

Toxicological Sciences

CONTENTS

Volume 96, Number 1, March 2007

EDITORIAL

- Genetic Toxicity Assessment: Employing the Best Science for Human Safety Evaluation**
Jay I. Goodman, Bhaskar Gollapudi, and Lois D. Lehman-McKeeman 1

REVIEW

- Role of the Kupffer Cell in Mediating Hepatic Toxicity and Carcinogenesis**
Ruth A. Roberts, Patricia E. Ganey, Cynthia Ju, Lisa M. Kamendulis, Ivan Rusyn, and James E. Klaunig 2

FORUM SERIES

- Genetic Toxicity Assessment: Employing the Best Science for Human Safety Evaluation Part I: Early Screening for Potential Human Mutagens**
David Jacobson-Kram and Joseph F. Contrera 16

CARCINOGENICITY

- Functional Role of β -Adrenergic Receptors in the Mitogenic Action of Nicotine on Gastric Cancer Cells**
Vivian Yvonne Shin, William Ka Kei Wu, Kent Man Chu, Marcel Wing Leung Koo, Helen Pui Shan Wong, Emily Kai Yee Lam, Emily Kin Ki Tai, and Chi Hin Cho 21

- Reduction in Antioxidant Defenses may Contribute to Ochratoxin A Toxicity and Carcinogenicity**
Christophe Cavin, Thierry Delatour, Maricel Marin-Kuan, Daisy Holzhäuser, Larry Higgins, Claudine Bezençon, Gabriela Guignard, Sylviane Junod, Janique Richoz-Payot, Eric Gremaud, John D. Hayes, Sandra Nestler, Peter Mantle, and Benoît Schilter 30

- A Comparison of Transcriptomic and Metabonomic Technologies for Identifying Biomarkers Predictive of Two-Year Rodent Cancer Bioassays**
Russell S. Thomas, Thomas M. O'Connell, Linda Pluta, Russell D. Wolfinger, Longlong Yang, and Todd J. Page 40

- Sexual Dimorphism in the Regulation of Liver Connexin32 Transcription in Hexachlorobenzene-Treated Rats**
Isabelle Plante, Daniel G. Cyr, and Michel Charbonneau 47

- Subchronic Urinary Bladder Effects of Muraglitazar in Male Rats**
Terry R. Van Vleet, M. Randy White, Thomas P. Sanderson, Samuel M. Cohen, Martin Cano, Lora L. Arnold, C. Robbie Waites, Beth E. Schilling, James Mitroka, and Mark A. Dominick 58

- Orphan Nuclear Receptor Constitutive Active/Androstane Receptor-Mediated Alterations in DNA Methylation during Phenobarbital Promotion of Liver Tumorigenesis**
Jennifer M. Phillips, Yukio Yamamoto, Masahiko Negishi, Robert R. Maronpot, and Jay I. Goodman 72

GENETIC TOXICOLOGY

- Cellular Toxicity Induced by SRF-Mediated Transcriptional Squelching**
Huey Lin, Jami McGrath, Ping Wang, and Techung Lee 83

IMMUNOTOXICOLOGY

- Posttranscriptional Inhibition of Interferon-Gamma Production by Lead**
Yong Heo, Tapan K. Mondal, Donghong Gao, Jane Kasten-Jolly, Hiroko Kishikawa, and David A. Lawrence ... 92

Continued

IN VITRO TOXICOLOGY

- Determination of Phospholipidosis Potential Based on Gene Expression Analysis in HepG2 Cells**
Franck Atienzar, Helga Gerets, Simon Dufrane, Karen Tilmant, Miranda Cornet, Stephane Dhalluin,
Bernard Ruty, Geoffrey Rose, and Michael Canning 101

NEUROTOXICOLOGY

- Dietary and *In Utero* Exposure to a Pentabrominated Diphenyl Ether Mixture Did Not Affect Cholinergic Parameters in the Cerebral Cortex of Ranch Mink (*Mustela vison*)**
Kimberly Bull, Niladri Basu, Si Zhang, Jonathan W. Martin, Steven Bursian, Pamela Martin, and
Laurie Hing Man Chan 115
- Behavioral Disturbances and Hair Cell Loss in the Inner Ear Following Nitrile Exposure in Mice, Guinea Pigs, and Frogs**
Carla Soler-Martín, Núria Díez-Padrisa, Pere Boadas-Vaello, and Jordi Llorens 123

REPRODUCTIVE AND DEVELOPMENTAL TOXICOLOGY

- Gestational PFOA Exposure of Mice is Associated with Altered Mammary Gland Development in Dams and Female Offspring**
Sally S. White, Antonia M. Calafat, Zsuzsanna Kuklanyik, LaTonya Villanueva, Robert D. Zehr,
Laurence Helfant, Mark J. Strynar, Andrew B. Lindstrom, Julie R. Thibodeaux, Carmen Wood, and
Suzanne E. Fenton 133
- In Vitro* and *In Vivo* Evaluation of the Estrogenic, Androgenic, and Progestagenic Potential of Two Cyclic Siloxanes**
Anne L. Quinn, Jane M. Regan, Joseph M. Tobin, Brian J. Marinik, Joan M. McMahon, Debra A. McNett,
Christopher M. Sushynski, Steven D. Crofoot, Paul A. Jean, and Kathleen P. Plotzke 145

RISK ASSESSMENT

- A Method to Determine Precise Benchmark Doses for Carbamate Anticholinesterases**
T. Leon Lassiter and Stephen Brimijoin 154

SAFETY EVALUATION

- Oxymorphone Hydrochloride, a Potent Opioid Analgesic, Is Not Carcinogenic in Rats or Mice**
Dana L. Shuey, Cindy Woodland, Claudine Tremblay, Richard Gregson, and Ronald J. Gerson 162
- Identification of Novel Peptide Safety Markers for Exocrine Pancreatic Toxicity Induced by Cyanohydroxybutene**
Jennie L. Walgren, Michael D. Mitchell, Laurence O. Whiteley, and David C. Thompson 174
- Evaluation of Two Novel Peptide Safety Markers for Exocrine Pancreatic Toxicity**
Jennie L. Walgren, Michael D. Mitchell, Laurence O. Whiteley, and David C. Thompson 184

SYSTEMS TOXICOLOGY

- Disruption of Iron Homeostasis Increases Phosphine Toxicity in *Caenorhabditis elegans***
Ubong Cha'on, Nicholas Valmas, Patrick J. Collins, Paul E. B. Reilly, Bruce D. Hammock, and
Paul R. Ebert 194