. M. de Lange* **152**

- Management of Rodent Populations by Anticoagulant Rodenticides: Toward Third-Generation

- Anticoagulant Rodenticides. *Marlène Damin-Pernik, Bernadette Espana, Sebastien Lefebvre, Isabelle Fourel, Hervé Caruel, Etienne Benoit, and Virginie Lattard* **160**

- Impact of Organic Cation Transporters (OCT-SLC22A) on Differential Diagnosis of Intrahepatic Lesions. *Michele Visentin, Belle V. van Rosmalen, Christian Hiller, Matthanja Bieze, Lia Hofstetter, Joanne Verheij, Gerd A. Kullak-Ublick, Hermann Koepsell, Saffire S.K.S. Phoa, Ikumi Tamai, Roelof J. Bennink, Thomas M. van Gulik, and Bruno Steiger* **166**

- Metabolism of the MEK1/2 Inhibitor Pimasertib Involves a Novel Conjugation with Phosphoethanolamine in Patients with Solid Tumors. *Holger Scheible, Friedrich Kraetzer, Andreas Marx, Andreas Johné, and Elmar Wimmer* **174**

- Impact of Probe Substrate Selection on Cytochrome P450 Reaction Phenotyping Using the Relative Activity Factor. *Y. Amy Siu and W. George Lai* **183**

- Extrapolation of Elementary Rate Constants of P-glycoprotein-Mediated Transport from MDCKII-hMDR1-NKI to Caco-2 Cells. *Zhou Meng, Harma Ellens, and Joe Bentz* **190**

- Evaluation of a Novel Renewable Hepatic Cell Model for Prediction of Clinical CYP3A4 Induction Using a Correlation-Based Relative Induction Score Approach. *Rongjun Zuo, Feng Li, Sweta Parikh, Li Cao, Kirsten L. Cooper, Yulong Hong, Jin Liu, Ronald A. Faris, Daochuan Li, and Hongbing Wang* **198**

- In Vivo Hepatic Enhancer Elements in the Human ABCG2 Locus. *Rachel J. Eclöv, Mee J. Kim, Robin P. Smith, Xiaomin Liang, Nadav Ahituv, and Deanna L. Kroetz* **208**

DRUG METABOLISM & DISPOSITION

Downloaded from dmd.aspetjournals.org at ASPET Journals on February 1, 2023

Continued on next page

- ☐ Age-Dependent Absolute Abundance of Hepatic Carboxylesterases (CES1 and CES2) by LC-MS/MS Proteomics: Application to PBPK Modeling of Oseltamivir In Vivo Pharmacokinetics in Infants. *Mikael Boberg, Marc Vrana, Aanchal Mehrotra, Robin E. Pearce, Andrea Gaedigk, Deepak Kumar Bhatt, J. Steven Leeder, and Bhagwat Prasad 216*
- ☐ Hepatic Dipeptidyl Peptidase-4 Controls Pharmacokinetics of Vildagliptin In Vivo. *Mitsutoshi Asakura, Tatsuki Fukami, Miki Nakajima, Hideaki*

Fujii, Koichiro Atsuda, Tomoo Itoh, and Ryoichi Fujiwara 237

SHORT COMMUNICATION

- ☐ Comparative Evaluation of Dehydroepiandrosterone Sulfate Potential to Predict Hepatic Organic Anion Transporting Polypeptide Transporter-Based Drug-Drug Interactions. *Kei Nishizawa, Takeo Nakanishi, and Ikumi Tamai 224*

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

About the cover: Characterization of microvilli morphology in confluent Caco-2 cell monolayers by 3D SIM. The lower panel is a magnification of the space within the magenta square of the upper panel. See the article by Meng et al. ([dx.doi.org/10.1124/dmd.116.072157](https://doi.org/10.1124/dmd.116.072157)).