

## Subject index Volume 69

- A<sub>1</sub>**  
The role of adenosine A<sub>2A</sub> and A<sub>2B</sub> receptors in the regulation of TNF- $\alpha$  production by human monocytes, 883
- A<sub>2A</sub>**  
The role of adenosine A<sub>2A</sub> and A<sub>2B</sub> receptors in the regulation of TNF- $\alpha$  production by human monocytes, 883
- A<sub>2B</sub>**  
The role of adenosine A<sub>2A</sub> and A<sub>2B</sub> receptors in the regulation of TNF- $\alpha$  production by human monocytes, 883
- A<sub>3</sub>**  
The role of adenosine A<sub>2A</sub> and A<sub>2B</sub> receptors in the regulation of TNF- $\alpha$  production by human monocytes, 883
- ABC transporter**  
cGMP (guanosine 3',5'-cyclic monophosphate) transport across human erythrocyte membranes, 1257
- Acetoxycycloheximide**  
Acetoxycycloheximide (E-73) rapidly induces apoptosis mediated by the release of cytochrome *c* via activation of c-Jun N-terminal kinase, 551
- Acetylcholinesterase**  
Formation and disposition of diethylphosphoryl-obidoxime, a potent anticholinesterase that is hydrolyzed by human paraoxonase (PON1), 1853
- AcetylCoA/CoA derivatives**  
Eukaryotic arylamine *N*-acetyltransferase. Investigation of substrate specificity by high-throughput screening, 347
- Activator protein 1**  
Morin inhibits 12-*O*-tetradecanoylphorbol-13-acetate-induced hepatocellular transformation via activator protein 1 signaling pathway and cell cycle progression, 1603
- Acute leukemia**  
A sensitive new method for clinically monitoring cytarabine concentrations at the DNA level in leukemic cells, 1795
- Acute lung injury**  
Prevention of hemorrhagic shock-induced lung injury by heme arginate treatment in rats, 1667
- Adenoassociated vector**  
Antisense gene delivered by an adenoassociated viral vector inhibits iron uptake in human intestinal cells: Potential application in hemochromatosis, 1559
- Adenosine kinase**  
6-Benzylthioinosine analogues as subversive substrate of *Toxoplasma gondii* adenosine kinase: Activities and selective toxicities, 1409
- Adenosine receptor**  
The role of adenosine A<sub>2A</sub> and A<sub>2B</sub> receptors in the regulation of TNF- $\alpha$  production by human monocytes, 883
- Adenosine triphosphate**  
Multiple P2X and P2Y receptor subtypes in mouse J774, spleen and peritoneal macrophages, 641
- Adenylate cyclase**  
Suppression of respiratory burst in human neutrophils by new synthetic pyrrolo-benzylisoquinolines, 65  
G $\alpha_q$  potentiation of adenylate cyclase type 9 activity through a Ca<sup>2+</sup>/calmodulin-dependent pathway, 1247
- Adhesion**  
Inhibition of interleukin-8 (CXCL8/IL-8) responses by repertaxin, a new inhibitor of the chemokine receptors CXCR1 and CXCR2, 385
- Adipocytes**  
Activity profiles of deoxynucleoside kinases and 5'-nucleotidases in cultured adipocytes and myoblastic cells: insights into mitochondrial toxicity of nucleoside analogs, 951
- $\beta$ -Adrenergic receptors**  
 $\beta$ -Adrenergic receptor modulation of the LPS-mediated depression in CYP1A activity in astrocytes, 741
- Adrenoceptors**  
Role of adrenoceptor-linked signaling pathways in the regulation of *CYP1A1* gene expression, 277
- Adriamycin**  
Poly(ADP-ribose) polymerase regulates myocardial calcium handling in doxorubicin-induced heart failure, 725
- AE2**  
Mechanisms involved in spironolactone-induced choleresis in the rat. Role of multidrug resistance-associated protein 2, 531
- Aging**  
Reversal by aminoguanidine of the age-related increase in glycoxidation and lipoxidation in the cardiovascular system of Fischer 344 rats, 29
- Agonists**  
Characterization of antinociceptive activity of novel endomorphin-2 and morphiceptin analogs modified in the third position, 179
- Ah receptor**  
Ah receptor signals cross-talk with multiple developmental pathways, 199  
Ah receptor- and TCDD-mediated liver tumor promotion: clonal selection and expansion of cells evading growth arrest and apoptosis, 1403
- Akt**  
Increased Akt protein expression is associated with decreased ceramide content in skeletal muscle of troglitazone-treated mice, 1195
- Alcohol**  
The role of epidermal growth factor receptor in ethanol-mediated inhibition of activator protein-1 transactivation, 1785
- Alkalinization**  
Calcium-pH crosstalks in rat mast cells: modulation by transduction signals show non-essential role for calcium in alkaline-induced exocytosis, 319
- ALL**  
Changes in spectrin organisation in leukaemic and lymphoid cells upon chemotherapy, 73

## Allergy

Dual effects of acetylsalicylic acid on mast cell degranulation, expression of cyclooxygenase-2 and release of pro-inflammatory cytokines, 1049

## Alzheimer's disease

Reductions in  $\beta$ -amyloid concentrations in vivo by the  $\gamma$ -secretase inhibitors BMS-289948 and BMS-299897, 689

## cAMP inhibition

Stimulation of neuropeptide Y-mediated calcium responses in human SMS-KAN neuroblastoma cells endogenously expressing Y<sub>2</sub> receptors by co-expression of chimeric G proteins, 1493

## cAMP levels

Inhibitory effects on human eosinophil chemotaxis in vitro by BAY 41-2272, an activator of nitric oxide-independent site of soluble guanylate cyclase, 875

## cAMP

Dexamethasone down-regulates cAMP-phosphodiesterase in human osteosarcoma cells, 267

Type 4 cAMP phosphodiesterase (PDE4) inhibitors augment glucocorticoid-mediated apoptosis in B cell chronic lymphocytic leukemia (B-CLL) in the absence of exogenous adenylyl cyclase stimulation, 473

$\beta$ -Adrenergic receptor modulation of the LPS-mediated depression in CYP1A activity in astrocytes, 741

## Amine oxidase

Anti-tumoral effect of native and immobilized bovine serum amine oxidase in a mouse melanoma model, 1693

## L-Amino acid oxidase

Aminotransferase, L-amino acid oxidase and  $\beta$ -lyase reactions involving L-cysteine S-conjugates found in allium extracts. Relevance to biological activity?, 209

## L-Arginine

The L-arginine/NO pathway in the early phases of platelet stimulation by collagen, 289

L-Arginine regulates neuronal nitric oxide synthase production of superoxide and hydrogen peroxide, 971

## 2-Aminoethoxydiphenyl borate

2-Aminoethoxydiphenyl borate perturbs hormone-sensitive calcium stores and blocks store-operated calcium influx pathways independent of cytoskeletal disruption in human A549 lung cancer cells, 1177

Inositol 1,4,5-triphosphate-mediated shuttling between intracellular stores and the cytosol contributes to the sustained elevation in cytosolic calcium in FMLP-activated human neutrophils, 1567

## 2-Aminoethyl diphenyl borate

Suppression of Ca<sup>2+</sup> influx by unfractionated heparin in non-excitable intact cells via multiple mechanisms, 929

## 3-Aminotriazole

Attenuation of cyclosporine A toxicity by sublethal heat shock. Role of catalase, 493

## Amphibian

Quantitative structure-activity analyses of bufokinin and other tachykinins at bufokinin (bNK<sub>1</sub>) receptors of the small intestine of the cane toad, *Bufo marinus*, 329

## AMPK

Increased Akt protein expression is associated with decreased ceramide content in skeletal muscle of troglitazone-treated mice, 1195

## Amyloid precursor protein

Reductions in  $\beta$ -amyloid concentrations in vivo by the  $\gamma$ -secretase inhibitors BMS-289948 and BMS-299897, 689

## Amyloid

Reversal by aminoguanidine of the age-related increase in glycoxidation and lipoxidation in the cardiovascular system of Fischer 344 rats, 29

Emerging prospects for the disease-modifying treatment of Alzheimer's disease, 1001

 $\beta$ -Amyloid

Reductions in  $\beta$ -amyloid concentrations in vivo by the  $\gamma$ -secretase inhibitors BMS-289948 and BMS-299897, 689

## Analogues

FADD-dependent apoptosis induction in Jurkat leukemia T-cells by the resveratrol analogue, 3,4,5-trihydroxy-*trans*-stilbene, 249

## Anandamide

Binding affinity and agonist activity of putative endogenous cannabinoids at the human neocortical CB<sub>1</sub> receptor, 169

Cyclooxygenation of the arachidonoyl side chain of 1-arachidonoyl-glycerol and related compounds block their ability to prevent anandamide and 2-oleoylglycerol metabolism by rat brain in vitro, 1241

## Angiogenesis inhibitors

The novel targets for anti-angiogenesis of genistein on human cancer cells, 307

## Angiogenesis

Effect of an oversulfated exopolysaccharide on angiogenesis induced by fibroblast growth factor-2 or vascular endothelial growth factor in vitro, 751

## Angiogenic factors

The novel targets for anti-angiogenesis of genistein on human cancer cells, 307

## Angiogenic growth factor

Effect of an oversulfated exopolysaccharide on angiogenesis induced by fibroblast growth factor-2 or vascular endothelial growth factor in vitro, 751

## Anion channels

Glycine taken up through GLYT1 and GLYT2 heterotransporters into glutamatergic axon terminals of mouse spinal cord elicits release of glutamate by homotransporter reversal and through anion channels, 159

## Anococcygeus muscle

Ca<sup>2+</sup> sensitization and the regulation of contractility in rat anococcygeus and retractor penis muscle, 1483

## Antagonists

Characterization of antinociceptive activity of novel endomorphin-2 and morphiceptin analogs modified in the third position, 179

## Anthracycline antibiotics

Sequence specificity of formaldehyde-mediated covalent binding of anthracycline derivatives to DNA, 7

## Anti-angiogenesis

The novel targets for anti-angiogenesis of genistein on human cancer cells, 307

## Antibody

Reduced nicotine distribution from mother to fetal brain in rats vaccinated against nicotine: Time course and influence of nicotine dosing regimen, 1385

## Anticancer drugs

Histone deacetylases inhibition and tumor cells cytotoxicity by CNS-active VPA constitutional isomers and derivatives, 1501

## Antiepileptic drugs

Histone deacetylases inhibition and tumor cells cytotoxicity by CNS-active VPA constitutional isomers and derivatives, 1501

## Anti-inflammation

Lisofylline: a potential lead for the treatment of diabetes, 1

Down-regulatory effect of quercitrin gallate on nuclear factor- $\kappa$ B-dependent inducible nitric oxide synthase expression in lipopolysaccharide-stimulated macrophages RAW 264.7, 1577

## Antioxidants

Antioxidant, prooxidant and cytotoxic activity of hydroxylated resveratrol analogues: structure-activity relationship, 903

## Antisense

Inhibition of tumor necrosis factor alpha secretion and prevention of liver injury in ethanol-fed rats by antisense oligonucleotides, 569

The role of NMDA receptor upregulation in phencyclidine-induced cortical apoptosis in organotypic culture, 1373

- Antisense gene delivered by an adenoassociated viral vector inhibits iron uptake in human intestinal cells: Potential application in hemochromatosis, 1559
- Antitumor**  
 Bis(pivaloyloxymethyl) thymidine 5'-phosphate is a cell membrane-permeable precursor of thymidine 5'-phosphate in thymidine kinase deficient CCRF CEM cells, 1307
- Apigenin**  
 Decreased pro-inflammatory cytokine production by LPS-stimulated PBMC upon in vitro incubation with the flavonoids apigenin, luteolin or chrysin, due to selective elimination of monocytes/macrophages, 241
- Apoptosis**  
 4-Hydroxynonenal inhibits cell proliferation and alters differentiation pathways in human fetal liver hematopoietic stem cells, 105  
 FADD-dependent apoptosis induction in Jurkat leukemia T-cells by the resveratrol analogue, 3,4,5-trihydroxy-*trans*-stilbene, 249  
 High effectiveness of platinum(IV) complex with adamantylamine in overcoming resistance to cisplatin and suppressing proliferation of ovarian cancer cells in vitro, 373  
 Impaired activation of caspases and prevention of mitochondrial dysfunction in the metastatic colon carcinoma CC531s-m2 cell line, 463  
 Acetoxycycloheximide (E-73) rapidly induces apoptosis mediated by the release of cytochrome *c* via activation of c-Jun N-terminal kinase, 551  
 Molecular modes of action of cantharidin in tumor cells, 811  
 Peripheral benzodiazepine receptor (PBR) ligand cytotoxicity unrelated to PBR expression, 819  
 Induction of apoptosis by R-flurbiprofen in human colon carcinoma cells: involvement of p53, 831  
 Mechanism of ricin-induced apoptosis in human cervical cancer cells, 855  
 Sodium nitroprusside-induced osteoblast apoptosis is mediated by long chain ceramide and is decreased by raloxifene, 891  
 Retinoblastoma protein is required for efficient colorectal carcinoma cell apoptosis by histone deacetylase inhibitors in the absence of p21Waf, 1059  
 Stimulation of CD95-induced apoptosis in T-cells by a subtype specific neutral sphingomyelinase inhibitor, 1141  
 Necrotic and apoptotic features of cell death in response to Foscan® photosensitization of HT29 monolayer and multicell spheroids, 1167  
 Induction of apoptosis and modulation of production of reactive oxygen species in human endothelial cells by diphenyleneiodonium, 1263  
 The role of NMDA receptor upregulation in phencyclidine-induced cortical apoptosis in organotypic culture, 1373  
 G2 arrest and apoptosis by 2-amino-*N*-quinoline-8-yl-benzenesulfonamide (QBS), a novel cytotoxic compound, 1333  
 The effect of quercetin on pro-apoptotic activity of cisplatin in HeLa cells, 1343  
 Ah receptor- and TCDD-mediated liver tumor promotion: clonal selection and expansion of cells evading growth arrest and apoptosis, 1403  
 Dietary flavonoids as proteasome inhibitors and apoptosis inducers in human leukemia cells, 1421  
 Protective effect of FK506 against apoptosis of SH-SY5Y cells correlates with regulation of the serum inducible kinase gene, 1473  
 Role of PI3K/Akt and MEK/ERK signaling pathways in sulforaphane- and erucin-induced phase II enzymes and MRP2 transcription, G<sub>2</sub>/M arrest and cell death in Caco-2 cells, 1543  
 Novel regulatory roles for protein phosphatase-2A in the islet  $\beta$  cell, 1681  
 Anti-tumoral effect of native and immobilized bovine serum amine oxidase in a mouse melanoma model, 1693  
 Rosiglitazone, an agonist of peroxisome proliferator-activated receptor gamma, reduces chronic colonic inflammation in rats, 1733  
 Involvement of Ras/extracellular signal-regulated kinase, but not Akt pathway in risedronate-induced apoptosis of U937 cells and its suppression by cytochalasin B, 1773
- Spontaneous apoptosis, necrosis, energy status, glutathione levels and biotransformation capacities of isolated rat hepatocytes in suspension: Effect of the incubation medium, 1829
- Arachidonic acid**  
 A downstream role for protein kinase C $\alpha$  in the cytosolic phospholipase A<sub>2</sub>-dependent protective signalling mediated by peroxynitrite in U937 cells, 1275
- 2-Arachidonoylglycerol**  
 Cyclooxygenation of the arachidonoyl side chain of 1-arachidonoylglycerol and related compounds block their ability to prevent anandamide and 2-oleoylglycerol metabolism by rat brain in vitro, 1241
- 2-Arachidonylglycerol**  
 Binding affinity and agonist activity of putative endogenous cannabinoids at the human neocortical CB<sub>1</sub> receptor, 169
- Arginine**  
 Accessibility of endothelial and inducible nitric oxide synthase to the intracellular citrulline-arginine regeneration pathway, 97
- Argininosuccinate synthase**  
 Accessibility of endothelial and inducible nitric oxide synthase to the intracellular citrulline-arginine regeneration pathway, 97
- Arrhythmias**  
 Effects of Y-27632, a selective Rho-kinase inhibitor, on myocardial preconditioning in anesthetized rats, 49
- Arthritis**  
 Stimulation of CD95-induced apoptosis in T-cells by a subtype specific neutral sphingomyelinase inhibitor, 1141
- Arylamine *N*-acetyltransferase**  
 Eukaryotic arylamine *N*-acetyltransferase. Investigation of substrate specificity by high-throughput screening, 347
- Arylamines**  
 Eukaryotic arylamine *N*-acetyltransferase. Investigation of substrate specificity by high-throughput screening, 347
- ASA**  
 Dual effects of acetylsalicylic acid on mast cell degranulation, expression of cyclooxygenase-2 and release of pro-inflammatory cytokines, 1049
- Assay**  
 A spectrophotometric assay for fatty acid amide hydrolase suitable for high-throughput screening, 1187
- Astrocytes**  
 $\beta$ -Adrenergic receptor modulation of the LPS-mediated depression in CYP1A activity in astrocytes, 741
- ATP-binding cassette proteins**  
 Role of two adjacent cytoplasmic tyrosine residues in MRP1 (ABCC1) transport activity and sensitivity to sulfonylureas, 451
- Atria contractility**  
 Differential CB1 and CB2 cannabinoid receptor-inotropic response of rat isolated atria: Endogenous signal transduction pathways, 1705
- Autoimmune diseases**  
 Stimulation of CD95-induced apoptosis in T-cells by a subtype specific neutral sphingomyelinase inhibitor, 1141
- Autoimmunity**  
 Lisofylline: a potential lead for the treatment of diabetes, 1
- Azaspiracids**  
 Azaspiracid-4 inhibits Ca<sup>2+</sup> entry by stored operated channels in human T lymphocytes, 1627
- Azathioprine**  
 Identification and functional analysis of two rare allelic variants of the thiopurine *S*-methyltransferase gene, *TPMT\*16* and *TPMT\*19*, 525
- Baculovirus-mediated expression system**  
 Dexamethasone-induced methylprednisolone hemisuccinate hydrolase: Its identification as a member of the rat carboxylesterase 2 family and its unique existence in plasma, 1287

**Bad**

Involvement of Ras/extracellular signal-regulated kinase, but not Akt pathway in risedronate-induced apoptosis of U937 cells and its suppression by cytochalasin B, 1773

**Balb/c mice**

Protection against 2,4,6-trinitrobenzenesulphonic acid-induced colonic inflammation in mice by the marine products bolinaquinone and petrosaspongiolide M, 1433

**BAX translocation**

BCL-xL overexpression effectively protects against tetrafluoroethyl-cysteine-induced intramitochondrial damage and cell death, 147

**Bax**

The role of NMDA receptor upregulation in phencyclidine-induced cortical apoptosis in organotypic culture, 1373

**BAY 41-2272**

Inhibitory effects on human eosinophil chemotaxis in vitro by BAY 41-2272, an activator of nitric oxide-independent site of soluble guanylate cyclase, 875

**B-CLL**

Type 4 cAMP phosphodiesterase (PDE4) inhibitors augment glucocorticoid-mediated apoptosis in B cell chronic lymphocytic leukemia (B-CLL) in the absence of exogenous adenylyl cyclase stimulation, 473

**BCL-xL**

BCL-xL overexpression effectively protects against tetrafluoroethyl-cysteine-induced intramitochondrial damage and cell death, 147

**BCNU**

Differential inhibition of cellular glutathione reductase activity by isocyanates generated from the antitumor prodrugs Cloretazine™ and BCNU, 1463

**BCR/ABL**

Relative importance of apoptosis and cell cycle blockage in the synergistic effect of combined R115777 and imatinib treatment in BCR/ABL-positive cell lines, 1585

**Benzo(α)pyrene**

Role of adrenoceptor-linked signaling pathways in the regulation of *CYP1A1* gene expression, 277

**6-Benzylthioinosine analogues**

6-Benzylthioinosine analogues as subversive substrate of *Toxoplasma gondii* adenosine kinase: Activities and selective toxicities, 1409

**Bile acids**

Regulation of ileal bile acid-binding protein expression in Caco-2 cells by ursodeoxycholic acid: Role of the farnesoid X receptor, 1755

**Bile flow**

Mechanisms involved in spironolactone-induced choleresis in the rat. Role of multidrug resistance-associated protein 2, 531

**Binding spectrum**

Inhibition of CYP2E1 catalytic activity in vitro by *S*-adenosyl-L-methionine, 1081

**Binding studies**

Muscarinic subtype affinity and functional activity profile of 1-methyl-2-(2-methyl-1,3-dioxolan-4-yl)pyrrolidine and 1-methyl-2-(2-methyl-1,3-oxathiolan-5-yl)pyrrolidine derivatives, 1637

**Binding**

Quantitative structure–activity analyses of bufokinin and other tachykinins at bufokinin (bNK<sub>1</sub>) receptors of the small intestine of the cane toad, *Bufo marinus*, 329

**Biological marker**

Protective effect of FK506 against apoptosis of SH-SY5Y cells correlates with regulation of the serum inducible kinase gene, 1473

**Bioluminescence resonance energy transfer**

Real-time measurement in living cells of insulin-like growth factor activity using bioluminescence resonance energy transfer, 1723

**Bisnaphthalimides**

Synthesis and biological activities of bisnaphthalimido polyamines derivatives: cytotoxicity, DNA binding, DNA damage and drug localization in breast cancer MCF 7 cells, 19

**Bisphosphonate**

Involvement of Ras/extracellular signal-regulated kinase, but not Akt pathway in risedronate-induced apoptosis of U937 cells and its suppression by cytochalasin B, 1773

**Bivalent cation entry**

Suppression of Ca<sup>2+</sup> influx by unfractionated heparin in non-excitable intact cells via multiple mechanisms, 929

**Bladder cancer**

The novel targets for anti-angiogenesis of genistein on human cancer cells, 307

**Bolinaquinone**

Protection against 2,4,6-trinitrobenzenesulphonic acid-induced colonic inflammation in mice by the marine products bolinaquinone and petrosaspongiolide M, 1433

**Bombesin receptor**

Identification of key amino acids in the gastrin-releasing peptide receptor (GRPR) responsible for high affinity binding of gastrin-releasing peptide (GRP), 579

**Bombesin**

Identification of key amino acids in the gastrin-releasing peptide receptor (GRPR) responsible for high affinity binding of gastrin-releasing peptide (GRP), 579

**Borneol**

(+)- And (–)-borneol: efficacious positive modulators of GABA action at human recombinant  $\alpha_1\beta_2\gamma_{2L}$  GABA<sub>A</sub> receptors, 1101

**Breast cancer resistance protein**

Lack of an effect of breast cancer resistance protein (BCRP/ABCG2) overexpression on methotrexate polyglutamate export and folate accumulation in a human breast cancer cell line, 123

**BRS-3**

Identification of key amino acids in the gastrin-releasing peptide receptor (GRPR) responsible for high affinity binding of gastrin-releasing peptide (GRP), 579

**Bsep**

Mechanisms involved in spironolactone-induced choleresis in the rat. Role of multidrug resistance-associated protein 2, 531  
Silibinin prevents cholestasis-associated retrieval of the bile salt export pump, Bsep, in isolated rat hepatocyte couplets: Possible involvement of cAMP, 1113

**Bufokinin**

Quantitative structure–activity analyses of bufokinin and other tachykinins at bufokinin (bNK<sub>1</sub>) receptors of the small intestine of the cane toad, *Bufo marinus*, 329

**C-1311**

Antitumour imidazoacridone C-1311 induces cell death by mitotic catastrophe in human colon carcinoma cells, 801

**C219 monoclonal antibody**

Transient up-regulation of P-glycoprotein reduces tacrolimus absorption after ischemia–reperfusion injury in rat ileum, 561

**Caco-2 cells**

Antisense gene delivered by an adenoassociated viral vector inhibits iron uptake in human intestinal cells: Potential application in hemochromatosis, 1559  
Regulation of ileal bile acid-binding protein expression in Caco-2 cells by ursodeoxycholic acid: Role of the farnesoid X receptor, 1755

**Calcein**

Quantitative structure activity relationship studies on the flavonoid mediated inhibition of multidrug resistance proteins 1 and 2, 699

- Calcitonin gene-related peptide  
Cys<sup>2,7</sup>EtαCGRP is a potent agonist for CGRP<sub>1</sub> receptors in SK-N-MC cells, 1235
- Calcium channel  
Azaspiracid-4 inhibits Ca<sup>2+</sup> entry by stored operated channels in human T lymphocytes, 1627
- Calcium pools  
Azaspiracid-4 inhibits Ca<sup>2+</sup> entry by stored operated channels in human T lymphocytes, 1627
- Calcium shuttling  
Inositol 1,4,5-triphosphate-mediated shuttling between intracellular stores and the cytosol contributes to the sustained elevation in cytosolic calcium in FMLP-activated human neutrophils, 1567
- Calcium stores  
2-Aminoethoxydiphenyl borate perturbs hormone-sensitive calcium stores and blocks store-operated calcium influx pathways independent of cytoskeletal disruption in human A549 lung cancer cells, 1177
- Calmodulin  
The L-arginine/NO pathway in the early phases of platelet stimulation by collagen, 289  
Poly(ADP-ribose) polymerase regulates myocardial calcium handling in doxorubicin-induced heart failure, 725  
Insulin-stimulated endothelial nitric oxide release is calcium independent and mediated via protein kinase B, 781  
Inositol 1,4,5-triphosphate-mediated shuttling between intracellular stores and the cytosol contributes to the sustained elevation in cytosolic calcium in FMLP-activated human neutrophils, 1567
- Calmodulin  
Gα<sub>q</sub> potentiation of adenylate cyclase type 9 activity through a Ca<sup>2+</sup>/calmodulin-dependent pathway, 1247
- Calpain inhibitor  
Inhibitors of calpain activation (PD150606 and E-64) and renal ischemia-reperfusion injury, 1121
- Camp  
Differential CB1 and CB2 cannabinoid receptor-inotropic response of rat isolated atria: Endogenous signal transduction pathways, 1705
- Cancer chemotherapy  
Molecular modes of action of cantharidin in tumor cells, 811
- Cancer  
Peripheral benzodiazepine receptor (PBR) ligand cytotoxicity unrelated to PBR expression, 819  
Anticancer metal compounds in NCI's tumor-screening database: putative mode of action, 1009
- Cannabinoid receptors  
Differential CB1 and CB2 cannabinoid receptor-inotropic response of rat isolated atria: Endogenous signal transduction pathways, 1705
- Cannabinoid  
A spectrophotometric assay for fatty acid amide hydrolase suitable for high-throughput screening, 1187
- Cannabinoids  
Effects of cannabinoids on nitric oxide production by chondrocytes and proteoglycan degradation in cartilage, 635
- Capillary gel electrophoresis  
Biodistribution and metabolism of immunostimulatory oligodeoxynucleotide CPG 7909 in mouse and rat tissues following subcutaneous administration, 981
- CAPS  
Regulation of dense core vesicle release from PC12 cells by interaction between the D2 dopamine receptor and calcium-dependent activator protein for secretion (CAPS), 1451
- Carboxylesterase  
Dexamethasone-induced methylprednisolone hemisuccinate hydrolase: Its identification as a member of the rat carboxylesterase 2 family and its unique existence in plasma, 1287
- Carcinoid  
Hydrogen peroxide degradation and selective carbidopa-induced cytotoxicity against human tumor lines, 1159
- Cardiac  
The potential benefits of 1.5% hetastarch as a cardioplegia additive, 1553
- Cardioprotection  
Effects of Y-27632, a selective Rho-kinase inhibitor, on myocardial preconditioning in anesthetized rats, 49  
Involvement of uracil nucleotides in protection of cardiomyocytes from hypoxic stress, 1215
- Carnosol  
Carnosol inhibits the invasion of B16/F10 mouse melanoma cells by suppressing metalloproteinase-9 through down-regulating nuclear factor-kappaB and c-Jun, 221
- Carrier-mediated release  
Glycine taken up through GLYT1 and GLYT2 heterotransporters into glutamatergic axon terminals of mouse spinal cord elicits release of glutamate by homotransporter reversal and through anion channels, 159
- Cartilage resorption  
Effects of cannabinoids on nitric oxide production by chondrocytes and proteoglycan degradation in cartilage, 635
- Ca<sup>2+</sup>- and PKA-dependent signalling pathways  
Silibinin prevents cholestasis-associated retrieval of the bile salt export pump, Bsep, in isolated rat hepatocyte couplets: Possible involvement of cAMP, 1113
- Ca<sup>2+</sup> sensitization  
Ca<sup>2+</sup> sensitization and the regulation of contractility in rat anococcygeus and retractor penis muscle, 1483
- Ca<sup>2+</sup> stimulation  
Stimulation of neuropeptide Y-mediated calcium responses in human SMS-KAN neuroblastoma cells endogenously expressing Y<sub>2</sub> receptors by co-expression of chimeric G proteins, 1493
- Ca<sup>2+</sup>  
Histamine H1 receptor antagonist blocks histamine-induced proinflammatory cytokine production through inhibition of Ca<sup>2+</sup>-dependent protein kinase C, Raf/MEK/ERK and IKK/IκB/NF-κB signal cascades, 433
- Caspase 9  
Marker genes to predict sensitivity to FK228, a histone deacetylase inhibitor, 603
- Caspase activity  
Impaired activation of caspases and prevention of mitochondrial dysfunction in the metastatic colon carcinoma CC531s-m2 cell line, 463
- Caspase inhibitors  
Mechanism of ricin-induced apoptosis in human cervical cancer cells, 855
- Caspase-3  
Mechanism of ricin-induced apoptosis in human cervical cancer cells, 855  
Necrotic and apoptotic features of cell death in response to Foscan® photosensitization of HT29 monolayer and multicell spheroids, 1167
- Caspase-8  
FADD-dependent apoptosis induction in Jurkat leukemia T-cells by the resveratrol analogue, 3,4,5-trihydroxy-*trans*-stilbene, 249
- Catalase  
Attenuation of cyclosporine A toxicity by sublethal heat shock. Role of catalase, 493
- Catecholamines  
Role of adrenoceptor-linked signaling pathways in the regulation of *CYP1A1* gene expression, 277
- Catecholestrogens  
Inhibition of human liver catechol-*O*-methyltransferase by tea catechins and their metabolites: Structure-activity relationship and molecular-modeling studies, 1523

Catechol-*O*-methyltransferase

Inhibition of human liver catechol-*O*-methyltransferase by tea catechins and their metabolites: Structure–activity relationship and molecular-modeling studies, 1523

## Cation entry

Stimulation of intracellular  $\text{Ca}^{2+}$  elevation in neutrophils by thiol-oxidizing phenylarsine oxide, 1225

## CD40L

Inhibition of interleukin-12 expression in diltiazem-treated dendritic cells through the reduction of nuclear factor- $\kappa\text{B}$  transcriptional activity, 425

## CD95L

Impaired activation of caspases and prevention of mitochondrial dysfunction in the metastatic colon carcinoma CC531s-m2 cell line, 463

## Cell contact inhibition

Ah receptor- and TCDD-mediated liver tumor promotion: clonal selection and expansion of cells evading growth arrest and apoptosis, 1403

## Cell cycle perturbations

High effectiveness of platinum(IV) complex with adamantylamine in overcoming resistance to cisplatin and suppressing proliferation of ovarian cancer cells in vitro, 373

## Cell cycle

Antitumour imidazoacridone C-1311 induces cell death by mitotic catastrophe in human colon carcinoma cells, 801

Role of PI3K/Akt and MEK/ERK signaling pathways in sulforaphane- and erucin-induced phase II enzymes and MRP2 transcription,  $\text{G}_2/\text{M}$  arrest and cell death in Caco-2 cells, 1543

Morin inhibits 12-*O*-tetradecanoylphorbol-13-acetate-induced hepatocellular transformation via activator protein 1 signaling pathway and cell cycle progression, 1603

Dicoumarol relieves serum withdrawal-induced  $\text{G}_{0/1}$  blockade in HL-60 cells through a superoxide-dependent mechanism, 1613

Luteolin prevents PDGF-BB-induced proliferation of vascular smooth muscle cells by inhibition of PDGF  $\beta$ -receptor phosphorylation, 1715

Chrysin induces G1 phase cell cycle arrest in C6 glioma cells through inducing p21<sup>Waf1/Cip1</sup> expression: Involvement of p38 mitogen-activated protein kinase, 1815

## Cell death

Antitumour imidazoacridone C-1311 induces cell death by mitotic catastrophe in human colon carcinoma cells, 801

A downstream role for protein kinase  $\text{C}\alpha$  in the cytosolic phospholipase  $\text{A}_2$ -dependent protective signalling mediated by peroxynitrite in U937 cells, 1275

## Cell motility

The role of thioredoxin reductase activity in selenium-induced cytotoxicity, 1765

## Cell signaling

The role of epidermal growth factor receptor in ethanol-mediated inhibition of activator protein-1 transactivation, 1785

## Cellular energy status

Spontaneous apoptosis, necrosis, energy status, glutathione levels and biotransformation capacities of isolated rat hepatocytes in suspension: Effect of the incubation medium, 1829

## Ceramide

Increased Akt protein expression is associated with decreased ceramide content in skeletal muscle of troglitazone-treated mice, 1195

Novel regulatory roles for protein phosphatase-2A in the islet  $\beta$  cell, 1681

## Ceramides

Sodium nitroprusside-induced osteoblast apoptosis is mediated by long chain ceramide and is decreased by raloxifene, 891

## Cerebral amyloid angiopathy

Emerging prospects for the disease-modifying treatment of Alzheimer's disease, 1001

## CGRP receptor subtypes

Cys<sup>2,7</sup>Et $\alpha$ CGRP is a potent agonist for CGRP<sub>1</sub> receptors in SK-N-MC cells, 1235

## CGRP-(8-37)

Cys<sup>2,7</sup>Et $\alpha$ CGRP is a potent agonist for CGRP<sub>1</sub> receptors in SK-N-MC cells, 1235

## Chemoprevention

Dietary flavonoids as proteasome inhibitors and apoptosis inducers in human leukemia cells, 1421

## Chemotaxis

Inhibitory effects on human eosinophil chemotaxis in vitro by BAY 41-2272, an activator of nitric oxide-independent site of soluble guanylate cyclase, 875

## Chemotherapeutics

Role of PI3K/Akt and MEK/ERK signaling pathways in sulforaphane- and erucin-induced phase II enzymes and MRP2 transcription,  $\text{G}_2/\text{M}$  arrest and cell death in Caco-2 cells, 1543

## Chemotherapy

Changes in spectrin organisation in leukaemic and lymphoid cells upon chemotherapy, 73

6-Benzylthioinosine analogues as subversive substrate of *Toxoplasma gondii* adenosine kinase: Activities and selective toxicities, 1409

Dietary flavonoids as proteasome inhibitors and apoptosis inducers in human leukemia cells, 1421

## Chenodeoxycholic acid

Regulation of ileal bile acid-binding protein expression in Caco-2 cells by ursodeoxycholic acid: Role of the farnesoid X receptor, 1755

## Chimeric G protein

Stimulation of neuropeptide Y-mediated calcium responses in human SMS-KAN neuroblastoma cells endogenously expressing  $\text{Y}_2$  receptors by co-expression of chimeric G proteins, 1493

## Chlorination activity

Exploitation of the unusual thermodynamic properties of human myeloperoxidase in inhibitor design, 1149

## 2-Chloroethyl isocyanate

Differential inhibition of cellular glutathione reductase activity by isocyanates generated from the antitumor prodrugs Cloretazine<sup>TM</sup> and BCNU, 1463

## Chondrocytes

Effects of cannabinoids on nitric oxide production by chondrocytes and proteoglycan degradation in cartilage, 635

## Chronic myeloid leukemia

Relative importance of apoptosis and cell cycle blockage in the synergistic effect of combined R115777 and imatinib treatment in BCR/ABL-positive cell lines, 1585

## Chrysin

Chrysin induces G1 phase cell cycle arrest in C6 glioma cells through inducing p21<sup>Waf1/Cip1</sup> expression: Involvement of p38 mitogen-activated protein kinase, 1815

## Cisplatin

Thiocolchicine dimers: a novel class of topoisomerase-I inhibitors, 113

High effectiveness of platinum(IV) complex with adamantylamine in overcoming resistance to cisplatin and suppressing proliferation of ovarian cancer cells in vitro, 373

Impaired activation of caspases and prevention of mitochondrial dysfunction in the metastatic colon carcinoma CC531s-m2 cell line, 463

The effect of quercetin on pro-apoptotic activity of cisplatin in HeLa cells, 1343

## Clofibrate

Clofibrate and perfluorodecanoate both upregulate the expression of the pregnane X receptor but oppositely affect its ligand-dependent induction on cytochrome P450 3A23, 1363

Clonal pancreatic  $\beta$ -cells

Alterations of insulin secretion following long-term manipulation of ATP-sensitive potassium channels by diazoxide and nateglinide, 59

- Clotetazine™  
Differential inhibition of cellular glutathione reductase activity by isocyanates generated from the antitumor prodrugs Clotetazine™ and BCNU, 1463
- CNS inflammation  
β-Adrenergic receptor modulation of the LPS-mediated depression in CYP1A activity in astrocytes, 741
- Colitis  
Rosiglitazone, an agonist of peroxisome proliferator-activated receptor gamma, reduces chronic colonic inflammation in rats, 1733  
Intestinal inflammation induces adaptation of P-glycoprotein expression and activity, 1745
- Collagen gel  
Effect of an oversulfated exopolysaccharide on angiogenesis induced by fibroblast growth factor-2 or vascular endothelial growth factor in vitro, 751
- Collagen  
The L-arginine/NO pathway in the early phases of platelet stimulation by collagen, 289  
Effects of cannabinoids on nitric oxide production by chondrocytes and proteoglycan degradation in cartilage, 635
- Colon cancer  
Induction of apoptosis by R-flurbiprofen in human colon carcinoma cells: involvement of p53, 831
- Computer modelling  
Dietary flavonoids as proteasome inhibitors and apoptosis inducers in human leukemia cells, 1421
- Constitutive activity  
Neuronal nitric oxide modulates morphine antinociceptive tolerance by enhancing constitutive activity of the μ-opioid receptor, 679
- Cortex  
The role of NMDA receptor upregulation in phencyclidine-induced cortical apoptosis in organotypic culture, 1373
- Covalent binding  
Sequence specificity of formaldehyde-mediated covalent binding of anthracycline derivatives to DNA, 7
- COX-2  
Rosiglitazone, an agonist of peroxisome proliferator-activated receptor gamma, reduces chronic colonic inflammation in rats, 1733
- CsA  
Attenuation of cyclosporine A toxicity by sublethal heat shock. Role of catalase, 493
- Cultured cells  
Differential modulation by simvastatin of the metabolic pathways in the *n*-9, *n*-6 and *n*-3 fatty acid series, in human monocytic and hepatocytic cell lines, 1095
- Cultures  
Dietary polyphenols protect dopamine neurons from oxidative insults and apoptosis: investigations in primary rat mesencephalic cultures, 339
- Curcumin  
Curcumin-induced histone hypoacetylation: The role of reactive oxygen species, 1205
- Cyclic AMP  
Suppression of respiratory burst in human neutrophils by new synthetic pyrrolo-benzylisoquinolines, 65
- Cycloheximide  
Acetoxycycloheximide (E-73) rapidly induces apoptosis mediated by the release of cytochrome *c* via activation of c-Jun N-terminal kinase, 551
- Cyclooxygenase 2  
Inhibitory effect of 2'-hydroxycinnamaldehyde on nitric oxide production through inhibition of NF-κB activation in RAW 264.7 cells, 791
- Cyclooxygenase  
Cyclooxygenation of the arachidonoyl side chain of 1-arachidonoyl-glycerol and related compounds block their ability to prevent anandamide and 2-oleoylglycerol metabolism by rat brain in vitro, 1241
- Cyclophosphamide  
Inhibition of human CYP2B6 by *N,N',N'*-triethylenethiophosphoramidate is irreversible and mechanism-based, 517
- CYP1A1* gene  
Role of adrenoceptor-linked signaling pathways in the regulation of *CYP1A1* gene expression, 277
- CYP1A1  
Natural furocoumarins as inducers and inhibitors of cytochrome P450 1A1 in rat hepatocytes, 657
- CYP26A1* regulation  
Regulation of *CYP26A1* expression by selective RAR and RXR agonists in human NB4 promyelocytic leukemia cells, 1595
- CYP2B6  
Inhibition of human CYP2B6 by *N,N',N'*-triethylenethiophosphoramidate is irreversible and mechanism-based, 517
- CYP2C9  
Electrochemical characterisation of the human cytochrome P450 CYP2C9, 1533
- CYP2E1  
Inhibition of CYP2E1 catalytic activity in vitro by *S*-adenosyl-L-methionine, 1081
- CYP3A23  
Clofibrate and perfluorodecanoate both upregulate the expression of the pregnane X receptor but oppositely affect its ligand-dependent induction on cytochrome P450 3A23, 1363
- CYP3A  
Repression of PXR-mediated induction of hepatic *CYP3A* gene expression by protein kinase C, 867
- Cys<sup>2,7</sup>Et calcitonin gene-related peptide  
Cys<sup>2,7</sup>EtαCGRP is a potent agonist for CGRP<sub>1</sub> receptors in SK-N-MC cells, 1235
- γ-Cystathionase  
Aminotransferase, L-amino acid oxidase and β-lyase reactions involving L-cysteine *S*-conjugates found in allium extracts. Relevance to biological activity?, 209
- Cysteine *S*-conjugates  
Aminotransferase, L-amino acid oxidase and β-lyase reactions involving L-cysteine *S*-conjugates found in allium extracts. Relevance to biological activity?, 209
- Cytarabine triphosphate  
A sensitive new method for clinically monitoring cytarabine concentrations at the DNA level in leukemic cells, 1795
- Cytarabine  
A sensitive new method for clinically monitoring cytarabine concentrations at the DNA level in leukemic cells, 1795
- Cytochalasin B  
Involvement of Ras/extracellular signal-regulated kinase, but not Akt pathway in risedronate-induced apoptosis of U937 cells and its suppression by cytochalasin B, 1773
- Cytochrome *c*  
Acetoxycycloheximide (E-73) rapidly induces apoptosis mediated by the release of cytochrome *c* via activation of c-Jun N-terminal kinase, 551  
Mitochondrial-dependent, reactive oxygen species-independent apoptosis by myricetin: roles of protein kinase C, cytochrome *c*, and caspase cascade, 913
- Cytochrome P450  
Inhibition of human CYP2B6 by *N,N',N'*-triethylenethiophosphoramidate is irreversible and mechanism-based, 517  
Pretranslational upregulation of microsomal CYP4A in rat liver by intake of a high-sucrose, lipid-devoid diet containing orotic acid, 709

- β-Adrenergic receptor modulation of the LPS-mediated depression in CYP1A activity in astrocytes, 741
  - Inhibition of CYP2E1 catalytic activity in vitro by *S*-adenosyl-L-methionine, 1081
  - Electrochemical characterisation of the human cytochrome P450 CYP2C9, 1533
- Cytokine
  - Lisofylline: a potential lead for the treatment of diabetes, 1
  - Pro-inflammatory properties for thiazolidinediones, 255
  - Severity of pancreatitis-associated gut barrier dysfunction is reduced following treatment with the PAF inhibitor lexipafant, 1325
- Cytoskeleton
  - 2-Aminoethoxydiphenyl borate perturbs hormone-sensitive calcium stores and blocks store-operated calcium influx pathways independent of cytoskeletal disruption in human A549 lung cancer cells, 1177
- Cytosolic calcium
  - Azaspiracid-4 inhibits  $\text{Ca}^{2+}$  entry by store-operated channels in human T lymphocytes, 1627
- Cytosolic  $\text{Ca}^{2+}$ 
  - Calcium-pH crosstalks in rat mast cells: modulation by transduction signals show non-essential role for calcium in alkaline-induced exocytosis, 319
- Cytosolic pH
  - Calcium-pH crosstalks in rat mast cells: modulation by transduction signals show non-essential role for calcium in alkaline-induced exocytosis, 319
- Cytosolic phospholipase  $\text{A}_2$ 
  - A downstream role for protein kinase  $\text{C}\alpha$  in the cytosolic phospholipase  $\text{A}_2$ -dependent protective signalling mediated by peroxynitrite in U937 cells, 1275
- Cytotoxicity
  - Synthesis and biological activities of bisnaphthalimido polyamines derivatives: cytotoxicity, DNA binding, DNA damage and drug localization in breast cancer MCF 7 cells, 19
  - BCL-xL overexpression effectively protects against tetrafluoroethyl-cysteine-induced intramitochondrial damage and cell death, 147
  - High effectiveness of platinum(IV) complex with adamantylamine in overcoming resistance to cisplatin and suppressing proliferation of ovarian cancer cells in vitro, 373
  - Inhibitory effects on human eosinophil chemotaxis in vitro by BAY 41-2272, an activator of nitric oxide-independent site of soluble guanylate cyclase, 875
  - Antioxidant, prooxidant and cytotoxic activity of hydroxylated resveratrol analogues: structure–activity relationship, 903
  - The role of thioredoxin reductase activity in selenium-induced cytotoxicity, 1765
- Data mining
  - Anticancer metal compounds in NCI's tumor-screening database: putative mode of action, 1009
- DDAB
  - Electrochemical characterisation of the human cytochrome P450 CYP2C9, 1533
- Deficient methylator
  - Identification and functional analysis of two rare allelic variants of the thiopurine *S*-methyltransferase gene, *TPMT\*16* and *TPMT\*19*, 525
- Degranulation
  - Inhibition of interleukin-8 (CXCL8/IL-8) responses by repertaxin, a new inhibitor of the chemokine receptors CXCR1 and CXCR2, 385
- Dendritic cells
  - Inhibition of interleukin-12 expression in diltiazem-treated dendritic cells through the reduction of nuclear factor-κB transcriptional activity, 425
- Deoxynucleoside kinases
  - Activity profiles of deoxynucleoside kinases and 5'-nucleotidases in cultured adipocytes and myoblastic cells: insights into mitochondrial toxicity of nucleoside analogs, 951
- Dexamethasone
  - Dexamethasone down-regulates cAMP-phosphodiesterase in human osteosarcoma cells, 267
  - Dexamethasone-induced methylprednisolone hemisuccinate hydrolase: Its identification as a member of the rat carboxylesterase 2 family and its unique existence in plasma, 1287
- Dextran sulfate sodium (DSS)
  - Dietary rutin, but not its aglycone quercetin, ameliorates dextran sulfate sodium-induced experimental colitis in mice: attenuation of pro-inflammatory gene expression, 395
- Diabetes mellitus
  - Novel regulatory roles for protein phosphatase-2A in the islet β cell, 1681
- Diazoxide
  - Alterations of insulin secretion following long-term manipulation of ATP-sensitive potassium channels by diazoxide and nateglinide, 59
- Dibutyl-*l*-cAMP
  - Silibinin prevents cholestasis-associated retrieval of the bile salt export pump, Bsep, in isolated rat hepatocyte couplets: Possible involvement of cAMP, 1113
- Dicoumarol
  - Dicoumarol relieves serum withdrawal-induced  $\text{G}_{0/1}$  blockade in HL-60 cells through a superoxide-dependent mechanism, 1613
- Differentiation
  - 4-Hydroxynonenal inhibits cell proliferation and alters differentiation pathways in human fetal liver hematopoietic stem cells, 105
- Diltiazem
  - Inhibition of interleukin-12 expression in diltiazem-treated dendritic cells through the reduction of nuclear factor-κB transcriptional activity, 425
- Dioxolane derivative
  - Muscarinic subtype affinity and functional activity profile of 1-methyl-2-(2-methyl-1,3-dioxolan-4-yl)pyrrolidine and 1-methyl-2-(2-methyl-1,3-oxathiolan-5-yl)pyrrolidine derivatives, 1637
- Diphenyleneiodonium
  - Induction of apoptosis and modulation of production of reactive oxygen species in human endothelial cells by diphenyleneiodonium, 1263
- 3,5-Di-*t*-butylcatechol
  - 3,5-Di-*t*-butylcatechol (DTCAT) as an activator of rat skeletal muscle ryanodine receptor  $\text{Ca}^{2+}$  channel (RyRC), 485
- Divalent metal transporter 1
  - Hypoxia induces changes in expression of isoforms of the divalent metal transporter (DMT1) in rat pheochromocytoma (PC12) cells, 1647
- Dizocilpine
  - Binding of [ $^3\text{H}$ ]MK-801 in subcellular fractions of *Schistosoma mansoni*: Evidence for interaction with nicotinic receptors, 1509
- DM
  - Protective effect of dextromethorphan against endotoxic shock in mice, 233
- DMT1
  - Hypoxia induces changes in expression of isoforms of the divalent metal transporter (DMT1) in rat pheochromocytoma (PC12) cells, 1647
- DNA alkylating agents
  - Differential inhibition of cellular glutathione reductase activity by isocyanates generated from the antitumor prodrugs Cloretazine<sup>TM</sup> and BCNU, 1463
- DNA binding and damage
  - Synthesis and biological activities of bisnaphthalimido polyamines derivatives: cytotoxicity, DNA binding, DNA damage and drug localization in breast cancer MCF 7 cells, 19



- DNA damage  
G2 arrest and apoptosis by 2-amino-*N*-quinoline-8-yl-benzenesulfonamide (QBS), a novel cytotoxic compound, 1333
- DNA fragmentation factor  
Mechanism of ricin-induced apoptosis in human cervical cancer cells, 855
- DNA incorporation  
A sensitive new method for clinically monitoring cytarabine concentrations at the DNA level in leukemic cells, 1795
- DNA repair  
Thiocolchicine dimers: a novel class of topoisomerase-I inhibitors, 113  
Molecular modes of action of cantharidin in tumor cells, 811
- Dopamine receptor  
Regulation of dense core vesicle release from PC12 cells by interaction between the D2 dopamine receptor and calcium-dependent activator protein for secretion (CAPS), 1451
- Dopamine  
Regulation of dense core vesicle release from PC12 cells by interaction between the D2 dopamine receptor and calcium-dependent activator protein for secretion (CAPS), 1451
- Drug discovery  
Anticancer metal compounds in NCI's tumor-screening database: putative mode of action, 1009  
Target identification and validation in drug discovery: the role of proteomics, 1133
- Drug resistance  
Lack of an effect of breast cancer resistance protein (BCRP/ABCG2) overexpression on methotrexate polyglutamate export and folate accumulation in a human breast cancer cell line, 123  
Relative importance of apoptosis and cell cycle blockage in the synergistic effect of combined R115777 and imatinib treatment in BCR/ABL-positive cell lines, 1585
- Drug specificity  
Sequence specificity of formaldehyde-mediated covalent binding of anthracycline derivatives to DNA, 7
- Drug transport  
Directional trans-epithelial transport of organic anions in porcine LLC-PK1 cells that co-express human OATP1B1 (OATP-C) and MRP2, 415
- Drug-resistance  
Thiocolchicine dimers: a novel class of topoisomerase-I inhibitors, 113
- DSS  
Intestinal inflammation induces adaptation of P-glycoprotein expression and activity, 1745
- Dual perfusion  
Role of P-glycoprotein in transplacental transfer of methadone, 1869
- E-64  
Inhibitors of calpain activation (PD150606 and E-64) and renal ischemia-reperfusion injury, 1121
- E-73  
Acetoxycycloheximide (E-73) rapidly induces apoptosis mediated by the release of cytochrome *c* via activation of c-Jun N-terminal kinase, 551
- Edema  
The potential benefits of 1.5% hetastarch as a cardioplegia additive, 1553
- Electrochemistry  
Electrochemical characterisation of the human cytochrome P450 CYP2C9, 1533
- EMPO derivatives  
Very stable superoxide radical adducts of 5-ethoxycarbonyl-3,5-dimethyl-pyrroline *N*-oxide (3,5-EDPO) and its derivatives, 1351
- Endocannabinoid  
Binding affinity and agonist activity of putative endogenous cannabinoids at the human neocortical CB<sub>1</sub> receptor, 169
- Cyclooxygenation of the arachidonoyl side chain of 1-arachidonoyl-glycerol and related compounds block their ability to prevent anandamide and 2-oleoylglycerol metabolism by rat brain in vitro, 1241
- Endogenous and cloned T-type Ca<sup>2+</sup> channels  
Contrasting the effects of nifedipine on subtypes of endogenous and recombinant T-type Ca<sup>2+</sup> channels, 841
- Endothelial cells  
Induction of apoptosis and modulation of production of reactive oxygen species in human endothelial cells by diphenyleneiodonium, 1263
- Endothelial  
Accessibility of endothelial and inducible nitric oxide synthase to the intracellular citrulline-arginine regeneration pathway, 97
- Endothelium  
Insulin-stimulated endothelial nitric oxide release is calcium independent and mediated via protein kinase B, 781
- Enzyme  
A spectrophotometric assay for fatty acid amide hydrolase suitable for high-throughput screening, 1187
- Eosinophil  
Inhibitory effects on human eosinophil chemotaxis in vitro by BAY 41-2272, an activator of nitric oxide-independent site of soluble guanylate cyclase, 875
- Epigallocatechin-3-gallate  
Inhibition of human liver catechol-*O*-methyltransferase by tea catechins and their metabolites: Structure-activity relationship and molecular-modeling studies, 1523
- EPR  
Spin adduct formation from lipophilic EMPO-derived spin traps with various oxygen- and carbon-centered radicals, 297  
Very stable superoxide radical adducts of 5-ethoxycarbonyl-3,5-dimethyl-pyrroline *N*-oxide (3,5-EDPO) and its derivatives, 1351
- ERK1/2  
Involvement of Ras/extracellular signal-regulated kinase, but not Akt pathway in risedronate-induced apoptosis of U937 cells and its suppression by cytochalasin B, 1773
- ERK  
Histamine H1 receptor antagonist blocks histamine-induced proinflammatory cytokine production through inhibition of Ca<sup>2+</sup>-dependent protein kinase C, Raf/MEK/ERK and IKK/IκB/NF-κB signal cascades, 433
- ERKS  
Quercetin, but not rutin and quercitrin, prevention of H<sub>2</sub>O<sub>2</sub>-induced apoptosis via anti-oxidant activity and heme oxygenase 1 gene expression in macrophages, 1839
- EROD  
Role of adrenoceptor-linked signaling pathways in the regulation of *CYP1A1* gene expression, 277  
β-Adrenergic receptor modulation of the LPS-mediated depression in CYP1A activity in astrocytes, 741
- Erythrocyte  
cGMP (guanosine 3',5'-cyclic monophosphate) transport across human erythrocyte membranes, 1257
- Estradiol-17β-D-glucuronide  
Silibinin prevents cholestasis-associated retrieval of the bile salt export pump, Bsep, in isolated rat hepatocyte couplets: Possible involvement of cAMP, 1113
- Estrogen  
Sodium nitroprusside-induced osteoblast apoptosis is mediated by long chain ceramide and is decreased by raloxifene, 891
- Ethanol  
Inhibition of tumor necrosis factor alpha secretion and prevention of liver injury in ethanol-fed rats by antisense oligonucleotides, 569
- Exocytosis  
Regulation of dense core vesicle release from PC12 cells by interaction between the D2 dopamine receptor and calcium-dependent activator protein for secretion (CAPS), 1451

## Experimental colitis

Dietary rutin, but not its aglycone quercetin, ameliorates dextran sulfate sodium-induced experimental colitis in mice: attenuation of pro-inflammatory gene expression, 395

## Extracellular matrix

Transfection of adult primary rat hepatocytes in culture, 1805

## Extracellular signal-regulated kinase 1/2

Mechanism of concentration-dependent induction of heme oxygenase-1 by resveratrol in human aortic smooth muscle cells, 41

## FADD

FADD-dependent apoptosis induction in Jurkat leukemia T-cells by the resveratrol analogue, 3,4,5-trihydroxy-*trans*-stilbene, 249

## Farnesoid X receptor

Regulation of ileal bile acid-binding protein expression in Caco-2 cells by ursodeoxycholic acid: Role of the farnesoid X receptor, 1755

## Farnesyltransferase inhibitor

Relative importance of apoptosis and cell cycle blockage in the synergistic effect of combined R115777 and imatinib treatment in BCR/ABL-positive cell lines, 1585

## Fatty acid amide hydrolase

A spectrophotometric assay for fatty acid amide hydrolase suitable for high-throughput screening, 1187

Cyclooxygenation of the arachidonoyl side chain of 1-arachidonoylglycerol and related compounds block their ability to prevent anandamide and 2-oleoylglycerol metabolism by rat brain in vitro, 1241

## Fatty acid metabolism

Differential modulation by simvastatin of the metabolic pathways in the *n*-9, *n*-6 and *n*-3 fatty acid series, in human monocytic and hepatocytic cell lines, 1095

## Feline

Cloning and pharmacological characterization of the cat urotensin-II receptor (UT), 1069

## Fetal

Reduced nicotine distribution from mother to fetal brain in rats vaccinated against nicotine: Time course and influence of nicotine dosing regimen, 1385

## FK228

Marker genes to predict sensitivity to FK228, a histone deacetylase inhibitor, 603

## FK506

Transient up-regulation of P-glycoprotein reduces tacrolimus absorption after ischemia-reperfusion injury in rat ileum, 561

Protective effect of FK506 against apoptosis of SH-SY5Y cells correlates with regulation of the serum inducible kinase gene, 1473

## Flavonoid

Some flavonoids and DHEA-S prevent the *cis*-effect of expanded CTG repeats in a stable PC12 cell transformant, 503

## Flavonoids

Decreased pro-inflammatory cytokine production by LPS-stimulated PBMC upon in vitro incubation with the flavonoids apigenin, luteolin or chrysin, due to selective elimination of monocytes/macrophages, 241

Dietary polyphenols protect dopamine neurons from oxidative insults and apoptosis: investigations in primary rat mesencephalic cultures, 339

Quantitative structure activity relationship studies on the flavonoid mediated inhibition of multidrug resistance proteins 1 and 2, 699

Dietary flavonoids as proteasome inhibitors and apoptosis inducers in human leukemia cells, 1421

Reversal of in vitro cellular MRP1 and MRP2 mediated vincristine resistance by the flavonoid myricetin, 1657

Quercetin, but not rutin and quercitrin, prevention of H<sub>2</sub>O<sub>2</sub>-induced apoptosis via anti-oxidant activity and heme oxygenase 1 gene expression in macrophages, 1839

## Fluorescence microscopy

Synthesis and biological activities of bisnaphthalimido polyamines derivatives: cytotoxicity, DNA binding, DNA damage and drug localization in breast cancer MCF 7 cells, 19

## Flurbiprofen

Induction of apoptosis by R-flurbiprofen in human colon carcinoma cells: involvement of p53, 831

## Folate metabolism

Lack of an effect of breast cancer resistance protein (BCRP/ABCG2) overexpression on methotrexate polyglutamate export and folate accumulation in a human breast cancer cell line, 123

## Footprinting

Sequence specificity of formaldehyde-mediated covalent binding of anthracycline derivatives to DNA, 7

## Foscan®

Necrotic and apoptotic features of cell death in response to Foscan® photosensitization of HT29 monolayer and multicell spheroids, 1167

## FPMPT

Inhibition of thymidine phosphorylase (PD-ECGF) from SD-lymphoma by phosphonomethoxyalkyl thymine, 1517

## FR901228

Marker genes to predict sensitivity to FK228, a histone deacetylase inhibitor, 603

## Free radicals

Spin adduct formation from lipophilic EMPO-derived spin traps with various oxygen- and carbon-centered radicals, 297

Very stable superoxide radical adducts of 5-ethoxycarbonyl-3,5-dimethyl-pyrroline *N*-oxide (3,5-EDPO) and its derivatives, 1351

## FTI

Inhibitory effects of mevastatin and a geranylgeranyl transferase I inhibitor (GGTI-2166) on mononuclear osteoclast formation induced by receptor activator of NFκB ligand (RANKL) or tumor necrosis factor-α (TNF-α), 87

## 5-FU

Modulation of 5-fluorouracil cytotoxicity through thymidylate synthase and NF-κB down-regulation and its application on the radiolabelled iododeoxyuridine therapy on human hepatoma cell, 617

## Functional dyad

Assignment of voltage-gated potassium channel blocking activity to κ-KTx1.3, a non-toxic homologue of κ-hefutoxin-1, from *Heterometrus spinifer* venom, 669

## Functional studies

Muscarinic subtype affinity and functional activity profile of 1-methyl-2-(2-methyl-1,3-dioxolan-4-yl)pyrrolidine and 1-methyl-2-(2-methyl-1,3-oxathiolan-5-yl)pyrrolidine derivatives, 1637

## Functional

Quantitative structure-activity analyses of bufokinin and other tachykinins at bufokinin (bNK<sub>1</sub>) receptors of the small intestine of the cane toad, *Bufo marinus*, 329

## Fura-2

Multiple P2X and P2Y receptor subtypes in mouse J774, spleen and peritoneal macrophages, 641

## Furocoumarins

Natural furocoumarins as inducers and inhibitors of cytochrome P450 1A1 in rat hepatocytes, 657

## G alpha q

Gα<sub>q</sub> potentiation of adenylate cyclase type 9 activity through a Ca<sup>2+</sup>/calmodulin-dependent pathway, 1247

## G protein-coupled receptor

Involvement of uracil nucleotides in protection of cardiomyocytes from hypoxic stress, 1215

## G2 arrest

Antitumour imidazoacridone C-1311 induces cell death by mitotic catastrophe in human colon carcinoma cells, 801

- G2 arrest and apoptosis by 2-amino-*N*-quinoline-8-yl-benzenesulfonamide (QBS), a novel cytotoxic compound, 1333
- GABA  
Ah receptor signals cross-talk with multiple developmental pathways, 199
- GABA<sub>A</sub> receptor  
(+)- And (-)-borneol: efficacious positive modulators of GABA action at human recombinant  $\alpha_1\beta_2\gamma_{2L}$  GABA<sub>A</sub> receptors, 1101
- Gastrin  
Modulating the cytokine response to treat *Helicobacter* gastritis, 365
- Gastrin-releasing peptide receptor  
Identification of key amino acids in the gastrin-releasing peptide receptor (GRPR) responsible for high affinity binding of gastrin-releasing peptide (GRP), 579
- Gastrin-releasing peptide  
Identification of key amino acids in the gastrin-releasing peptide receptor (GRPR) responsible for high affinity binding of gastrin-releasing peptide (GRP), 579
- Gene delivery  
Activation of protein kinase C $\delta$  by proteolytic cleavage contributes to manganese-induced apoptosis in dopaminergic cells: protective role of Bcl-2, 133
- Gene expression  
Protective effect of dextromethorphan against endotoxic shock in mice, 233
- Gene regulation  
Pretranslational upregulation of microsomal CYP4A in rat liver by intake of a high-sucrose, lipid-devoid diet containing orotic acid, 709
- Gene therapy  
Antisense gene delivered by an adenoassociated viral vector inhibits iron uptake in human intestinal cells: Potential application in hemochromatosis, 1559
- Gene transcription  
The role of epidermal growth factor receptor in ethanol-mediated inhibition of activator protein-1 transactivation, 1785
- GeneChip  
Marker genes to predict sensitivity to FK228, a histone deacetylase inhibitor, 603
- Genetic polymorphism  
Identification and functional analysis of two rare allelic variants of the thiopurine *S*-methyltransferase gene, *TPMT\*16* and *TPMT\*19*, 525
- Genistein  
The novel targets for anti-angiogenesis of genistein on human cancer cells, 307
- Geranylgeranylation  
Inhibitory effects of mevastatin and a geranylgeranyl transferase I inhibitor (GGTI-2166) on mononuclear osteoclast formation induced by receptor activator of NF $\kappa$ B ligand (RANKL) or tumor necrosis factor- $\alpha$  (TNF- $\alpha$ ), 87
- GGTI  
Inhibitory effects of mevastatin and a geranylgeranyl transferase I inhibitor (GGTI-2166) on mononuclear osteoclast formation induced by receptor activator of NF $\kappa$ B ligand (RANKL) or tumor necrosis factor- $\alpha$  (TNF- $\alpha$ ), 87
- G<sub>i</sub>-phase block  
Induction of apoptosis by R-flurbiprofen in human colon carcinoma cells: involvement of p53, 831
- Glucocorticoid therapy  
Type 4 cAMP phosphodiesterase (PDE4) inhibitors augment glucocorticoid-mediated apoptosis in B cell chronic lymphocytic leukemia (B-CLL) in the absence of exogenous adenylyl cyclase stimulation, 473
- Glucocorticoid  
Inhibition of tristetraprolin expression by dexamethasone in activated macrophages, 733
- Glucocorticoids  
Dexamethasone down-regulates cAMP-phosphodiesterase in human osteosarcoma cells, 267
- Glutamate release  
Glycine taken up through GLYT1 and GLYT2 heterotransporters into glutamatergic axon terminals of mouse spinal cord elicits release of glutamate by homotransporter reversal and through anion channels, 159
- Glutamate  
Binding of [<sup>3</sup>H]MK-801 in subcellular fractions of *Schistosoma mansoni*: Evidence for interaction with nicotinic receptors, 1509
- Glutamine transaminase K  
Aminotransferase, L-amino acid oxidase and  $\beta$ -lyase reactions involving L-cysteine *S*-conjugates found in allium extracts. Relevance to biological activity?, 209
- Glutathione content  
Spontaneous apoptosis, necrosis, energy status, glutathione levels and biotransformation capacities of isolated rat hepatocytes in suspension: Effect of the incubation medium, 1829
- Glutathione peroxidase  
The role of thioredoxin reductase activity in selenium-induced cytotoxicity, 1765
- Glutathione reductase  
Differential inhibition of cellular glutathione reductase activity by isocyanates generated from the antitumor prodrugs Cloretazine<sup>TM</sup> and BCNU, 1463
- Glutathione transport  
Role of two adjacent cytoplasmic tyrosine residues in MRP1 (ABCC1) transport activity and sensitivity to sulfonylureas, 451
- Glutathione  
Mechanisms involved in spironolactone-induced choleresis in the rat. Role of multidrug resistance-associated protein 2, 531
- Glycine heterotransporters  
Glycine taken up through GLYT1 and GLYT2 heterotransporters into glutamatergic axon terminals of mouse spinal cord elicits release of glutamate by homotransporter reversal and through anion channels, 159
- Glycine transporter types  
Glycine taken up through GLYT1 and GLYT2 heterotransporters into glutamatergic axon terminals of mouse spinal cord elicits release of glutamate by homotransporter reversal and through anion channels, 159
- Glycine-glutamate interactions  
Glycine taken up through GLYT1 and GLYT2 heterotransporters into glutamatergic axon terminals of mouse spinal cord elicits release of glutamate by homotransporter reversal and through anion channels, 159
- Glycosylphosphatidylinositol  
Regulation of lipid raft proteins by glimepiride- and insulin-induced glycosylphosphatidylinositol-specific phospholipase C in rat adipocytes, 761
- cGMP levels  
Inhibitory effects on human eosinophil chemotaxis in vitro by BAY 41-2272, an activator of nitric oxide-independent site of soluble guanylate cyclase, 875
- cGMP  
Inducible nitric oxide synthase-dependent stimulation of PKGI and phosphorylation of VASP in human embryonic kidney cells, 595  
cGMP (guanosine 3',5'-cyclic monophosphate) transport across human erythrocyte membranes, 1257  
Differential CB1 and CB2 cannabinoid receptor-inotropic response of rat isolated atria: Endogenous signal transduction pathways, 1705
- GPR-14  
Cloning and pharmacological characterization of the cat urotensin-II receptor (UT), 1069

- G-protein coupled receptor  
Regulation of dense core vesicle release from PC12 cells by interaction between the D2 dopamine receptor and calcium-dependent activator protein for secretion (CAPS), 1451
- GRE  
Type 4 cAMP phosphodiesterase (PDE4) inhibitors augment glucocorticoid-mediated apoptosis in B cell chronic lymphocytic leukemia (B-CLL) in the absence of exogenous adenylyl cyclase stimulation, 473
- GTP $\gamma$ S binding  
Stimulation of neuropeptide Y-mediated calcium responses in human SMS-KAN neuroblastoma cells endogenously expressing Y<sub>2</sub> receptors by co-expression of chimeric G proteins, 1493
- Heart failure  
Poly(ADP-ribose) polymerase regulates myocardial calcium handling in doxorubicin-induced heart failure, 725
- Heart  
Reversal by aminoguanidine of the age-related increase in glycoxidation and lipoxidation in the cardiovascular system of Fischer 344 rats, 29
- Heat shock  
Attenuation of cyclosporine A toxicity by sublethal heat shock. Role of catalase, 493
- $\kappa$ -Hefutoxin 1  
Assignment of voltage-gated potassium channel blocking activity to  $\kappa$ -KTx1.3, a non-toxic homologue of  $\kappa$ -hefutoxin-1, from *Heterometrus spinifer* venom, 669
- HeLa cells  
Mechanism of ricin-induced apoptosis in human cervical cancer cells, 855  
The effect of quercetin on pro-apoptotic activity of cisplatin in HeLa cells, 1343
- Heme arginate  
Prevention of hemorrhagic shock-induced lung injury by heme arginate treatment in rats, 1667
- Heme oxygenase 1  
Mechanism of concentration-dependent induction of heme oxygenase-1 by resveratrol in human aortic smooth muscle cells, 41  
Prevention of hemorrhagic shock-induced lung injury by heme arginate treatment in rats, 1667  
Quercetin, but not rutin and quercitrin, prevention of H<sub>2</sub>O<sub>2</sub>-induced apoptosis via anti-oxidant activity and heme oxygenase 1 gene expression in macrophages, 1839
- Hemochromatosis  
Antisense gene delivered by an adenoassociated viral vector inhibits iron uptake in human intestinal cells: Potential application in hemochromatosis, 1559
- Hemorrhagic shock  
Prevention of hemorrhagic shock-induced lung injury by heme arginate treatment in rats, 1667
- Hep G2 cell line  
Involvement of SULT1A3 in elevated sulfation of 4-hydroxypropranolol in Hep G2 cells pretreated with  $\beta$ -naphthoflavone, 941
- Hepatic lipid synthesis  
Pretranslational upregulation of microsomal CYP4A in rat liver by intake of a high-sucrose, lipid-devoid diet containing orotic acid, 709
- Hepatocyte  
Morin inhibits 12-*O*-tetradecanoylphorbol-13-acetate-induced hepatocellular transformation via activator protein 1 signaling pathway and cell cycle progression, 1603
- HepG2 cells  
Inhibition of CYP2E1 catalytic activity in vitro by *S*-adenosyl-L-methionine, 1081
- HepG2  
Attenuation of cyclosporine A toxicity by sublethal heat shock. Role of catalase, 493
- Hetastarch  
The potential benefits of 1.5% hetastarch as a cardioplegia additive, 1553
- Heterologous expression  
Identification and functional analysis of two rare allelic variants of the thiopurine *S*-methyltransferase gene, *TPMT\*16* and *TPMT\*19*, 525
- Heterometrus spinifer*  
Assignment of voltage-gated potassium channel blocking activity to  $\kappa$ -KTx1.3, a non-toxic homologue of  $\kappa$ -hefutoxin-1, from *Heterometrus spinifer* venom, 669
- HIF  
Hypoxia induces changes in expression of isoforms of the divalent metal transporter (DMT1) in rat pheochromocytoma (PC12) cells, 1647
- High-throughput screening  
Eukaryotic arylamine *N*-acetyltransferase. Investigation of substrate specificity by high-throughput screening, 347
- Histamine H1 receptor  
Histamine H1 receptor antagonist blocks histamine-induced proinflammatory cytokine production through inhibition of Ca<sup>2+</sup>-dependent protein kinase C, Raf/MEK/ERK and IKK/ $\kappa$ B/NF- $\kappa$ B signal cascades, 433
- Histone acetylation  
Curcumin-induced histone hypoacetylation: The role of reactive oxygen species, 1205
- Histone acetyltransferase (HAT)  
Curcumin-induced histone hypoacetylation: The role of reactive oxygen species, 1205
- Histone deacetylase (HDAC)  
Curcumin-induced histone hypoacetylation: The role of reactive oxygen species, 1205
- Histone deacetylase inhibitor  
Marker genes to predict sensitivity to FK228, a histone deacetylase inhibitor, 603
- Histone deacetylase inhibitors  
Retinoblastoma protein is required for efficient colorectal carcinoma cell apoptosis by histone deacetylase inhibitors in the absence of p21Waf, 1059
- Histone deacetylase  
Histone deacetylases inhibition and tumor cells cytotoxicity by CNS-active VPA constitutional isomers and derivatives, 1501
- Histone deacetylation  
Inhibition of tristetraprolin expression by dexamethasone in activated macrophages, 733
- HL-60 cells  
Antioxidant, prooxidant and cytotoxic activity of hydroxylated resveratrol analogues: structure-activity relationship, 903  
Dicoumarol relieves serum withdrawal-induced G<sub>0/1</sub> blockade in HL-60 cells through a superoxide-dependent mechanism, 1613
- Hot-plate test  
Characterization of antinociceptive activity of novel endomorphin-2 and morphiceptin analogs modified in the third position, 179
- HSP70  
Attenuation of cyclosporine A toxicity by sublethal heat shock. Role of catalase, 493
- Hsp72  
The effect of quercetin on pro-apoptotic activity of cisplatin in HeLa cells, 1343
- Human aortic smooth muscle cell  
Mechanism of concentration-dependent induction of heme oxygenase-1 by resveratrol in human aortic smooth muscle cells, 41
- Human brain  
Binding affinity and agonist activity of putative endogenous cannabinoids at the human neocortical CB<sub>1</sub> receptor, 169
- Human colon cancer cells  
Retinoblastoma protein is required for efficient colorectal carcinoma cell apoptosis by histone deacetylase inhibitors in the absence of p21Waf, 1059

- Human fetal hematopoietic stem cells  
4-Hydroxynonenal inhibits cell proliferation and alters differentiation pathways in human fetal liver hematopoietic stem cells, 105
- Human placenta  
Bidirectional transfer of methadone across human placenta, 187  
Role of P-glycoprotein in transplacental transfer of methadone, 1869
- Human platelets  
The L-arginine/NO pathway in the early phases of platelet stimulation by collagen, 289
- Human  
Hydrogen peroxide degradation and selective carbidopa-induced cytotoxicity against human tumor lines, 1159
- Hydrogen peroxide  
Intracellular generation of reactive oxygen species by mitochondria, 719  
L-Arginine regulates neuronal nitric oxide synthase production of superoxide and hydrogen peroxide, 971  
Hydrogen peroxide degradation and selective carbidopa-induced cytotoxicity against human tumor lines, 1159
- 4-Hydroxy-2-nonenal  
Reversal by aminoguanidine of the age-related increase in glycoxidation and lipoxidation in the cardiovascular system of Fischer 344 rats, 29
- 2'-Hydroxycinnamaldehyde  
Inhibitory effect of 2'-hydroxycinnamaldehyde on nitric oxide production through inhibition of NF- $\kappa$ B activation in RAW 264.7 cells, 791
- 4-Hydroxynonenal  
4-Hydroxynonenal inhibits cell proliferation and alters differentiation pathways in human fetal liver hematopoietic stem cells, 105
- 4-Hydroxypropranolol  
Involvement of SULT1A3 in elevated sulfation of 4-hydroxypropranolol in Hep G2 cells pretreated with  $\beta$ -naphthoflavone, 941
- Hydroxystilbenes  
Antioxidant, prooxidant and cytotoxic activity of hydroxylated resveratrol analogues: structure-activity relationship, 903
- 5-Hydroxytryptamine  
Serotonin glucuronidation by Ah receptor- and oxidative stress-inducible human UDP-glucuronosyltransferase (UGT) 1A6 in Caco-2 cells, 1397
- Hyperuricemia  
Restored expression and activity of organic ion transporters rOAT1, rOAT3 and rOCT2 after hyperuricemia in the rat kidney, 993
- Hypoxia  
Hypoxia induces changes in expression of isoforms of the divalent metal transporter (DMT1) in rat pheochromocytoma (PC12) cells, 1647
- I kappa-B alpha  
Mechanism of concentration-dependent induction of heme oxygenase-1 by resveratrol in human aortic smooth muscle cells, 41
- IFN $\gamma$   
Modulating the cytokine response to treat *Helicobacter* gastritis, 365
- IgE and antigen  
Dual effects of acetylsalicylic acid on mast cell degranulation, expression of cyclooxygenase-2 and release of pro-inflammatory cytokines, 1049
- I $\kappa$ B $\alpha$   
 $\beta$ -Adrenergic receptor modulation of the LPS-mediated depression in CYP1A activity in astrocytes, 741
- IL10 $^{-/-}$  mice  
Intestinal inflammation induces adaptation of P-glycoprotein expression and activity, 1745
- IL-12  
Inhibition of interleukin-12 expression in diltiazem-treated dendritic cells through the reduction of nuclear factor- $\kappa$ B transcriptional activity, 425
- IL-1 $\beta$   
Involvement of multiple signaling pathways in the post-bariatric induction of IL-6 and IL-8 mRNA and release in human visceral adipose tissue, 1315
- IL-4  
Modulating the cytokine response to treat *Helicobacter* gastritis, 365
- IL-6  
Involvement of multiple signaling pathways in the post-bariatric induction of IL-6 and IL-8 mRNA and release in human visceral adipose tissue, 1315
- IL-8  
Involvement of multiple signaling pathways in the post-bariatric induction of IL-6 and IL-8 mRNA and release in human visceral adipose tissue, 1315
- Ileal bile acid-binding protein  
Regulation of ileal bile acid-binding protein expression in Caco-2 cells by ursodeoxycholic acid: Role of the farnesoid X receptor, 1755
- Imatinib  
Relative importance of apoptosis and cell cycle blockage in the synergistic effect of combined R115777 and imatinib treatment in BCR/ABL-positive cell lines, 1585
- Imidazoacridone  
Antitumour imidazoacridone C-1311 induces cell death by mitotic catastrophe in human colon carcinoma cells, 801
- Imidazole  
The imidazole-like drug S23515 affects lipid metabolism in hepatocyte by inhibiting the oxidosqualene:lanosterol cyclase activity, 1041
- Immobilized  
Anti-tumoral effect of native and immobilized bovine serum amine oxidase in a mouse melanoma model, 1693
- Immune system  
Representative aminopeptidases and prolyl endopeptidase from murine macrophages: Comparative activity levels in resident and elicited cells, 1441
- Immunohistochemistry  
Multiple P2X and P2Y receptor subtypes in mouse J774, spleen and peritoneal macrophages, 641
- In vitro assay  
Determination of the potency and subunit-selectivity of ribonucleotide reductase inhibitors with a recombinant-holoenzyme-based in vitro assay, 627
- Individualization  
A sensitive new method for clinically monitoring cytarabine concentrations at the DNA level in leukemic cells, 1795
- Inducible nitric oxide synthase  
Inhibitory effect of 2'-hydroxycinnamaldehyde on nitric oxide production through inhibition of NF- $\kappa$ B activation in RAW 264.7 cells, 791  
Down-regulatory effect of quercitrin gallate on nuclear factor- $\kappa$ B-dependent inducible nitric oxide synthase expression in lipopolysaccharide-stimulated macrophages RAW 264.7, 1577
- Induction  
Natural furocoumarins as inducers and inhibitors of cytochrome P450 1A1 in rat hepatocytes, 657  
Dexamethasone-induced methylprednisolone hemisuccinate hydrolase: Its identification as a member of the rat carboxylesterase 2 family and its unique existence in plasma, 1287  
Clofibrate and perfluorodecanoate both upregulate the expression of the pregnane X receptor but oppositely affect its ligand-dependent induction on cytochrome P450 3A23, 1363
- Infarct size  
Effects of Y-27632, a selective Rho-kinase inhibitor, on myocardial preconditioning in anesthetized rats, 49
- Inflammation  
Protective effect of dextromethorphan against endotoxic shock in mice, 233

- Pro-inflammatory properties for thiazolidinediones, 255
- Multiple P2X and P2Y receptor subtypes in mouse J774, spleen and peritoneal macrophages, 641
- Histamine H1 receptor antagonist blocks histamine-induced proinflammatory cytokine production through inhibition of  $\text{Ca}^{2+}$ -dependent protein kinase C, Raf/MEK/ERK and IKK/I $\kappa$ B/NF- $\kappa$ B signal cascades, 433
- Inhibition of tristetraprolin expression by dexamethasone in activated macrophages, 733
- Repression of PXR-mediated induction of hepatic *CYP3A* gene expression by protein kinase C, 867
- Dual effects of acetylsalicylic acid on mast cell degranulation, expression of cyclooxygenase-2 and release of pro-inflammatory cytokines, 1049
- Exploitation of the unusual thermodynamic properties of human myeloperoxidase in inhibitor design, 1149
- Representative aminopeptidases and prolyl endopeptidase from murine macrophages: Comparative activity levels in resident and elicited cells, 1441
- Prevention of hemorrhagic shock-induced lung injury by heme arginate treatment in rats, 1667
- Inflammatory bowel disease (IBD)
  - Dietary rutin, but not its aglycone quercetin, ameliorates dextran sulfate sodium-induced experimental colitis in mice: attenuation of pro-inflammatory gene expression, 395
- Inhibition
  - Natural furocoumarins as inducers and inhibitors of cytochrome P450 1A1 in rat hepatocytes, 657
  - A spectrophotometric assay for fatty acid amide hydrolase suitable for high-throughput screening, 1187
  - Inhibition of multidrug resistance proteins MRP1 and MRP2 by a series of  $\alpha,\beta$ -unsaturated carbonyl compounds, 1879
- Inhibitor
  - Exploitation of the unusual thermodynamic properties of human myeloperoxidase in inhibitor design, 1149
- Injury
  - Dietary polyphenols protect dopamine neurons from oxidative insults and apoptosis: investigations in primary rat mesencephalic cultures, 339
- iNOS
  - Inducible nitric oxide synthase-dependent stimulation of PKGI and phosphorylation of VASP in human embryonic kidney cells, 595
- Inositol 1,4,5-triphosphate
  - Inositol 1,4,5-triphosphate-mediated shuttling between intracellular stores and the cytosol contributes to the sustained elevation in cytosolic calcium in FMLP-activated human neutrophils, 1567
- Inositol 1,4,5-trisphosphate receptor
  - 2-Aminoethoxydiphenyl borate perturbs hormone-sensitive calcium stores and blocks store-operated calcium influx pathways independent of cytoskeletal disruption in human A549 lung cancer cells, 1177
- Insulin release
  - Alterations of insulin secretion following long-term manipulation of ATP-sensitive potassium channels by diazoxide and nateglinide, 59
- Insulin secretion
  - Novel regulatory roles for protein phosphatase-2A in the islet  $\beta$  cell, 1681
- Insulin signalling
  - Regulation of lipid raft proteins by glimepiride- and insulin-induced glycosylphosphatidylinositol-specific phospholipase C in rat adipocytes, 761
- Insulin
  - Insulin-stimulated endothelial nitric oxide release is calcium independent and mediated via protein kinase B, 781
  - Real-time measurement in living cells of insulin-like growth factor activity using bioluminescence resonance energy transfer, 1723
- Insulin-like growth factor binding proteins
  - Real-time measurement in living cells of insulin-like growth factor activity using bioluminescence resonance energy transfer, 1723
- Insulin-like growth factor
  - Real-time measurement in living cells of insulin-like growth factor activity using bioluminescence resonance energy transfer, 1723
- $\alpha_6$  Integrin subunit
  - Effect of an oversulfated exopolysaccharide on angiogenesis induced by fibroblast growth factor-2 or vascular endothelial growth factor in vitro, 751
- Interleukin-1 $\alpha$ 
  - Effects of cannabinoids on nitric oxide production by chondrocytes and proteoglycan degradation in cartilage, 635
- Interleukin-8
  - Inhibition of interleukin-8 (CXCL8/IL-8) responses by repertaxin, a new inhibitor of the chemokine receptors CXCR1 and CXCR2, 385
- Intestinal inflammation
  - Protection against 2,4,6-trinitrobenzenesulphonic acid-induced colonic inflammation in mice by the marine products bolinaquinone and petrosaspongiolide M, 1433
- Intestine
  - Quantitative structure-activity analyses of bufokinin and other tachykinins at bufokinin (bNK<sub>1</sub>) receptors of the small intestine of the cane toad, *Bufo marinus*, 329
  - Severity of pancreatitis-associated gut barrier dysfunction is reduced following treatment with the PAF inhibitor lexipafant, 1325
- Intracellular  $\text{Ca}^{2+}$ 
  - Suppression of  $\text{Ca}^{2+}$  influx by unfractionated heparin in non-excitable intact cells via multiple mechanisms, 929
- Intracellular free- $\text{Ca}^{2+}$ 
  - Stimulation of intracellular  $\text{Ca}^{2+}$  elevation in neutrophils by thiol-oxidizing phenylarsine oxide, 1225
- Intramitochondrial damage
  - BCL-xL overexpression effectively protects against tetrafluoroethyl-cysteine-induced intramitochondrial damage and cell death, 147
- Invasion
  - Carnosol inhibits the invasion of B16/F10 mouse melanoma cells by suppressing metalloproteinase-9 through down-regulating nuclear factor-kappaB and c-Jun, 221
  - Antimetastatic effect of prodigiosin through inhibition of tumor invasion, 407
- Iododeoxyuridine
  - Modulation of 5-fluorouracil cytotoxicity through thymidylate synthase and NF- $\kappa$ B down-regulation and its application on the radiolabelled iododeoxyuridine therapy on human hepatoma cell, 617
- Iron response element
  - Hypoxia induces changes in expression of isoforms of the divalent metal transporter (DMT1) in rat pheochromocytoma (PC12) cells, 1647
- Iron
  - Antisense gene delivered by an adenoassociated viral vector inhibits iron uptake in human intestinal cells: Potential application in hemochromatosis, 1559
- Ischemia
  - Inhibitors of calpain activation (PD150606 and E-64) and renal ischemia-reperfusion injury, 1121
  - Involvement of uracil nucleotides in protection of cardiomyocytes from hypoxic stress, 1215
  - The potential benefits of 1.5% hetastarch as a cardioplegia additive, 1553
- Islet transplantation
  - Lisofylline: a potential lead for the treatment of diabetes, 1
- Isolated rat hepatocyte couplets
  - Silibinin prevents cholestasis-associated retrieval of the bile salt export pump, Bsep, in isolated rat hepatocyte couplets: Possible involvement of cAMP, 1113

- Isolated rat hepatocytes in suspension  
Spontaneous apoptosis, necrosis, energy status, glutathione levels and biotransformation capacities of isolated rat hepatocytes in suspension: Effect of the incubation medium, 1829
- Isomerisation  
13-*cis* Retinoic acid and isomerisation in paediatric oncology—is changing shape the key to success?, 1299
- Isothiocyanate  
Role of PI3K/Akt and MEK/ERK signaling pathways in sulforaphane- and erucin-induced phase II enzymes and MRP2 transcription, G<sub>2</sub>/M arrest and cell death in Caco-2 cells, 1543
- c-Jun N-terminal kinase  
Mechanism of concentration-dependent induction of heme oxygenase-1 by resveratrol in human aortic smooth muscle cells, 41  
Acetoxycycloheximide (E-73) rapidly induces apoptosis mediated by the release of cytochrome *c* via activation of c-Jun N-terminal kinase, 551
- c-Jun  
Carnosol inhibits the invasion of B16/F10 mouse melanoma cells by suppressing metalloproteinase-9 through down-regulating nuclear factor-kappaB and c-Jun, 221
- K<sub>ATP</sub> channels  
Alterations of insulin secretion following long-term manipulation of ATP-sensitive potassium channels by diazoxide and nateglinide, 59
- κ-KTx1.3  
Assignment of voltage-gated potassium channel blocking activity to κ-KTx1.3, a non-toxic homologue of κ-hefutoxin-1, from *Heterometrus spinifer* venom, 669
- LA-12  
High effectiveness of platinum(IV) complex with adamantylamine in overcoming resistance to cisplatin and suppressing proliferation of ovarian cancer cells in vitro, 373
- Learning and memory  
G<sub>α</sub><sub>q</sub> potentiation of adenylate cyclase type 9 activity through a Ca<sup>2+</sup>/calmodulin-dependent pathway, 1247
- Library screening  
G2 arrest and apoptosis by 2-amino-*N*-quinoline-8-yl-benzenesulfonamide (QBS), a novel cytotoxic compound, 1333
- Ligand binding  
Stimulation of neuropeptide Y-mediated calcium responses in human SMS-KAN neuroblastoma cells endogenously expressing Y<sub>2</sub> receptors by co-expression of chimeric G proteins, 1493
- Ligands  
Peripheral benzodiazepine receptor (PBR) ligand cytotoxicity unrelated to PBR expression, 819
- Linoleic acid hydroperoxide  
Spin adduct formation from lipophilic EMPO-derived spin traps with various oxygen- and carbon-centered radicals, 297  
Very stable superoxide radical adducts of 5-ethoxycarbonyl-3,5-dimethyl-pyrroline *N*-oxide (3,5-EDPO) and its derivatives, 1351
- Linoleic acid  
Differential modulation by simvastatin of the metabolic pathways in the *n*-9, *n*-6 and *n*-3 fatty acid series, in human monocytic and hepatocytic cell lines, 1095
- α-Linolenic acid  
Differential modulation by simvastatin of the metabolic pathways in the *n*-9, *n*-6 and *n*-3 fatty acid series, in human monocytic and hepatocytic cell lines, 1095
- Lipid neo-synthesis  
The imidazoline-like drug S23515 affects lipid metabolism in hepatocyte by inhibiting the oxidosqualene:lanosterol cyclase activity, 1041
- Lipid rafts  
Regulation of lipid raft proteins by glimepiride- and insulin-induced glycosylphosphatidylinositol-specific phospholipase C in rat adipocytes, 761
- Lipofection  
Transfection of adult primary rat hepatocytes in culture, 1805
- Lipophilic EMPO derivatives  
Spin adduct formation from lipophilic EMPO-derived spin traps with various oxygen- and carbon-centered radicals, 297
- Lipopolysaccharide  
Inhibition of tumor necrosis factor alpha secretion and prevention of liver injury in ethanol-fed rats by antisense oligonucleotides, 569  
Inhibition of interleukin-12 expression in diltiazem-treated dendritic cells through the reduction of nuclear factor-κB transcriptional activity, 425  
Inhibitory effect of 2'-hydroxycinnamaldehyde on nitric oxide production through inhibition of NF-κB activation in RAW 264.7 cells, 791
- Liposomes  
Inhibition of tumor necrosis factor alpha secretion and prevention of liver injury in ethanol-fed rats by antisense oligonucleotides, 569
- Liver injury  
Protective effect of dextromethorphan against endotoxic shock in mice, 233
- Liver tumor promotion  
Ah receptor- and TCDD-mediated liver tumor promotion: clonal selection and expansion of cells evading growth arrest and apoptosis, 1403
- Liver  
Inhibition of tumor necrosis factor alpha secretion and prevention of liver injury in ethanol-fed rats by antisense oligonucleotides, 569
- LPS/GalN  
Protective effect of dextromethorphan against endotoxic shock in mice, 233
- LPS  
The role of adenosine A<sub>2A</sub> and A<sub>2B</sub> receptors in the regulation of TNF-α production by human monocytes, 883
- Luciferase reporter  
Transfection of adult primary rat hepatocytes in culture, 1805
- A549 lung cells  
2-Aminoethoxydiphenyl borate perturbs hormone-sensitive calcium stores and blocks store-operated calcium influx pathways independent of cytoskeletal disruption in human A549 lung cancer cells, 1177
- Luteolin  
Luteolin prevents PDGF-BB-induced proliferation of vascular smooth muscle cells by inhibition of PDGF β-receptor phosphorylation, 1715
- Lymphocytes  
Azaspiracid-4 inhibits Ca<sup>2+</sup> entry by stored operated channels in human T lymphocytes, 1627
- Macrophages  
Multiple P2X and P2Y receptor subtypes in mouse J774, spleen and peritoneal macrophages, 641  
Representative aminopeptidases and prolyl endopeptidase from murine macrophages: Comparative activity levels in resident and elicited cells, 1441  
Down-regulatory effect of quercitrin gallate on nuclear factor-κB-dependent inducible nitric oxide synthase expression in lipopolysaccharide-stimulated macrophages RAW 264.7, 1577
- MALDI-TOF  
Biodistribution and metabolism of immunostimulatory oligodeoxynucleotide CPG 7909 in mouse and rat tissues following subcutaneous administration, 981
- Malonyl-CoA  
Increased Akt protein expression is associated with decreased ceramide content in skeletal muscle of troglitazone-treated mice, 1195

## Manganese

Activation of protein kinase C $\delta$  by proteolytic cleavage contributes to manganese-induced apoptosis in dopaminergic cells: protective role of Bcl-2, 133

Hypoxia induces changes in expression of isoforms of the divalent metal transporter (DMT1) in rat pheochromocytoma (PC12) cells, 1647

## MAP kinases

Ah receptor signals cross-talk with multiple developmental pathways, 199

## Mast cells

Calcium-pH crosstalks in rat mast cells: modulation by transduction signals show non-essential role for calcium in alkaline-induced exocytosis, 319

Dual effects of acetylsalicylic acid on mast cell degranulation, expression of cyclooxygenase-2 and release of pro-inflammatory cytokines, 1049

## Matrigel

Effect of an oversulfated exopolysaccharide on angiogenesis induced by fibroblast growth factor-2 or vascular endothelial growth factor in vitro, 751

## Matrix metalloproteinases

Carnosol inhibits the invasion of B16/F10 mouse melanoma cells by suppressing metalloproteinase-9 through down-regulating nuclear factor-kappaB and c-Jun, 221

## Matrix-degrading enzymes

The novel targets for anti-angiogenesis of genistein on human cancer cells, 307

## Maturation

Regulation of *CYP26A1* expression by selective RAR and RXR agonists in human NB4 promyelocytic leukemia cells, 1595

## MDLA

Accessibility of endothelial and inducible nitric oxide synthase to the intracellular citrulline-arginine regeneration pathway, 97

## MDR1

Transient up-regulation of P-glycoprotein reduces tacrolimus absorption after ischemia-reperfusion injury in rat ileum, 561

## Mechanism of action

Anticancer metal compounds in NCI's tumor-screening database: putative mode of action, 1009

## Mechanism-based inhibition

Inhibition of human CYP2B6 by *N,N',N''*-triethylenethiophosphoramidate is irreversible and mechanism-based, 517

## Mediators

Representative aminopeptidases and prolyl endopeptidase from murine macrophages: Comparative activity levels in resident and elicited cells, 1441

## Membrane permeability transition

Involvement of Ras/extracellular signal-regulated kinase, but not Akt pathway in risidronate-induced apoptosis of U937 cells and its suppression by cytochalasin B, 1773

## Membrane potential

Suppression of Ca<sup>2+</sup> influx by unfractionated heparin in non-excitable intact cells via multiple mechanisms, 929

## Membrane vesicles

cGMP (guanosine 3',5'-cyclic monophosphate) transport across human erythrocyte membranes, 1257

## Membrane-permeable

Bis(pivaloyloxymethyl) thymidine 5'-phosphate is a cell membrane-permeable precursor of thymidine 5'-phosphate in thymidine kinase deficient CCRF CEM cells, 1307

## Mesencephalic dopamine neurones

Dietary polyphenols protect dopamine neurons from oxidative insults and apoptosis: investigations in primary rat mesencephalic cultures, 339

## Metabolic activity

Decreased pro-inflammatory cytokine production by LPS-stimulated PBMC upon in vitro incubation with the flavonoids apigenin, luteolin or chrysin, due to selective elimination of monocytes/macrophages, 241

## Metabolism

13-*cis* Retinoic acid and isomerisation in paediatric oncology—is changing shape the key to success?, 1299

## Metabolites

Biodistribution and metabolism of immunostimulatory oligodeoxynucleotide CPG 7909 in mouse and rat tissues following subcutaneous administration, 981

## Metal compounds

Anticancer metal compounds in NCI's tumor-screening database: putative mode of action, 1009

## Metastasis

Carnosol inhibits the invasion of B16/F10 mouse melanoma cells by suppressing metalloproteinase-9 through down-regulating nuclear factor-kappaB and c-Jun, 221

Antimetastatic effect of prodigiosin through inhibition of tumor invasion, 407

## Metastasizing cell line

Impaired activation of caspases and prevention of mitochondrial dysfunction in the metastatic colon carcinoma CC531s-m2 cell line, 463

## Methadone

Bidirectional transfer of methadone across human placenta, 187

Role of P-glycoprotein in transplacental transfer of methadone, 1869

## Methotrexate

Lack of an effect of breast cancer resistance protein (BCRP/ABCG2) overexpression on methotrexate polyglutamate export and folate accumulation in a human breast cancer cell line, 123

## Methyl isocyanate

Differential inhibition of cellular glutathione reductase activity by isocyanates generated from the antitumor prodrugs Cloretazine<sup>TM</sup> and BCNU, 1463

## Methylation

Inhibition of human liver catechol-*O*-methyltransferase by tea catechins and their metabolites: Structure-activity relationship and molecular-modeling studies, 1523

## Methylprednisolone hemisuccinate

Dexamethasone-induced methylprednisolone hemisuccinate hydrolase: Its identification as a member of the rat carboxylesterase 2 family and its unique existence in plasma, 1287

## Microsomes

Dexamethasone-induced methylprednisolone hemisuccinate hydrolase: Its identification as a member of the rat carboxylesterase 2 family and its unique existence in plasma, 1287

## Midpoint potential

Electrochemical characterisation of the human cytochrome P450 CYP2C9, 1533

## Mitochondria

Reversal by aminoguanidine of the age-related increase in glycoxidation and lipoxidation in the cardiovascular system of Fischer 344 rats, 29

Activation of protein kinase C $\delta$  by proteolytic cleavage contributes to manganese-induced apoptosis in dopaminergic cells: protective role of Bcl-2, 133

Intracellular generation of reactive oxygen species by mitochondria, 719

Mitochondrial-dependent, reactive oxygen species-independent apoptosis by myricetin: roles of protein kinase C, cytochrome c, and caspase cascade, 913

## Mitochondrial events

Necrotic and apoptotic features of cell death in response to Foscan<sup>®</sup> photosensitization of HT29 monolayer and multicell spheroids, 1167



- Mitochondrial permeability transition**  
A downstream role for protein kinase C $\alpha$  in the cytosolic phospholipase A<sub>2</sub>-dependent protective signalling mediated by peroxynitrite in U937 cells, 1275
- Mitochondrial toxicity**  
Activity profiles of deoxynucleoside kinases and 5'-nucleotidases in cultured adipocytes and myoblastic cells: insights into mitochondrial toxicity of nucleoside analogs, 951
- Mitochondrion**  
Peripheral benzodiazepine receptor (PBR) ligand cytotoxicity unrelated to PBR expression, 819
- Mitogen-activated protein kinase**  
Inhibition of tristetraprolin expression by dexamethasone in activated macrophages, 733  
Morin inhibits 12-*O*-tetradecanoylphorbol-13-acetate-induced hepatocellular transformation via activator protein 1 signaling pathway and cell cycle progression, 1603
- Mitogen-activated protein kinases**  
Mechanism of concentration-dependent induction of heme oxygenase-1 by resveratrol in human aortic smooth muscle cells, 41  
Pro-inflammatory properties for thiazolidinediones, 255
- Mitotic catastrophe**  
Antitumour imidazoacridone C-1311 induces cell death by mitotic catastrophe in human colon carcinoma cells, 801
- MK-801**  
Binding of [<sup>3</sup>H]MK-801 in subcellular fractions of *Schistosoma mansoni*: Evidence for interaction with nicotinic receptors, 1509
- MKP-1**  
Marker genes to predict sensitivity to FK228, a histone deacetylase inhibitor, 603
- MMPs**  
Antimetastatic effect of prodigiosin through inhibition of tumor invasion, 407
- Molecular modeling**  
Inhibition of human liver catechol-*O*-methyltransferase by tea catechins and their metabolites: Structure-activity relationship and molecular-modeling studies, 1523
- Monoacylglycerol lipase**  
Cyclooxygenation of the arachidonoyl side chain of 1-arachidonoylglycerol and related compounds block their ability to prevent anandamide and 2-oleoylglycerol metabolism by rat brain in vitro, 1241
- Monoterpene**  
(+)- And (-)-borneol: efficacious positive modulators of GABA action at human recombinant  $\alpha_1\beta_2\gamma_{2L}$  GABA<sub>A</sub> receptors, 1101
- Morin**  
Morin inhibits 12-*O*-tetradecanoylphorbol-13-acetate-induced hepatocellular transformation via activator protein 1 signaling pathway and cell cycle progression, 1603
- Morphine**  
Neuronal nitric oxide modulates morphine antinociceptive tolerance by enhancing constitutive activity of the  $\mu$ -opioid receptor, 679
- Mouse melanoma**  
Anti-tumoral effect of native and immobilized bovine serum amine oxidase in a mouse melanoma model, 1693
- MRP1**  
Role of two adjacent cytoplasmic tyrosine residues in MRP1 (ABCC1) transport activity and sensitivity to sulfonylureas, 451  
Quantitative structure activity relationship studies on the flavonoid mediated inhibition of multidrug resistance proteins 1 and 2, 699  
Reversal of in vitro cellular MRP1 and MRP2 mediated vincristine resistance by the flavonoid myricetin, 1657  
Inhibition of multidrug resistance proteins MRP1 and MRP2 by a series of  $\alpha,\beta$ -unsaturated carbonyl compounds, 1879
- Mrp2**  
Mechanisms involved in spironolactone-induced cholestasis in the rat. Role of multidrug resistance-associated protein 2, 531
- MRP2**  
Quantitative structure activity relationship studies on the flavonoid mediated inhibition of multidrug resistance proteins 1 and 2, 699  
Reversal of in vitro cellular MRP1 and MRP2 mediated vincristine resistance by the flavonoid myricetin, 1657  
Inhibition of multidrug resistance proteins MRP1 and MRP2 by a series of  $\alpha,\beta$ -unsaturated carbonyl compounds, 1879
- MRP4**  
cGMP (guanosine 3',5'-cyclic monophosphate) transport across human erythrocyte membranes, 1257
- MRP**  
The effect of quercetin on pro-apoptotic activity of cisplatin in HeLa cells, 1343
- Multidrug resistance**  
Reversal of in vitro cellular MRP1 and MRP2 mediated vincristine resistance by the flavonoid myricetin, 1657
- Multidrug-resistance associated protein**  
cGMP (guanosine 3',5'-cyclic monophosphate) transport across human erythrocyte membranes, 1257
- Muscarinic agonist**  
Muscarinic subtype affinity and functional activity profile of 1-methyl-2-(2-methyl-1,3-dioxolan-4-yl)pyrrolidine and 1-methyl-2-(2-methyl-1,3-oxathiolan-5-yl)pyrrolidine derivatives, 1637
- Muscarinic receptor**  
G $\alpha_q$  potentiation of adenylate cyclase type 9 activity through a Ca<sup>2+</sup>/calmodulin-dependent pathway, 1247
- Mutidrug resistance**  
Directional trans-epithelial transport of organic anions in porcine LLC-PK1 cells that co-express human OATP1B1 (OATP-C) and MRP2, 415
- Myeloperoxidase**  
Exploitation of the unusual thermodynamic properties of human myeloperoxidase in inhibitor design, 1149
- Myoblasts**  
Activity profiles of deoxynucleoside kinases and 5'-nucleotidases in cultured adipocytes and myoblastic cells: insights into mitochondrial toxicity of nucleoside analogs, 951
- Myotonic dystrophy type 1**  
Some flavonoids and DHEA-S prevent the *cis*-effect of expanded CTG repeats in a stable PC12 cell transformant, 503
- Myricetin**  
Mitochondrial-dependent, reactive oxygen species-independent apoptosis by myricetin: roles of protein kinase C, cytochrome c, and caspase cascade, 913  
Reversal of in vitro cellular MRP1 and MRP2 mediated vincristine resistance by the flavonoid myricetin, 1657
- N-Methyl-D-aspartate receptor**  
The role of NMDA receptor upregulation in phencyclidine-induced cortical apoptosis in organotypic culture, 1373
- N<sup>ε</sup>-(Carboxymethyl)lysine**  
Reversal by aminoguanidine of the age-related increase in glycoxidation and lipoxidation in the cardiovascular system of Fischer 344 rats, 29
- N<sup>ω</sup>-Hydroxyl-L-arginine**  
L-Arginine regulates neuronal nitric oxide synthase production of superoxide and hydrogen peroxide, 971
- NAD(P)H:quinone oxidoreductase 1**  
Dicoumarol relieves serum withdrawal-induced G<sub>0/1</sub> blockade in HL-60 cells through a superoxide-dependent mechanism, 1613
- Naloxone**  
Characterization of antinociceptive activity of novel endomorphin-2 and morphiceptin analogs modified in the third position, 179

- $\beta$ -Naphthoflavone  
Involvement of SULT1A3 in elevated sulfation of 4-hydroxypropranolol in Hep G2 cells pretreated with  $\beta$ -naphthoflavone, 941
- Nateglinide  
Alterations of insulin secretion following long-term manipulation of ATP-sensitive potassium channels by diazoxide and nateglinide, 59
- Natural compounds  
Molecular modes of action of cantharidin in tumor cells, 811
- NB4 leukemia cells  
Regulation of *CYP26A1* expression by selective RAR and RXR agonists in human NB4 promyelocytic leukemia cells, 1595
- NCI tumor screen  
Anticancer metal compounds in NCI's tumor-screening database: putative mode of action, 1009
- Necrosis  
BCL-xL overexpression effectively protects against tetrafluoroethylcysteine-induced intramitochondrial damage and cell death, 147  
Peripheral benzodiazepine receptor (PBR) ligand cytotoxicity unrelated to PBR expression, 819  
Anti-tumoral effect of native and immobilized bovine serum amine oxidase in a mouse melanoma model, 1693  
Spontaneous apoptosis, necrosis, energy status, glutathione levels and biotransformation capacities of isolated rat hepatocytes in suspension: Effect of the incubation medium, 1829
- Neuroblastoma  
13-*cis* Retinoic acid and isomerisation in paediatric oncology—is changing shape the key to success?, 1299
- Neuromedin B  
Identification of key amino acids in the gastrin-releasing peptide receptor (GRPR) responsible for high affinity binding of gastrin-releasing peptide (GRP), 579
- Neuronal nitric oxide synthase  
L-Arginine regulates neuronal nitric oxide synthase production of superoxide and hydrogen peroxide, 971
- Neuroprotection  
Dietary polyphenols protect dopamine neurons from oxidative insults and apoptosis: investigations in primary rat mesencephalic cultures, 339
- Neurotransmission  
Regulation of dense core vesicle release from PC12 cells by interaction between the D2 dopamine receptor and calcium-dependent activator protein for secretion (CAPS), 1451
- Neutral sphingomyelinase  
Stimulation of CD95-induced apoptosis in T-cells by a subtype specific neutral sphingomyelinase inhibitor, 1141
- Neutrophil  
Suppression of respiratory burst in human neutrophils by new synthetic pyrrolo-benzylisoquinolines, 65
- Neutrophils  
Stimulation of intracellular  $\text{Ca}^{2+}$  elevation in neutrophils by thiol-oxidizing phenylarsine oxide, 1225  
Inositol 1,4,5-triphosphate-mediated shuttling between intracellular stores and the cytosol contributes to the sustained elevation in cytosolic calcium in FMLP-activated human neutrophils, 1567
- NF $\kappa$ B  
Inhibition of interleukin-12 expression in diltiazem-treated dendritic cells through the reduction of nuclear factor- $\kappa$ B transcriptional activity, 425  
Histamine H1 receptor antagonist blocks histamine-induced proinflammatory cytokine production through inhibition of  $\text{Ca}^{2+}$ -dependent protein kinase C, Raf/MEK/ERK and IKK/I $\kappa$ B/NF- $\kappa$ B signal cascades, 433  
Modulation of 5-fluorouracil cytotoxicity through thymidylate synthase and NF- $\kappa$ B down-regulation and its application on the radiolabelled iododeoxyuridine therapy on human hepatoma cell, 617
- $\beta$ -Adrenergic receptor modulation of the LPS-mediated depression in CYP1A activity in astrocytes, 741  
Dual effects of acetylsalicylic acid on mast cell degranulation, expression of cyclooxygenase-2 and release of pro-inflammatory cytokines, 1049  
Involvement of multiple signaling pathways in the post-bariatric induction of IL-6 and IL-8 mRNA and release in human visceral adipose tissue, 1315  
Rosiglitazone, an agonist of peroxisome proliferator-activated receptor gamma, reduces chronic colonic inflammation in rats, 1733
- nHL  
Changes in spectrin organisation in leukaemic and lymphoid cells upon chemotherapy, 73
- Nicotine  
Reduced nicotine distribution from mother to fetal brain in rats vaccinated against nicotine: Time course and influence of nicotine dosing regimen, 1385  
Binding of [ $^3\text{H}$ ]MK-801 in subcellular fractions of *Schistosoma mansoni*: Evidence for interaction with nicotinic receptors, 1509
- Nifedipine  
Contrasting the effects of nifedipine on subtypes of endogenous and recombinant T-type  $\text{Ca}^{2+}$  channels, 841
- Nitric oxide synthase  
The L-arginine/NO pathway in the early phases of platelet stimulation by collagen, 289  
Insulin-stimulated endothelial nitric oxide release is calcium independent and mediated via protein kinase B, 781
- Nitric oxide synthases  
Accessibility of endothelial and inducible nitric oxide synthase to the intracellular citrulline-arginine regeneration pathway, 97
- Nitric oxide  
Accessibility of endothelial and inducible nitric oxide synthase to the intracellular citrulline-arginine regeneration pathway, 97  
The L-arginine/NO pathway in the early phases of platelet stimulation by collagen, 289  
Insulin-stimulated endothelial nitric oxide release is calcium independent and mediated via protein kinase B, 781  
Inhibitory effect of 2'-hydroxycinnamaldehyde on nitric oxide production through inhibition of NF- $\kappa$ B activation in RAW 264.7 cells, 791  
Sodium nitroprusside-induced osteoblast apoptosis is mediated by long chain ceramide and is decreased by raloxifene, 891  
L-Arginine regulates neuronal nitric oxide synthase production of superoxide and hydrogen peroxide, 971  
Down-regulatory effect of quercitrin gallate on nuclear factor- $\kappa$ B-dependent inducible nitric oxide synthase expression in lipopolysaccharide-stimulated macrophages RAW 264.7, 1577
- NO donors  
Inducible nitric oxide synthase-dependent stimulation of PKGI and phosphorylation of VASP in human embryonic kidney cells, 595
- Noladin ether  
Binding affinity and agonist activity of putative endogenous cannabinoids at the human neocortical CB $_1$  receptor, 169
- Nonerythroid spectrin (fodrin)  
Changes in spectrin organisation in leukaemic and lymphoid cells upon chemotherapy, 73
- Non-mammalian  
Quantitative structure-activity analyses of bufokinin and other tachykinins at bufokinin (bNK $_1$ ) receptors of the small intestine of the cane toad, *Bufo marinus*, 329
- Non-store operated  $\text{Ca}^{2+}$  entry  
Stimulation of intracellular  $\text{Ca}^{2+}$  elevation in neutrophils by thiol-oxidizing phenylarsine oxide, 1225
- NOS  
Differential CB1 and CB2 cannabinoid receptor-inotropic response of rat isolated atria: Endogenous signal transduction pathways, 1705

- NO-sensitive guanylyl cyclase  
Inducible nitric oxide synthase-dependent stimulation of PKGI and phosphorylation of VASP in human embryonic kidney cells, 595
- NRTI  
Activity profiles of deoxynucleoside kinases and 5'-nucleotidases in cultured adipocytes and myoblastic cells: insights into mitochondrial toxicity of nucleoside analogs, 951
- Nuclear factor- $\kappa$ B (NF- $\kappa$ B)  
Carnosol inhibits the invasion of B16/F10 mouse melanoma cells by suppressing metalloproteinase-9 through down-regulating nuclear factor- $\kappa$ B and c-Jun, 221
- Nuclear factor- $\kappa$ B  
Mechanism of concentration-dependent induction of heme oxygenase-1 by resveratrol in human aortic smooth muscle cells, 41  
Pro-inflammatory properties for thiazolidinediones, 255  
Protection against 2,4,6-trinitrobenzenesulphonic acid-induced colonic inflammation in mice by the marine products bolinaquinone and petraspongolide M, 1433  
Down-regulatory effect of quercitrin gallate on nuclear factor- $\kappa$ B-dependent inducible nitric oxide synthase expression in lipopolysaccharide-stimulated macrophages RAW 264.7, 1577
- Nuclear transcription factor- $\kappa$ B  
Inhibitory effect of 2'-hydroxycinnamaldehyde on nitric oxide production through inhibition of NF- $\kappa$ B activation in RAW 264.7 cells, 791
- 5'-Nucleotidases  
Activity profiles of deoxynucleoside kinases and 5'-nucleotidases in cultured adipocytes and myoblastic cells: insights into mitochondrial toxicity of nucleoside analogs, 951
- Obidoxime  
Formation and disposition of diethylphosphoryl-obidoxime, a potent anticholinesterase that is hydrolyzed by human paraoxonase (PON1), 1853
- Ocreotide  
Modulating the cytokine response to treat *Helicobacter* gastritis, 365
- Oligonucleotide  
Biodistribution and metabolism of immunostimulatory oligodeoxynucleotide CPG 7909 in mouse and rat tissues following subcutaneous administration, 981
- Opioid tolerance  
Neuronal nitric oxide modulates morphine antinociceptive tolerance by enhancing constitutive activity of the  $\mu$ -opioid receptor, 679
- $\mu$ -Opioid receptor  
Characterization of antinociceptive activity of novel endomorphin-2 and morphiceptin analogs modified in the third position, 179  
Neuronal nitric oxide modulates morphine antinociceptive tolerance by enhancing constitutive activity of the  $\mu$ -opioid receptor, 679
- Organic anion transport  
Role of two adjacent cytoplasmic tyrosine residues in MRP1 (ABCC1) transport activity and sensitivity to sulfonylureas, 451  
Directional trans-epithelial transport of organic anions in porcine LLC-PK1 cells that co-express human OATP1B1 (OATP-C) and MRP2, 415
- Organic anion transporter  
Restored expression and activity of organic ion transporters rOAT1, rOAT3 and rOCT2 after hyperuricemia in the rat kidney, 993
- Organic cation transporter  
Restored expression and activity of organic ion transporters rOAT1, rOAT3 and rOCT2 after hyperuricemia in the rat kidney, 993
- Orotic acid  
Pretranslational upregulation of microsomal CYP4A in rat liver by intake of a high-sucrose, lipid-devoid diet containing orotic acid, 709
- Osteoblast  
Dexamethasone down-regulates cAMP-phosphodiesterase in human osteosarcoma cells, 267  
Sodium nitroprusside-induced osteoblast apoptosis is mediated by long chain ceramide and is decreased by raloxifene, 891
- Osteoclast differentiation  
Inhibitory effects of mevastatin and a geranylgeranyl transferase I inhibitor (GGTI-2166) on mononuclear osteoclast formation induced by receptor activator of NF $\kappa$ B ligand (RANKL) or tumor necrosis factor- $\alpha$  (TNF- $\alpha$ ), 87
- Osteosarcoma  
Dexamethasone down-regulates cAMP-phosphodiesterase in human osteosarcoma cells, 267
- Ovarian cancer  
High effectiveness of platinum(IV) complex with adamantylamine in overcoming resistance to cisplatin and suppressing proliferation of ovarian cancer cells in vitro, 373
- Oxathiolane derivative  
Muscarinic subtype affinity and functional activity profile of 1-methyl-2-(2-methyl-1,3-dioxolan-4-yl)pyrrolidine and 1-methyl-2-(2-methyl-1,3-oxathiolan-5-yl)pyrrolidine derivatives, 1637
- Oxidative injury  
Prevention of hemorrhagic shock-induced lung injury by heme arginate treatment in rats, 1667
- Oxidative stress  
Activation of protein kinase C $\delta$  by proteolytic cleavage contributes to manganese-induced apoptosis in dopaminergic cells: protective role of Bcl-2, 133  
Dietary polyphenols protect dopamine neurons from oxidative insults and apoptosis: investigations in primary rat mesencephalic cultures, 339  
Dietary rutin, but not its aglycone quercetin, ameliorates dextran sulfate sodium-induced experimental colitis in mice: attenuation of pro-inflammatory gene expression, 395  
Molecular modes of action of cantharidin in tumor cells, 811  
Serotonin glucuronidation by Ah receptor- and oxidative stress-inducible human UDP-glucuronosyltransferase (UGT) 1A6 in Caco-2 cells, 1397  
The role of thioredoxin reductase activity in selenium-induced cytotoxicity, 1765
- Oxydosqualene:lanosterol cyclase  
The imidazoline-like drug S23515 affects lipid metabolism in hepatocyte by inhibiting the oxidosqualene:lanosterol cyclase activity, 1041
- p21<sup>Waf1/Cip1</sup>  
Chrysin induces G1 phase cell cycle arrest in C6 glioma cells through inducing p21<sup>Waf1/Cip1</sup> expression: Involvement of p38 mitogen-activated protein kinase, 1815
- p21<sup>Waf</sup>  
Retinoblastoma protein is required for efficient colorectal carcinoma cell apoptosis by histone deacetylase inhibitors in the absence of p21<sup>Waf</sup>, 1059
- P2Y<sub>2</sub> nucleotide receptor  
Involvement of uracil nucleotides in protection of cardiomyocytes from hypoxic stress, 1215
- p300  
Curcumin-induced histone hypoacetylation: The role of reactive oxygen species, 1205
- p38 MAPK  
Involvement of multiple signaling pathways in the post-bariatric induction of IL-6 and IL-8 mRNA and release in human visceral adipose tissue, 1315
- p38-MAPK  
Chrysin induces G1 phase cell cycle arrest in C6 glioma cells through inducing p21<sup>Waf1/Cip1</sup> expression: Involvement of p38 mitogen-activated protein kinase, 1815
- p53  
Induction of apoptosis by R-flurbiprofen in human colon carcinoma cells: involvement of p53, 831

- Retinoblastoma protein is required for efficient colorectal carcinoma cell apoptosis by histone deacetylase inhibitors in the absence of p21Waf, 1059
- Paediatric**  
13-*cis* Retinoic acid and isomerisation in paediatric oncology—is changing shape the key to success?, 1299
- Pancreatic  $\beta$  cell**  
Lisofylline: a potential lead for the treatment of diabetes, 1
- Pancreatic islet**  
Novel regulatory roles for protein phosphatase-2A in the islet  $\beta$  cell, 1681
- Pancreatitis**  
Severity of pancreatitis-associated gut barrier dysfunction is reduced following treatment with the PAF inhibitor lexipafant, 1325
- Paraoxon**  
Formation and disposition of diethylphosphoryl-obidoxime, a potent anticholinesterase that is hydrolyzed by human paraoxonase (PON1), 1853
- Paraoxonase**  
Formation and disposition of diethylphosphoryl-obidoxime, a potent anticholinesterase that is hydrolyzed by human paraoxonase (PON1), 1853
- Parkinson's disease**  
Activation of protein kinase C $\delta$  by proteolytic cleavage contributes to manganese-induced apoptosis in dopaminergic cells: protective role of Bcl-2, 133
- PARP**  
FADD-dependent apoptosis induction in Jurkat leukemia T-cells by the resveratrol analogue, 3,4,5-trihydroxy-*trans*-stilbene, 249
- Patch-clamp**  
Multiple P2X and P2Y receptor subtypes in mouse J774, spleen and peritoneal macrophages, 641
- PB**  
Modulation of 5-fluorouracil cytotoxicity through thymidylate synthase and NF- $\kappa$ B down-regulation and its application on the radiolabelled iododeoxyuridine therapy on human hepatoma cell, 617
- PBMC**  
Decreased pro-inflammatory cytokine production by LPS-stimulated PBMC upon in vitro incubation with the flavonoids apigenin, luteolin or chrysin, due to selective elimination of monocytes/macrophages, 241
- PC12 cells**  
Hypoxia induces changes in expression of isoforms of the divalent metal transporter (DMT1) in rat pheochromocytoma (PC12) cells, 1647
- PC12**  
Some flavonoids and DHEA-S prevent the *cis*-effect of expanded CTG repeats in a stable PC12 cell transformant, 503
- PCN**  
Repression of PXR-mediated induction of hepatic *CYP3A* gene expression by protein kinase C, 867
- PD150606**  
Inhibitors of calpain activation (PD150606 and E-64) and renal ischemia-reperfusion injury, 1121
- PDE4 inhibitors**  
Type 4 cAMP phosphodiesterase (PDE4) inhibitors augment glucocorticoid-mediated apoptosis in B cell chronic lymphocytic leukemia (B-CLL) in the absence of exogenous adenylyl cyclase stimulation, 473
- PDGF-R $\beta$**   
Luteolin prevents PDGF-BB-induced proliferation of vascular smooth muscle cells by inhibition of PDGF  $\beta$ -receptor phosphorylation, 1715
- PDTC**  
Modulation of 5-fluorouracil cytotoxicity through thymidylate synthase and NF- $\kappa$ B down-regulation and its application on the radiolabelled iododeoxyuridine therapy on human hepatoma cell, 617
- Peptidases**  
Representative aminopeptidases and prolyl endopeptidase from murine macrophages: Comparative activity levels in resident and elicited cells, 1441
- Peptide analogs**  
Characterization of antinociceptive activity of novel endomorphin-2 and morphiceptin analogs modified in the third position, 179
- Peptides**  
Representative aminopeptidases and prolyl endopeptidase from murine macrophages: Comparative activity levels in resident and elicited cells, 1441
- Perfluorodecanoic acid**  
Clofibrate and perfluorodecanoate both upregulate the expression of the pregnane X receptor but oppositely affect its ligand-dependent induction on cytochrome P450 3A23, 1363
- Peripheral benzodiazepine receptor**  
Peripheral benzodiazepine receptor (PBR) ligand cytotoxicity unrelated to PBR expression, 819
- Permeability**  
Severity of pancreatitis-associated gut barrier dysfunction is reduced following treatment with the PAF inhibitor lexipafant, 1325
- Peroxisome proliferator-activated receptor  $\gamma$**   
Pro-inflammatory properties for thiazolidinediones, 255
- Peroxisome proliferator-activated receptor- $\alpha$**   
Prettranslational upregulation of microsomal CYP4A in rat liver by intake of a high-sucrose, lipid-devoid diet containing orotic acid, 709
- Peroxynitrite**  
Poly(ADP-ribose) polymerase regulates myocardial calcium handling in doxorubicin-induced heart failure, 725  
A downstream role for protein kinase C $\alpha$  in the cytosolic phospholipase A<sub>2</sub>-dependent protective signalling mediated by peroxynitrite in U937 cells, 1275
- Petrosaspongiolide M**  
Protection against 2,4,6-trinitrobenzenesulphonic acid-induced colonic inflammation in mice by the marine products bolinaquinone and petrosaspongiolide M, 1433
- P-Glycoprotein**  
Role of P-glycoprotein in transplacental transfer of methadone, 1869
- Pgp**  
Intestinal inflammation induces adaptation of P-glycoprotein expression and activity, 1745
- Phagocytosis**  
Inhibition of interleukin-8 (CXCL8/IL-8) responses by repertaxin, a new inhibitor of the chemokine receptors CXCR1 and CXCR2, 385
- Pharmacokinetics**  
Biodistribution and metabolism of immunostimulatory oligodeoxynucleotide CPG 7909 in mouse and rat tissues following subcutaneous administration, 981  
Reduced nicotine distribution from mother to fetal brain in rats vaccinated against nicotine: Time course and influence of nicotine dosing regimen, 1385
- Phase I and II xenobiotic biotransformation capacities**  
Spontaneous apoptosis, necrosis, energy status, glutathione levels and biotransformation capacities of isolated rat hepatocytes in suspension: Effect of the incubation medium, 1829
- Phencyclidine**  
The role of NMDA receptor upregulation in phencyclidine-induced cortical apoptosis in organotypic culture, 1373
- Phenylarsine oxide**  
Stimulation of intracellular Ca<sup>2+</sup> elevation in neutrophils by thiol-oxidizing phenylarsine oxide, 1225
- Phosphatidylinositol 3-kinase**  
Insulin-stimulated endothelial nitric oxide release is calcium independent and mediated via protein kinase B, 781

## Phosphodiesterase

Suppression of respiratory burst in human neutrophils by new synthetic pyrrolo-benzylisoquinolines, 65

Dexamethasone down-regulates cAMP-phosphodiesterase in human osteosarcoma cells, 267

## Phospholipid membrane

Intracellular generation of reactive oxygen species by mitochondria, 719

## Phosphoryl oximes

Formation and disposition of diethylphosphoryl-obidoxime, a potent anticholinesterase that is hydrolyzed by human paraoxonase (PON1), 1853

## Photodynamic therapy

Necrotic and apoptotic features of cell death in response to Foscan® photosensitization of HT29 monolayer and multicell spheroids, 1167

## PKA

Type 4 cAMP phosphodiesterase (PDE4) inhibitors augment glucocorticoid-mediated apoptosis in B cell chronic lymphocytic leukemia (B-CLL) in the absence of exogenous adenylyl cyclase stimulation, 473

PKC  $\theta$ 

Changes in spectrin organisation in leukaemic and lymphoid cells upon chemotherapy, 73

## PKC

Activation of protein kinase C $\delta$  by proteolytic cleavage contributes to manganese-induced apoptosis in dopaminergic cells: protective role of Bcl-2, 133

Histamine H1 receptor antagonist blocks histamine-induced proinflammatory cytokine production through inhibition of Ca<sup>2+</sup>-dependent protein kinase C, Raf/MEK/ERK and IKK/I $\kappa$ B/NF- $\kappa$ B signal cascades, 433

Repression of PXR-mediated induction of hepatic *CYP3A* gene expression by protein kinase C, 867

## PKG1

Inducible nitric oxide synthase-dependent stimulation of PKG1 and phosphorylation of VASP in human embryonic kidney cells, 595

## Platelet-activating factor antagonist

Severity of pancreatitis-associated gut barrier dysfunction is reduced following treatment with the PAF inhibitor lexipafant, 1325

## Platyhelminth

Binding of [<sup>3</sup>H]MK-801 in subcellular fractions of *Schistosoma mansoni*: Evidence for interaction with nicotinic receptors, 1509

## PMA

Repression of PXR-mediated induction of hepatic *CYP3A* gene expression by protein kinase C, 867

## Poly(ADP-ribose) polymerase (PARP)

Poly(ADP-ribose) polymerase regulates myocardial calcium handling in doxorubicin-induced heart failure, 725

## Polyamine

Anti-tumoral effect of native and immobilized bovine serum amine oxidase in a mouse melanoma model, 1693

## Polyglutamylation

Lack of an effect of breast cancer resistance protein (BCRP/ABCG2) overexpression on methotrexate polyglutamate export and folate accumulation in a human breast cancer cell line, 123

## Polymorphonuclear leukocytes

Inhibition of interleukin-8 (CXCL8/IL-8) responses by repertaxin, a new inhibitor of the chemokine receptors CXCR1 and CXCR2, 385

## Polysaccharide

Effect of an oversulfated exopolysaccharide on angiogenesis induced by fibroblast growth factor-2 or vascular endothelial growth factor in vitro, 751

## Potency and subunit-selectivity

Determination of the potency and subunit-selectivity of ribonucleotide reductase inhibitors with a recombinant-holoenzyme-based in vitro assay, 627

## PPAR

Increased Akt protein expression is associated with decreased ceramide content in skeletal muscle of troglitazone-treated mice, 1195

PPAR- $\gamma$ 

Rosiglitazone, an agonist of peroxisome proliferator-activated receptor gamma, reduces chronic colonic inflammation in rats, 1733

## Preclinical drug development

Directional trans-epithelial transport of organic anions in porcine LLC-PK1 cells that co-express human OATP1B1 (OATP-C) and MRP2, 415

## Preconditioning

Effects of Y-27632, a selective Rho-kinase inhibitor, on myocardial preconditioning in anesthetized rats, 49

Involvement of uracil nucleotides in protection of cardiomyocytes from hypoxic stress, 1215

## Pregnancy

Bidirectional transfer of methadone across human placenta, 187

Reduced nicotine distribution from mother to fetal brain in rats vaccinated against nicotine: Time course and influence of nicotine dosing regimen, 1385

## Pregnane X receptor

Repression of PXR-mediated induction of hepatic *CYP3A* gene expression by protein kinase C, 867

Pregnenolone 16 $\alpha$ -Carbonitrile

Clofibrate and perfluorodecanoate both upregulate the expression of the pregnane X receptor but oppositely affect its ligand-dependent induction on cytochrome P450 3A23, 1363

## Primary hepatocytes

Transfection of adult primary rat hepatocytes in culture, 1805

## Primate

Emerging prospects for the disease-modifying treatment of Alzheimer's disease, 1001

## Prodigiosin

Antimetastatic effect of prodigiosin through inhibition of tumor invasion, 407

## Pro-drug

13-*cis* Retinoic acid and isomerisation in paediatric oncology—is changing shape the key to success?, 1299

## Prodrugs

Bis(pivaloyloxymethyl) thymidine 5'-phosphate is a cell membrane-permeable precursor of thymidine 5'-phosphate in thymidine kinase deficient CCRF CEM cells, 1307

## Pro-inflammatory genes

Dietary rutin, but not its aglycone quercetin, ameliorates dextran sulfate sodium-induced experimental colitis in mice: attenuation of pro-inflammatory gene expression, 395

## Pro-inflammatory

Decreased pro-inflammatory cytokine production by LPS-stimulated PBMC upon in vitro incubation with the flavonoids apigenin, luteolin or chrysin, due to selective elimination of monocytes/macrophages, 241

## Proliferation

Transient up-regulation of P-glycoprotein reduces tacrolimus absorption after ischemia-reperfusion injury in rat ileum, 561

Luteolin prevents PDGF-BB-induced proliferation of vascular smooth muscle cells by inhibition of PDGF  $\beta$ -receptor phosphorylation, 1715

## Prooxidants

Antioxidant, prooxidant and cytotoxic activity of hydroxylated resveratrol analogues: structure-activity relationship, 903

## Prostaglandins

Rosiglitazone, an agonist of peroxisome proliferator-activated receptor gamma, reduces chronic colonic inflammation in rats, 1733

## Proteasome activity

Chrysin induces G1 phase cell cycle arrest in C6 glioma cells through inducing p21<sup>Waf1/Cip1</sup> expression: Involvement of p38 mitogen-activated protein kinase, 1815

- Proteasome inhibitors**  
Dietary flavonoids as proteasome inhibitors and apoptosis inducers in human leukemia cells, 1421
- Protein kinase A**  
Suppression of respiratory burst in human neutrophils by new synthetic pyrrolo-benzylisoquinolines, 65
- Protein kinase B**  
Insulin-stimulated endothelial nitric oxide release is calcium independent and mediated via protein kinase B, 781
- Protein kinase C**  
 $G\alpha_q$  potentiation of adenylate cyclase type 9 activity through a  $Ca^{2+}$ /calmodulin-dependent pathway, 1247
- Protein kinase C $\alpha$**   
A downstream role for protein kinase C $\alpha$  in the cytosolic phospholipase A<sub>2</sub>-dependent protective signalling mediated by peroxynitrite in U937 cells, 1275
- Protein phosphatase-2A**  
Novel regulatory roles for protein phosphatase-2A in the islet  $\beta$  cell, 1681
- Proteoglycan**  
Effects of cannabinoids on nitric oxide production by chondrocytes and proteoglycan degradation in cartilage, 635
- Proteolytic processing**  
Reductions in  $\beta$ -amyloid concentrations in vivo by the  $\gamma$ -secretase inhibitors BMS-289948 and BMS-299897, 689
- Proteomics**  
Target identification and validation in drug discovery: the role of proteomics, 1133
- Protopathy**  
Emerging prospects for the disease-modifying treatment of Alzheimer's disease, 1001
- Purinergic receptors**  
Multiple P2X and P2Y receptor subtypes in mouse J774, spleen and peritoneal macrophages, 641
- PXR**  
Clofibrate and perfluorodecanoate both upregulate the expression of the pregnane X receptor but oppositely affect its ligand-dependent induction on cytochrome P450 3A23, 1363
- Pyrimidines**  
Involvement of uracil nucleotides in protection of cardiomyocytes from hypoxic stress, 1215
- Pyrrolo-benzylisoquinoline**  
Suppression of respiratory burst in human neutrophils by new synthetic pyrrolo-benzylisoquinolines, 65
- Pyruvate**  
Hydrogen peroxide degradation and selective carbidopa-induced cytotoxicity against human tumor lines, 1159
- QSAR**  
Quantitative structure–activity analyses of bufokinin and other tachykinins at bufokinin (bNK<sub>1</sub>) receptors of the small intestine of the cane toad, *Bufo marinus*, 329  
Quantitative structure activity relationship studies on the flavonoid mediated inhibition of multidrug resistance proteins 1 and 2, 699
- Quercetin**  
The effect of quercetin on pro-apoptotic activity of cisplatin in HeLa cells, 1343  
Quercetin, but not rutin and quercitrin, prevention of H<sub>2</sub>O<sub>2</sub>-induced apoptosis via anti-oxidant activity and heme oxygenase 1 gene expression in macrophages, 1839
- Quercitrin gallate**  
Down-regulatory effect of quercitrin gallate on nuclear factor- $\kappa$ B-dependent inducible nitric oxide synthase expression in lipopolysaccharide-stimulated macrophages RAW 264.7, 1577
- Quinolinesulfonamide**  
G2 arrest and apoptosis by 2-amino-*N*-quinoline-8-yl-benzenesulfonamide (QBS), a novel cytotoxic compound, 1333
- R115777**  
Relative importance of apoptosis and cell cycle blockage in the synergistic effect of combined R115777 and imatinib treatment in BCR/ABL-positive cell lines, 1585
- Radioligand binding**  
Cloning and pharmacological characterization of the cat urotensin-II receptor (UT), 1069
- Raloxifene**  
Sodium nitroprusside-induced osteoblast apoptosis is mediated by long chain ceramide and is decreased by raloxifene, 891
- RAR**  
Regulation of *CYP26A1* expression by selective RAR and RXR agonists in human NB4 promyelocytic leukemia cells, 1595
- Rat adipocytes**  
Regulation of lipid raft proteins by glimepiride- and insulin-induced glycosylphosphatidylinositol-specific phospholipase C in rat adipocytes, 761
- Rat hepatocytes**  
Natural furocoumarins as inducers and inhibitors of cytochrome P450 1A1 in rat hepatocytes, 657
- Rat liver**  
Transfection of adult primary rat hepatocytes in culture, 1805
- Rat skeletal sarcoplasmic reticulum**  
3,5-Di-*t*-butylcatechol (DTCAT) as an activator of rat skeletal muscle ryanodine receptor  $Ca^{2+}$  channel (RyRC), 485
- Rat**  
Role of adrenoceptor-linked signaling pathways in the regulation of *CYP1A1* gene expression, 277
- Rats**  
Neuronal nitric oxide modulates morphine antinociceptive tolerance by enhancing constitutive activity of the  $\mu$ -opioid receptor, 679  
Restored expression and activity of organic ion transporters rOAT1, rOAT3 and rOCT2 after hyperuricemia in the rat kidney, 993
- Reactive oxygen species (ROS)**  
Curcumin-induced histone hypoacetylation: The role of reactive oxygen species, 1205
- Reactive oxygen species**  
Intracellular generation of reactive oxygen species by mitochondria, 719  
Mitochondrial-dependent, reactive oxygen species-independent apoptosis by myricetin: roles of protein kinase C, cytochrome c, and caspase cascade, 913  
Quercetin, but not rutin and quercitrin, prevention of H<sub>2</sub>O<sub>2</sub>-induced apoptosis via anti-oxidant activity and heme oxygenase 1 gene expression in macrophages, 1839
- Reactive oxygen/nitrogen species**  
Induction of apoptosis and modulation of production of reactive oxygen species in human endothelial cells by diphenyleiiodonium, 1263
- Receptor activity modifying protein**  
Cys<sup>2,7</sup>Et $\alpha$ CGRP is a potent agonist for CGRP<sub>1</sub> receptors in SK-N-MC cells, 1235
- Receptor tyrosine kinases**  
The role of epidermal growth factor receptor in ethanol-mediated inhibition of activator protein-1 transactivation, 1785
- Receptor**  
Real-time measurement in living cells of insulin-like growth factor activity using bioluminescence resonance energy transfer, 1723
- Recombinant protein**  
Eukaryotic arylamine *N*-acetyltransferase. Investigation of substrate specificity by high-throughput screening, 347

- Recombinant subunit proteins  
Determination of the potency and subunit-selectivity of ribonucleotide reductase inhibitors with a recombinant-holoenzyme-based in vitro assay, 627
- Reduction potential  
Exploitation of the unusual thermodynamic properties of human myeloperoxidase in inhibitor design, 1149
- Renal transport  
Restored expression and activity of organic ion transporters rOAT1, rOAT3 and rOCT2 after hyperuricemia in the rat kidney, 993
- Renal/kidney  
Inhibitors of calpain activation (PD150606 and E-64) and renal ischemia-reperfusion injury, 1121
- Reperfusion  
The potential benefits of 1.5% hetastarch as a cardioplegia additive, 1553
- Reperfusion-injury  
Inhibitors of calpain activation (PD150606 and E-64) and renal ischemia-reperfusion injury, 1121
- Repertaxin  
Inhibition of interleukin-8 (CXCL8/IL-8) responses by repertaxin, a new inhibitor of the chemokine receptors CXCR1 and CXCR2, 385
- Resveratrol  
Mechanism of concentration-dependent induction of heme oxygenase-1 by resveratrol in human aortic smooth muscle cells, 41  
FADD-dependent apoptosis induction in Jurkat leukemia T-cells by the resveratrol analogue, 3,4,5-trihydroxy-*trans*-stilbene, 249  
Antioxidant, prooxidant and cytotoxic activity of hydroxylated resveratrol analogues: structure-activity relationship, 903
- Retinoblastoma protein  
Retinoblastoma protein is required for efficient colorectal carcinoma cell apoptosis by histone deacetylase inhibitors in the absence of p21Waf, 1059  
Ah receptor- and TCDD-mediated liver tumor promotion: clonal selection and expansion of cells evading growth arrest and apoptosis, 1403
- Retinoic acid  
Ah receptor signals cross-talk with multiple developmental pathways, 199  
13-*cis* Retinoic acid and isomerisation in paediatric oncology—is changing shape the key to success?, 1299
- Retinoid X-receptor- $\alpha$   
Pretranslational upregulation of microsomal CYP4A in rat liver by intake of a high-sucrose, lipid-devoid diet containing orotic acid, 709
- Retinoids  
Ah receptor- and TCDD-mediated liver tumor promotion: clonal selection and expansion of cells evading growth arrest and apoptosis, 1403
- Retractor penis muscle  
 $\text{Ca}^{2+}$  sensitization and the regulation of contractility in rat anococcygeus and retractor penis muscle, 1483
- RhoA  
Antimetastatic effect of prodigiosin through inhibition of tumor invasion, 407  
 $\text{Ca}^{2+}$  sensitization and the regulation of contractility in rat anococcygeus and retractor penis muscle, 1483
- RhoGEFs  
 $\text{Ca}^{2+}$  sensitization and the regulation of contractility in rat anococcygeus and retractor penis muscle, 1483
- Rho-kinase  
Effects of Y-27632, a selective Rho-kinase inhibitor, on myocardial preconditioning in anesthetized rats, 49  
 $\text{Ca}^{2+}$  sensitization and the regulation of contractility in rat anococcygeus and retractor penis muscle, 1483
- Ribonucleotide reductase inhibitors  
Determination of the potency and subunit-selectivity of ribonucleotide reductase inhibitors with a recombinant-holoenzyme-based in vitro assay, 627
- Ricin  
Mechanism of ricin-induced apoptosis in human cervical cancer cells, 855
- mRNA stability  
Inhibition of tristetraprolin expression by dexamethasone in activated macrophages, 733
- mRNA  
Regulation of ileal bile acid-binding protein expression in Caco-2 cells by ursodeoxycholic acid: Role of the farnesoid X receptor, 1755
- RNA gain of function  
Some flavonoids and DHEA-S prevent the *cis*-effect of expanded CTG repeats in a stable PC12 cell transformant, 503
- ROS  
Protective effect of dextromethorphan against endotoxic shock in mice, 233  
Attenuation of cyclosporine A toxicity by sublethal heat shock. Role of catalase, 493
- Rutin  
Dietary rutin, but not its aglycone quercetin, ameliorates dextran sulfate sodium-induced experimental colitis in mice: attenuation of pro-inflammatory gene expression, 395
- RXR  
Regulation of *CYP26A1* expression by selective RAR and RXR agonists in human NB4 promyelocytic leukemia cells, 1595
- Ryanodine receptor  $\text{Ca}^{2+}$  channel  
3,5-Di-*t*-butylcatechol (DTCAT) as an activator of rat skeletal muscle ryanodine receptor  $\text{Ca}^{2+}$  channel (RyRC), 485
- S*-adenosyl-L-methionine  
Inhibition of CYP2E1 catalytic activity in vitro by *S*-adenosyl-L-methionine, 1081
- S*-Allyl-L-cysteine  
Aminotransferase, L-amino acid oxidase and  $\beta$ -lyase reactions involving L-cysteine *S*-conjugates found in allium extracts. Relevance to biological activity?, 209
- S*-Allylmercapto-L-cysteine  
Aminotransferase, L-amino acid oxidase and  $\beta$ -lyase reactions involving L-cysteine *S*-conjugates found in allium extracts. Relevance to biological activity?, 209
- Schistosoma mansoni*  
Binding of [ $^3\text{H}$ ]MK-801 in subcellular fractions of *Schistosoma mansoni*: Evidence for interaction with nicotinic receptors, 1509
- SCLC  
Hydrogen peroxide degradation and selective carbidopa-induced cytotoxicity against human tumor lines, 1159
- Scorpion toxin  
Assignment of voltage-gated potassium channel blocking activity to  $\kappa$ -KTx1.3, a non-toxic homologue of  $\kappa$ -hefutoxin-1, from *Heterometrus spinifer* venom, 669
- Secretase  
Reductions in  $\beta$ -amyloid concentrations in vivo by the  $\gamma$ -secretase inhibitors BMS-289948 and BMS-299897, 689
- $\gamma$ -Secretase inhibitor  
Reductions in  $\beta$ -amyloid concentrations in vivo by the  $\gamma$ -secretase inhibitors BMS-289948 and BMS-299897, 689
- Selenium  
The role of thioredoxin reductase activity in selenium-induced cytotoxicity, 1765
- Senile plaque  
Emerging prospects for the disease-modifying treatment of Alzheimer's disease, 1001
- Serotonin  
Serotonin glucuronidation by Ah receptor- and oxidative stress-inducible human UDP-glucuronosyltransferase (UGT) 1A6 in Caco-2 cells, 1397

## Serum inducible kinase

Protective effect of FK506 against apoptosis of SH-SY5Y cells correlates with regulation of the serum inducible kinase gene, 1473

## SH-SY5Y cells

Protective effect of FK506 against apoptosis of SH-SY5Y cells correlates with regulation of the serum inducible kinase gene, 1473

## Signal transduction

Cloning and pharmacological characterization of the cat urotensin-II receptor (UT), 1069

Stimulation of intracellular  $\text{Ca}^{2+}$  elevation in neutrophils by thiol-oxidizing phenylarsine oxide, 1225

## Signaling pathway

Role of PI3K/Akt and MEK/ERK signaling pathways in sulforaphane- and erucin-induced phase II enzymes and MRP2 transcription,  $\text{G}_2/\text{M}$  arrest and cell death in Caco-2 cells, 1543

## Simvastatin

Differential modulation by simvastatin of the metabolic pathways in the *n*-9, *n*-6 and *n*-3 fatty acid series, in human monocytic and hepatocytic cell lines, 1095

## Single cell gel electrophoresis assay

Synthesis and biological activities of bisnaphthalimido polyamines derivatives: cytotoxicity, DNA binding, DNA damage and drug localization in breast cancer MCF 7 cells, 19

## Site-directed mutagenesis

Role of two adjacent cytoplasmic tyrosine residues in MRP1 (ABCC1) transport activity and sensitivity to sulfonylureas, 451

## slc22a

Restored expression and activity of organic ion transporters rOAT1, rOAT3 and rOCT2 after hyperuricemia in the rat kidney, 993

## Small bowel transplantation

Transient up-regulation of P-glycoprotein reduces tacrolimus absorption after ischemia–reperfusion injury in rat ileum, 561

## Small G-protein

Inhibitory effects of mevastatin and a geranylgeranyl transferase I inhibitor (GGTI-2166) on mononuclear osteoclast formation induced by receptor activator of NF $\kappa$ B ligand (RANKL) or tumor necrosis factor- $\alpha$  (TNF- $\alpha$ ), 87

## Solid phase extraction

Biodistribution and metabolism of immunostimulatory oligodeoxynucleotide CPG 7909 in mouse and rat tissues following subcutaneous administration, 981

## Somatostatin

Modulating the cytokine response to treat *Helicobacter* gastritis, 365

## Species

Formation and disposition of diethylphosphoryl-obidoxime, a potent anticholinesterase that is hydrolyzed by human paraoxonase (PON1), 1853

## Spectrophotometer

A spectrophotometric assay for fatty acid amide hydrolase suitable for high-throughput screening, 1187

## Spheroids

Necrotic and apoptotic features of cell death in response to Foscan® photosensitization of HT29 monolayer and multicell spheroids, 1167

## Sphingomyelinase inhibitors

Stimulation of CD95-induced apoptosis in T-cells by a subtype specific neutral sphingomyelinase inhibitor, 1141

## Spin traps

Spin adduct formation from lipophilic EMPO-derived spin traps with various oxygen- and carbon-centered radicals, 297

Very stable superoxide radical adducts of 5-ethoxycarbonyl-3,5-dimethyl-pyrroline *N*-oxide (3,5-EDPO) and its derivatives, 1351

## Spindle poisons

Thiocolchicine dimers: a novel class of topoisomerase-I inhibitors, 113

## Spironolactone

Mechanisms involved in spironolactone-induced choleresis in the rat. Role of multidrug resistance-associated protein 2, 531

## Statin

Inhibitory effects of mevastatin and a geranylgeranyl transferase I inhibitor (GGTI-2166) on mononuclear osteoclast formation induced by receptor activator of NF $\kappa$ B ligand (RANKL) or tumor necrosis factor- $\alpha$  (TNF- $\alpha$ ), 87

## Stearic acid

Differential modulation by simvastatin of the metabolic pathways in the *n*-9, *n*-6 and *n*-3 fatty acid series, in human monocytic and hepatocytic cell lines, 1095

## Store operated calcium channels

Suppression of  $\text{Ca}^{2+}$  influx by unfractionated heparin in non-excitabile intact cells via multiple mechanisms, 929

## Store-operated calcium influx

2-Aminoethoxydiphenyl borate perturbs hormone-sensitive calcium stores and blocks store-operated calcium influx pathways independent of cytoskeletal disruption in human A549 lung cancer cells, 1177

## Structure–activity

Quantitative structure–activity analyses of bufokinin and other tachykinins at bufokinin (bNK<sub>1</sub>) receptors of the small intestine of the cane toad, *Bufo marinus*, 329

## Substance P

Quantitative structure–activity analyses of bufokinin and other tachykinins at bufokinin (bNK<sub>1</sub>) receptors of the small intestine of the cane toad, *Bufo marinus*, 329

## Substrate oxidation

Inhibition of CYP2E1 catalytic activity in vitro by *S*-adenosyl-L-methionine, 1081

## Substrate shift

Electrochemical characterisation of the human cytochrome P450 CYP2C9, 1533

## Subtype selectivity

Muscarinic subtype affinity and functional activity profile of 1-methyl-2-(2-methyl-1,3-dioxolan-4-yl)pyrrolidine and 1-methyl-2-(2-methyl-1,3-oxathiolan-5-yl)pyrrolidine derivatives, 1637

## Subversive substrates

6-Benzylthioinosine analogues as subversive substrate of *Toxoplasma gondii* adenosine kinase: Activities and selective toxicities, 1409

## Suicide-inhibition

Inhibition of human CYP2B6 by *N,N',N''*-triethylenethiophosphoramidate is irreversible and mechanism-based, 517

## Sulfonylurea action

Regulation of lipid raft proteins by glimepiride- and insulin-induced glycosylphosphatidylinositol-specific phospholipase C in rat adipocytes, 761

## Sulfonylurea

Role of two adjacent cytoplasmic tyrosine residues in MRP1 (ABCC1) transport activity and sensitivity to sulfonylureas, 451

## SULT1A3

Involvement of SULT1A3 in elevated sulfation of 4-hydroxypropenolol in Hep G2 cells pretreated with  $\beta$ -naphthoflavone, 941

## Superoxide radical

Intracellular generation of reactive oxygen species by mitochondria, 719

## Superoxide

Spin adduct formation from lipophilic EMPO-derived spin traps with various oxygen- and carbon-centered radicals, 297

Poly(ADP-ribose) polymerase regulates myocardial calcium handling in doxorubicin-induced heart failure, 725

L-Arginine regulates neuronal nitric oxide synthase production of superoxide and hydrogen peroxide, 971

Very stable superoxide radical adducts of 5-ethoxycarbonyl-3,5-dimethyl-pyrroline *N*-oxide (3,5-EDPO) and its derivatives, 1351



- Dicoumarol relieves serum withdrawal-induced  $G_{0/1}$  blockade in HL-60 cells through a superoxide-dependent mechanism, 1613
- Swine  
The potential benefits of 1.5% hetastarch as a cardioplegia additive, 1553
- Synthesis  
Synthesis and biological activities of bisnaphthalimido polyamines derivatives: cytotoxicity, DNA binding, DNA damage and drug localization in breast cancer MCF 7 cells, 19
- Tachykinin receptors  
Quantitative structure–activity analyses of bufokinin and other tachykinins at bufokinin (bNK<sub>1</sub>) receptors of the small intestine of the cane toad, *Bufo marinus*, 329
- Tachykinins  
Quantitative structure–activity analyses of bufokinin and other tachykinins at bufokinin (bNK<sub>1</sub>) receptors of the small intestine of the cane toad, *Bufo marinus*, 329
- Target confidence building  
Target identification and validation in drug discovery: the role of proteomics, 1133
- Target validation  
Target identification and validation in drug discovery: the role of proteomics, 1133
- Tau  
Emerging prospects for the disease-modifying treatment of Alzheimer's disease, 1001
- Tauopathy  
Some flavonoids and DHEA-S prevent the *cis*-effect of expanded CTG repeats in a stable PC12 cell transformant, 503
- Taurolithocholate  
Silibinin prevents cholestasis-associated retrieval of the bile salt export pump, Bsep, in isolated rat hepatocyte couplets: Possible involvement of cAMP, 1113
- TCDD  
Natural furocoumarins as inducers and inhibitors of cytochrome P450 1A1 in rat hepatocytes, 657
- TDM  
A sensitive new method for clinically monitoring cytarabine concentrations at the DNA level in leukemic cells, 1795
- Tea catechins  
Inhibition of human liver catechol-*O*-methyltransferase by tea catechins and their metabolites: Structure–activity relationship and molecular-modeling studies, 1523
- Tert*-butylhydroquinone  
Serotonin glucuronidation by Ah receptor- and oxidative stress-inducible human UDP-glucuronosyltransferase (UGT) 1A6 in Caco-2 cells, 1397
- TFEC  
BCL-xL overexpression effectively protects against tetrafluoroethyl-cysteine-induced intramitochondrial damage and cell death, 147
- TGF- $\beta$   
Ah receptor signals cross-talk with multiple developmental pathways, 199
- Thalamic neurons  
Contrasting the effects of nifedipine on subtypes of endogenous and recombinant T-type Ca<sup>2+</sup> channels, 841
- Thapsigargin  
Protective effect of FK506 against apoptosis of SH-SY5Y cells correlates with regulation of the serum inducible kinase gene, 1473
- Thiazolidinediones  
Pro-inflammatory properties for thiazolidinediones, 255
- Thiocolchicine  
Thiocolchicine dimers: a novel class of topoisomerase-I inhibitors, 113
- 6-Thioguanine  
Identification and functional analysis of two rare allelic variants of the thiopurine *S*-methyltransferase gene, *TPMT\*16* and *TPMT\*19*, 525
- Thioredoxin reductase  
The role of thioredoxin reductase activity in selenium-induced cytotoxicity, 1765
- thioTEPA  
Inhibition of human CYP2B6 by *N,N,N'*-triethylenethiophosphoramidate is irreversible and mechanism-based, 517
- Thymidine 5'-phosphate  
Bis(pivaloyloxymethyl) thymidine 5'-phosphate is a cell membrane-permeable precursor of thymidine 5'-phosphate in thymidine kinase deficient CCRF CEM cells, 1307
- Thymidine phosphorylase inhibition  
Inhibition of thymidine phosphorylase (PD-ECGF) from SD-lymphoma by phosphonomethoxyalkyl thymines, 1517
- Thymidylate synthase  
Modulation of 5-fluorouracil cytotoxicity through thymidylate synthase and NF- $\kappa$ B down-regulation and its application on the radiolabelled iododeoxyuridine therapy on human hepatoma cell, 617
- Thymine acyclic nucleoside phosphonates  
Inhibition of thymidine phosphorylase (PD-ECGF) from SD-lymphoma by phosphonomethoxyalkyl thymines, 1517
- Thymoquinone  
Serotonin glucuronidation by Ah receptor- and oxidative stress-inducible human UDP-glucuronosyltransferase (UGT) 1A6 in Caco-2 cells, 1397
- Tissue damage  
Exploitation of the unusual thermodynamic properties of human myeloperoxidase in inhibitor design, 1149
- TNF- $\alpha$   
Inhibition of tumor necrosis factor alpha secretion and prevention of liver injury in ethanol-fed rats by antisense oligonucleotides, 569  
Involvement of multiple signaling pathways in the post-bariatric induction of IL-6 and IL-8 mRNA and release in human visceral adipose tissue, 1315
- Tolbutamide  
Alterations of insulin secretion following long-term manipulation of ATP-sensitive potassium channels by diazoxide and nateglinide, 59
- Topoisomerase-I  
Thiocolchicine dimers: a novel class of topoisomerase-I inhibitors, 113
- Toxoplasma  
6-Benzylthioinosine analogues as subversive substrate of *Toxoplasma gondii* adenosine kinase: Activities and selective toxicities, 1409
- TPA  
Mitochondrial-dependent, reactive oxygen species-independent apoptosis by myricetin: roles of protein kinase C, cytochrome c, and caspase cascade, 913
- TPMT  
Identification and functional analysis of two rare allelic variants of the thiopurine *S*-methyltransferase gene, *TPMT\*16* and *TPMT\*19*, 525
- TRAIL  
Impaired activation of caspases and prevention of mitochondrial dysfunction in the metastatic colon carcinoma CC531s-m2 cell line, 463
- Transcription factors  
Sequence specificity of formaldehyde-mediated covalent binding of anthracycline derivatives to DNA, 7
- Transduction signal  
Calcium-pH crosstalks in rat mast cells: modulation by transduction signals show non-essential role for calcium in alkaline-induced exocytosis, 319
- Transfection  
Transfection of adult primary rat hepatocytes in culture, 1805

## Transformation

Morin inhibits 12-*O*-tetradecanoylphorbol-13-acetate-induced hepatocellular transformation via activator protein 1 signaling pathway and cell cycle progression, 1603

## Transgenic mice

Emerging prospects for the disease-modifying treatment of Alzheimer's disease, 1001

## Transplacental transfer

Bidirectional transfer of methadone across human placenta, 187  
Role of P-glycoprotein in transplacental transfer of methadone, 1869

## Transport

The L-arginine/NO pathway in the early phases of platelet stimulation by collagen, 289

## Transporter

Transient up-regulation of P-glycoprotein reduces tacrolimus absorption after ischemia-reperfusion injury in rat ileum, 561

## 2,4,6-Trinitrobenzenesulphonic acid

Protection against 2,4,6-trinitrobenzenesulphonic acid-induced colonic inflammation in mice by the marine products bolinaquinone and petrosaspongiolide M, 1433

## Trinucleotide repeats

Some flavonoids and DHEA-S prevent the *cis*-effect of expanded CTG repeats in a stable PC12 cell transformant, 503

## Tristetraprolin

Inhibition of tristetraprolin expression by dexamethasone in activated macrophages, 733

## Troglitazone

Increased Akt protein expression is associated with decreased ceramide content in skeletal muscle of troglitazone-treated mice, 1195

## Two forms of holoenzyme

Determination of the potency and subunit-selectivity of ribonucleotide reductase inhibitors with a recombinant-holoenzyme-based in vitro assay, 627

## Type 1 diabetes

Lisofylline: a potential lead for the treatment of diabetes, 1

## UDP-glucuronosyltransferase UGT1A6

Serotonin glucuronidation by Ah receptor- and oxidative stress-inducible human UDP-glucuronosyltransferase (UGT) 1A6 in Caco-2 cells, 1397

## Undecylideneaminoguanidine

Stimulation of CD95-induced apoptosis in T-cells by a subtype specific neutral sphingomyelinase inhibitor, 1141

## Unfractionated heparin

Suppression of Ca<sup>2+</sup> influx by unfractionated heparin in non-excitable intact cells via multiple mechanisms, 929

 $\alpha,\beta$ -Unsaturated carbonyl compounds

Inhibition of multidrug resistance proteins MRP1 and MRP2 by a series of  $\alpha,\beta$ -unsaturated carbonyl compounds, 1879

## Urotensin-II

Cloning and pharmacological characterization of the cat urotensin-II receptor (UT), 1069

## Ursodeoxycholic acid

Regulation of ileal bile acid-binding protein expression in Caco-2 cells by ursodeoxycholic acid: Role of the farnesoid X receptor, 1755

## UT antagonist

Cloning and pharmacological characterization of the cat urotensin-II receptor (UT), 1069

## Vaccination

Emerging prospects for the disease-modifying treatment of Alzheimer's disease, 1001

## Vaccine

Reduced nicotine distribution from mother to fetal brain in rats vaccinated against nicotine: Time course and influence of nicotine dosing regimen, 1385

*Valeriana officinalis*

(+)- And (–)-borneol: efficacious positive modulators of GABA action at human recombinant  $\alpha_1\beta_2\gamma_{2L}$  GABA<sub>A</sub> receptors, 1101

## Valproic acid constitutional isomers

Histone deacetylases inhibition and tumor cells cytotoxicity by CNS-active VPA constitutional isomers and derivatives, 1501

## Valproic acid

Histone deacetylases inhibition and tumor cells cytotoxicity by CNS-active VPA constitutional isomers and derivatives, 1501

## Vascular smooth muscle cell

Luteolin prevents PDGF-BB-induced proliferation of vascular smooth muscle cells by inhibition of PDGF  $\beta$ -receptor phosphorylation, 1715

## VASP

Inducible nitric oxide synthase-dependent stimulation of PKGI and phosphorylation of VASP in human embryonic kidney cells, 595

## Vincristine

Reversal of in vitro cellular MRP1 and MRP2 mediated vincristine resistance by the flavonoid myricetin, 1657

## Viroduamine

Binding affinity and agonist activity of putative endogenous cannabinoids at the human neocortical CB<sub>1</sub> receptor, 169

## Voltage-gated potassium channel

Assignment of voltage-gated potassium channel blocking activity to  $\kappa$ -KTx1.3, a non-toxic homologue of  $\kappa$ -hefutoxin-1, from *Heterometrus spinifer* venom, 669

## Xenobiotic metabolism

Eukaryotic arylamine *N*-acetyltransferase. Investigation of substrate specificity by high-throughput screening, 347

*Xenopus* oocyte

(+)- And (–)-borneol: efficacious positive modulators of GABA action at human recombinant  $\alpha_1\beta_2\gamma_{2L}$  GABA<sub>A</sub> receptors, 1101

*Xenopus* oocytes

Contrasting the effects of nifedipine on subtypes of endogenous and recombinant T-type Ca<sup>2+</sup> channels, 841

## Y-27632

Effects of Y-27632, a selective Rho-kinase inhibitor, on myocardial preconditioning in anesthetized rats, 49