# SUBJECT INDEX

Acyl-CoA thioesters

hepatocyte nuclear factor-4α suppression by, 1057

Acyl-CoA:cholesterol acyltransferase

F 12511 effects on adrenocortical cells, 387

inhibition, F 12511 effects, 97

Adenosine

as agonist at adenosine receptors, 443

apoptosis induced by, adenosine receptors and uptake role in, 417

Adenosine A<sub>1</sub> receptors

immunolocalization in rat kidney, 237

PD81,723 effects on agonist/antagonist binding at, 137

Adenosine A<sub>2B</sub> receptors

antagonist radioligand for, 657

Adenosine receptors

adenosine and inosine as agonists at, 443

Adipose tissue, white

peroxisome proliferation relation to stearoyl-CoA desaturase, 357

Adrenal cells

F 12511 effects on, 387

Adrenalectomy

polyamine stress response and, 207

 $\alpha_{2A}$ -Adrenoceptor

coupling to  $G_{\alpha}$ -proteins, ligand response modulation and, 1079

Afferent arteriole

adenosine  $A_1$  receptor immunolocalization in rat kidney and, 237

AG879

transcriptional regulation in drug metabolism, 215

Airway smooth muscle

protein kinase stimulation by tumor necrosis factor subtypes in, 749

Ajoene

cyclooxygenase 2 effects, 587

Alcohol consumption

chronic,  $G_{\alpha i2}$  and epidermal growth factor receptor signaling and, 1021

Alcoholism

disulfiram aversion therapy, mechanisms of, 537

Aldehyde dehydrogenase

mitochondrial, disulfiram adduct determination with, 537

AMA: see S-(5'-deoxy-5'-adenosyl)-methylthioethyl-hydroxylamine

Amastigote

ribonuclease H as mediator of antisense phosphorothioate oligonucleotide lethality and, 467

Amine oxidase

semicarbazide-sensitive, 2-bromoethylamine inhibition of, 741

Amino acids

essential, protein-calorie malnutrition and, 15

Aminoethylisothiourea

norephinephrine-induced contraction in femoral arteries and, 109

Aminoguanidine

amidine structure for inhibition of nitric oxide biosynthesis and, 1581

1-Aminooxy-3-aminopropane

colon cancer cell growth inhibition and, 199

Amphiphilic peptide

mastoparan analogs interaction with neutrophil NADPH oxidase and, 1063

Angelica sinensis

proliferation in gastric epithelial cell line induced by, mechanistic study, 1439

Angiogenesis

regulators and clinical applications of, 253

Angiotensin AT<sub>1</sub> receptor

binding, receptor internalization and, 1227

Angiotensin II

type 1 receptor, nonpeptide antagonists and, interaction model, 277

Angiotensin-converting enzyme

RXP407 potency and selectivity on, 835

Antagonists

non-peptide, type 1 receptor angiotensin II and, interaction model, 277

Anthracycline antibiotics

sugar moiety role in activity of, 933

Anticancer agents

5-fluoro 2'-deoxyuridine coupling to lactosaminated poly-L-lysine and, 459

Antifolate

suppression, folate cofactor pool augmentation in tumor cells and, 857

Anti-inflammatory drugs

petasin, 1041

Antileukemic drugs

cytarabine-induced apoptosis, oxygen radicals and, 1033 Antioxidants

apomorphine toxicity protection and, 73

artemisinin neurotoxicity and, 409

carvedilol, heart mitochondrial lipid peroxidation inhibition and, 155

free structural damage to proteins by free radicals and, 1237

interaction of enkephalins with oxyradicals, 1253

α-tocopherol quinone, glutathione effects on, 715

Antisense phosphorothioate oligonucleotide

lethality, ribonuclease H as mediator of, 467

Antitumor agents

angiogenesis antagonist development and, 253

anthracycline antibiotics, sugar moiety role in activity of,

arsenic trioxide, multidrug-resistance protein 1 resistance to, 1387

Bcl-2 role in, 381

CC-1065, cross-linking DNA in tumor cells, 67

5-diethylaminoethylamino-8-hydroxyimidazoacridinone, activation after DNA intercalation, 685

NB-506, inhibition of topoisomerase 1, 299

NB1011, thymidylate synthase activation of, 179

Aorta

smooth muscle cells, bradykinin B<sub>1</sub> receptors in, 291

AP2 gene

down-regulation in adipose tissue, 1471

Aphidocolin

activation, DNA synthesis inhibition and, 191

Apoptosis

adenosine-induced, adenosine receptors and uptake role in 417

cytarabine-induced, oxygen radicals and, 1033

etoposide-induced, KN-62 effects, 49

 $7\beta$ -hydroxycholesterol-exposed U937 and HepG2 cells, 1217

islet cell, p38 mitogen-activated protein kinase role in, 1561

peroxynitrite-induced, neonatal astrocytes, morphine protective effects, 779

pharmacological cytoprotection and, 769

phenethyl isothiocyanate cytotoxicity and, 165

Aquopentacyanoferrate

from nitroprusside, NMDA receptor blockade and, 343

Arabinosyl nucleoside

mitochondrial thymidine kinase-2 inhibition and, 727 Arabinosylcytosine

resistance, fluoropyrimidine effects on, 39

Arachidonic acid

malaria pigment activity in, 999

phospholipase A2 inhibitors effects on, 811

Arachidonyl trifluoromethylketone

phospholipase A<sub>2</sub> inhibitors and, 811

Aroclor 1254

transcription factor gene expression and, 145

Arsenic trioxide

multidrug-resistance protein 1 resistance to, 1387

Artemisinin

glutathione role in neurotoxicity of, 409

Aspirin

gastrointestinal injury induced by, cyclooxygenase inhibition as cause of, 631

Asthma

bronchial smooth muscle contraction, Gi3 protein involvement in, 921

protein kinase stimulation by tumor necrosis factor in airway smooth muscle and, 749

Atherosclerosis

acyl-CoA cholesterol acyltransferase inhibition and, F 12511 effects, 97

low-density lipoprotein glycation and oxidation, calcium antagonist inhibition of, 373

topotecan effects on restenosis, 119

Atrial natriuretic factor

proteolytic activation of membrane-bound guanylate cyclase and, 915

Baicalein

iNOS and cyclooxygenase-2 gene expression inhibition, 1417

Baicalin

iNOS and cyclooxygenase-2 gene expression inhibition, 1417

Bcl-2

modification and role in antitumor therapy, 381

Benodiazepine receptor

permeability transition induction in cardiac mitochondria and, 695

O<sup>6</sup>-Benzylguanine

metabolism, O<sup>6</sup>-benzyl-8-oxoguanine debenzylation in liver and, 721

O<sup>6</sup>-Benzyl-8-oxoguanine

debenzylation in liver, O<sup>6</sup>-benzylguanine metabolism and, 721

Bezafibrate

peroxisome proliferation relation to stearoyl-CoA desaturase and, 357

BIA 2-024

glutamate release inhibition by sodium blockade and, 1271

BIA 2-1093

glutamate release inhibition by sodium blockade and, 1271

Bilirubin

degradation, cytochrome P450 1A2 role in, 843

Biliverdin

heme oxygenase and cyclo-oxygenase activities in central nervous system and, 437

Bilobalide

NO production in macrophages and endothelial cells, 503

Binding site

noncholinergic, nicotine binding to THP-1 cells and, 733

Bioflavonoid rutin

antioxidant and anti-inflammatory activity enhancement, 677

Biotechnology

enzyme kinetics implications in, 1049

Bistratene A

protein kinase C-dependant signaling pathways stimulation by, 1093

# Bleomycin

antioxidant and anti-inflammatory activity enhancement, 677

DNA cleavage induced by, pyrrole triamide and, 351 BM-910228

heart mitochondrial lipid peroxidation inhibition by, 155

#### Bone marrow

stromal cells, NF-κB expression after etoposide treatment, 1243

# Bradykinin

inflammatory pain induced by carrageenin and, 911

Bradykinin B<sub>1</sub> receptors

in aortic smooth muscle cells, 291

### Brain

polyamine stress response and, 207

### Breast cancer

all-trans-retinoic acid role in breakdown of retinoic acid receptors  $\alpha/\gamma$  in, 1347

# Bromoenol lactone

phospholipase A<sub>2</sub> inhibitors and, 811

# 2-Bromoethylamine

semicarbazide-sensitive amine oxidase inhibition and, 741

# Bronchial epithelial cells

diadenosine polyphosphate response to P2Y receptors in, 623

### Broussochalcone A

iNOS suppression in LPS-activated macrophages, 939

### C-1311

activation after DNA intercalation, 685

#### C5A receptor

ligand selectivity by mutation in, 1571

# Caffeine

adenosine receptor blockade and, 443

# Calcitriol

20-methyl group effects on vitamin D metabolism and, 893

### Calcium

intracellular, muscarinic receptor subtypes effects on thyroid hormone formation and, 337

# Calcium antagonist

low-density lipoprotein glycation and oxidation and, 373

# Calcium channels

clozapine inhibition of, 1011

of lymphocytes, yessotoxin modulation of, 827

### Calcium entry

yessotoxin inhibition of, 827

# Calcium mobilization

diadenosine tetraphosphate response to P2Y receptors and, 623

cAMP: see Adenosine 3',5'-cyclic monophosphate

# cAMP synthesis

HR325 inhibition of, 227

# Camphor

nicotinic acetylcholine receptor inhibition by, 787

### Cancer prevention

polyunsaturated fatty acids, melatonin, and, 1455

# Cancer therapy

anthracycline antibiotics, sugar moiety role in activity of, 933

arsenic trioxide, multidrug-resistance protein 1 resistance to, 1387

Bcl-2 role in, 381

colon, hydroxylamine-containing inhibitors effects on growth, 199

guanidine compounds in, biochemical and clinical pharmacology, 1183

indole-3-acetic acid oxidation to cytotoxic species and, 129

phenethyl isothiocyanate, glutathione metabolism role in cytotoxicity, 165

#### Candesartan

angiotensin II type 1 receptor and non-peptide antagonists interaction and, 277

binding of, receptor internalization and, 1227

#### Cannabidiol

brain disposition alterations, 1357

# Carbachol

inositol 1,4,5-trisphosphate receptor isoform expression and, 327

muscarinic receptor subtypes effects on thyroid hormone formation and, 337

# Carbamazepine

glutamate release inhibition by sodium blockade, 1271

### Carbamylcholine

inositol 1,4,5-trisphosphate receptor isoform expression and, 327

# Carbaryl

CYP1A1 expression, oxidative stress, and genotoxicity effects, 399

### Carbon monoxide

heme oxygenase and cyclo-oxygenase activities in central nervous system and, 437

### Carcinogenesis

ajoene inhibition of cyclooxygenase 2 by lipopolysaccharide and, 587

# Carrageenin

inflammatory pain induced by, bradykinin mediation of, 911

# Carvedilol

chenodeoxycholate induction of permeability transition pore and, 1449

heart mitochondrial lipid peroxidation inhibition by, 155

### Caspase activation

CYP inducibility by, 1293

# Catecholamine secretion

camphor effects on, 787

CC-1065

cross-linking DNA in tumor cells, 67

2'-C-cyano-2'-deoxy-1-β-D-*arabino*-pentofuranosylcytosine pharmacokinetics and pharmacodynamics of, 1497

CD4<sup>+</sup> lymphocytes

HIV-1 expression in,  $\kappa$ -opioid receptor suppression, 1145 Cell cycle

genistein effects on, in nonneoplastic mammary cells, 979

progression by melanoma cells, flavonoids effects on, 1205

proteasome degradation role in toposiomerase II $\alpha$  regulation, 795

Cell death

pharmacological cytoprotection and, 769

Cell growth

phospholipase A<sub>2</sub> inhibitors effects on, 811

Cell proliferation

cyclosporine A induction of, in hepatocytes, 427

Cellular respiration

HR325 inhibition of cAMP synthesis and, 227

Central nervous system

heme oxygenase and cyclo-oxygenase activities in, 437 Ceramide

elevation, glucosylceramide synthase inhibition and, in neuroepithelioma cells, 851

Chemopreventive agents

methylseleninic acid, mammary epithelial tumor growth effects, 311

Chemotaxis

IL-8-induced neutrophil, ketoprofen inhibition of, 1429 Chemotherapy

deoxycytidine kinase, DNA synthesis inhibition role in activation, 191

enzyme kinetics implications in, 1049

enzyme-catalyzed therapeutic agent, thymidylate synthase activation of, 179

5-fluoro 2'-deoxyuridine coupling to lactosaminated poly-L-lysine and, 459

guanidine compounds in, biochemical and clinical pharmacology, 1183

MRP gene and γ-glutamylcysteine synthetase sensitivity to prooxidants in colorectal cancer cell lines, 555

P-glycoprotein overexpression and, 61

phenethyl isothiocyanate, glutathione metabolism role in cytotoxicity of, 165

Chiral inversion

ibuprofen metabolism, acyl-CoA synthetase expression and, 651

Chloroquine

malaria pigment activity in arachidonic acid micelles and unilamellar vesicles, 999

with zidovudine and hydroxyurea, anti-HIV-1 effects, 1531

Chlorpromazine

dipalmitoylphosphatidylserine surface area effects, 817

Molt-4 T-cell invasion across fibroblast monolayers, 1313

CHO cells

angiotensin II type 1 receptor and non-peptide antagonists interaction and, 277

Cholesterol

lipid-lowering agents, F 12511 and, 97

Chromaffin cells

camphor effects on catecholamine secretion in, 787 clozapine inhibition of calcium channel and nicotinic acetylcholine receptor in, 1011

Ciprofibrate

peroxisome proliferation relation to stearoyl-CoA desaturase and, 357

Cisplatin

platinum adducts in lung cancer cells and, 573

Clozapine

calcium channel and nicotinic acetylcholine receptor inhibition, 1011

CNDAC: see 2'-C-cyano-2'-deoxy-1-β-D-arabino-pento-furanosylcytosine

CoCl<sub>2</sub>

heme oxygenase and cyclo-oxygenase activities in central nervous system and, 437

Collecting ducts

adenosine A<sub>1</sub> receptor immunolocalization in rat kidney and, 237

Colon

cancer cells, hydroxylamine-containing inhibitors effects on growth, 199

Colorectal cancer

cell growth, hydroxylamine-containing inhibitors effects on, 199

MRP gene sensitivity to prooxidants in, 555

Congestive heart failure

carvedilol, lipid peroxidation inhibition and, 155

Coronary angioplasty

restenosis and, topotecan effects, 119

Cyclic ADP-ribose

inositol 1,4,5-trisphosphate binding and, 803

Cyclooxygenase-2

ajoene inhibition of, 587

gene expression, wogonin, baicalin, and baicalein inhibition of, 1417

stimulation by NO-derived species in chondrocytes, 965 suppression, iNOS induction and, wogonin effects, 1195

Cyclooxygenases

heme oxygenase and, in cortical astrocytes, 437

indomethacin, tumor cell proliferation and progression effects, 565

inhibition, NSAID-induced gastrointestinal injury and, 631

Cyclosporine A

cell proliferation in hepatocytes and, 427

### Cysteine

acetaminophen-induced hematoxicity prevention and, 2(*R*,*S*)-*n*-propylthiazolidine-4(*R*)-carboxylic acid role, 245

# Cystic fibrosis

diadenosine tetraphosphate response to P2Y receptors and, 623

# Cytochrome c

tetradecylthioacetic acid effects on glioma cell growth and, 639

# Cytochrome P450

azole-antifungal binding to, tuberculosis treatment implications, 1463

protein-calorie malnutrition and, 15

# Cytochrome P450 1A1

EGF inducibility by, 1293

gene expression

carbaryl and thiabendazole induction of, 399 oxidative stress effects on, 511

# Cytochrome P450 1A2

bilirubin degradation and, 843

Cytochrome P450 2B

EGF inducibility by, 1293

Cytochrome P450 2B1

trialkylphosphorothioates effects in lung, 493

Cytochrome P450 monooxygenase

transcription factor gene expression and, 145

# Cytokines

 $\alpha$ -melanocyte-stimulating hormone effects on, 613 synthesis of, tyrosine kinase inhibitors effects on, 87

# Cytoprotection

pharmacological, molecular targets for, 769

### Cytotoxicity

CC-1065, cross-linking DNA in tumor cells, 67 methylglycoxal effects on insulin-secreting cells, 1381

### Daunorubicin

cancer cell lines resistant to, gemcitabine and cytosine arabinoside sensitivity, 1401

### Deoxycytidine kinase

activation of, DNA synthesis inhibition and, 191

# Dexamethasone

histidine decarboxylase and ornithine decarboxylase in basophilic cells and, 1101

polyamine stress response and, 207

#### Diabetes mellitus

low-density lipoprotein glycation and oxidation, calcium antagonist inhibition of, 373

### 1,2-Dibromoethane

metabolism, in mitochondria, 595

# Dicumarol

mitomycin C bioreductive metabolism in mammary tumor cells and, 1517

5-Diethylaminoethylamino-8-hydroxyimidazoacridinone activation after DNA intercalation, 685

# Dihydropyridine

ATP-induced surfactant exocytosis inhibition by, 1161  $1\alpha,25$ -Dihydroxyvitamin  $D_3$ 

20-methyl group effects on metabolism of, 893

suppression of T lymphocyte proliferation in ulcerative colitis, 365

### Dipalmitoylphosphatidylserine

chlorpromazine effects on, 817

### Disulfiram

aldehyde dehydrogenase inhibition, mechanisms of, 537 1,2-Dithiole-3-thione

DT-diaphorase induction by, in tumor cells, 955

# DNA cleavage

bleomycin-induced, pyrrole triamide and, 351

# DNA fragmentation

NB-506 inhibition of topoisomerase 1 and, 299

### DNA intercalation

5-diethylaminoethylamino-8-hydroxyimidazoacridinone activation after, 685

# DNA methylation

S-transferase P1 gene, transcription regulation by methylation of promoter, 605

# DNA replication

CYP inducibility by, 1293

# DNA synthesis

inhibition, deoxycytidine kinase activation and, 191 simvastatin effects on signal transduction in smooth muscle cells and, 991

### DNase I footprinting

bleomycin-induced DNA cleavage, pyrrole triamide and, 351

# Doxorubicin

P-glycoprotein overexpression and, 61

### Drug resistance

antifolate suppression, folate cofactor pool augmentation in tumor cells and, 857

# Drugs of abuse

cannabinoid-induced alterations in brain disposition, 1357

#### DT-diaphorase

induction by 1,2-dithiole-3-thione in tumor cells, 955

### Dynorphin A

paracetamol and morphine effects on levels in rat brain, 1409

### Eflornithine

sleeping sickness, uptake and mode of action in, 1

Electron spin resonance

α-lipoic acid effects on nitric oxide production in macrophages, 547

# Endothelial cells

nitric oxide production in, bilobalide and ginkgolides effects on, 503

# Enkephalins

interaction with oxyradicals, 1253

Enzyme kinetics

implications in chemotherapy and biotechnology, 1049 Enzyme release

granule, tyrosine kinase inhibitors effects on, 87

Epidermal growth factor

CYP inducibility by xenobiotics, DNA replication, and caspase activation and, 1293

Epinephrine

anti-inflammatory interactions with neutrophils, cytosolic calcium and, 1319

signal transduction system for IL-6 and IL-11 stimulation and, 319

Erythroleukemia cells

methotrexate membrane transport impairment in, 665

sleeping sickness, 1

Etoposide

apoptosis induced by, KN-62 effects, 49

NF-κB expression in stromal cells after, 1243

Eukaryotic transcription factor

binding to DNA, mercuric ion inhibition of, 1543

Exocytosis

surfactant, inhibition by dihydropyridine analogs, 1161 EXP3174

angiotensin II type 1 receptor and non-peptide antagonists interaction and, 277

#### F 12511

adrenocortical cells effects, 387

pharmacologic profile of, 97

Fatty acid metabolism

tetradecylthioacetic acid effects on glioma cell growth and, 639

Fatty acids

polyunsaturated, cancer prevention and, 1455

**Fibrates** 

hepatocyte nuclear factor- $4\alpha$  suppression by acyl-CoA thioesters and, 1057

peroxisome proliferation relation to stearoyl-CoA desaturase and, 357

Flavonoids

cell cycle progression by melanoma cells and, 1205

Fluorinated propranolol analogues

Ca<sup>2+</sup>-dependent production of reactive oxygen metabolites by neutrophils, 517

5-Fluoro 2'-deoxyuridine

coupling to lactosaminated poly-L-lysine and, liver chemotherapy effects, 459

Fluorodeoxyuridine

colorectal cancer effects, 39

Fluoropyrimidine

colorectal cancer effects, 39

thymidylate synthase activation of, 179

Fluorouracil

colorectal cancer effects, 39

### 5-Fluorouracil

cytotoxic activity potentiation, methioninase deprivation effects on, 857

Folate carrier

reduced, methotrexate membrane transport impairment in erythroleukemia cells and, 665

Folate cofactor pool

augmentation in tumor cells, antifolate suppression and, 857

Formamidine

amidine structure for inhibition of nitric oxide biosynthesis and, 1581

Forskolin

adenosine and inosine as agonists at adenosine receptor

Free energy

enzyme kinetics implications in, 1049

Free radicals

artemisinin neurotoxicity and, 409

bioflavonoid rutin antioxidant and anti-inflammatory activity and, 677

structural damage to proteins by, 1237

tyrosine kinase inhibitors effects on production, 87

FRT cells

muscarinic receptor subtypes effects on thyroid hormone formation and, 337

Gabexate mesylate

mast cell tryptase action and, 271

Garlic

ajoene inhibition of cyclooxygenase 2 by lipopolysaccharide, 587

Gastric epithelial cells

Angelica sinensis proliferation in, mechanistic study, 1439 Helicobacter pylori stimulation of IL-8 production in, 1595

Gastrointestinal injury

NSAID-induced, cyclooxygenase inhibition as cause of, 631

Gastrointestinal tract

neurokinin A structure/activity at NK<sub>2</sub> receptor, 55

Gastrointestinal tumors

ajoene inhibition of cyclooxygenase 2 by lipopolysaccharide and, 587

Gene expression

cytochrome P450 1A1, oxidative stress and, mechanisms and biological implications, 511

S-transferase P1, transcription regulation by methylation of promoter, leukemia cells, 605

transcription factor, Aroclor 1254 effects, 145

Genistein

cell proliferation and cell cycle arrest effects, nonneoplastic mammary cells, 979

regulatory effect in peritoneal macrophages, 87

Genitourinary tract

neurokinin A structure/activity at NK<sub>2</sub> receptor, 55

Genotoxicity

carbaryl and thiabendazole induction of, 399

 $G_{\alpha i 2}$ 

epidermal growth factor receptor signaling and, chronic alcohol consumption and, 1021

Gi3 protein

bronchial smooth muscle contraction and, 921

**Ginkgolides** 

NO production in macrophages and endothelial cells, 503

G<sub>i</sub>-protein

rat tail artery smooth muscle vasoconstriction and, 1169

tetradecylthioacetic acid effects on growth, 639

Glucose

α-lipoic acid effects on nitric oxide production in macrophages, 547

Glucose toxicity

methylglycoxal effects on insulin-secreting cells, 1381

Glucosylceramide synthase

ceramide elevation potentiation and, in neuroepithelioma cells, 851

Glutamate release

inhibition of, by sodium blockade, carbamazepine analogues role, 1271

γ-Glutamylcysteine synthetase

sensitivity to prooxidants in colorectal cancer cell lines, 555

Glutathione

tetradecylthioacetic acid effects on glioma cell growth and, 639

α-tocopherol quinone effects and, 715

Glutathione metabolism

phenethyl isothiocyanate cytotoxicity and, 165

Glutathione S-transferase

triiodothyronine and thyroxine effects on, 1073

Glutathione/glutathione disulfide redox

thiopurine methyltransferase effects, 707

Glutathionine

artemisinin neurotoxicity and, 409

Glycation

low-density lipoprotein, calcium antagonist inhibition of, 373

Glycoxidation

low-density lipoprotein glycation and oxidation, calcium antagonist inhibition of, 373

G-protein

peroxynitrite-induced apoptosis of neonatal astrocytes, morphine protective effects and, 779

pertussis toxin-sensitive, norepinephrine-induced vasoconstriction of aortic smooth muscle cells and, 485

G-protein signaling

Gγ-like domains in, 1329

Guanidine compounds

in cancer chemotherapy, biochemical and clinical pharmacology, 1183

Guanylate cyclase

membrane-bound, proteolytic activation of, 915

H-89

Kv1.3 channel inhibition and, 1029

H9 cells

fluoropyrimidines effects in colorectal cancer and, 39

Heart

mitochondria, permeability transition induction in, 695

Hemangioma

juvenile, angiogenesis and, 253

Heme oxygenase

cyclo-oxygenase and, in cortical astrocytes, 437

Hemodialysis

gabexate mesylate, effects on mast cell tryptase action and, 271

Hepatocyte cultures

sulfotransferase and sulfatase expression in, culture system and medium enrichment influence on, 1107

Hepatocytes

cyclosporine A induction of cell proliferation in, 427 transcription factor gene expression and, 145

Hepatotoxicity

acetaminophen-induced, 2(*R*,*S*)-*n*-propylthiazolidine-4(*R*)-carboxylic acid preventive role, 245

HepG2 cells

7β-hydroxycholesterol-exposed, monitoring of apoptosis in, 1217

Histamine

ornithine decarboxylase induction and, 25

Histidine decarboxylase

phorbol ester and dexamethasone effects on, 1101

HIV-1 expression

κ-opioid receptor agonist suppression, 1145

HL60 cells

fluoropyrimidines effects in colorectal cancer and, 39

pyrimidine synthesis inhibition and, 227

7β-Hydroxycholesterol

HepG2 and U937 cells exposed to, monitoring of apoptosis in, 1217

Hydroxypyridinone

inhibition, on tyrosine hydroxylase, 285

Hydroxyurea

zidovudine, chloroquine, and, anti-HIV-1 effects, 1533 Hyperthermia

malignant, Ca<sup>2+</sup> ion uptake and release from, 1479

Hypolipidemic drugs

hepatocyte nuclear factor-4α suppression by acyl-CoA thioesters and, 1057

Hypoxanthine

transport, in tumor cells, dipyridamole inhibition of hypoxanthine rescue and, 477

Hypoxia-inducible factor 1

YC-1 inhibitory effects on, 947

Ibuprofen

metabolism, acyl-CoA synthetase expression and, 651 Imidazoline

insulin release after tolbutamide exposure and, 527 Immune function

nicotinic acetylcholine receptors effects on, 733

Immunocytochemistry

adenosine  $A_1$  receptor immunolocalization in rat kidney, 237

Immunomodulation

HR325 inhibition of cAMP synthesis and, 227

Indole-3-acetic acid

oxidation to cytotoxic species, 129

Indomethacin

tumor cell proliferation and progression effects, 565 Inflammation

α-melanocyte-stimulating hormone effects on cytokines and nitric oxide, 613

Inflammatory disease

ajoene inhibition of cyclooxygenase 2 by lipopolysaccharide and, 587

Inflammatory response

hepatic, pentoxifylline effects, iNOS expression and, 1137

petasin, anti-inflammatory activity of, 1041

iNOS: see Nitric oxide synthase, inducible

Inosine

as agonist at adenosine receptors, 443

Inositol phosphate

angiotensin II type 1 receptor and non-peptide antagonists interaction and, 277

Inositol 1,4,5-trisphosphate

binding, modulation by thimerosal and cyclic ADP-ribose, 803

ruthenium red effects in megakaryocytes, 7

Inositol 1,4,5-trisphosphate receptor

carbachol effects on isoform expression, 327

Insulin

signal transduction, protein kinase C and, 1277

Insulin release

sulfonylurea-induced, tolbutamide exposure effects, 527 Insulin secretion

pancreatic β-cells, inositol 1,4,5-trisphosphate receptor isoform expression and, 327

Insulinoma cell

carbachol effects on inositol 1,4,5-trisphosphate receptor isoform expression and, 327

Interferon-y

transcriptional expression of, Volvariella volvacea lectin effects, 33

Interleukin-1B

Helicobacter pylori stimulation of IL-8 production in gastric epithelial cells and, 1595

Interleukin-2

transcriptional expression of, Volvariella volvacea lectin effects, 33

Interleukin-6

epinephrine stimulation of signal transduction system for, in osteoblasts and sarcoma cells, 319

Interleukin-8

neutrophil chemotaxis induced by, ketoprofen inhibition of, 1429

Interleukin-10

regulation by prostaglandins I<sub>2</sub> and E<sub>2</sub>. 1153

Interleukin-11

epinephrine stimulation of signal transduction system for, in osteoblasts and sarcoma cells, 319

*m*-Iodobenzylguanidine

biochemical and clinical pharmacology, 1183

Irbesartan

angiotensin II type 1 receptor and non-peptide antagonists interaction and, 277

Iron chelation

hydroxypyridinone inhibition on tyrosine hydroxylase and, 285

Iron complexes

inorganic, from nitroprusside, 343

Islet of Langerhans

carbachol effects on inositol 1,4,5-trisphosphate receptor isoform expression and, 327

Isradipine

ATP-induced surfactant exocytosis inhibition by, 1161

Kidney

adenosine A<sub>1</sub> receptor immunolocalization in, rat, 237 depletion and necrosis, acetaminophen-induced, 2(RS)-n-propylthiazolidine-4(R)-carboxylic acid effects, 925 Kinetic analysis

methylthioadenosine transport by adenosine transporter of African trypanosomes and, 449

KN-62

etoposide-induced apoptosis and, 49

Kv1.3 channel

inhibition by H-89, 1029

Langmuir technique

chlorpromazine effects on dipalmitoylphosphatidylserine surface area and, 817

Leishmania

ribonuclease H as mediator of antisense phosphorothioate oligonucleotide lethality and, 467

Leukotrienes

petasin, anti-inflammatory activity of, 1041

Lipid metabolism

F 12511 effects on adrenocortical cells, 387

Lipid peroxidation

glutathione effects on α-tocopherol quinone reduction and, 715

heart mitochondrial, carvedilol inhibition of, 155

α-Lipoic acid

nitric oxide production in macrophages and, 547

Lipophilicity

hydroxypyridinone inhibition on tyrosine hydroxylase and, 285

Lipopolysaccharide

ajoene inhibition of cyclooxygenase 2 and, 587 aminoethylisothiourea aggravation of effects of, 109

Lipoprotein

low-density, oxidation and glycation, calcium antagonist inhibition of, 373

Liver

F 12511 effects on, 97

peroxisome proliferation relation to stearoyl-CoA desaturase, 357

polyamine stress response and, 207

protein-calorie malnutrition, cysteine effects on changes in, 15

Liver regeneration

interferon α-2b inhibition of, ornithine decarboxylase and protein synthesis effects, 1587

Losartan

angiotensin II type 1 receptor and non-peptide antagonists interaction and, 277

LPS: see Lipopolysaccharide

Lung

cancer, cisplatin-induced platinum adducts in, 573 cytochrome P450 2B1, trialkylphosphorothioates effects on, 493

diadenosine polyphosphate response to P2Y receptors in, 623

tumorigenesis, ornithine decarboxylase suppression by α-tocopheryloxybutyric acid in, 1177

Macrophages

LPS-activated, iNOS suppression by broussochalcone A in. 939

 $\alpha$ -melanocyte-stimulating hormone effects on cytokines and nitric oxide from, 613

nitric oxide production in, bilobalide and ginkgolides effects on, 503

Malaria

artemisinin neurotoxicity and, 409

Malaria pigment

activity in arachidonic acid micelles and unilamellar vesicles, 999

Malnutrition

protein-calorie, cysteine effects in liver changes in, 15 Mammary tumor

growth inhibition, methylseleninic acid role, 311

Marijuana

brain disposition alterations, 1357

Mass spectrometry

disulfiram aversion therapy in alcoholism, mechanisms of, 537

Mast cell tryptase

gabexate mesylate effects on action of, 271

Mastoparan analogs

interaction with neutrophil NADPH oxidase, 1063

MDR: see Multidrug resistance

Megakaryocytes

ruthenium red effects on inositol 1,4,5-trisphosphate responses in, 7

Megazol

sleeping sickness, uptake and mode of action in, 1

Melanoma cells

cell cycle progression by, flavonoids effects on, 1205

Melarsoprol

sleeping sickness, uptake and mode of action in, 1

Melatonin

cancer prevention and, 1455

Melatonin receptors

MT1, MT2, MT3/QR2, comparative pharmacological studies, 1369

Mercuric ion

eukaryotic transcription factor binding to DNA and, 1545

Mesangial cells

adenosine A<sub>1</sub> receptor immunolocalization in rat kidney and, 237

Metabolism

O<sup>6</sup>-benzylguanine, O<sup>6</sup>-benzyl-8-oxoguanine debenzylation in liver and, 721

protein-calorie malnutrition and, 15

Metal complexes

inorganic, from nitroprusside, 343

Metalloenzymes

iron-containing, hydroxypyridinone inhibition and, 285 Metastasis

angiogenesis and, 253

Methioninase

deprivation, cytotoxic activity of 5-fluorouracil and, 857 Methionine adenosyltransferase

Wethionine adenosyltransferase

gene expression, 3-methylcolanthrene inhibition of, S-adenosylmethionine protective effects, 1119

Methionine synthesis

methylthioadenosine transport by adenosine transporter of African trypanosomes and, 449

Methotrexate

membrane transport impairment in erythroleukemia cells, 665

3-Methylcolanthrene

methionine adenosyltransferase gene expression inhibition and, S-adenosylmethionine protective effects, 1119

3-Methylene-2-oxindole

indole-3-acetic acid oxidation to cytotoxic species and, 179

Methylglycoxal

insulin-secreting cells effects, 1381

Methylglyoxal bis(guanylhydrazone)

biochemical and clinical pharmacology, 1183

Methylseleninic acid

epithelial tumor cell growth inhibitory role, 311

Methylthioadenosine

transport by adenosine transporter of African trypanosomes, 449

Mitochondria

cardiac, permeability transition induction in, 695 dysfunction, 1,2-dibromoethane metabolism in, 595

Mitogen-activated protein kinase

Helicobacter pylori stimulation of IL-8 production in gastric epithelial cells and, 1595

inhibitors, ornithine decarboxylase induction and, 25 p38, role in islet cell apoptosis, 1561

Mitomycin C

bioreductive metabolism in mammary tumor cells, 1517 Morphine

paracetamol and, dynorphin A levels in rat brain and, 1409

peroxynitrite-induced apoptosis of neonatal astrocytes, 779

Morphology

ultrastructural, cisplatin-induced platinum adducts in lung cancer cells, 573

MRP gene

sensitivity to prooxidants in colorectal cancer cell lines, 555

MRS 1754

antagonist ligand of adenosine  $A_{2B}$  receptors, 657 MT3/QR2

tissue distribution of, 1369

Multidrug resistance (MDR)

daurnorubicin-resistant lung cancer cell lines, gemcitabine and cytosine arabinoside sensitivity, 1401

LY335979 modulation of P-glycoprotein and, 1393

P-glycoprotein, physiologic role of, 61

protein, MRP gene and γ-glutamylcysteine synthetase sensitivity to prooxidants in colorectal cancer cell lines, 55

VM-26-resistant lung cancer cell lines, gemcitabine and cytosine arabinoside sensitivity, 1401

Muscarinic receptor subtypes

thyroid hormone formation and, 337

NADPH oxidase

neutrophil, mastoparan analogs interaction with, 1063 Natural killer cells

LY335979 modulation of P-glycoprotein in, 1393 NB-506

inhibition of topoisomerase 1, 299

NB1011

thymidylate synthase activation of, 179

Necrosis

pharmacological cytoprotection and, 769

Neuroblastoma

adenosine-induced apoptosis, adenosine receptors and uptake role in, 417

Neurokinin A

structure/activity at tachykinin NK<sub>2</sub> receptor, 55

Neuroprotective agents

vinpocetine, ionic current effects in pituitary GH<sub>3</sub> cells, 877

Neurotoxicity

artemisinin, glutathione role in, 409

Neutrophils

accumulation, staphylococcal enterotoxin B-induced, nitric oxide role in, 1305

Ca<sup>2+</sup>-dependent production of reactive oxygen metabolites by, fluorinated propranolol analogues and, 517 epinephrine anti-inflammatory interactions with, cytosolic calcium and, 1319

petasin anti-inflammatory activity of, 1041

NF-kB: see Nuclear factor kB

Nicotine

binding to THP-1 cells, 733

Nicotinic acetylcholine receptor

camphor inhibition of, 787

clozapine inhibition of, 1011

immune function effects, 733

Nifedipine

ATP-induced surfactant exocytosis inhibition by, 1161 Nitric oxide

biosynthesis, amidine structure for inhibition of, 1581 ginkgolides and bilobalide effects on production, 503  $\alpha$ -melanocyte-stimulating hormone effects on, 613 production in macrophages,  $\alpha$ -lipoic acid and, 547 staphylococcal enterotoxin B-induced vascular permeability and neutrophil accumulation in mouse paw,

Nitric oxide synthase

1305

cyclooxygenase-2 stimulation by, in chondrocytes, 965 pharmacological cytoprotection and, 769

suppression by sesquiterpene lactone, NF-κB inhibition and, 903

Nitric oxide synthase, inducible

aminoethylisothiourea and, 109

broussochalcone A suppression, in LPS-activated macrophages, 939

expression, pentoxifylline effects on hepatic inflammatory response and, 1137

gene expression, wogonin, baicalin, and baicalein inhibition of, 1417

induction, cyclooxygenase-2 suppression and, wogonin effects, 1195

Nitroheterocycles

sleeping sickness, uptake and mode of action in, 1

Nitroprusside

inorganic iron complexes from, 343

NK<sub>2</sub> receptor

neurokinin A structure/activity at, 55

NMDA receptor

inorganic iron complexes from nitroprusside and, 343 NO: see Nitric oxide

Nonsteroidal antiinflammatory drugs

indomethacin, tumor cell proliferation and progression effects, 565

Nonsteroidal anti-inflammatory drugs

actin binding to gastrin-binding protein inhibition by, 1129

gastrointestinal injury induced by, cyclooxygenase inhibition as cause of, 631

Norepinephrine

vasoconstriction of aortic smooth muscle cells induced by, pertussis toxin-sensitive G-protein and, 485

NSAID: see Nonsteroidal anti-inflammatory drugs

Nuclear factor-kB

after etoposide treatment, in bone marrow stromal cells, 1243

inhibition, NOS suppression by sesquiterpene lactone and, 903

pharmacological cytoprotection and, 769

Nucleoside transport

dipyridamole inhibition of hypoxanthine rescue and, 477 Nucleoside transporters

adenosine-induced apoptosis, adenosine receptors and uptake role in, 417

Obesity

 $\beta 3$ -adrenergic agonist antiobesity effects, 1471

κ-Opioid receptor

HIV-1 expression suppression by, 1145

Opiomelanins

interaction of enkephalins with oxyradicals, 1253

Ornithine decarboxylase

induction of, p44/42 and p38 MAPK inhibitors effects, 25

interferon α-2b inhibition of liver regeneration and, 1589

phorbol ester and dexamethasone effects on, 1101 polyamine stress response and, 207

suppression by α-tocopheryloxybutyric acid, in lung tumorigenesis, 1177

Osteoblasts

adrenergic stimulation of osteoclastogenesis in, 579 epinephrine stimulation of signal transduction system for IL-6 and IL-11 in, 319

Osteoclastogenesis inhibitory factor

adrenergic stimulation of, in osteoblast-like cells, 579

histamine-induced intracellular Ca<sup>2+</sup> release and entry in, 1537

Oxidation

low-density lipoprotein, calcium antagonist inhibition of, 373

Oxidative phosphorylation

1,2-dibromoethane metabolism in mitochondria, 595 HR325 inhibition of cAMP synthesis and, 227

Oxidative status

tetradecylthioacetic acid effects on glioma cell growth and, 639

Oxidative stress

carbaryl and thiabendazole induction of, 399

cytochrome P450 1A1 gene expression and, mechanisms and biological implications, 511

heart mitochondria and, carvedilol inhibition of, 155 phenethyl isothiocyanate cytotoxicity and, 165 tryphostin AG879 effects, 215

Oxygen radicals

cytarabine-induced apoptosis and, 1033

Oxyradicals

enkephalins interaction with, 1253

p38 mitogen-activated protein kinase role, islet cell apoptosis, 1561

Pain

inflammatory, carrageenin-induced, bradykinin mediation of, 911

Pancreas

β-cells, insulin secretion from, inositol 1,4,5-trisphosphate receptor isoform expression and, 327

Pancreatitis

gabexate mesylate, effects on mast cell tryptase action and, 271

Paracetamol

morphine and, dynorphin A levels in rat brain and, 1409 Parkinson's disease

apomorphine toxicity, antioxidant protective role, 73 PD81,723

agonist/antagonist binding at adenosine A<sub>1</sub> receptor, 137 Pentamidine

sleeping sickness, uptake and mode of action in, 1 Pentoxifylline

hepatic inflammatory response, iNOS expression and, 1137

Permeability transition

chenodeoxyholate induction of, carvedilol protective effects, 1449

Peroxisome proliferation

relation to stearoyl-CoA desaturase, 357

Petasir

anti-inflammatory activity of, 1041

P-glycoprotein

LY335979 modulation in multidrug-resistant cell lines and NK cells, 1393

multidrug resistance, physiologic role of, 61

Pharmacology

guanidine compounds in cancer chemotherapy, 1183

Phenethyl isothiocyanate

glutathione metabolism role in cytotoxicity of, 165

Phenothiazines

lymphocyte activation and migration and, 1313

Phorbol ester

histidine decarboxylase and ornithine decarboxylase in basophilic cells and, 1101

Phosphatidylcholine

NSAID-induced gastrointestinal injury, cyclooxygenase inhibition as cause of, 631

Phosphatidylinositol 3-kinase

peroxynitrite-induced apoptosis of neonatal astrocytes, morphine protective effects and, 779

Phospholipase A<sub>2</sub>

inhibitors, 3T6 fibroblast proliferation and, 811

Phosphorylation

deoxycytidine kinase activation and, 191

Pimozide

Molt-4 T-cell invasion across fibroblast monolayers, 1313

Plasma protein binding

brain disposition alterations and, drugs of abuse, 1357

Platinum adducts

cisplatin-induced, in lung cancer cells, 573

Polyamine stress response

developmental regulation of, 207

Polyglutamation

antifolate suppression by folate cofactor pool augmentation in tumor cells and, 857

Poly-L-lysine

lactosaminated, 5-fluoro 2'-deoxyuridine coupling to, liver chemotherapy effects, 459

Potassium currents

vinpocetine effects, 877

PPARy gene

down-regulation in adipose tissue, 1471

Promastigote

ribonuclease H as mediator of antisense phosphorothioate oligonucleotide lethality and, 467

Prooxidants

MRP gene and γ-glutamylcysteine synthetase sensitivity to, colorectal cancer cell lines, 555

**β**-Propeller scaffolding

Gy-like domains in, 1329

Propranolol

Ca<sup>2+</sup>-dependent production of reactive oxygen metabolites by neutrophils and, 517

2(RS)-n-Propylthiazolidine-4(R)-carboxylic acid

acetaminophen-induced hepatic depletion and necrosis and, 925

Prostaglandin E<sub>2</sub>

heme oxygenase and cyclo-oxygenase activities in central nervous system and, 437

TNF $\alpha$  and IL-10 regulation by, 1153

Prostaglandin I<sub>2</sub>

TNF $\alpha$  and IL-10 regulation by, 1153

**Prostaglandins** 

NSAID-induced gastrointestinal injury, cyclooxygenase inhibition as cause of, 631

Protaglandins

phospholipase A<sub>2</sub> inhibitors effects on, 811

Proteasome

carbachol effects on inositol 1,4,5-trisphosphate receptor isoform expression and, 327

degradation, topoisomerase II a regulation and, 795

Protein binding

free structural damage to proteins by free radicals and, 1237

Protein deficiency

cysteine effects on changes in liver in, 15

Protein kinase A

cytochalasin D blocking action on cation channel in renal epithelial cells, 761

H-89 inhibition of Kv1.3 channels and, 1029

Protein kinase C

HL-60 cell differentiation by silibinin and, 1487

MDR3 mRNA expression down-regulation in Chang liver cells, 1339

stimulation by bistratene A, 1093

Protein synthesis

interferon  $\alpha$ -2b inhibition of liver regeneration and, 1589

Proteolysis

membrane-bound guanylate cyclase and, 915

Proximal tubule

adenosine A<sub>1</sub> receptor immunolocalization in rat kidney and, 237

**Psoriasis** 

angiogenesis and, 253

Psychoactive agents

adenosine receptor blockade and, 443

PTCA: see 2(R,S)-n-propylthiazolidine-4(R)-carboxylic acid

Purinergic receptor

adenosine 5'-triphosphate analogues and, 1259

Putrescine

polyamine stress response and, 207

Pyrimidine synthesis

HR325 inhibitory role, 227

Pyrrole triamide

bleomycin-induced DNA cleavage and, 351

Quinones

antitumor, NAD(P)H:quinone oxidoreductase 1 levels and, 1511

Rac1

simvastatin effects on signal transduction in smooth muscle cells and, 991

Reactive oxygen metabolites

Ca<sup>2+</sup>-dependent production by neutrophils, fluorinated propranolol analogues and, 517

Reactive oxygen species

apomorphine and, antioxidant role in protection, 73 heart mitochondria and, carvedilol inhibition of, 155

Reproductive system

angiogenesis and, 253

Respiratory tract

neurokinin A structure/activity at NK<sub>2</sub> receptor, 55

Restenosis

topotecan and, in atherosclerosis, 119

Retinoic acid receptors  $\alpha/\gamma$ 

all-trans-retinoic acid role in breakdown, in breast cancer cells, 1347

Retinopathy

diabetic, angiogenesis and, 253

Rheumatoid arthritis

angiogenesis and, 253

RhoA

simvastatin effects on signal transduction in smooth muscle cells and, 991

Ribonuclease H

antisense phosphorothioate oligonucleotide lethality and, 467

R-ibuprofen

metabolism, acyl-CoA synthetase expression and, 651

2(R,S)-n-propylthiazolidine-4(R)-carboxylic acid

acetaminophen-induced hepatotoxicity prevention and, 245

Ruthenium red

inositol 1,4,5-trisphosphate-induced responses in megakaryocytes, 7

RXP407

potency and selectivity on angiotensin-converting enzyme, 835

S-adenosylmethionine

methionine adenosyltransferase gene expression inhibition by 3-methylcolanthrene and, 1119

Sarcoma cells

osteogenic, epinephrine stimulation of signal transduction system for IL-6 and IL-11 in, 319

Sarcoplasmic reticulum

malignant hyperthermia-susceptible, Ca<sup>2+</sup> ion uptake and release from, 1479

SB203580

ornithine decarboxylase induction and, 25

Sesquiterpene lactone

nitric oxide synthase suppression by, NF-κB inhibition and, 903

SH3 domain

mastoparan analogs interaction with neutrophil NADPH oxidase and, 1063

Signal transduction

protein kinase C, stimulation by bistratene A, 1093 Silibinin

HL-60 cell differentiation by, protein kinase C and, 1487 Simvastatin

signal transduction in smooth muscle cells, 991

Sleeping sickness

uptake and mode of action of drugs for, 1

Smooth muscle

bronchial, contraction, Gi3 protein involvement in, 921 rat tail artery, vasoconstriction,  $G_{i}$ -protein role in, 1169

Smooth muscle cells

aortic

bradykinin B<sub>1</sub> receptors in, 291

norepinephrine-induced vasoconstriction of, pertussis toxin-sensitive G-protein in, 485

simvastatin effects on signal transduction in, 991 vascular, topotecan effects, 119

Spermine

polyamine stress response and, 207

S-(5'-deoxy-5'-adenosyl)-methylthioethyl-hydroxylamine colon cancer cell growth inhibition and, 199

Stearoyl-CoA desaturase

relation to peroxisome proliferation, 357

Steroidogenesis

F 12511 effects on adrenocortical cells, 387

Stress

polyamine stress response and, developmental regulation of, 207

Sugar moiety

anthracycline antibiotic activity and, 933

Sulfatas

culture system and enrichment effects on expression in hepatocytes, 1107

Sulfonylurea

insulin release after tolbutamide exposure and, 527

Sulfotransferase

culture system and enrichment effects on expression in hepatocytes, 1107

Superoxide

mastoparan analogs interaction with neutrophil NADPH oxidase and, 1063

Suramin

sleeping sickness, uptake and mode of action in, 1 Surfactant

exocytosis, inhibition by dihydropyridine analogs, 1161 phospholipids, NSAID-induced gastrointestinal injury, cyclooxygenase inhibition as cause of, 631

T lymphocytes

proliferation, 1,25-dihydroxyvitamin D<sub>3</sub> suppression in ulcerative colitis, 365

Tetradecylthioacetic acid

glioma cell growth and, 639

Theophylline

adenosine inhibitory effects of, on eosinophil degranulation, 1553

Thermogenesis-related gene

up-regulation in adipose tissue, 1471

Thiabendazole

CYP1A1 expression, oxidative stress, and genotoxicity effects, 399

Thimerosal

inositol 1,4,5-trisphosphate binding and, 803

Thiol-disulfide exchange

glutathione/glutathione disulfide redox effects, 707

Thiopurine methyltransferase

glutathione/glutathione disulfide redox effects n, 707

Thymidine kinase-2

mitochondrial, arabinosyl nucleotides as inhibitors of, 727

Thymidylate synthase

NB1011 activation and, 179

Thymus

polyamine stress response and, 207

Thyroid hormone

muscarinic receptor subtypes effects on formation, 337

Thyroid hormones

hydroxypropyl-β-cyclodextrin as delivery system for, 1073

Thyroxine

glutathione S-transferase effects, 1073

α-Tocopherol quinone

glutathione effects on, in liver microsomes, 715

α-Tocopheryloxybutyric acid

ornithine decarboxylase suppression by, in lung tumorigenesis, 1177

Tolbutamide

sulfonylurea-induced insulin release, 527

Topoisomerase 1

NB-506 glycosylated indolocarbazole inhibition of, 299

Topoisomerase IIα

regulation, proteasomal degradation role in, 795

Trialkylphosphorothioates

cytochrome P450 2B1 loss in lung and, 493

**Trifluoperazine** 

Molt-4 T-cell invasion across fibroblast monolayers, 1313

Triiodothyronine

glutathione S-transferase effects, 1073

Trypanosoma brucei

sleeping sickness and, 1

Trypanosomes

methylthioadenosine transport by adenosine transporter of, 449

Trypanosomiasis

uptake and mode of action of drugs in, 1

Tryphostin AG879

transcriptional regulation in dug metabolism and, 215

Tryptase

mast cell, gabexate mesylate effects on, 271

Tsetse fly

sleeping sickness and, uptake and mode of action of drugs in, 1

**Tuberculosis** 

azole-antifungal binding to cytochrome P450 from M. *tuberculosis* and, 1463

Tumor cells

cross-linking DNA in, CC-1065 role, 67

DT-diaphorase induction by 1,2-dithiole-3-thione in, 955

epithelial, methylseleninic acid growth inhibition of, 311 hypoxanthine transport in, dipyridamole inhibition of hypoxanthine rescue and, 477

proliferation and progression, indomethacin effects, 565

Tumor growth

angiogenesis and, 253

Tumor necrosis factor

protein kinase stimulation by, in airway smooth muscle, 749

Tumor necrosis factor-α

regulation by prostaglandins I<sub>2</sub> and E<sub>2</sub>, 1153

Tyrosine hydroxylase

3-hydroxypyridin-4-ones inhibition on, 285

Tyrosine kinase inhibitors

regulatory effects on free radical production, granule enzyme release and cytokine synthesis, 87

**Tyrphostin** 

regulatory effect in peritoneal macrophages, 87

U0126

ornithine decarboxylase induction and, 25

U937 cell

7β-hydroxycholesterol-exposed, monitoring of apoptosis in, 1217

Ulcerative colitis

T lymphocyte proliferation in, 1,25-dihydroxyvitamin  $D_3$  suppressive effects, 365

Vascular injury

restenosis and, topotecan effects, 119

Vascular permeability

staphylococcal enterotoxin B-induced, nitric oxide role in, 1305

Vasoconstriction

rat tail artery smooth muscle, G<sub>i</sub>-protein role in, 1169

Vinpocetine

ionic current effects in pituitary GH<sub>3</sub> cells, 877

Vitamin D metabolism

20-methyl group effects on, 893

VM-26

cancer cell lines resistant to, gemcitabine and cytosine arabinoside sensitivity, 1401

Volvariella volvacea lectin

cell cycle suppression by, 33

Wogonin

iNOS and cyclooxygenase-2 gene expression inhibition, 1417

iNOS induction and cyclooxygenase-2 suppression, 1195 Wound healing

angiogenesis and, 253

Xanthines

adenosine and inosine as agonists at adenosine receptor and, 443

Xenobiotics

CYP inducibility by, 1293

YC-1

inhibitory effects on hypoxia, 947

Yessotoxin

mechanisms of action, 827

Zidovudine

chloroquine, hydroxyurea and, anti-HIV-1 effects, 1531 Zinc-metalloproteinase

RXP407 potency and selectivity on angiotensin-converting enzyme and, 835