

# DRUG METABOLISM AND DISPOSITION

A Publication of the American Society for Pharmacology and Experimental Therapeutics

October 2006

Vol. 34, No. 10

## CONTENTS

### SHORT COMMUNICATION

- Cytochrome P450 Expression of Cultured Rat Small Hepatocytes after Long-Term Cryopreservation. HIDEKAZU OOE, JUNKO KON, SHIGEKI MIYAMOTO, YOSHIYASU OZONE, SHIN-ICHI NINOMIYA, AND TOSHIHIRO MITAKA . . . . . **1667**

### ARTICLES

- CYP2A13 in Human Respiratory Tissues and Lung Cancers: An Immunohistochemical Study with a New Peptide-Specific Antibody. LIANG-RU ZHU, PAUL E. THOMAS, GANG LU, KENNETH R. REUHL, GUANG-YU YANG, LI-DONG WANG, SHOU-LIN WANG, CHUNG S. YANG, XIAO-YANG HE, AND JUN-YAN HONG . . . . . **1672**

- S** Dietary Inulin Alleviates Hepatic Steatosis and Xenobiotics-Induced Liver Injury in Rats Fed a High-Fat and High-Sucrose Diet: Association with the Suppression of Hepatic Cytochrome P450 and Hepatocyte Nuclear Factor 4 $\alpha$  Expression. JUNKO SUGATANI, TADASHI WADA, MAKOTO OSABE, KASUMI YAMAKAWA, KOUICHI YOSHINARI, AND MASAO MIWA . . . . . **1677**

- Amiodarone Analog-Dependent Effects on CYP2C9-Mediated Metabolism and Kinetic Profiles. VIKAS KUMAR, CHUCK W. LOCUSON, YUK Y. SHAM, AND TIMOTHY S. TRACY . . . . . **1688**

- In Vivo and in Vitro Metabolism of Arylamine Procarcinogens in Acetyltransferase-Deficient Mice. K. S. SUGAMORI, D. BRENNEMAN, AND D. M. GRANT . . . . . **1697**

- Characterization of the Rhesus Monkey CYP3A64 Enzyme: Species Comparisons of CYP3A Substrate Specificity and Kinetics Using Baculovi-

- rus-Expressed Recombinant Enzymes. BRIAN CARR, RYAN NORCROSS, YULIN FANG, PING LU, A. DAVID RODRIGUES, MAGANG SHOU, TOM RUSHMORE, AND CATHERINE BOOTH-GENTHE . . . . . **1703**

- In Vivo Metabolism and Final Disposition of a Novel Nonsteroidal Androgen in Rats and Dogs. MINOLI A. PERERA, DONGHUA YIN, DI WU, KENNETH K. CHAN, DUANE D. MILLER, AND JAMES DALTON . . . **1713**

- Detection and Characterization of Metabolites in Biological Matrices Using Mass Defect Filtering of Liquid Chromatography/High Resolution Mass Spectrometry Data. MINGSHE ZHU, LI MA, DONGLU ZHANG, KENNETH RAY, WEIPING ZHAO, W. GRIFFITH HUMPHREYS, GARY SKILES, MARK SANDERS, AND HAIYING ZHANG . . . . . **1722**

- Substrate Specificity of Carboxylesterase Isozymes and Their Contribution to Hydrolase Activity in Human Liver and Small Intestine. TERUKO IMAI, MEGUMI TAKETANI, MAYUMI SHII, MASAKIYO HOSOKAWA, AND KAN CHIBA . . . . . **1734**

- Use of Immortalized Human Hepatocytes to Predict the Magnitude of Clinical Drug-Drug Interactions Caused by CYP3A4 Induction. SHARON L. RIPP, JESSICA B. MILLS, ODETTE A. FAHMI, KRISTEN A. TREVENA, JENNIFER L. LIRAS, TRISTAN S. MAURER, AND SONIA M. DE MORAIS . . . . . **1742**


- Characterization of Proline-Serine-Rich Carboxyl Terminus in Human Sulfotransferase 2B1b: Immunogenicity, Subcellular Localization, Kinetic Properties, and Phosphorylation. DONGNING HE AND CHARLES N. FALANY . . . . . **1749**

- Differential Regulation of Sinusoidal and Canalicular Hepatic Drug Transporter Expression by Xeno-

*Continued on next page*

Contents (cont'd.)

- biotics Activating Drug-Sensing Receptors in Primary Human Hepatocytes. EMILIE JIGOREL, MARC LE VEE, CLAIRE BOURSIER-NEYRET, YANNICK PARMENTIER, AND OLIVIER FARDEL . . . . . **1756**
- Species Differences in the in Vitro Metabolism of Deltamethrin and Esfenvalerate: Differential Oxidative and Hydrolytic Metabolism by Humans and Rats. STEPHEN J. GODIN, EDWARD J. SCOLLON, MICHAEL F. HUGHES, PHILIP M. POTTER, MICHAEL J. DEVITO, AND MATTHEW K. ROSS . . . . . **1764**
- Induction of Rat UDP-Glucuronosyltransferases in Liver and Duodenum by Microsomal Enzyme Inducers That Activate Various Transcriptional Pathways. M. K. SHELBY AND C. D. KLAASSEN . . . **1772**
- Metabolism of Endosulfan- $\alpha$  by Human Liver Microsomes and Its Utility as a Simultaneous in Vitro Probe for CYP2B6 and CYP3A4. RICHARD C. T. CASABAR, ANDREW D. WALLACE, ERNEST HODGSON, AND RANDY L. ROSE . . . . . **1779**
- Methylated Flavonoids Have Greatly Improved Intestinal Absorption and Metabolic Stability. XIA WEN AND THOMAS WALLE . . . . . **1786**

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

About the cover: Immunohistochemical analysis of CYP2A13 protein in human tissues (original magnification, 200 $\times$ ). See the article by Zhu et al. on page 1672 of this issue.