CONTENTS

THE 2006 BERNARD B. BRODIE AWARD LECTURE
CYP2E1. FRANK J. GONZALEZ ................ 1

MINIREVIEW
PEGylated Proteins: Evaluation of Their Safety in the Absence of Definitive Metabolism Studies. ROB WEBSTER, ERIC DIDIER, PHILIP HARRIS, NED SIEGEL, JEANNE STADLER, LORRAINE TILBURY, AND DENNIS SMITH .................... 9

SHORT COMMUNICATION
Cellular Localization Studies on Human Estrogen Sulfotransferase SULT1E1 in Human Embryonic Kidney 293 Cells. RUCHITA KAPOOR, DEEPTHI NIMMAGADDA, AND JONATHAN J. SHENG ....... 17

ARTICLES
Biotransformation of Geldanamycin and 17-Allyl-amino-17-Demethoxygeldanamycin by Human Liver Microsomes: Reductive versus Oxidative Metabolism and Implications. WENSHENG LANG, GARY W. CALDWELL, JIANG LI, GREGORY C. LEO, WILLIAM J. JONES, AND JOHN A. MASUCCI .......... 21

Organic Anion Transporting Polypeptide 2B1 and Breast Cancer Resistance Protein Interact in the Transepithelial Transport of Steroid Sulfates in Human Placenta. MARKUS GRUBE, SEBASTIAN REUTHER, HENRIETTE MEYER ZU SCHWABEDISS, KATHLEEN KOCK, KATRIN DRABER, CHRISTOPH A. RITTER, CHRISTOPH FUSCH, GABRIELE JEDLITSCHKY, AND HEYO K. KROEMER ............. 30

Gender Dictates the Nuclear Receptor-Mediated Regulation of CYP3A44. SAYEERPRIYADARSHINI ANAKK, WEN-DONG HUANG, JEFFREY L. STAUDINGER, KI HENG TAN, TIMOTHY J. COLE, DAVID D. MOORE, AND HENRY W. STROBEL ................... 36

Specificity of Aminoacylase III-Mediated Deacetylation of Mercapturic Acids. DEBRA NEWMAN, NATALIA ABULADZE, KAROLINE SCHOLZ, WOLFGANG DEKANT, VLADIMIR TSUPRIN, SERGEY RYAZANTSIV, GALYNA BONDAR, PAKAN SASSANI, IRA KURTZ, AND ALEXANDER PUSHKIN .............. 43

The Disposition and Metabolism of Naveglitazar, a Peroxisome Proliferator-Activated Receptor α-γ Dual, γ-Dominant Agonist in Mice, Rats, and Monkeys. PING YI, CHAD E. HADDEN, WILLIAM F. ANNES, DAVID A. JACKSON, BARRY C. PETERSON, TODD A. GILLESPIE, AND JASON T. JOHNSON ....... 51

Elevated Warfarin Metabolism in Warfarin-Resistant Roof Rats (Rattus rattus) in Tokyo. MAYUMI ISHIZUKA, FUMIE OKAJIMA, TSUTOMU TANIKAWA, HEEWON MIN, KAZUYUKI D. TANAKA, KENTARO Q. SAKAMOTO, AND SHOICHI FUJITA ............ 62

A New CYP3A5 Variant, CYP3A5*1/*1, Is Shown to Be Defective in Nifedipine Metabolism in a Recombinant cDNA Expression System. SU-JUN LEE, ILE P. VAN DER HEIDEN, JOYCE A. GOLDSTEIN, AND RON H. N. VAN SCHAk ............ 67

Identification of Human Cytochrome P450 Isozymes Involved in Diphenhydramine N-Demethylation. TOMOKO AKUTSU, KAORU KOBAYASHI, KOICHI SAKURADA, HIROSHI IKEGAYA, TOMOMI FURIHATA, AND KAN CHIBA ............. 72


Humanized IgG1 Variants with Differential Binding Properties to the Neonatal Fc Receptor: Relation-
Contents (cont’d.)

- Ship to Pharmacokinetics in Mice and Primates. Amita Datta-Mannan, Derrick R. Wither, Ying Tang, Jeffrey Watkins, Weidong Jiang, and Victor J. Wroblewski .................. 86

- Pregnan X Receptor-Dependent Induction of the CYP3A4 Gene by o,p’-1,1,1-Trichloro-2,2-Bis(p-Chlorophenyl)ethane. Irma M. Medina-Diaz, Georgina Arteaga-Illan, Mario Bermudez de Leon, Bulmaro Cisneros, Adolfo Sierra-Santo, Libia Vega, Frank J. Gonzalez, and Guillermo Elizondo .................. 95


- Impact of Curcumin-Induced Changes in P-Glycoprotein and CYP3A Expression on the Pharmacokinetics of Peroral Celiprolol and Midazolam in Rats. Wenxia Zhang, Theresa May Chin Tan, and Lee-Yong Lim ..................... 110

- Isolation of the UDP-Glucuronosyltransferase 1A3 and 1A4 Proximal Promoters and Characterization of Their Dependence on the Transcription Factor Hepatocyte Nuclear Factor 1α. Dione A. Gardner-Stephen and Peter I. Mackenzie .... 116

- Tissue- and Gender-Specific mRNA Expression of UDP-Glucuronosyltransferases (UGTs) in Mice. David B. Buckley and Curtis D. Klaassen .. 121

- CYP2B6, CYP2D6, and CYP3A4 Catalyze the Primary Oxidative Metabolism of Perhexiline Enantiomers by Human Liver Microsomes. Benjamin J. Davies, Janet K. Collier, Andrew A. Somogyi, Robert W. Milne, , and Benedetta C. Sallustio .......................... 128

- Involvement of Multiple Cytochrome P450 and UDP-Glucuronosyltransferase Enzymes in the in Vitro Metabolism of Muraglitazar. Donglu Zhang, Lifei Wang, Gamini Chandrasena, Li Ma, Mingshe Zhu, Hongjian Zhang, Carl D. Davis, and W. Griffith Humphreys .......... 139

- Comparative Metabolism of Radiolabeled Muraglitazar in Animals and Humans by Quantitative and Qualitative Metabolite Profiling. Donglu Zhang, Lifei Wang, Nirmala Raghavan, Haiying Zhang, Wenying Li, Peter T. Cheng, Ming Yao, Lita Zhang, Mingshe Zhu, Samuel Bonacorsi, Suresh Yeola, James Mitroka, Narayanan Hariharan, Vinayak Hosagrahara, Gamini Chandrasena, Wen Chyi Shyu, and W. Griffith Humphreys ........................ 150

- Cytochrome P450 and Glutathione S-Transferase mRNA Expression in Human Fetal Liver Hematopoietic Stem Cells. Jing Shao, Patricia L. Stapleton, Yvonne S. Lin, and Evan P. Gallagher .......................... 168

- Genetic Variation of Human Cytochrome P450 Reductase as a Potential Biomarker for Mitomycin C-Induced Cytotoxicity. Shou-Lin Wang, Jing-Fen Han, Xiao-Yang He, Xin-Ru Wang, and Jun-Yan Hong .................... 176

- An Evaluation of the Cytochrome P450 Inhibition Potential of Lisdexamfetamine in Human Liver Microsomes. Suma Krishnan and Scott Moncrief ............ 180

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

About the cover: Immunolocalization of BCRP and OATP2B1 in the human placenta, as well as in BCRP-, OATP2B1-, and double-transfected MDCKII cells. See the article by Grube et al. on page 30 of this issue.