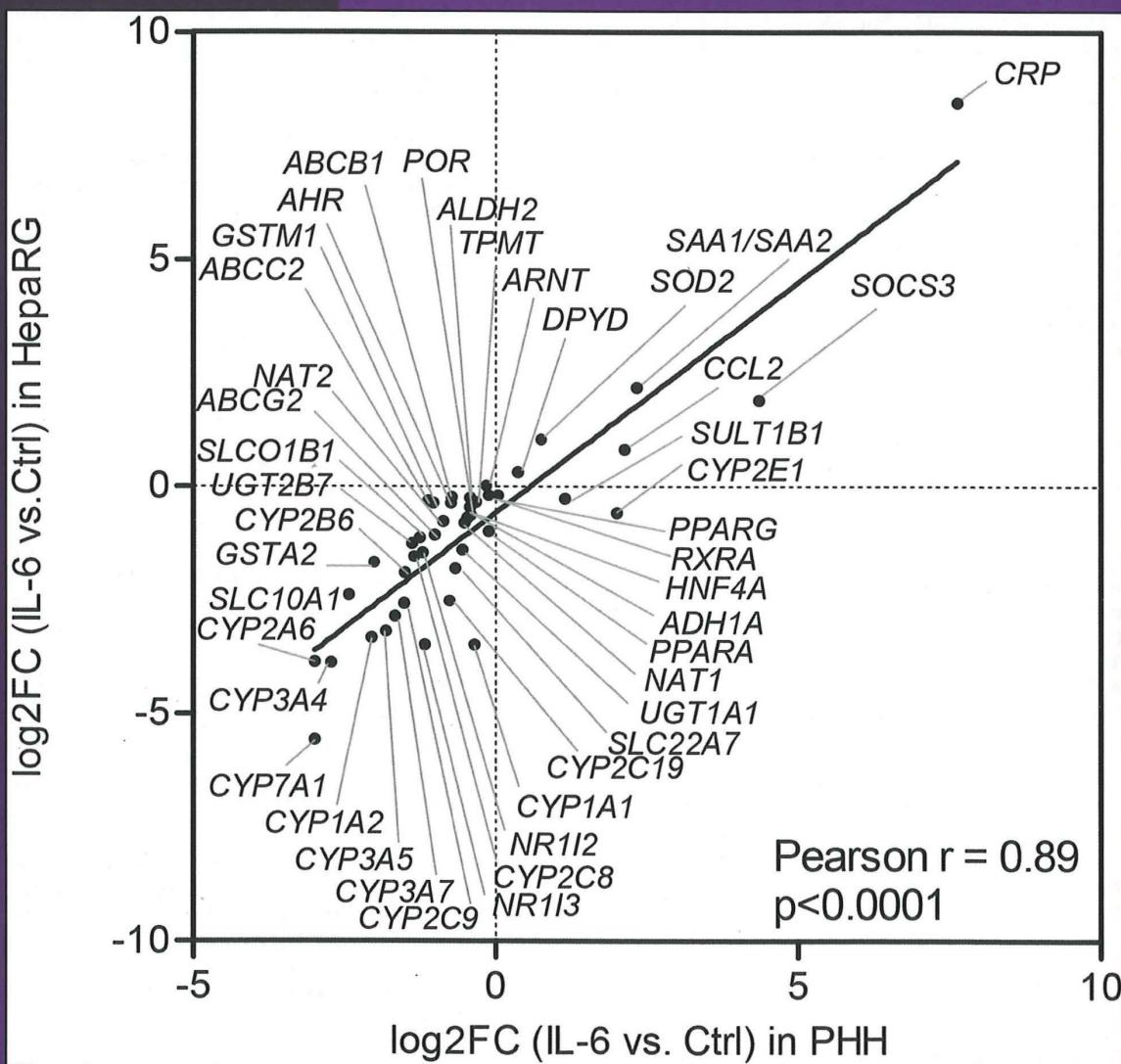


DRUG METABOLISM AND DISPOSITION



A Publication of the American Society for
Pharmacology and Experimental Therapeutics

DRUG METABOLISM AND DISPOSITION

A Publication of the American Society for Pharmacology and Experimental Therapeutics

February 2015

Vol. 43, No. 2

CONTENTS

PERSPECTIVE

- Mass Cytometry: A Highly Multiplexed Single-Cell Technology for Advancing Drug Development.
Kondala R. Atkuri, Jeffrey C. Stevens, and Hendrik Neubert 227

SHORT COMMUNICATION

- Quantitative Transporter Proteomics by Liquid Chromatography with Tandem Mass Spectrometry: Addressing Methodologic Issues of Plasma Membrane Isolation and Expression-Activity Relationship.
Vineet Kumar, Bhagwat Prasad, Gabriela Patilea, Anshul Gupta, Laurent Salphati, Raymond Evers, Cornelis E. C. A. Hop, and Jashvant D. Unadkat 284

ARTICLES

- Physiologically Based Pharmacokinetic Modeling to Predict Drug-Drug Interactions Involving Inhibitory Metabolite: A Case Study of Amiodarone.
Yuan Chen, Jialin Mao, and Cornelis E. C. A. Hop 182

- Comparison of the Circulating Metabolite Profile of PF-04991532, a Hepatoselective Glucokinase Activator, Across Preclinical Species and Humans: Potential Implications in Metabolites in Safety Testing Assessment.
Raman Sharma, John Litchfield, Arthur Bergman, Karen Atkinson, David Kazierad, Stephanie M. Gustavson, Li Di, Jeffrey A. Pfefferkorn, and Amit S. Kalgutkar 190

- Zinc Finger Nuclease-Mediated Gene Knockout Results in Loss of Transport Activity for P-Glycoprotein, BCRP, and MRP2 in Caco-2 Cells.
Kathleen E. Sampson, Amanda Brinker, Jennifer Pratt, Neetu Venkatraman, Yongling Xiao, Jim Blasberg, Toni Steiner, Maureen Bourner, and David C. Thompson 199

- Characterization of CYP2B6 in a CYP2B6-Humanized Mouse Model: Inducibility in the Liver by Phenobarbital and Dexamethasone and Role in Nicotine Metabolism In Vivo.
Zhihua Liu, Lei Li, Hong Wu, Jing Hu, Jun Ma, Qing-Yu Zhang, and Xinxin Ding 208

- Analysis of the Disposition of a Novel p38 MAPK Inhibitor, AKP-001, and Its Metabolites in Rats

with a Simple Physiologically Based Pharmacokinetic Model.
Kazuhiko Shirota, Makoto Kaneko, Makoto Sasaki, Kouichi Minato, Akira Fujikata, Shuji Ohta, Akihiro Hisaka, and Hiroshi Suzuki 217

- Investigation of the Impact of Substrate Selection on In Vitro Organic Anion Transporting Polypeptide 1B1 Inhibition Profiles for the Prediction of Drug-Drug Interactions.
Saki Izumi, Yoshitane Nozaki, Kazuya Maeda, Takafumi Komori, Osamu Takenaka, Hiroyuki Kusuvara, and Yuichi Sugiyama 235

- Mass Spectrometric Evaluation of Mephedrone In Vivo Human Metabolism: Identification of Phase I and Phase II Metabolites, Including a Novel Succinyl Conjugate.
Óscar J. Pozo, María Ibáñez, Juan V. Sancho, Julio Lahoz-Beneytez, Magí Farré, Esther Papaseit, Rafael de la Torre, and Félix Hernández 248

Drug-Metabolizing and Antioxidant Enzymes in Monosodium L-Glutamate Obese Mice.
Petra Matoušková, Hana Bártíková, Iva Boušová, Lucie Levorová, Barbora Szotáková, and Lenka Skálová 258

- Renal Xenobiotic Transporter Expression is Altered in Multiple Experimental Models of Nonalcoholic Steatohepatitis.
Mark J. Canet, Rhianon N. Hardwick, April D. Lake, Anika L. Dzierlenga, John D. Clarke, Michael J. Goedken, and Nathan J. Cherrington 266

- A Systematic Comparison of the Impact of Inflammatory Signaling on Absorption, Distribution, Metabolism, and Excretion Gene Expression and Activity in Primary Human Hepatocytes and HepaRG Cells.
Marcus Klein, Maria Thomas, Ute Hofmann, Daniel Seehofer, Georg Damm, and Ulrich M. Zanger 273

- Absorption, Metabolism, and Excretion of Oral ¹⁴C Radiolabeled Ibrutinib: An Open-Label, Phase I, Single-Dose Study in Healthy Men.
Ellen Scheers, Laurent Leclercq, Jan de Jong, Nini Bode, Marc

Continued on next page

Contents (cont'd.)

Bockx, Aline Laenen, Filip Cuyckens, Donna Skee,
Joe Murphy, Juthamas Sukbuntherng, and Geert
Mannens **289**

NOTICE OF RETRACTION

Notice of Retraction. **234**

NOTICE OF CONCERN

Notice of Concern. **298**

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

About the cover: Correlation of IL-6-induced gene expression changes in PHH and HepaRG cells. See the article by Klein et al.
(dx.doi.org/10.1124/dmd.114.060962)

Notice of Retraction

Re: Kadam RS, Vooturi SK, Komella UB. Immunohistochemical and functional characterization of peptide, organic cation, neutral and basic amino acid, and monocarboxylate drug transporters in human ocular tissues. *Drug Metab Dispos* February 2013 **41**:466–474; doi:10.1124/dmd.112.045674

The University of Colorado and authors have requested that this article be withdrawn due to data integrity problems with some LC-MS/MS peak areas in Figure 10 (A-D) and Figure 11 (A-C). The data were found to be falsified to improve the differences or kinetics. *Drug Metab Dispos* has retracted this article.