MINIREVIEWS

153 Recommendations on the Use of Multiple Labels in Human Mass Balance Studies
Filip Cuyckens, Mette G. Hvenegaard, Kenneth C. Cassidy, Douglas K. Spracklin, Alexander D. James, Mette L. Pedersen, Graeme Scarfe, David S. Wagner, Katrin Georgi, Simone I. Schulz, Hanno Schieferstein, Inga Bjornsdottir, Andrea A. Romeo, Georges Da Violante, Stefan Blech, Patricia Moliner, and Graeme C. Young

ARTICLES

171 Chronic Exposure to E-Cigarettes Elevates CYP2A5 Activity, Protein Expression, and Cotinine-Induced Production of Reactive Oxygen Species in Mice
Keiko Kanamori, Syed M. Ahmad, Abdul Hamid, and Kabirullah Lutfy

180 Effects of Strong Inhibition of Cytochrome P450 3A and UDP glucuronosyltransferase 1A9 and Strong Induction of Cytochrome P450 3A on the Pharmacokinetics, Safety, and Tolerability of Soticlestat: Two Drug–Drug Interaction Studies in Healthy Volunteers
Wei Yin, Cheng Dong, Annette Stevenson, Valerie Lloyd, Marco Petrillo, Mike Baratta, Tom Hui, and Steve Han

188 Dihydrotanshinone I–Induced CYP1 Enzyme Inhibition and Alteration of Estradiol Metabolism
Ying Liu, Yu Chen, Jingyu Zhang, Guangyun Ran, Zihao Cheng, Xin Wang, Yufen Liao, Xu Mao, Ying Peng, Weiwei Li, and Jiang Zheng

198 The Current Status and Use of Microphysiological Systems by the Pharmaceutical Industry: The International Consortium for Innovation and Quality Microphysiological Systems Affiliate Survey and Commentary
Thomas K. Baker, Terry R. Van Vleet, Prathap Kumar Mahalingaiah, Taraka Sai Pavan Grandhi, Raymond Evers, Jason Ekert, James R. Gosset, Silvi A. Chacko, and Anna K. Kopec

208 Association of Valproic Acid and Its Main Metabolites’ Plasma Concentrations with Clinical Outcomes among Epilepsy Patients: A 10-Year Retrospective Study Based on Therapeutic Drug Monitoring
Rui-tong Li, Zi-ye Chen, Si-yuan Tang, Ding-sheng Wen, Rui-na Ren, Xiao-xu Zhang, Song-ze Liu, Shan Zhou, Xue-ding Wang, Lie-min Zhou, and Min Huang

218 Identification and Functional Assessment of Eight CYP3A4 Allelic Variants *39–*46 Detected in the Chinese Han Population
Yuying Qi, Hang Yang, Shuanghu Wang, Lili Zou, Fangling Zhao, Qing Zhang, Yun Hong, Qingfeng Luo, Quan Zhou, Peiwu Geng, Hao Chen, Fusui Ji, Jianping Cai, and Dapeng Dai

228 Correlation of In Vitro Kinetic Stability to Preclinical In Vivo Pharmacokinetics for a Panel of Anti-PD-1 Monoclonal Antibody Interleukin 21 Mutein Immunocytokines
Kevin D. Cook, Thuy Tran, Veena A. Thomas, Siva Charan Devanaboyina, Dan A. Rock, and Josh T. Pearson

236 Pleiotropic Effects of a Mixed-Mode Perpetrator Drug, Rifampicin, by Multiple Endogenous Biomarkers in Dogs
Renmeng Liu, Bin Ma, Marilyn M. Mok, Bernard P. Murray, Raju Subramanian, and Yurong Lai
Biocatalysis using Thermostable Cytochrome P450 Enzymes in Bacterial Membranes – Comparison of Metabolic Pathways with Human Liver Microsomes and Recombinant Human Enzymes

Ulrik Jurva, Ann-Sofie Sandinge, Jong Min Baek, Mickaël Avanthay, Raine E. S. Thomson, Stephlina A. D’Cunha, Shalini Andersson, Martin A. Hayes, and Elizabeth M. J. Gillam

Natural Products Inhibition of Cytochrome P450 2B6 Activity and Methadone Metabolism

Pan-Fen Wang, Yanming Yang, Vishal Patel, Alicia Neiner, and Evan D. Kharasch

Novel Cytochrome P450 2C119 Enzymes in Cynomolgus and Rhesus Macaques Metabolize Progesterone, Diclofenac, and Omeprazole

Yasuhiro Uno, Norie Murayama, and Hiroshi Yamazaki