

# Drug Metabolism and Disposition: the biological fate of chemicals

September/October 1992

Vol. 20, No. 5

## CONTENTS

<b>Best Paper Award for 1991</b> .....	<b>619</b>	<b>Disposition of Acrivastine in the Male Beagle Dog.</b> MICHAEL J. McNULTY, DONNA L. DEAL, FRED R. NELSON, STEPHEN WELLER, PISAL CHANDRASURIN, JOHN SHOCKCOR, AND JOHN W.A. FINDLAY . . . .	<b>679</b>
<b>Induction of CYP1A1 mRNA in Rat Epidermis and Cultured Human Epidermal Keratinocytes by Benz(a)anthracene and <math>\beta</math>-Naphthoflavone.</b> ISLAM U. KHAN, DAVID R. BICKERS, TARIQ M. HAQI, AND HASAN MUKHTAR .....	<b>620</b>	<b>Bromo(monohydroxy)phenyl Mercapturic Acids: A New Class of Mercapturic Acids from Bromobenzene-Treated Rats.</b> JIANG ZHENG AND ROBERT P. HANZLIK .....	<b>688</b>
<b>Conjugation of Dinitrofluorobenzene to Plasma Proteins <i>in Vivo</i> in the Rat.</b> N. R. KITTERINGHAM, J. G. KENNA, C. McLEAN, J. B. CLARKE, AND B. K. PARK .....	<b>625</b>	<b>Disposition of Metabolically Labeled Recombinant Soluble CD4 (sT4) in Male Sprague-Dawley Rats Following Intravenous and Subcutaneous Administration.</b> CHARLES B. DAVIS, KATHLEEN E. BOYLE, JAMES J. URBANSKI, ROBERT T. PARADYSZ, AND KEI-LAI L. FONG .....	<b>695</b>
<b>Isolation, Purification, and Characterization of Two New Chemical Decomposition Products of Methylazoxycarbazine.</b> DIANE SHOMIN SWAFFAR, W. GRAYDON HARKER, STEVEN C. POMERANTZ, HENG-KEANG LIM, AND GAROLD S. YOST .....	<b>632</b>	<b>Pharmacokinetics and Pharmacodynamics of Topotecan in Patients with Advanced Cancer.</b> LOUISE B. GROCHOW, ERIC K. ROWINSKY, RANDALL JOHNSON, SUSAN LUDEMAN, SCOTT H. KAUFMANN, FRANCIS L. McCABE, BRIAN R. SMITH, LISA HURWITZ, ANNE DELISA, ROSS C. DONEHOWER, AND DENNIS A. NOE .....	<b>706</b>
<b>Effects of Dose, Strain, and Dosing Vehicle on Methacrylonitrile Disposition in Rats and Identification of a Novel Exhaled Metabolite.</b> B. I. GHANAYEM, I. M. SANCHEZ, AND L. T. BURKA .....	<b>643</b>	<b>Exogenous Glutathione Decreases Cellular Cadmium Uptake and Toxicity.</b> Y. JAMES KANG .....	<b>714</b>
<b>Pharmacokinetics and Renal Handling of Enprofylline in Pregnant Rats.</b> ISAO MURAOKA, TAKAAKI HASEGAWA, MASAYUKI NADAI, KATSUYOSHI KATO, AND TOSHITAKA NABESHIMA .....	<b>653</b>	<b>Enantioselectivity of Microsomal and Cytosolic Esterases in Rat Intestinal Mucosa.</b> SHEN K. YANG, YIN-YI HSIEH, WEN-CHANG CHANG, AND JIN-DING HUANG .....	<b>719</b>
<b>Species and Tissue Differences in the Microsomal Oxidation of 1,3-Butadiene and the Glutathione Conjugation of Butadiene Monoxide in Mice and Rats: Possible Role in 1,3-Butadiene-Induced Toxicity.</b> JANE E. SHARER, RENEE J. DUESCHER, AND ADNAN A. ELFARRA .....	<b>658</b>	<b>Concomitant Induction of Microsomal Epoxide Hydroxylase and UDP-Glucuronosyltransferase Activities by Dipyridine Compounds.</b> MICHAEL R. FRANKLIN AND DAVID E. MOODY .....	<b>726</b>
<b>Identification and Comparison of the Urinary Metabolites of [1,2,3-<math>^{13}\text{C}_3</math>] Acrylic Acid and [1,2,3-<math>^{13}\text{C}_3</math>] Propionic Acid in the Rat by Homonuclear <math>^{13}\text{C}</math> Nuclear Magnetic Resonance Spectroscopy.</b> STEVEN M. WINTER, GREGORY L. WEBER, PAUL R. GOOLEY, NEIL E. MACKENZIE, AND I. GLENN SIPES .....	<b>665</b>	<b>Comparative Pharmacokinetics of Cefoperazone and Cephadrine in Untreated Streptozotocin Diabetic Rats.</b> EMI NAKASHIMA, RYO MATSUSHITA, MASAMI TAKEDA, TAKEAKI NAKANISHI, AND FUJIO ICHIMURA .....	<b>730</b>
<b>Pharmacokinetics of Intravenously Injected [<math>^3\text{H}</math>]Tetrachloro(D,L-<i>trans</i>)1,2-diaminocyclohexane Platinum (IV) (Tetraplatin) in Mice.</b> YUICHIRO KIDO, ABDUL R. KHOKHAR, AND ZAHID H. SIDDIK . . . .	<b>673</b>		

*Continued on next page*

Contents (cont'd.)

The Pharmacokinetics of 1,2-Diethyl-3-hydroxypyridin-4-one (CP94) in Rats. OLA R. EPEMOLU, SURINDER SINGH, ROBERT C. HIDER, AND LYAQUAT A. DAMANI .....	736
Metabolism of 7-(1,3-Thiazolidin-2-ylmethyl)theophylline by Rat Liver Microsomes: Evidence for a Monooxygenase-Dependent Step in 1,3-Thiazolidine Ring Cleavage. GIORGIO GROSA, OTTO CAPUTO, MAURIZIO CERUTI, AND GIUSEPPE BIGLINO .....	742
Pharmacokinetics in Mice of the Anti-Retrovirus Agent 9-(2-Phosphonylmethoxyethyl)adenine. LIEVE NAESENS, JAN BALZARINI, AND ERIK DE CLERCQ .....	747
Cytochrome P-450 3A Enzymes are Responsible for Biotransformation of FK506 and Rapamycin in Man and the Rat. MARTIN SATTLER, F. PETER GUENGERICH, CHUL-HO YUN, UWE CHRISTIANS, AND KARL-FR. SEWING .....	753
Isolation and Structural Characterization by Spectroscopic Methods of Two Glucuronide Metabolites of Mexiletine after <i>N</i> -Oxidation and Deamination. JACQUES TURGEON, J. R. JOCELYN PARÉ, MARCEL LALANDE, ODETTE GRECH-BÉLANGER, AND PIERRE M. BÉLANGER .....	762
<b>SHORT COMMUNICATIONS</b>	
Cytochrome P-450-Mediated <i>N</i> -Dechloroethylation of Cyclophosphamide and Ifosfamide in the Rat. JAN A. RUZICKA AND PETER C. RUENITZ .....	770
Trimethadione Metabolism as an Index of Hepatic Drug-Oxidizing Capacity in Dogs with Liver Ischemia. EINOSUKE TANAKA, MASAOKI OHTSUKA, KENJI YUZAWA, AKIO ISIKAWA, KATASHI FUKAO, AND YOUJI IWASAKI .....	773
Inhibition of Rabbit Microsomal Cytochrome P-450 2E1-Dependent <i>p</i> -Nitrophenol Hydroxylation by Substituted Benzene Derivatives. DENNIS R. KOOP AND CARMEN L. LAETHEM .....	775