

CONTENTS OF VOLUME 52

12 JULY 1996

Commentary

HERMANN M. BOLT

- 1 Quantification of endogenous carcinogens. The ethylene oxide paradox

Research Papers

ELFRIEDE LINDAUER and EGGEHARD HOLLER

- 7 Cellular distribution and cellular reactivity of platinum(II) complexes

VOLKER ULLRICH, PETER WEBER,
FRANK MEISCH and FRANK VON APPEN

- 15 Ebselen-binding equilibria between plasma and target proteins

PETER J. O'DWYER, RAYMOND P. PEREZ,
KANG-SHEN YAO, ANDREW K. GODWIN and
THOMAS C. HAMILTON

- 21 Increased DT-diaphorase expression and cross-resistance to mitomycin C in a series of cisplatin-resistant human ovarian cancer cell lines

KEVIN ST. P. McNAUGHT, ULRIKE THULL,
PIERRE-ALAIN CARRUPT,
COSIMO ALTOMARE, SAVERIO CELLAMARE,
ANGELO CAROTTI, BERNARD TESTA,
PETER JENNER and C. DAVID MARSDEN

- 29 Inhibition of [³H]dopamine uptake into striatal synaptosomes by isoquinoline derivatives structurally related to 1-methyl-4-phenyl-1,2,3,6-tetrahydropyridine

JAN BONDESON and ROGER SUNDLER

- 35 Differential effects of tenidap on the zymosan- and lipopolysaccharide-induced expression of mRNA for proinflammatory cytokines in macrophages

CARMINE DI ILIO, PAOLO SACCHETTA,
STEFANIA ANGELUCCI,
TONINO BUCCIARELLI, ALFONSO PENNELLI,
ANNA P. MAZZETTI, MARIO LO BELLO and
ANTONIO ACETO

- 43 Interaction of glutathione transferase P1-1 with captan and captafol

MARTIN OCHSNER

- 49 Simultaneous measurement of Ca²⁺ transients and changes in the cell volume and microviscosity of the plasma membrane in smooth muscle cells. Evaluation of the effect of formoterol

GIUSEPPE NOCENTINI and ANNA BARZI

- 65 The 2,2'-bipyridyl-6-carbothioamide copper (II) complex differs from the iron (II) complex in its biochemical effects in tumor cells, suggesting possible differences in the mechanism leading to cytotoxicity

PETER H. ROOS and AXEL MAHNKE

- 73 Metabolite complex formation of orphenadrine with cytochrome P450. Involvement of CYP2C11 and CYP3A isozymes

UTA ECKHARDT, WERNER STÜBER,
GERHARD DICKNEITE, MARTIN REERS and
ERNST PETZINGER

- 85 First-pass elimination of a peptidomimetic thrombin inhibitor is due to carrier-mediated uptake by the liver. Interaction with bile acid transport systems

MARIO CIUFFI, LARA TARLINI,
SABRINA MUGNAI,
SERGIO FRANCHI-MICHELI and
LUCILLA ZILLETTI

- 97 Hemoglobin affects lipid peroxidation and prostaglandin E₂ formation in rat corticocerebral tissues *in vitro*

LIESBET PAEMEN, ERIK MARTENS,
KOEN NORGA, STEFAN MASURE,
EUGENE ROETS, JOS HOOGMARTENS and
GHISLAIN OPDENAKKER

- 105 The gelatinase inhibitory activity of tetracyclines and chemically modified tetracycline analogues as measured by a novel microtiter assay for inhibitors

- MARTIN K. BIJSTERBOSCH, HENDRIKA VAN DE BILT and THEO J. C. VAN BERKEL 113 Specific targeting of a lipophilic prodrug of iododeoxyuridine to parenchymal liver cells using lactosylated reconstituted high density lipoprotein particles
- AGAPIOS SACHINIDIS, KARIM EL-HASCHIMI, YON KO, CLAUDIA SEUL, RAINER DÜSING and HANS VETTER 123 CV-11974, the active metabolite of TCV-116 (Candesarten), inhibits the synergistic or additive effect of different growth factors on angiotensin II-induced proliferation of vascular smooth muscle cells
- SIGURD VITOLS, PETER GUNVÉN, ASTRID GRUBER and OLLE LARSSON 127 Expression of the low-density lipoprotein receptor, HMG-CoA reductase, and multidrug resistance (Mdr1) genes in colorectal carcinomas
- GLENVILLE JONES, VALARIE BYFORD, HUGH L. J. MAKIN, RICHARD KREMER, ROBERT H. RICE, LEA ANN DEGRAFFENRIED, JOYCE C. KNUTSON and CHARLES W. BISHOP 133 Anti-proliferative activity and target cell catabolism of the vitamin D analog $1\alpha,24(S)-(OH)_2D_2$ in normal and immortalized human epidermal cells
- FRANCES N. SHIROTA, DAVID J. W. GOON, EUGENE G. DEMASTER and HERBERT T. NAGASAWA 141 Nitrosyl cyanide, a putative metabolic oxidation product of the alcohol-deterrent agent cyanamide
- ANNEGRET HERRMANN-FRANK, MICHAEL RICHTER and FRANK LEHMANN-HORN 149 4-Chloro-m-cresol: a specific tool to distinguish between malignant hyperthermia-susceptible and normal muscle
- FRANK DOSIO, ANTONIA FRANCESCHI, MAURIZIO CERUTI, PAOLA BRUSA, LUIGI CATTEL and MARCO COLOMBATTI 157 Enhancement of ricin toxin A chain immunotoxin activity: synthesis, ionophoretic ability, and *in vitro* activity of monensin derivatives
- Short Communications**
- K. SHIBATA, K. MORITA, S. KITAYAMA, H. OKAMOTO and T. DOHI 167 Ca^{2+} entry induced by calcium influx factor and its regulation by protein kinase C in rabbit neutrophils
- TOSHIAKI NAKASHIMA, TOSHIHIDE SHIMA, MOTONARI SAKAI, HIROYOSHI YAMA, HIRONORI MITSUYOSHI, KOJI INABA, NINKO MATSUMOTO, YOSHIKUNI SAKAMOTO, KEI KASHIMA and HIROYASU NISHIKAWA 173 Evidence of a direct action of taurine and calcium on biological membranes. A combined study of ^{31}P -nuclear magnetic resonance and electron spin resonance study effects of first-generation H_1 -receptor antagonists in HL-60 cells, basophils, and mast cells

26 JULY 1996

Commentary

- TORSTEN STACHELHAUS, AXEL SCHNEIDER and MOHAMED A. MARAHIEL 177 Engineered biosynthesis of peptide antibiotics

Research Papers

- JOSÉ M. LIZCANO, ALBERTO FERNÁNDEZ DE ARRIBA, KEITH F. TIPTON and MERCEDES UNZETA 187 Inhibition of bovine lung semicarbazide-sensitive amine oxidase (SSAO) by some hydrazine derivatives
- JAN-PETER H. T. M. PLOEMEN, MARLOU L. P. S. VAN IERSEL, LARS W. WORMHOUDT, JAN N. M. COMMANDEUR, NICO P. E. VERMEULEN and PETER J. VAN BLADEREN 197 *In vitro* inhibition of rat and human glutathione S-transferase isoenzymes by disulfiram and diethyldithiocarbamate
- JEAN-FRANÇOIS PETIT, MAGALI NICAISE, MICHEL LEPOIVRE, ANNIE GUISSANI and GENEVIÈVE LEMAIRE 205 Protection by glutathione against the antiproliferative effects of nitric oxide. Dependence on kinetics of NO release

SAMLEE MANKHETKORN, ELISABETTA TEODORI, SERENA SCAPECCHI and ARLETTE GARNIER-SUILLEROT	213	Study of P-glycoprotein functionality in living resistant K562 cells after photolabeling with a verapamil analogue
BRYAN GOODWIN, CHRISTOPHER LIDDLE, MICHAEL MURRAY, MICHAEL TAPNER, TRICIA ROONEY and GEOFFREY C. FARRELL	219	Effects of metyrapone on expression of CYPs 2C11, 3A2, and other 3A genes in rat hepatocytes cultured on matrigel
GEORGINA S. LLOYD, JOHN HRYSZKO, NIGEL M. HOOPER and ANTHONY J. TURNER	229	Inhibition and metal ion activation of pig kidney aminopeptidase P. Dependence on nature of substrate
RASHID HANIF, ANASTASIOS PITTAS, YAN FENG, MARKOS I. KOUTSOS, LIANG QIAO, LISA STAIANO-COICO, STEVEN I. SHIFF and BASIL RIGAS	237	Effects of nonsteroidal anti-inflammatory drugs on proliferation and on induction of apoptosis in colon cancer cells by a prostaglandin-independent pathway
MARIKO SHIN, YOSHIMI MORI, AKI KIMURA, YUKARI FUJITA, KUNIKO YOSHIDA, KEIJI SANO and CHISAE UMEZAWA	247	NAD ¹ biosynthesis and metabolic fluxes of tryptophan in hepatocytes isolated from rats fed a clofibrate-containing diet
JOHN B. LOMBARDINI	253	Stimulation by chelerythrine of the phosphorylation of the amino acid serine in an ~20 kDA protein present in the mitochondrial fraction of the rat retina
THERESA M. VISARIUS, DAVID A. PUTT, JOSHUA M. SCHARE, DAVID M. PEGOUSKE and LAWRENCE H. LASH	259	Pathways of glutathione metabolism and transport in isolated proximal tubular cells from rat kidney
JENNIFER A. KENNEDY, STEVEN A. UNGER and JOHN D. HOROWITZ	273	Inhibition of carnitine palmitoyltransferase-1 in rat heart and liver by perhexiline and amiodarone
RICHARD WHALEN, ELLIS S. KEMPNER and THOMAS D. BOYER	281	Structural studies of a human pi class glutathione S-transferase. Photoaffinity labeling of the active site and target size analysis
HORTENSIA SOTO, FELIPE MASSÓ, SAÚL CANO and LINO DÍAZ DE LEÓN	289	Effects of mebendazole on protein biosynthesis and secretion in human-derived fibroblast cultures
HIROSHI YAMAZAKI, MASAMI NAKANO, ELIZABETH M. J. GILLAM, L. CHASTINE BELL, F. PETER GUENGERICH and TSUTOMU SHIMADA	301	Requirements for cytochrome <i>b₅</i> in the oxidation of 7-ethoxycoumarin, chlorzoxazone, aniline, and <i>N</i> -nitrosodimethylamine by recombinant cytochrome P450 2E1 and by human liver microsomes
YONG J. LEE, SANDRA S. GALOFORO, CHRISTINE M. BERNIS, ROBERT V. BLACKBURN, ELIEZER HUBERMAN and PETER M. CORRY	311	Dual effect of 1 α ,25-dihydroxyvitamin D ₃ on <i>hsp28</i> and <i>PKCβ</i> gene expression in phorbol ester-resistant human myeloid HL-525 leukemic cells
SATOSHI NUMAZAWA, NAONORI INOUE, HIRONORI NAKURA, TADASHI SUGIYAMA, EMI FUJINO, MASA-AKI SHINOKI, TAKEMI YOSHIDA and YUKIO KUROIWA	321	A cardiotonic steroid bufalin-induced differentiation of THP-1 cells. Involvement of Na ¹ , K ¹ -ATPase inhibition in the early changes in proto-oncogene expression
ALAN R. MCEUEN, SHAOHENG HE, MATTHEW L. BRANDER and ANDREW F. WALLS	331	Guinea pig lung tryptase. Localisation to mast cells and characterisation of the partially purified enzyme
RONALD ANDERSON, GRACE RAMAFI and ANNETTE J. THERON	341	Membrane stabilizing, anti-oxidative interactions of propranolol and dexpropranolol with neutrophils

- JAMIE D. CROXTALL, QAM CHOUDHURY,
SIMON NEWMAN and ROD J. FLOWER 351 Lipocortin 1 and the control of cPLA₂ activity in A549 cells. Glucocorticoids block EGF stimulation of cPLA₂ phosphorylation
- ZHEN P. YANG, JASON MORROW,
AIPING WU, L. JACKSON ROBERTS II and
WOLF-D. DETTBARN 357 Diisopropylphosphorofluoridate-induced muscle hyperactivity associated with enhanced lipid peroxidation *in vivo*
- AMBER L. POND, CODY P. COYNE,
HOWARD W. CHAMBERS and
JANICE E. CHAMBERS 363 Identification and isolation of two rat serum proteins with A-esterase activity toward paraoxon and chlorpyrifos-oxon
- DONNA L. SAVIGNI and EVAN H. MORGAN 371 Use of inhibitors of ion transport to differentiate iron transporters in erythroid cells
- Short Communication**
- JUKKA HAKKOLA, HANNU RAUNIO,
RAIJA PURKUNEN, OLAVI PELKONEN,
SEPPO SAARIKOSKI, THIERRY CRESTEIL and
MARKKU PASANEN 379 Detection of cytochrome P450 gene expression in human placenta in first trimester of pregnancy

9 AUGUST 1996

Commentary

ALEXEI E. MEDVEDEV, ANGELA CLOW,
MERTON SANDLER and VIVETTE GLOVER

- 385 Isatin: A link between natriuretic peptides and monoamines?

Research Papers

CHANG-HO AHN, JAE-YANG KONG,
WON CHUL CHOI and MYUNG-SIL HWANG

- 393 Selective inhibition of the effects of phorbol ester on doxorubicin resistance and P-glycoprotein by the protein kinase C inhibitor 1-(5-isoquinolinesulfonyl)-2-methylpiperazine (H7) in multidrug-resistant MCF-7/Dox human breast carcinoma cells

BETTY JANE MILLS and CALVIN A. LANG

- 401 Differential distribution of free and bound glutathione and cyst(e)ine in human blood

TOMONOBU FUJITA, YOSHIKO SETO,
NOBUO KONDO and RYUICHI KATO

- 407 Studies on the *N*-[*trans*-4-isopropylcyclohexyl]-carbonyl]-D-phenylalanine (A-4166) receptor in HIT T-15 cells. Displacement of [³H]glibenclamide

IVAN CORREIA, LINGHUA WANG,
XINZHU PANG and
THEOHARIS C. THEOHARIDES

- 413 Characterization of the 78 kDa mast cell protein phosphorylated by the antiallergic drug cromolyn and homology to moesin

MARK PICKARD and ANNE KINSELLA

- 425 Influence of both salvage and DNA damage response pathways on resistance to chemotherapeutic antimetabolites

ANGELIKA PIETSCH, WOLFGANG ERL and
REINHARD L. LORENZ

- 433 Lovastatin reduces expression of the combined adhesion and scavenger receptor CD36 in human monocytic cells

STEFAN KEPPANS

- 441 Effects of diadenosine triphosphate and diadenosine tetraphosphate on rat liver cells. Differences and similarities with ADP and ATP

DANIELA GUNZ and HANSPETER NAEGELI

- 447 A noncovalent binding-translocation mechanism for site-specific CC-1065-DNA recognition

PIETER H. J. HOUBA,
RUBEN G. G. LEENDERS, EPIE BOVEN,
JOHANNES W. SCHEEREN,
HERBERT M. PINEDO and HIDDE J. HAISMA

- 455 Characterization of novel anthracycline prodrugs activated by human β -glucuronidase for use in antibody-directed enzyme prodrug therapy

- JEAN-MICHEL RIGO, SHIBESHI BELACHEW,
PAUL COUCKE, PIERRE LEPRINCE,
BRIGITTE MALGRANGE, BERNARD ROGISTER
and GUSTAVE MOONEN 465 Astroglia-released factor with negative allosteric modulatory properties at the GABA_A receptor. Evidence from binding studies
- CAROLINE STANWELL, BIN YE,
STUART H. YUSPA and
TERRENCE R. BURKE JR. 475 Cell protein cross-linking by erbstatin and related compounds
- MIN-LIANG KUO, YI-WEN CHOU,
YAT-PANG CHAU and TZU-CHING MENG 481 Differential induction of apoptosis in oncogene-transformed NIH 3T3 cells by methylmethanesulfonate
- MAKOTO HOSHINO, AKITAKA TANAKA,
TOMIHIRO HAYAKAWA, TAKAYUKI OHIWA,
KENJI KATAGIRI, MAKOTO MIYAJI,
KATSUHIKO TSUKADA and
TOSHIHIKO TAKEUCHI 489 Enhancing effects of vasoconstrictors on bile flow and bile acid excretion in the isolated perfused rat liver
- JEAN MARC TRELUYER, GÉRARD CHERON,
MICHELLE SONNIER and THIERRY CRESTEIL 497 Cytochrome P-450 expression in sudden infant death syndrome
- THIERRY MERCIER,
CATHERINE CHAUMONTET,
ISABELLE GAILLARD-SANCHEZ,
PAULE MARTEL and CHRISTINE HEBERDEN 505 Calcitriol and lexicalcitol (KH1060) inhibit the growth of human breast adenocarcinoma cells by enhancing transforming growth factor- β production

23 AUGUST 1996

Commentary

DANIEL LÉVESQUE

- 511 Aminotetralin drugs and D₃ receptor functions. What may partially selective D₃ receptor ligands tell us about dopamine D₃ receptor functions?

Research Papers

YASUNORI SUGIYAMA, SHUNRO KAWAKISHI
and TOSHIHIKO OSAWA

- 519 Involvement of the β -diketone moiety in the antioxidative mechanism of tetrahydrocurcumin

XIULONG XU, JAMES W. WILLIAMS,
HAIHUA GONG, ALISON FINNEGAN and
ANITA S-F. CHONG

- 527 Two activities of the immunosuppressive metabolite of leflunomide, A771726. Inhibition of pyrimidine nucleotide synthesis and protein tyrosine phosphorylation

CHRISTOPHER J. MATHENY, DAVID R. TAFT,
KIM L. R. BROUWER and GARY M. POLLACK

- 535 Evidence for reversible sequestration of morphine in rat liver

ROBERT M. SNAPKA, SUNG HO WOO,
ANDREI V. BLOKHIN and
DONALD T. WITIAK

- 543 Inhibition of topoisomerase II by ICRF-193, the meso isomer of 2,3-bis(2,6-dioxopiperazin-4-yl)butane. Critical dependence on 2,3-butanediyl linker absolute configuration

KAYLENE RAYNES, MICHAEL FOLEY,
LEANN TILLEY and LESLIE W. DEADY

- 551 Novel bisquinoline antimalarials. Synthesis, antimalarial activity, and inhibition of haem polymerisation

EIICHI FUSE, KATSUMI TAKAI,
KIYOTAKA OKUNO and SATOSHI KOBAYASHI

- 561 Hepatic extraction ratio of 5-fluorouracil in rats. Dose dependence and effect of uracil and interleukin-2

A. ROGER TERZIAN, XUEJUN ZHANG and
RONALD P. RUBIN

- 569 Differential modulation of protein kinase C isozymes in rat parotid acinar cells. Relation to amylase secretion

GOVIND T. VATASSERY

- 579 Oxidation of vitamin E, vitamin C, and thiols in rat brain synaptosomes by peroxynitrite

RUSSELL C. BOWES III, ALAN R. PARRISH,
MICHAEL A. STEINBERG,
KRISTINE L. WILLETT, WEI ZHAO,
UZEN SAVAS, COLIN R. JEFCOATE,
STEPHEN H. SAFE and KENNETH S. RAMOS

- 587 Atypical cytochrome P450 induction profiles in glomerular mesangial cells at the mRNA and enzyme level. Evidence for CYP1A1 and CYP1B1 expression and their involvement in benzo[a]pyrene metabolism

Theresa C. Peterson	597	Inhibition of fibroproliferation by pentoxifylline. Activity of metabolite-1 and lack of role of adenosine receptors
Clifford W. Sachs, Larry M. Ballas, S. Wayne Mascarella, Ahmad R. Safa, Anita H. Lewin, Carson Loomis, F. Ivy Carroll, Robert M. Bell and Robert L. Fine	603	Effects of sphingosine stereoisomers on P-glycoprotein phosphorylation and vinblastine accumulation in multidrug-resistant MCF-7 cells
Richard J. Prince, Kay G. Fernandes, Joanna C. Gregory, Ian D. Martyn and Patrick M. Lippello	613	Modulation of nicotine-evoked [³ H]dopamine release from rat striatal synaptosomes by voltage-sensitive calcium channel ligands
John Anthony Bauer and Ho-Leung Fung	619	Specific binding of nitroglycerin to coronary artery microsomes. Evidence of a vascular nitrate binding site
Maurizio Podda, Michalis Rallis, Maret G. Traber, Lester Packer and Howard I. Maibach	627	Kinetic study of cutaneous and subcutaneous distribution following topical application of [7,8- ¹⁴ C]rac- α -lipoic acid onto hairless mice
Cheryl L. Fattman, William P. Allan, Brian B. Hasinoff and Jack C. Yalowich	635	Collateral sensitivity to the bisdioxopiperazine dexrazoxane (ICRF-187) in etoposide (VP-16)-resistant human leukemia K562 cells
Evette E. Esqueda, Edward H. Gerstin, Jr., Michael T. Griffin and Frederick J. Ehler	643	Stimulation of cyclic AMP accumulation and phosphoinositide hydrolysis by M ₃ muscarinic receptors in the rat peripheral lung
Theirry Pineau, W. Robert Hudgins, Lei Liu, Li-Chuan Chen, Talia Sher, Frank J. Gonzalez and Dvorit Samid	659	Activation of a human peroxisome proliferator-activated receptor by the antitumor agent phenylacetate and its analogs
Yuan Kang, Bridget Greaves and Roger R. Perry	669	Effect of acute and chronic intermittent hypoxia on DNA topoisomerase II α expression and mitomycin C-induced DNA damage and cytotoxicity in human colon cancer cells
Lynn F. Weber and Kathleen M. MacLeod	677	Noradrenaline stimulation of high-affinity GTPase activity in membranes from rat aorta and caudal artery

13 SEPTEMBER 1996

Commentary

Farzana Karim, Sandra C. Roerig and David Saphier	685	Role of 5-hydroxytryptamine ₃ (5-HT ₃) antagonists in the prevention of emesis caused by anticancer therapy
---	-----	--

Research Papers

Lisa A. Foellmi-Adams, Beatrice M. Wyse, David Herron, Jan Nedergaard and Rolf F. Kletzien	693	Induction of uncoupling protein in brown adipose tissue. Synergy between norepinephrine and pioglitazone, an insulin-sensitizing agent
Michael J. Spinella, Kevin E. Brigle, Sarah J. Freemantle, Esteban E. Sierra and I. David Goldman	703	Comparison of methotrexate polyglutamylation in L1210 leukemia cells when influx is mediated by the reduced folate carrier or the folate receptor. Lack of evidence for influx route-specific effects
Lefkothea C. Papadopoulou and Asterios S. Tsiftoglou	713	Effects of hemin on apoptosis, suppression of cytochrome C oxidase gene expression, and bone-marrow toxicity induced by doxorubicin (adriamycin)
Shaun R. Hawley, Patrick G. Bray, Paul M. O'Neill, B. Kevin Park and Stephen A. Ward	723	The role of drug accumulation in 4-aminoquinoline antimalarial potency. The influence of structural substitution and physicochemical properties
Anne Wong and Stelvio M. Bandiera	735	Inductive effect of Telazol [®] on hepatic expression of cytochrome P450 2B in rats

RONALD G. COFFEY, YOSHIMASA YAMAMOTO, ELIZABETH SNELLA and SUSAN PROSS	743	Tetrahydrocannabinol inhibition of macrophage nitric oxide production
GRAHAM R. JANG, STEVEN A. WRIGHTON and LESLIE Z. BENET	753	Identification of CYP3A4 as the principal enzyme catalyzing mifepristone (RU 486) oxidation in human liver microsomes
DIMITRI KOMIOTIS, JUNE D. WENCEL-DRAKE, JEANETTE P. DIETER, CHANG T. LIM and GUY C. LE BRETON	763	Labeling of human platelet plasma membrane thromboxane A ₂ /prostaglandin H ₂ receptors using SQB, a novel biotinylated receptor probe
COURTNEY E. WILLIAMS, ROBERT B. CRAWFORD, MICHAEL P. HOLSAPPLE and NORBERT E. KAMINSKI	771	Identification of functional aryl hydrocarbon receptor and aryl hydrocarbon receptor nuclear translocator in murine splenocytes
DALE L. MORRIS and JULIO C. DAVILA	781	Analysis of rat cytochrome P450 isoenzyme expression using semi-quantitative reverse transcriptase-polymerase chain reaction (RT-PCR)
SUZANNE G. LAYCHOCK	793	Modulation of glyceraldehyde 3-phosphate dehydrogenase activity in isolated pancreatic islets
KULWINDER K. BANGER, EDWARD A. LOCK and CELIA J. REED	801	Regulation of rat olfactory glutathione S-transferase expression. Investigation of sex differences, induction, and ontogenesis
MITSURU SUZUKI and KIWA O NAKANO	809	Increase in histamine synthesis by liver macrophages in CCl ₄ -injured mast cell-deficient W/W ^v mice
Short Communication DANIEL SCHLENK, LON D. PETERS and DAVID R. LIVINGSTONE	815	Correction of salinity with flavin-containing monooxygenase activity but not cytochrome P450 activity in the euryhaline fish (<i>Platyfish flesus</i>)

27 SEPTEMBER 1996

Commentary

STEVEN R. CHILDERS and
SAM A. DEADWYLER

819	Role of cyclic AMP in the actions of cannabinoid receptors
-----	--

Research Papers

ELIVIRA ROHDE, JENS FURKERT,
KLAUS FECHNER, MICHAEL BEYERMANN,
MICHAEL J. MULVANY,
REGINA M. RICHTER, CARL DENEFF,
MICHAEL BIENERT and HARTMUT BERGER

829	Corticotropin-releasing hormone (CRH) receptors in the mesenteric small arteries of rats resemble the (2) -subtype
-----	--

MAR CALONGE, RAOUL JOHNSON,
RAFAEL BALANA-FOUCE and
DAVID ORDÓÑEZ

835	Effects of cationic diamidines on polyamine content and uptake on <i>Leishmania infantum</i> in <i>in vitro</i> cultures
-----	--

JERZY W. MOZRZYMAS,
ANDRZEJ TEISSEYRE and FRANCO VITTUR

843	Propofol blocks voltage-gated potassium channels in human T lymphocytes
-----	---

JOSÉ M. PÉREZ, VÍCTOR M. GONZÁLEZ,
MIGUEL A. FUERTES and CARLOS ALONSO

851	Modification of the recognition of restriction sites of plasmid DNA by the antitumor drug Pt-pentamidine
-----	--

G. SAILAJA, R. NAYAK and A. ANTONY

857	Azidothymidine induces apoptosis in mouse myeloma cell line Sp2/0
-----	---

MARY-ANN EFTHIOULOU and
MICHAEL N. BERRY

863	Effect of aniline on ethanol oxidation and carbohydrate metabolism in isolated hepatocytes
-----	--

MARY F. RUH, LINDA K. COX and
THOMAS S. RUH

869	Estrogen receptor interaction with specific histones. Binding to genomic DNA and an estrogen response element
-----	---

IKUYO TSUKAMOTO, YUKI YOSHIDA,
YUKIHIKO KITAMURA and
SHINTARO NOMURA

879	Inhibition of thymidylate synthase and thymidine kinase by okadaic acid in regenerating rat liver after partial hepatectomy
-----	---

- PING C. LEE,
SHARMISTHA CHAKRABORTY PATRA,
CARY T. STELLOH, WINNIE LEE and
MARK STRUVE 885 Interaction of nonylphenol and hepatic CYP1A in rats
- ION V. DEACIUC, JULIE M. ALAPPAT,
KATHLEEN H. McDONOUGH and
NYMPHA B. D'SOUZA 891 Effect of chronic alcohol consumption by rats on tumor necrosis factor- α and interleukin-6 clearance *in vivo* and by the isolated, perfused liver
- MAHESH C. SHARMA, MEENA R. SHARMA,
SEONG-JOO JEONG and
BERNARD H. SHAPIRO 901 Purification and characterization of constituent androstenedione 15 α -hydroxylase (cytochrome P450_{15 α AD}) from mouse liver. Sex- and tissue-dependent expression
- HIROYUKI UMEGAKI, KIYOFUMI YAMADA,
MICHITAKA NAITO, TSUTOMU KAMEYAMA,
AKIHISA IGUSHI and
TOSHITAKA NABESHIMA 911 Protective effect of interleukin-6 against the death of PC12 cells caused by serum deprivation or by the addition of a calcium ionophore
- IVAN G. OTTERNESS, GASTON O. DAUMY,
MERTON G. GOLLAHER, JR.,
JAMES T. DOWNS, TIMOTHY J. ZUZEL,
MARCIA L. BLIVEN and
JOSEPH M. MERENDA 917 Determining selectivity of drugs by quantitative two-dimensional gel analysis. A study of tenidap, piroxicam, and dexamethasone
- TANIA M. SCHROEDER and
MARY LOU CASPERS 927 Kinetics of aluminum -induced inhibition of d-aminolevulinic acid dehydratase *in vitro*
- BARBARA BADIO, DAN SHI,
YANGMEE SHIN, KIRA D. HUTCHINSON,
WILLIAM L. PADGETT and JOHN W. DALY 933 Spiropyrrrolizidines: a new class of blockers of nicotinic receptors
- DALE W. PORTER, ERIC W. NEALLEY and
STEVEN I. BASKIN 941 *In vivo* detoxification of cyanide by cystathionase γ -lyase
- ROBERT J. COLINAS, DANIEL H. HUNT,
ANNE C. WALSH and DAVID A. LAWRENCE 945 Hydroquinone resistance in a murine myeloblastic leukemia cell line. Involvement of quinone reductase and glutathione-dependent detoxification in nonclassical multidrug resistance

Short Communications

- DAVID A. PUTNAM, JANE-GUO SHIAH and
JINDŘICH KOPEČEK 957 Intracellularly biorecognizable derivatives of 5-fluorouracil. Implications for site-specific delivery in the human condition
- ERIC TROTTIER, STÉPHANE DUBOIS,
ANDRÉA JEAN and ALAN ANDERSON 963 Identification of CYP2B14P and CYP2B16P, two apparent pseudogenes in the rat cytochrome P450 2B (CYP2B) subfamily

11 OCTOBER 1996

Commentary

- DOMINIQUE LAUTIER, YVAN CANITROT,
ROGER G. DEELEY and SUSAN P. C. COLE 967 Multidrug resistance mediated by the multidrug resistance protein (MRP) gene

Research Papers

- JEFFREY CUMMINGS, JANET S. MACPHERSON,
IAN MEIKLE and JOHN F. SMYTH 979 Development of anthracenyl-amino acid conjugates as topoisomerase I and II inhibitors that circumvent drug resistance
- AMALIA GUZDEK, EWA NIZANKOWSKA,
ANTHONY C. ALLISON, PETER B. KRUGER
and ALEKSANDER KOJ 991 Cytokine production in human and rat macrophages and dicatechol rooperol and esters

- M. FRANÇOISE VINCENT, M. FRANÇOISE BONTEMPS and GEORGES VAN DEN BERGHE 999 Substrate cycling between 5-amino-4-imidazolecarboxamide riboside and its monophosphate in isolated rat hepatocytes
- ROLAND BRUGGER, BEGONIA GARCÍA ALÍA, CHRISTINE REICHEL, R. WAIBEL, SABINE MENZEL, KAY BRUNE and GERD GEISSLINGER 1007 Isolation and characterization of rat liver microsomal R-ibuprofenoyl-CoA synthetase
- NAOMI NIISATO, YORIMASA OGATA, SHUNSUKE FURUYAMA and HIROSHI SUGIYA 1015 Histamine H₁ receptor-induced Ca²⁺ mobilization and prostaglandin E₂ release in human gingival fibroblasts. Possible role of receptor-operated Ca²⁺ influx
- HUA-CHIEN CHEN, CHEN-KUNG CHOU, YUEH-HSIUNG KUO and SHEAU-FARN YEH 1025 Identification of a protein kinase C (PKC) activator, daphnoretin, that suppresses hepatitis B virus gene expression in human hepatoma cells
- TAKANORI TSUDA, KAORU SHIGA, KATSUMI OHSHIMA, SHUNRO KAWAKISHI and TOSHIHIKO OSAWA 1033 Inhibition of lipid peroxidation and the active oxygen radical scavenging effect of anthocyanin pigments isolated from *Phaseolus vulgaris* L.
- ASTRID SCHRAMEL, DORIS KOESLING, ANTONIUS C. F. GORREN, MORDECHAI CHEVION, KURT SCHMIDT and BERND MAYER 1041 Inhibition of purified soluble guanylyl cyclase by copper ions
- JARED L. SCARLETT, MICHAEL A. PACKER, CAROLYN M. PORTEOUS and MICHAEL P. MURPHY 1047 Alterations to glutathione and nicotinamide nucleotides during the mitochondrial permeability transition induced by peroxynitrite
- ORNA HALEVY, ARNON NAGLER, FRANCESCA LEVI-SCHAFER, OLGA GENINA and MARK PINES 1057 Inhibition of collagen type I synthesis by skin fibroblasts of graft versus host disease and scleroderma patients: Effect of halofuginone
- PAUL T. LOFLIN, ELIZABETH ALTSCHULER, DANIEL HOCHHAUSER, IAN D. HICKSON and LEONARD A. ZWELLING 1065 Phorbol ester-induced down-regulation of topoisomerase II α mRNA in a human erythroleukemia cell line. Evidence for a post-transcriptional mechanism
- TAI-WING WU, LING-HUA ZENG, JUN WU, KWOK-PUI FUNG, RICHARD D. WEISEL, ANDREW HEMPEL and NORMAN CAMERMAN 1073 Molecular structure and antioxidant specificity of purpurogallin in three types of human cardiovascular cells
- LAURA J. ROBINSON and PAUL D. ROEPE 1081 Effects of membrane potential versus pH_i on the cellular retention of doxorubicin analyzed via a comparison between cystic fibrosis transmembrane conductance regulator (CFTR) and multidrug resistance (MDR) transfectants
- LAWRENCE PANASCI, BERTRAND J. JEAN-CLAUDE, DANIELA VASILESCU, AMIR MUSTAFA, SORIN DAMIAN, ZOE DAMIAN, ELIAS GEORGES, ZHI LIU, GERALD BATIST and BRIAN LEYLAND-JONES 1097 Sensitization to doxorubicin resistance in breast cancer cell lines by tamoxifen and megestrol acetate
- LAURENT P. RIVORY, MARK R. BOWLES, JACQUES ROBERT and SUSAN M. POND 1103 Conversion of irinotecan (CPT-11) to its active metabolite, 7-ethyl-10-hydroxycamptothecin (SN-38), by human liver carboxylesterase
- STACIA KARGMAN, ELIZABETH WONG, GILLIAN M. GREIC, JEAN-PIERRE FALGUEYRET, WANDA CROMLISH, DIANE ETHIER, JIM A. YERGEY, DENIS RIENDEAU, JILLY F. EVANS, BRIAN KENNEDY, PHILIP TAGARI, DONNA A. FRANCIS and GARY P. O'NEILL 1113 Mechanism of selective inhibition of human prostaglandin G/H synthase-1 and -2 in intact cells

Short Communication

MIKLÓS CSALA, GÁBOR BÁNHEGYI,
TAMÁS KARDON, ROSELLA FULCERI,
ALESSANDRA GAMBERUCCI,
ROBERTA GIUNTI, ANGELO BENEDETTI and
JÓZSEF MANDL

- 1127 Inhibition of glucuronidation by an acyl-CoA-mediated indirect mechanism

25 OCTOBER 1996**Commentary**

NORBERT E. KAMINSKI

- 1133 Immune regulation by cannabinoid compounds through the inhibition of the cyclic AMP signaling cascade and altered gene expression

Research Papers

MARIO CAPIELLO,
PIER GIUSEPPE VILARDO, ANNALISA LIPPI,
MARCO CRISCUOLI,
ANTONELLA DEL CORSO and
UMBERTO MURA

- 1141 Kinetics of human thrombin inhibition by two novel peptide inhibitors (Hirunorm IV and Hirunorm V)

GIANLUIGI VENDEMIALE,
IGNAZIO GRATTAGLIANO,
EMANUELE ALTOMARE, NICOLA TURTURRO
and FERRUCCIO GUERRIERI

- 1147 Effect of acetaminophen administration on hepatic glutathione compartmentation and mitochondrial energy metabolism in the rat

LAURENCE LINS, ROBERT BRASSEUR,
WILLY J. MALAISSE, MONIQUE BIESEMANS,
PATRICIA VERHEYDEN and RUDI WILLEM

- 1155 Importance of the hydrophobic energy: Structural determination of a hypoglycemic drug of the meglitinide family by nuclear magnetic resonance and molecular modeling

RATNA CHATTERJEE,
UDAY BANDYOPADHYAY,
ABHIJIT MAZUMDAR and
RANAJIT K. BANERJEE

- 1169 Lactoperoxidase-catalysed oxidation of indomethacin, a nonsteroidal antiinflammatory drug, through the formation of a free radical

DAVID RIDDELL, COLIN P. BRIGHT,
BRENDA J. BURTON, RAYMOND C. BUSH,
NEIL V. HARRIS, DAVID HELE,
UNA M. MOORE, KUNI NAIK,
DAVID P. PARROTT, CHRISTOPHER SMITH
and ROBERT J. WILLIAMS

- 1177 Hypolipidaemic properties of a potent and bioavailable alkylsulphonyl-diphenylimidazole ACAT inhibitor (RP 73163) in animals fed diets low in cholesterol

KWOK ONN WONG and KIM PING WONG

- 1187 Direct measurement and regulation of 3'-phosphoadenosine 5'-phosphosulfate (PAPS) generation *in vitro*

MARIO MONSHOUWER,
ROMAN A. McLELLAN, ENOCK DELAPORTE,
RENGER F. WITKAMP,
ADELBERT S. J. P. A. M. VAN MIERT and
KENNETH W. RENTON

- 1195 Differential effect of pentoxifylline on lipopolysaccharide-induced down-regulation of cytochrome P450

B. KLOSTERHALFEN, C. TÖNS,
S. HAUPTMANN, L. TIETZE, F. A. OFFNER,
W. KÜPPER and C. J. KIRKPATRICK

- 1201 Influence of heat shock protein 70 and metallothionein induction by zinc-bis-(DL-hydrogenaspartate) on the release of inflammatory mediators in a porcine model of recurrent endotoxemia

H. J. KRÄMER, J. STEVENS, F. GRIMMINGER
and W. SEEGER

- 1211 Fish oil fatty acids and human platelets: Dose-dependent decrease in dienoic and increase in trienoic thromboxane generation

EUN YOUNG CHOI, SANG GEON KIM,
JONG WOOK LEE, JOONG KEUN YOO,
JAE KYU SHIN and NAK DOO KIM

- 1219 Suppression of rat hepatic cytochrome P450 2E1 expression by isopropyl 2-(1,3-dithioetane-2-ylidene)-2-[N-(4-methyl-thiazol-2-yl)carbamoyl] acetate (YH439), an experimental hepatoprotectant: Protective role against hepatic injury

W. ROBERT HUDGINS, EITAN FIBACH,
SURINDER SAFAYA, RONALD F. RIEDER,
ALEXANDRA C. MILLER and
DVORIT SAMID

- 1227 Transcriptional upregulation of γ -globin by phenylbutyrate and analogous aromatic fatty acids

- O. CARTER SNEAD III 1235 Relation of the [^3H] γ -hydroxybutyric acid (GHB) binding site to the γ -aminobutyric acid_B (GABA_B) receptor in rat brain
- PETER A. GLASCOTT, JR., ELLEN GILFORD, ADA SERRONI and JOHN L. FARBER 1245 Independent antioxidant action of vitamins E and C in cultured rat hepatocytes intoxicated with allyl alcohol
- MITSUTERU NUMAZAWA, AYAKO MUTSUMI and MII TACHIBANA 1253 Mechanism for aromatase inactivation by a suicide substrate, androst-4-ene-3,6,17-trione. The 4 β , 5 β -epoxy-19-oxo derivative as a reactive electrophile irreversibly binding to the active site
- GOPAL K. MARATHE, SARDAR Y. K. YOUSUFZAI and ATA A. ABDEL-LATIF 1261 Mediation by prostaglandins of the stimulatory effect of substance P on cyclic AMP production in dog iris sphincter smooth muscle
- JON E. SPRAGUE, MICHAEL P. JOHNSON, CHRISTOPHER J. SCHMIDT and DAVID E. NICHOLS 1271 Studies on the mechanism of *p*-chloroamphetamine neurotoxicity
- TAKASHI ONO, AKIHIRO FUJII, KEIJI YAMAGAMI, MASAHITO HOSoya, TAKEKI OKUMOTO, SHINJI SAKATA, AKIRA MATSUDA and TAKUMA SASAKI 1279 Cell kill kinetics of an antineoplastic nucleoside, 1-(2-deoxy-2-methylene- β -D-erythro-pentofuranosyl) cytosine
- EIKO UENO and PHILIP ROSENBERG 1287 Differential effects of snake venom phospholipase A₂ neurotoxin (β -bungarotoxin) and enzyme (*Naja naja atra*) on protein kinases
- JOHN J. MCGUIRE, BARRY P. HART, WILLIAM H. HAILE, KATHRYN J. MAGEE, MYUNG RHEE, WANDA E. BOLANOWSKA, CYNTHIA RUSSELL, JOHN GALIVAN, BRAJESWAR PAUL and JAMES K. COWARD 1295 Biological properties of fluoroglutamate-containing analogs of folates and methotrexate with altered capacities to form poly (γ -glutamate) metabolites
- TIMOTHY S. TRACY, CHRISTINA MARRA, STEVEN A. WRIGHTON, FRANK J. GONZALEZ and KENNETH R. KORZEKWA 1305 Studies of flurbiprofen 4'-hydroxylation. Additional evidence suggesting the sole involvement of cytochrome P450 2C9
- MARC DESROCHERS, MARO CHRISTOU, COLIN JEFEOATE, ANNE BELZIL and ALAN ANDERSON 1311 New proteins in the rat CYP2B subfamily: Presence in liver microsomes of the constitutive CYP2B3 protein and the phenobarbital-inducible protein product of alternatively spliced CYP2B2 mRNA
- Additions and Corrections** 1321

8 NOVEMBER 1996

Commentary

JOHN W. DAILEY and DEAN K. NARITOKU

Research Papers

JENS FISCHER

CHRISTOS STOURNARAS, EFTICHA STIAKAKI, SEVASTI B. KOUKOURITAKI, PANAYOTIS A. THEODOROPOULOS, MARIA KALMANTI, YANNIS FOSTINIS and ACHILLE GRAVANIS

GENNADII P. GUSEV, NATALIA I. AGALAKOVA and ANATOLII V. LAPIN

MICHELLE QUME and LESLIE J. FOWLER

WOLFGANG A. SCHMALIX, J. JASWANT SINGH, PETER KAPFFHAMMER, JOSEF STADLER, ANDREAS K. NÜSSLER, DAVID A. GELLER, TIMOTHY R. BILLIAR, RICHARD L. SIMMONS, HELMUT GREIM and JOHANNES DOEHMER

- 1323 Antidepressants and seizures: Clinical anecdotes overshadow neuroscience
- 1331 Drug-induced glycosaminoglycan storage: Dose-dependent changes in the pattern of accumulated glycosaminoglycans in cultured bovine and human fibroblasts
- 1339 Altered actin polymerization dynamics in various malignant cell types: Evidence for differential sensitivity to cytochalasin B
- 1347 Activation of the Na⁺-K⁺ pump in frog erythrocytes by catecholamines and phosphodiesterase blockers
- 1355 Effects of chronic oral treatment with GABA-transaminase inhibitors on the GABA system in brain, liver, kidney, and plasma of the rat
- 1365 Stable expression of human inducible nitric oxide synthase in V79 Chinese hamster cells

- ANNA LORENZEN,
BIRTE GROßKATTHÖFER, BIRGIT KERST,
HEIDRUN VOGT, THOMAS FEIN and
ULRICH SCHWABE
- 1375 Characterization of a novel adenosine binding protein sensitive to cyclic AMP in rat brain cytosolic and particulate fractions
- ARLÈNE K. VAN VLIET,
PASCALE NÈGRE-AMINOU,
G. CHRISTA F. VAN THIEL,
PIET A. BOLHUIS and LOUIS H. COHEN
- 1387 Action of lovastatin, simvastatin, and pravastatin on sterol synthesis and their antiproliferative effect in cultured myoblasts from human striated muscle
- FLAVIO FLAMIGNI, IVANA STANIC,
CLAUDIO STEFANELLI, CLAUDIO MUSCARI,
ANTONELLA GIACCARI and
CARMEN ROSSONI
- 1393 Inhibition of the expression of ornithine decarboxylase by haloperidol in difluoromethylornithine-resistant leukemia cells
- PIERRE LEPRINCE, CATHERINE BONVOISIN,
BERNARD ROGISTER, CÉCILE MAZY-SERVAIS
and GUSTAVE MOONEN
- 1399 Protein kinase- and staurosporine-dependent induction of neurite outgrowth and plasminogen activator activity in PC12 cells
- DESPINA CONSTANTIN, JEAN E. FRANCIS,
RUTH A. AKHTAR, BRUCE CLOTHIER
and ANDREW G. SMITH
- 1407 Uroporphyrin induced by 5-aminolaevulinic acid alone in *Ahr*^d SWR mice
- HEINZ-J. SCHAEFFERS and
MARGARETE GOPPELT-STRUEBE
- 1415 Interference of corticosteroids with prostaglandin E₂ synthesis at the level of cyclooxygenase-2 mRNA expression in kidney cells
- MUKADDER ATMACA and JEFFREY R. FRY
- 1423 Adenosine-mediated inhibition of glutathione synthesis in rat isolated hepatocytes
- VIKTORIA FARKAS, ILDIKO BOCK,
JOSEPH CSEKO and ATTILA SANDOR
- 1429 Inhibition of carnitine biosynthesis by valproic acid in rats — The biochemical mechanism of inhibition
- MAARTEN E. A. REITH, CEN XU and
LORI L. COFFEY
- 1435 Binding domains for blockers and substrates on the cloned human dopamine transporter studied by protection against N-ethylmaleimide-induced reduction of 2β-carbomethoxy-3β-(4-fluorophenyl)[³H]tropane ([³H] WIN 35,428) binding
- JAN G. C. VAN AMSTERDAM,
CEES VAN DEN BERG, JETSKA ZUIDEMA,
JAN-DIRK TE BIESEBEEK and
HARTMUT ROKOS
- 1447 Effect of septicaemia on the plasma levels of biopterin and nitric oxide metabolites in rats and rabbits
- DIETER SCHRENK, ALFRED MICHALKE,
TIMOTHY W. GANT, PAUL C. BROWN,
JEFFREY A. SILVERMAN and
SNORRI S. THORGEIRSSON
- 1453 Multidrug resistance gene expression in rodents and rodent hepatocytes treated with mitoxantrone
- JIN-HO CHUNG, JEONG-CHEOL CHEONG,
JOO-YOUNG LEE, HYUNG-KEUN ROH and
YOUNG-NAM CHA
- 1461 Acceleration of the alcohol oxidation rate in rats with aloin, a quinone derivative of *Aloe*
- MALLORY PERRIN-WOLFF, ZOHAI MISHAL,
JACQUES BERTOGLIO and
MARC PALLARDY
- 1469 Position 16 of the steroid nucleus modulates glucocorticoid-induced apoptosis at the transcriptional level in murine T-lymphocytes
- Short Communication**
- SUSAN B. GATES, JOHN F. WORZALLA,
CHUAN SHIH, GERALD B. GRINDEY and
LAURANE G. MENDELSON
- 1477 Dietary folate and folylpolyglutamate synthetase activity in normal and neoplastic murine tissues and human tumor xenografts

22 NOVEMBER 1996

Commentary

FRANÇOIS MARCEAU

- 1481 Evidence for vascular tone regulation by resident or infiltrating leukocytes

Research Papers

- NICOLETTA BIANCHI, MARCO PASSADORE, CRISTINA RUTIGLIANO, GIORDANA FERIOTTO, CARLO MISCHIATI and ROBERTO GAMBARI 1489 Targeting of the Sp1 binding sites of HIV-1 long terminal repeat with chromomycin. Disruption of nuclear factor · DNA complexes and inhibition of *in vitro* transcription
- DAHN L. CLEMENS, CHRISTINE M. HALGARD, JACK R. COLE, RODNEY M. MILES, MICHAEL F. SORRELL and DEAN J. TUMA 1499 Impairment of the asialoglycoprotein receptor by ethanol oxidation
- LISA E. BEEBE, ELIZABETH S. ROBERTS, LAURA W. FORNWALD, PAUL F. HOLLENBERG and WILLIAM L. ALWORTH 1507 Mechanism-based inhibition of mouse P4502b-10 by selected arylalkynes
- ZACHARIAS E. SUNTRES and PANG N. SHEK 1515 Alleviation of paraquat-induced lung injury by pretreatment with bifunctional liposomes containing α -tocopherol and glutathione
- KEIICHI IDA, KOJI HASHIMOTO, MASATSUGU KAMIYA, SUSUMU MUTO, YOSHIHIRO NAKAMURA, KATSUAKI KATO and MASAHIRO MIZOTA 1521 Stereoselective action of (R*,R*)-($\pm$)-methyl-4-[2-[2-hydroxy-2-(3-chlorophenyl)ethylamino]propyl]-phenoxyacetic acid (BRL37344) on β -adrenoceptors and metabolic chiral inversion
- KOJI HASHIMOTO, YUJI NAGAO, KEIICHI IDA, MITSUHIRO TAKEDA, NOBUYA MURAKAMI, KATSUAKI KATO and MASAHIRO MIZOTA 1529 Improvement of metabolic disorders and visceral fat obesity by the β^3 -adrenoceptor agonist (R*,R*)-($\pm$)-methyl-4-[2-[2-hydroxy-2-(3-chlorophenyl)ethylamino]propyl]-phenoxyacetate hydrobromide (BRL35135A) in genetically obese rodents
- QIUYAN ZHAO, JAMAL TEMSAMANI, PATRICIA L. IADAROLA and SUDHIR AGRAWAL 1537 Modulation of oligonucleotide-induced immune stimulation by cyclodextrin analogs
- CHRISTOPHER D. RIFFKIN, ROLAND CHUNG, DOMINIC M. WALL, JOHN R. ZALCBERG, ALAN F. COWMAN, MICHAEL FOLEY and LEANN TILLEY 1545 Modulation of the function of human MDR1 P-glycoprotein by the anti-malarial drug mefloquine
- KIMBERLY L. K. DUNCAN, MARK D. DUNCAN, MICHAEL C. ALLEY and EDWARD A. SAUSVILLE 1553 Cucurbitacin E-induced disruption of the actin and vimentin cytoskeleton in prostate carcinoma cells
- GEORGE A. MATWYSHYN, PEIWEI FEI, KONSTANTIN H. DRAGNEV, RAYMOND W. NIMS, RONALD A. LUBET and AH-NG TONY KONG 1561 Regulation of gene expression of various phase I and phase II drug-metabolizing enzymes by tamoxifen in rat liver
- CHRISTOPHER A. SLAPAK, ROBIN L. MARTELL, MASANORI TERASHIMA and STUART B. LEVY 1569 Increased efflux of vincristine, but not of daunorubicin, associated with the murine multidrug resistance protein (MRP)
- LIXIN CUI, RAYMOND F. SCHINAZI, GILLES GOSSELIN, JEAN-LOUIS IMBACH, CHUNG K. CHU, ROBERT F. RANDO, GANAPATHI R. REVANKAR and JEAN-PIERRE SOMMADOSSI 1577 Effect of β -enantiomeric and racemic nucleoside analogues on mitochondrial functions in HepG2 cells. Implications for predicting drug hepatotoxicity
- NORIHISA INAZU, MASAKO HAYASHI, MASANORI HIURA and TETSUO SATOH 1585 Effects of psychotropic drugs on aldo-keto reductase activity in rat ovary and adrenal gland
- MOTOAKI SAITO, KAZUHIKO NISHI, YUJI FUKUMOTO, ROBERT M. WEISS and JAMSHID LATIFPOUR 1593 Characterization of endothelin receptors in streptozotocin-induced diabetic rat vas deferens
- ESSAM ENAN and FUMIO MATSUMURA 1599 Identification of c-Src as the integral component of the cytosolic Ah receptor complex, transducing the signal of 2, 3, 7, 8-tetrachlorodibenzo-p-dioxin (TCDD) through the protein phosphorylation pathway

- JOSEPH A. WARE and CRAIG K. SVENSSON 1613 Longitudinal distribution of arylamine *N*-acetyltransferases in the intestine of the hamster, mouse, and rat. Evidence for multiplicity of *N*-acetyltransferases in the intestine
- LAN LIU, EDWARD L. LECLUYSE, JIE LIU and CURTIS D. KLAASSEN 1621 Sulfotransferase gene expression in primary cultures of rat hepatocytes
- KAI ZHANG and KIM PING WONG 1631 Inhibition of the efflux of glutathione *S*-conjugates by plant polyphenols
- Short Communications**
- HAIDER RAZA, IJAZ AHMED, MOHAMMAD S. LAKHANI, ASHUTOSH K. SHARMA, DAVID PALLOT and WILLIAM MONTAGUE 1639 Effect of bitter melon (*Momordica charantia*) fruit juice on the hepatic cytochrome P450-dependent monooxygenases and glutathione *S*-transferases in streptozotocin-induced diabetic rats
- FUMIYO KASUYA, KAZUO IGARASHI and MIYOSHI FUKUI 1643 Inhibition of a medium chain acyl-CoA synthetase involved in glycine conjugation by carboxylic acids

13 DECEMBER 1996

Commentary

MARIO ASCOLI

Research Papers

T. A. SEATON, P. JENNER and
C. D. MARSDEN

- PURIFICACIÓN MUÑOZ, JOSEP CHILLARÓN, MARTA CAMPS, ANNA CASTELLÓ, MARC FURRIOLS, XAVIER TESTAR, MANUEL PALACÍN and ANTONIO ZORZANO 1647 Functional consequences of the phosphorylation of the gonadotropin receptors
- 1657 Mitochondrial respiratory enzyme function and superoxide dismutase activity following brain glutathione depletion in the rat
- 1665 Evidence for posttranscriptional regulation of GLUT4 expression in muscle and adipose tissue from streptozotocin-induced diabetic and benfluorex-treated rats.
- KATHERINE L. MARSH, ELAINE WILLMORE, STELLA TINELLI, MARIAGRAZIA CORNAROTTI, EMMA L. MECZES, GIOVANNI CAPRANICO, L. MARK FISHER and CAROLINE A. AUSTIN 1675 Amsacrine-promoted DNA cleavage site determinants for the two human DNA topoisomerase II isoforms α and β
- SIU-PO IP and KAM-MING KO 1687 The crucial antioxidant action of schisandrin B in protecting against carbon tetrachloride hepatotoxicity in mice: A comparative study with butylated hydroxytoluene
- CATHERINE ASSELOT-CHAPEL, CAROLE BORCHIELLINI, JACQUELINE LABAT-ROBERT and PATRICK KERN 1695 Expression of laminin and type IV collagen by basement membrane-producing EHS tumors in streptozotocin-induced diabetic mice: *In vivo* modulation by low-molecular-weight heparin fragments
- MARIA A. R. DE-MELLO, MALIN FLODSTRÖM and DÉCIO L. EIZIRIK 1703 Ebselen and cytokine-induced nitric oxide synthase expression in insulin-producing cells
- ROGER M. PHILLIPS 1711 Bioreductive activation of a series of analogues of 5-aziridinyl-3-hydroxy-methyl-1-methyl-2-[1H-indole-4,7-dione] prop-b-en-a-ol (EO9) by human DT-diaphorase
- VANIO MITEV, MAHASTI BAYAT-SARMADI, MUSTAPHA LEMNAOUAR, CLAUDINE PUISSANT and LOUIS-MARIE HOUEBINE 1719 The effect of prolactin on casein kinase II, MAP kinase and PKC in rabbit mammary cells and Nb₂ rat lymphoid cells
- BEATE KÖBERLE, JOACHIM PAYNE, KEITH A. GRIMALDI, JOHN A. HARTLEY and JOHN R. W. MASTERS 1729 DNA repair in cisplatin-sensitive and resistant human cell lines measured in specific genes by quantitative polymerase chain reaction

- YAN-JUN XU, LORRAINE YAU, LI-PING YU,
VIJAYAN ELIMBAN, PETER ZAHRAKKA and
NARANJAN S. DHALLA 1735 Stimulation of protein synthesis by phosphatidic acid in rat cardiomyocytes
- JOHN R. GASDASKA, D. LYNN KIRKPATRICK,
WILLIAM MONTFORT, MILES KUPERUS,
SIMON R. HILL, MARGARETA BERGGREN
and GARTH POWIS 1741 Oxidative inactivation of thioredoxin as a cellular growth factor and protection by a Cys⁷³ → Ser mutation
- JOSEPH A. RININGER,
GEOFFREY D. WHELOCK, XINFANG MA and
JOHN G. BABISH 1749 Discordant expression of the cyclin-dependent kinases and cyclins in rat liver following acute administration of the hepatocarcinogen [4-chloro-6-(2,3-xylydino)-2-pyrimidinylthio] acetic acid (WY14,643)
- DEBORAH D. JEANFAVRE,
JOSEPH R. WOSKA, JR.,
CHRISTOPHER A. PARGELLIS,
CHARLES A. KENNEDY, JAY PRENDERGAST,
CAROL STEARNS, PATRICIA L. REILLY,
RANDALL W. BARTON and
BARBARA-JEAN BORMANN 1757 Effect of deoxycytoformycin and Val-boroPro on the associated catalytic activities of lymphocyte CD26 and ecto-adenosine deaminase
- ANN GNAGEY and JOHN ELLIS 1767 Allosteric regulation of the binding of [³H]acetylcholine to m2 muscarinic receptors
- WANDA A. CROMLISH and
BRIAN P. KENNEDY 1777 Selective inhibition of cyclooxygenase-1 and -2 using intact insect cell assays
- THOMAS A. GASIEWICZ, ANDREW S. KENDE,
GEORGE RUCCI, BRENDA WHITNEY and
J. JEFF WILLEY 1787 Analysis of structural requirements for Ah receptor antagonist activity: Ellipticines, flavones, and related compounds

24 DECEMBER 1996

Commentary

MARGARET J. WOODS and
D. CLIVE WILLIAMS

- 1805 Multiple forms and locations for the peripheral-type benzodiazepine receptor

Research Papers

MATTHIAS SCHWEIZER and
CHRISTOPH RICHTER

- 1815 Stimulation of Ca²⁺ release from rat liver mitochondria by the dithiol reagent α -lipoic acid

KLAUS STOLZE, AGNES DADAK, YANG LIU
and HANS NOHL

- 1821 Hydroxylamine and phenol-induced formation of methemoglobin and free radical intermediates in erythrocytes

SANG GEON KIM and MIN KYUNG CHO

- 1831 Expression of glutathione S-transferases Ya, Yb1, Yb2, Yc1 and Yc2 and microsomal epoxide hydrolase genes by thiazole, benzothiazole and benzothiadiazole

CARLES GIL, ELENA MOLINA,
MARIA PLANA, ASSUMPTA CARABAZA,
FRANCESC CABRÉ, DAVID MAULEÓN,
GERMANO CARGANICO and EMILIO ITARTE

- 1843 Differential effect of alkyl chain-modified ether lipids on protein kinase C autophosphorylation and histone phosphorylation

COLIN A. BROWN, VIRAL PATEL,
GRAEME WILKINSON and
MICHAEL R. BOARDER

- 1849 P₂ purinoceptor-stimulated conversion of arginine to citrulline in bovine endothelial cells is reduced by inhibition of protein kinase C

OLIVIER RIXE, WALDO ORTUZAR,
MANUEL ALVAREZ, RICARDO PARKER,
EDDIE REED, KEN PAULL and TITO FOJO

- 1855 Oxaliplatin, tetraplatin, cisplatin, and carboplatin: spectrum of activity in drug-resistant cell lines and in the cell lines of the National Cancer Institute's Anticancer Drug Screen Panel

- MARIANNA N. PERTSEVA,
SVETLANA A. PLESNEVA,
LUDMILA A. KUZNETSOVA,
ALEXANDER O. SHPAKOV and
KIRA V. DERKACH
- 1867 On the tyrosine kinase mechanism of the novel effect of insulin and insulinlike growth factor I. Stimulation of the adenylyl cyclase system in muscle tissues
- MARIA P. MOLINA PORTELA,
SILVIA H. FERNANDEZ VILLAMIL,
LUIS J. PERISSINOTTI and
ANDRES O. M. STOPPANI
- 1875 Redox cycling of *o*-naphthoquinones in trypanosomatids. Superoxide and hydrogen peroxide production
- RAM K. SINDHU, SUZANNE REISZ-PORSZASZ,
OLIVER HANKINSON and YUTAKA KIKKAWA
- 1883 Induction of cytochrome P4501A1 by photooxidized tryptophan in hepatic cells
- PAUL H. SATO, JEFFREY M. ROSENBERG and
RONALD I. SATO
- 1895 Differences in the inhibition of translation by cisplatin, transplatin, and certain related compounds
- KEN-ICHI KAWAMURA, DALE GRABOWSKI,
KIM KRIVACIC, HIROYOSHI HIDAKA and
RAM GANAPATHI
- 1903 Cellular events involved in the sensitization of etoposide-resistant cells by inhibitors of calcium-calmodulin-dependent processes. Role for effects on apoptosis, DNA cleavable complex, and phosphorylation
- SREELATHA CHANNAREDDY, SHERILYN S.
JOSE and NATHAN JANES
- 1911 Ethanol binding to a model carbohydrate, glycogen
- Short Communications**
- THIERRY GOASDUFF, YVONNE DRÉANO,
BERNARD GUILLOIS, JEAN-FRANÇOIS MÉNEZ
and FRANÇOIS BERTHOU
- 1915 Induction of liver and kidney CYP1A1/1A2 by caffeine in rat
- HOSSAM EL-DIN M. OMAR,
RUTH A. SANDERS and
JOHN B. WATKINS, III
- 1921 Minimal effect of acute experimental hepatitis induced by lipopolysaccharide/D-galactosamine on biotransformation in rats
- YAJUE HUANG, QINSHI JIANG, JEFFREY M.
VOIGT, KRISTINE M. DEBOLT and
HOWARD D. COLBY
- 1925 Strain differences in adrenal CYP2D16 expression in guinea pigs. Relationship to xenobiotic metabolism