The Editor of The Journal of Pharmacology and Experimental Therapeutics wishes to express appreciation to the following colleagues who acted as Guest Editors for Specific Fields in 1993.

Martin W. Adler
Edson X. Albuquerque
Lewis Aronow
Theodore J. Cicero
Marlene L. Cohen
Max Costa
Alan Cowan
Edwin E. Daniel
Gregory D. Fink
Alan Frazer
Robert Freedman
R. Adron Harris
David D. Ku
Roberto Levi
Benedict R. Lucchesi
Irwin Lucki
James B. Lucot
Donald E. McMillan
William H. Morse
Albert E. Munson
Herbert K. Proudfit
Michael R. Rosen
Paul R. Sanberg
Saul M. Schanberg
Kenneth J. Simansky
Roger D. Spealman
Michael Williams

Additionally, sincere thanks are due to 1060 of our colleagues not on the Editorial Advisory Board who reviewed articles for the Journal in 1993. Their contributions are acknowledged individually in the Annual Report of The Journal to The Board of Publications Trustees of the American Society for Pharmacology and Experimental Therapeutics.

INDEX

Volume 269, April–June, 1994

A-64077, effects in intestinal ischemia-reperfusion injury, 75
A-23187, effects on H^+ secretion, 932
AA-2414, modulation of immediate and late airway response by, in guinea pig, 1236
AAG, *see Alpha*-1-acid glycoprotein
Aarbakke, J., *see* Endresen, P. C., 1245
Abecarnil, chronic pharmacology of, in rats, 457
Abou-Donia, M. B., *see* Huff, R. A., 329
Absorption enhancers, palmitoylcarnitine, 813
Acetazolamide, polysubstrate interaction with renal PAH, sulfate, and NMeN transport, 684
Acetic acid test, for opioid analgesia, in amphibians, 1086
Acetylcholine
  dopamine D_1 receptor-stimulated release, mediation by activation of neurokinin$_1$ receptors, in rat, 1144
  effects on pig hepatic lymph vessels, 482
Acetylcholinesterase, inhibition by chlorpyrifos oxon, in rat, 329
AChE, *see* Acetylcholinesterase
Adams, M. L., Meyer, E. R., Sewing, B. N. and Cicero, T. J.: Effects of nitric oxide-related agents on rat testicular function, 230
Adamson, G. M. and Billings, R. E.: Tumor necrosis factor: Receptor binding and expression of receptors in cultured mouse hepatocytes, 367
Adenosine diphosphate
  binding to rat platelets, 772
  novel P_{2T} purinoceptor in UMR-106 osteoblasts, 1049
Adenosine diphosphateβS, contraction of human urinary bladder by, 193
Adenosine receptors
  agonist effects on cardiac protein phosphorylation, 1310
  A_1
    in guinea pig left atrium, 1228
    in rat vas deferens, 1228
  A_2
    in guinea pig aorta, 1228
    in rat vas deferens, 1228
Adenosine triphosphatase, inhibition of, 256
Adenosine triphosphate-sensitive potassium channels, meclofenamate blockade, 536
Adenylate cyclase, inhibition by chlorpyrifos oxon, in rat, 329
ADP, *see* Adenosine diphosphate
Adrenalectomy, effects on pressor responses to diphenyleneiodonium, 463
Adrenoceptors
  agonist contractile effects, in nephrosis, 589
  alpha
    antagonist effects on cocaine-induced ventricular fibrillation, 409
    dopamine activation of, in rat sympathetic neurons, 503
  alpha-1
    agonist contractile effects, in nephrosis, 589
    mediation of 5-HT_{1A} receptor-induced spontaneous tail-flicks by, in rat, 110
    myocardial, mediation of methoxamine effects by, in rabbit, 732
  alpha-2
    agonists, antinociceptive effects, latency to vocalization index, in mouse, 1021
    agonists, contractile effects, in nephrosis, 589
    antagonists, long-term, effects on *alpha*-2 adrenoceptors modulating 5-HT neurotransmission, 1152
    effects of long-term *alpha*-2 antagonists and electroconvulsive shocks on, 1152
    mediation of 5-HT_{1A} receptor-induced spontaneous tail-flicks by, in rat, 110
    mediation of ocular effects of moxonidine by, 897
  alpha-2A, brain density, in human, 1062
  beta
    agonist binding in heart, in canine, 351
    control of c-*fos* by, in developing rat brain, 1292
  beta-3, selectivity of benzodioxole-containing phenethanolamines for, 1000
  regulation of stress-induced vasodilation by, in rats, 305
Aging
  effects on brain density of *alpha*-2A adrenoceptors and G_i proteins, in human, 1062
  growth hormone effects on membrane electrical properties of skeletal muscle, in rats, 948
Agneter, E., Hoffmann, I. S., Singer, E. A. and Cubeddu, L. X.: Behavior of mesocortical dopamine terminals during single and repetitive stimulation: Comparison with nigrostriatal neurons, 470
Agresta, C. A., *see* Salzman, S. K., 322
Aguayo, L. G. and Grossie, J.: Dopamine inhibits a sustained calcium current through activation of *alpha* adrenergic receptors and a GTP-binding protein in adult rat sympathetic neurons, 503
Aicher, L., *see* Omiecinski, C. J., 417
Airways
  effects of K^+ channel openers on, in guinea pig, 1
  pharmacological modulation of leukocyte infiltration in, in guinea pig, 1236
Akai, T., *see* Ozawa, M., 457
Akuzawa, S., *see* Nishida, A., 725
Alanine, enantiomer effects on PCP-induced hyperactivity, stereotypy and ataxia, in rat, 1040
Albiero, R., *see* Tesoriere, L., 430
Alcohol, *see also* Ethanol
  effects on cytochrome P450s, in rat livers, 838
  effects on $GABA_A$ receptor subunits, in human embryonic kidney cells, 157
Alcoholic liver disease
  effects of iron chelators on, in rats, 632
  prevention by cimetidine, in rat, 832
  severity of liver injury in, correlation with 8-isoprostane plasma levels, 1280
Alford, G. E., *see* Babich, M., 172
Alloatti, G., Montrucchio, G. and Camussi, G.: Role of platelet-activating factor (PAF) in oxygen radical-induced cardiac dysfunction, 766
Allodynia, tactile, voltage-dependent calcium channel subtypes in, 1117
N-Allylnormetazocine
  effects on motor coordination, 573
  gastric fundic mucosa binding sites, porcine, 905
Alper, R. H. and Zink, M. H. III: Adrenergic and nonadrenergic regulation of hindlimb blood flow during stress in rats, 305
Alpha-1-acid glycoprotein, reduction of hepatocyte drug uptake by, 1176
Alternation performance, spontaneous, effects of DAMGO and dynorphin A-(1–13) on, in mice, 15
Amidon, G. L., *see* Yuasa, H., 1107
Amiloride, vascular effects, in rat, 1094
p-Aminobenzoic acid, placental transfer and metabolism of, 761
γ-Aminobutyric acid
  agonist antinociceptive effects, latency to vocalization index of, in mouse, 1021
  uptake inhibitor antinociceptive effects, latency to vocalization index of, in mouse, 1021
γ-Aminobutyric $acid_A$ receptor
  effects of imidazenil on, 32
  subunits, effects of alcohols on, in human embryonic kidney cells, 157
γ-Aminobutyric $acid_A$ receptor-chloride channel, effects of dieldrin on, in rat, 164
p-Aminohippuric acid, renal transport of
  in OK cell apical and basolateral membranes, 970
  polysubstrate interaction with, 684
  regulation by protein kinase C, 659
(±)-α-Amino-3-hydroxy-5-methylisoxazole-4-propionate, effects on substantia nigra neurons, in rat, 313
(3*R*,4*R*)-3-Amino-4-methyl-1-hydroxy-pyrrolidin-2-one-(–)-tartrate salt, *see* L-687,414
2-Amino-4-methyl-5-phenyl-Δ^2-oxazoline, *see* 4-Methylaminorex
(R,S)-(E)-2-Amino-4-methyl-5-phosphono-3-pentenoic acid 1-ethyl ester, *see* CGP 39551
(R,S)-(E)-2-Amino-4-methyl-5-phosphono-

3-pentenoic acid monohydrate, *see* CGP 37849
4-Amino-2-(4-methyl-1-piperazinyl)-5-(2,3,5-trichlorophenyl)pyrimidine, *see* BW619C89
Aminopeptidase P, pulmonary, role in bradykinin inactivation, in rat, 941
Amiodarone, effects on inward rectifier potassium channels, in guinea pig ventricular cells, 1213
Amnesia, CO-induced, prevention by cholecystokinin peptides, in mice, 665
AMPA, *see* (±)-α-Amino-3-hydroxy-5-methylisoxazole-4-propionate
Amylin, vasodilator responses to, mediation by $CGRP_1$ receptors, in rat kidney, 989
Analgesia
  drug, mouse grid-shock test, 1021
  morphine
    measurement by cortical evoked potentials, in rats, 1100
    naltrexone antagonism of, in mice, 693
  muscarinic, mediation by nitric oxide, in rats, 699
  opioid
    acetic acid test, in amphibians, 1086
    L-tyrosine potentiation of, 1190
  SNF9007, 750
Anderson, C. B., *see* Mangino, M. J., 75
Anderson, J. J., Kuo, S., Chase, T. N. and Engber, T. M.: Dopamine D_1 receptor-stimulated release of acetylcholine in rat striatum is mediated indirectly by activation of striatal neurokinin$_1$ receptors, 1144
Anderson, J. K., *see* Huff, R. A., 329
Angiotensin II
  receptor antagonism by BIBS 222, in rat portal vein and rabbit aorta, 509
  vascular reactivity to, in spontaneously hypertensive rat kidneys, 82
Angiotensin-converting enzyme
  inhibition of, potentiation of renal bradykinin by, in dogs, 263
  pulmonary, role in bradykinin inactivation, in rat, 941
Anilinobenzoates, polysubstrate interaction with renal PAH, sulfate, and NMeN transport, 684
Anion transport, renal
  polysubstrate interaction with, 684
  in proximal tubular cells, in rat, 1261
  regulation of, 659
Anpirtoline, antinociceptive effects, latency to vocalization index, in mouse, 1021
Antiarrhythmic drugs
  class I, drug metabolites, on rat cardiac myocytes, 477
  class III, spirobenzopyran piperidine analogs, cardiac electrophysiologic and antiarrhythmic effects, 541
  classification, 336
  K^+ channel blocking actions, in adult rat ventricular myocytes, 66
Antibodies, anti-PCP, monoclonal Fab fragments, effects on PCP pharmacokinetics, in rats, 1079
Anticonvulsants, direct cortical stimulation model of effects, in rats, 521
Antidepressants, effects on NMDA receptor, 95
Antidiuresis, by renal nerve stimulation, effects of NOARG on, in dogs, 529
Antiepileptics, pharmacodynamics of, in rats, 521
Antinociception
  drug, latency to vocalization index, 1021
  muscarinic, mediation by nitric oxide, in rats, 699
  nitrous oxide
    mediation by L-NOARG, in mice and rats, 601
    mediation by opioid receptors, in rat hot plate test, 596
  SNF9007, 750
  spinal morphine, roles of *mu*, *delta* and *kappa* opioid receptors in, in rat, 1007
  vapreotide, 7
Antipyrine, recirculatory kinetics, in dogs, 609
Antiulcers, KB-5492, in rats, 799
Anxiolytics, β-carboline, chronic pharmacology of, in rats, 457
Aorta
  A_2 adenosine receptors in, in guinea pig, 1228
  angiotensin II receptor antagonism by BIBS 222 in, in rabbit, 509
  nephrotic, contractile effects of adrenoceptor agonists in, 589
Apomorphine, effects on neurotensin metabolism, in rat brain, 535
Apoptosis, 3-deazaadenosine, homocysteine effects on, in HL-60 cells, 1245
Appleby, S. D., *see* Lynch, J. J., Jr., 541
Aqueous humor flow, effects of moxonidine on, 897
Arachidonic acid
  release from striatal neurons, stimulation by carbachol, in mouse, 646
  stereoselective epoxidation by P-450 2CAA and P-450 2C2, 1130
Ardid, D., *see* Betoin, F., 7
Arecoline, antinociceptive effects, latency to vocalization index, in mouse, 1021
D-Arg[hypoxanthine^3,β-thienylalanine$_5$,D-Tic; s7,Oic^8]-BK, *see* HOE-140
D-Arg[hypoxanthine^3,β-thienylalanine$_5$,L-Tic; s7,Oic^8]-BK, *see* WIN 64338
Arnold, L. W., *see* Valentine, J. L., 1079
Arrhythmias, malignant, effects of *alpha* adrenoceptor antagonists on, 409
Arterial thrombosis, TXA_2 inhibition in, in animal models, 238
Arteriolar smooth muscle cells, renal, effects of NO on, 402
Arterioles, coronary, *beta* receptor agonist binding in, in canine, 351
Artibani, W., *see* Palea, S., 193
Arylamine N-acetyltransferase, placental activity, 756
Arylation, of proteins, by naphthalene, 881
Asaad, M., *see* Seymour, A. A., 263
Ashby, C. R., Jr., *see* Batsche, K., 1029
Ashida, Y., *see* Matsumoto, T., 1236
Asthmatic responses, pharmacological modulation of, in guinea pig, 1236
Ataxia
  NMDA antagonist, 573
  PCP, effects of alanine and serine enantiomers on, in rat, 1040
ATP, *see* Adenosine triphosphate
Atrial natriuretic peptide, antagonism by chlorotyrosine, 709
Atrium, left, A_1 adenosine receptors in, in guinea pig, 1228
Aumaitre, O., *see* Betoin, F., 7
Avram, M. J., *see* Krejcie, T. C., 609
Azim, S., *see* Salzman, S. K., 322
Babich, M., Alford, G. E. and Nissenson, R. A.: A novel phospholipase C inhibitor and phorbol esters reveal selective regulation of thrombin- and parathyroid hormone-stimulated signaling pathways in rat osteosarcoma cells, 172
Badger, T. M., *see* Hu, Y., 1286
Bafilomycin A1, antagonist effects, 256
Baillie, T. A., *see* Shirley, M. A., 1166
Bakry, N., *see* Simpson, L. L., 256
Baldwin, J. J., *see* Lynch, J. J., Jr., 541
Barg, J., *see* Ela, C., 1300
Barzago, M. M., Omarini, D., Bortolotti, A., Stellari, F. F., Lucchini, G., Efrati, S. and Bonati, M.: Mefloquine transfer during *in vitro* human placenta perfusion, 28
Baskin, E. P., *see* Lynch, J. J., Jr., 541
Bass, A. S., *see* Dolan, J. A., 1000
Batsche, K., Ashby, C. R., Jr., Lee, C., Schwartz, J. and Wang, R. Y.: The behavioral effects of the stereoisomers of 4-methylaminorex, a psychostimulant, in the rat, 1029
Battaglia, G., *see* Cabrera, T. M., 637
Baum, B. J., *see* Hiramatsu, Y., 1205
BDM, *see* 2,3-Butanedione monoxime
Beare, C. M., *see* Lynch, J. J., Jr., 541
Beating rate, cardiac myocyte, *sigma* receptor mediation of, 1300
Behavior
  cocaine effects on, in Fischer and Lewis rats, 137
  4-methylaminorex isomer effects on, in rat, 1029
  opioid effects in pedunculopontine nucleus and mediodorsal thalamus, 437
  PCP effects, effects of alanine and serine enantiomers on, in rat, 1040
Behavioral sensitization, cocaine
  effects on D_2 receptors, 743
  in Fischer and Lewis rats, 137
Belknap, J. K., *see* Crabbe, J. C., 184
Bendroflumethiazide, polysubstrate interaction with renal PAH, sulfate, and NMeN transport, 684
Benishin, C. G., *see* Ren, J., 209
Benzene carboxylates, polysubstrate interaction with renal PAH, sulfate, and NMeN transport, 684
Benzenesulfonamides, polysubstrate interaction with renal PAH, sulfate, and NMeN transport, 684
Benzenesulfonylureas, polysubstrate interaction with renal PAH, sulfate, and NMeN transport, 684
Benzimidazoles, induction of P450s by, in human hepatocytes, 384
Berryer, P., *see* Ryan, J. W., 941
Berson, A., *see* Fau, D., 954
Bervoets, K., *see* Millan, M. J., 121
Bervoets, K. and Millan, M. J.: $5\text{-}HT_{1A}$ receptors and the tail-flick response. V. Opposite modulation of $5\text{-}HT_{1A}$ receptor-induced spontaneous tail-flicks by α_1- as compared with α_2-adrenoceptors in rat lumbar spinal cord, 110
Besch, H. R., Jr., *see* Emmick, J. T., 717
Besch, K. T., *see* Emmick, J. T., 717
Betoin, F., Ardid, D., Herbet, A., Aumaitre, O., Kemeny, J. L., Duchene-Marullaz, P., Lavarenne, J. and Eschalier,

A.: Evidence for a central long-lasting antinociceptive effect of vapreotide, an analog of somatostatin, involving an opioidergic mechanism, 7
B-HT 933, contractile effects, in nephrosis, 589
Bianchi, R. G., *see* Perkins, W. E., 151
BIBS 222, angiotensin II receptor antagonism by, in rat portal vein and rabbit aorta, 509
Bidasee, K. R., *see* Emmick, J. T., 717
Biggio, G., *see* Serra, M., 32
Billings, R. E., *see* Adamson, G. M., 367
Billman, G. E.: The effect of adrenergic receptor antagonists on cocaine-induced ventricular fibrillation: *Alpha* but not *beta* adrenergic receptor antagonists prevent malignant arrhythmias independent of heart rate, 409
Bindels, R. J. M., *see* Masereeuw, R., 1261
Biotin, brain delivery, 344
Bisubstrates, interaction with renal PAH, sulfate, and NMeN transport, 684
Blasberg, R. G., *see* Hiramatsu, Y., 1205
Blevins, G. T., Jr., van de Westerlo, E.M.A., Yule, D. I. and Williams, J. A.: Characterization of cholecystokinin$_A$ receptor agonist activity by a family of cholecystokinin$_B$ receptor antagonists, 911
Blier, P., *see* Mongeau, R., 1152
Blood-brain barrier, biotin delivery through, 344
Bloom, J. D., *see* Dolan, J. A., 1000
(±)-BMY 14802, effects on METH toxicity, 44
Bodor, G. S., *see* Neumann, J., 1310
Böhm, M., *see* Schwinger, R.H.G., 778
Boknik, P., *see* Neumann, J., 1310
Bombardt, P. A., Brewer, J. E. and Johnson, M. G.: Protein binding of tirilazad (U-74006) in human, Sprague-Dawley rat, beagle dog and cynomolgus monkey serum, 145
Bonati, M., *see* Barzago, M. M., 28
Bongiorno, A., *see* Tesoriere, L., 430
Bortolotti, A., *see* Barzago, M. M., 28
Botulinum neurotoxin, effects of bafilomycin A1 on, 256
Bouzom, F., *see* Breugnot, C., 515
Bowden, G., *see* Williams, C. L., 750
Bowel ischemia, A-64077 effects in, 75
Bradykinin
  B_2 receptor antagonists, 1136
  pulmonary inactivation of, role of aminopeptidase P in, in rat, 941
  renal effects, potentiation of, in dogs, 263
Brain
  alpha-2A adrenoceptor and G_i protein density in, in human, 1062
  beta adrenergic control of c-*fos* in, in developing rats, 1292
  drug delivery, 344
  5-HT$_{2A/2C}$ receptors in, prenatal fluoxetine effects on, in male rats, 637
  neurotensin metabolism in, effects of neuroleptics on, in rat, 535
  [^{125}I-Tyr]hCGRP$_{8-37}$ binding profile in, in rat, 846
Brain, S. D., *see* Chin, S. Y., 989
Branch, C. A. and Knuepfer, M. M.: Causes of differential cardiovascular sensitivity to cocaine: Studies in conscious rats, 674
Bremazocine, analgesic potency, by acetic acid test, in amphibians, 1021
Breneisen, J. R., *see* Hodges, B. L., 596
Breugnot, C., Privat, S., Guillonneau, C., Regnier, G., Bouzom, F., Vilaine, J. P. and Lenaers, A.: S 12340: A potent inhibitor of the oxidative modification of low-density lipoprotein *in vitro* and *ex vivo* in WHHL rabbits, 515
Brewer, J. E., *see* Bombardt, P. A., 145
6-(2-Bromophenyl)-8-fluoro-4H-imidazo[1,5-a][1,4]benzodiazepine-3-carboxamide, *see* Imidazenil
Bronchodilation, KC 399, in guinea pig, 1
Bronchus, reversal of NO synthase inhibition by NO synthase inhibitors by L-citrulline, in human, 1073
Buckpitt, A., *see* Cho, M., 881
Buckpitt, A. R., *see* Plopper, C. G., 867
Buprenorphine
  analgesic potency, by acetic acid test, in amphibians, 1021
  antinociceptive effects, latency to vocalization index, in mouse, 1021
Burka, L. T., *see* Ghanayem, B. I., 581
Burks, T. F., *see* Williams, C. L., 750
Burns, M. G., *see* Dolan, J. A., 1000
2,3-Butanedione monoxime, effects in human myocardium, 778
Butcher, J. W., *see* Lynch, J. J., Jr., 541
Butelman, E. R., *see* Zernig, G., 57
BW619C89, neuroprotective effects, in rat middle cerebral artery occlusion, 854
Bymaster, F. P., *see* Shannon, H. E., 271
Bymaster, F. P., Wong, D. T., Mitch, C. H., Ward, J. S., Calligaro, D. O., Schoepp, D. D., Shannon, H. E., Sheardown, M. J., Olesen, P. H., Suzdak, P. D., Swedberg, M.D.B. and Sauerberg, P.: Neurochemical effects of the M_1 muscarinic agonist xanomeline (LY246708/NNC11-0232), 282

C_6 glioma cells, nucleotide receptor and P_{2Y} receptor signal transduction pathways in, 926
Cabrera, T. M. and Battaglia, G.: Delayed decreases in brain 5-hydroxytryptamine$_{2A/2C}$ receptor density and function in male rat progeny following prenatal fluoxetine, 637
Caco-2 cells, palmitoylcarnitine absorption enhancement in, 813
Calcitonin gene-related peptide receptors
  antagonist ligand binding profile, in rat brain, 846
  CGRP$_1$, mediation of vasodilation by, in rat kidney, 989
Calcium
  intracellular, LTD_4 effects on, in THP-1 cells, 891
  intracellular-free, *sigma* receptor mediation of, in cardiac myocytes, 1300
Calcium channels
  dopamine inhibition of, in rat sympathetic neurons, 503
  dorsal raphe neuron, LSD effects on current, 1160
  N-type, effects on heart H_3-receptors, 221
  sarcoplasmic reticulum, suramin effect on, 717
  vascular muscle, Ro 40-5967 block, 178
  voltage-dependent subtypes, in tactile allodynia, 1117
Calcium ionophores, A_{23}, effects on H^+ secretion, 932
Calcium(2s)-2-benzyl-3-(*cis*-hexahydro-2-isoindolinylcarbonyl) propionate dihydrate, *see* KAD-1229
Calligaro, D. O., *see* Bymaster, F. P., 282
Calligaro, D. O., *see* Shannon, E., 271
Calpista, A., *see* Palea, S., 193
cAMP, *see* Cyclic AMP
Camussi, G., *see* Alloatti, G., 766
Cancer chemotherapy, 5-FLUra, 39
Canton, H., *see* Millan, M. J., 121
Captopril, potentiation of renal bradykinin by, in dogs, 263
Carbachol
  effects on cardiac protein phosphorylation, 1310
  stimulation of arachidonic acid release from mouse striatal neurons by, 646
Carbamazepine, pharmacodynamics of, in rats, 521
Carbon monoxide-induced amnesia, prevention by cholecystokinin peptides, in mice, 665
2-Carboxy-4-(1-methylethenyl)-3-pyrrolidinacetate, *see* Kainate
Cardiac dysfunction, oxygen radical-induced, role of platelet-activating factor in, 766
Cardiac function, effects of CoQ_{10} on, in rats, 51
Cardiac hypertrophy, minoxidil-induced, 290
Cardiac myocytes
  beta receptor agonist binding in, in canine, 351
  class I drug metabolites on, in rat, 477
  sigma receptor mediation of contractility, calcium influx and beating rate in, 1300
Cardiotoxicity, doxorubicin, vitamin A protection against, in rat, 430
Cardiovascular system, differential sensitivity to cocaine, in rats, 674
Caron, M. G., *see* King, G. R., 743
Carr, D. J. J., Gerak, L. R. and France, C. P.: Naltrexone antagonizes the analgesic and immunosuppressive effects of morphine in mice, 693
Carter, A. J.: Many agents that antagonize the NMDA receptor-channel complex *in vivo* also cause disturbances of motor coordination, 573
Carter, D. B., *see* Marszalec, W., 157
Casler, J. J., *see* Perkins, W. E., 151
Castle, N. A., *see* Slawski, M. T., 66
Cat nictitating membrane, effects of moxonidine on, 897
Cation transport, renal
  effect of phenylisothiocyanate on, in opossum, 204
  polysubstrate interaction with, 684
  role of P-glycoprotein in, in mammals, 1254
CCK, *see* Cholecystokinin
Cephradine, uptake in intestinal brush-border membrane vesicles, inhibition by enalapril, in rabbit, 1107
Cerebellar neurons, folate toxicity of, 393
Cerebral artery occlusion, neuroprotective effects of BW619C89 in, in rat, 854
Ceruletide, prevention of CO-induced amnesia by, in mice, 665
C-fiber reflex, depression by intrathecal morphine and DAGO, effects of *mu*,

delta and *kappa* opioid antagonists on, in rat, 1007
c-*fos*
mRNA expression, effects of acute methamphetamine on, in rat, 806
protooncogene expression, *beta* adrenergic control of, in developing rat brain, 1292
CGP 37849, effects on motor coordination, 573
CGP 39551, effects on motor coordination, 573
CGRP, *see* Calcitonin gene-related peptide
Chamienia, A. L. and Johns, E. J.: Renal functional responses to the 5-HT_{1A} receptor agonist flesinoxan: Effects of controlled renal perfusion pressure, 215
Chan, C.-C., Ecclestone, P., Nicholson, D. W., Metters, K. M., Pon, D. J. and Rodger, I. W.: Leukotriene D_4-induced increases in cytosolic calcium in THP-1 cells: Dependence on extracellular calcium and inhibition with selective leukotriene D_4 receptor antagonists, 891
Chan, J. K., *see* Ott, R. J., 204
Chang, A., *see* Plopper, C. G., 867
Chao, C. C., Gekker, G., Sheng, W. S., Hu, S., Tsang, M. and Peterson, P. K.: Priming effect of morphine on the production of tumor necrosis factor-α by microglia: Implications in respiratory burst activity and human immunodeficiency virus-1 expression, 198
Chaplan, S. R., Pogrel, J. W. and Yaksh, T. L.: Role of voltage-dependent calcium channel subtypes in experimental tactile allodynia, 1117
Chase, T. N., *see* Anderson, J. J., 1144
Chavin, J., *see* Salzman, S. K., 322
Chemotherapy, 5-FLUra, 39
Chen, J., *see* Graham, S. H., 854
Chen, Q.-M., Smyth, D. D., McKenzie, J.K., Glavin, G. B., Gu, J. G., Geiger, J. D. and LaBella, F. S.: Chlorotyrosine exerts renal effects and antagonizes renal and gastric responses to atrial natriuretic peptide, 709
Chi, S., *see* Kosten, T. A., 137
Chichester, C., *see* Cho, M., 881
Chin, S. Y., Hall, J. M., Brain, S. D. and Morton, I.K.M.: Vasodilator responses to calcitonin gene-related peptide (CGRP) and amylin in the rat isolated perfused kidney are mediated *via* $CGRP_1$ receptors, 989
Chiodo, L. A., *see* Zhang, J., 313
Chloride channels
muscle, effects of growth hormone on, in rats, 948
stimulation by minoxidil sulfate, in eccrine clear cells, 823
Chlormethiazole, inhibition of CYP2E1 expression in rat liver by, 1286
4-Chloro-N-[4,5 dihydro-1H-imidazol-2-yl] -6-methoxy-2-methyl-5-pyridinamine, *see* Moxonidine
Chloro-sulfamoyl diuretics, polysubstrate interaction with renal PAH, sulfate, and NMeN transport, 684
Chlorotyrosine, antagonism of atrial natriuretic peptide by, 709
Chlorpromazine, effects on neurotensin metabolism, in rat brain, 535
Chlorpropamide, polysubstrate interaction with renal PAH, sulfate, and NMeN transport, 684
Chlorpyrifos oxon, binding to muscarinic receptors and inhibition of AChE by, in rat, 329
Cho, M., Chichester, C., Morin, D., Plopper, C. and Buckpitt, A.: Covalent interactions of reactive naphthalene metabolites with proteins, 881
Cholecystokinin peptides, prevention of CO-induced amnesia by, in mice, 665
Cholecystokinin$_A$ receptors, agonists, characterization by CCK_B receptor antagonists, 911
Cholecystokinin$_B$ receptors
antagonists, characterization of CCK_A agonist activity by, 911
gastrin, novel antagonist, 725
Cholinesterase, inhibitor antinociceptive effects, latency to vocalization index of, in mouse, 1021
Chow, F. S., *see* Piekoszewski, W., 103
Chronic heart failure, effects of CoQ_{10} on, in rats, 51
Chu, T.-C., *see* Ogidigben, M., 897
Chuang, D.-M., *see* Lin, W.-W., 926
Chung, A.Y.K., *see* Ryan, J. W., 941
CI-977, analgesic potency, by acetic acid test, in amphibians, 1021
Ciaccio, M., *see* Tesoriere, L., 430
Cicero, T. J., *see* Adams, M. L., 230
Cicletanine, vascular effects, in rat, 1094
Cifani, J. R., *see* Moravec, C. S., 290
Cimetidine
prevention of alcoholic hepatic injury by, in rat, 832
transport into rat hepatocytes, 1220
Ciprofloxacin, intestinal secretion of, 496
L-Citrulline, reversal of inhibition of NO synthase by NO inhibitors by, in guinea pig trachea and human bronchus, 1073
CL 314,514, *beta*-3 adrenoceptor agonist effects, 1000
CL 316,243, *beta*-3 adrenoceptor agonist effects, 1000
Clair, P., *see* Curi-Pedrosa, R., 384
Clara cells
4-ipomeanol cytotoxicity, in neonatal rabbits, 867
naphthalene toxicity, 881
Claremon, D. A., *see* Lynch, J. J., Jr., 541
Clarke, G. A., *see* Pieper, G. A., 451
Claus, T. H., *see* Dolan, J. A., 1000
Clocinnamox, effects on *mu* opioid receptors, in rhesus monkeys, 57
Clonidine, antinociceptive effects, latency to vocalization index, in mouse, 1021
Clopidogrel, effects on binding of [^{3}H]-2-methylthio ADP to rat platelets, 772
Clostridial neurotoxins, effects of bafilomycin A1 on, 256
Cobuzzi, A., *see* Dolan, J. A., 1000
Cocaine
behavioral effects, in Fischer and Lewis rats, 137
differential cardiovascular sensitivity to, in rats, 674
ventricular fibrillation induced by, effects of *alpha* adrenoceptor antagonists on, 409
Cocaine withdrawal
effects on dopamine D_2 receptors, 743
effects on dopamine transporter binding, in rats, 963
Cocchi, D., *see* De Luca, A., 948
Codeine
analgesic effects, acetic acid test, in amphibians, 1021
antinociceptive effects, latency to vocalization index, in mouse, 1021
Coenzyme Q_{10}, effects on chronic heart failure, in rats, 51
Coffield, J. A., *see* Simpson, L. L., 256
Colchicine, in combination with misoprostol, effects on cAMP production, 1196
Collins, P. W., *see* Perkins, W. E., 151
Colombo, T., Zucchetti, M. and D'Incalci, M.: Cyclosporin A markedly changes the distribution of doxorubicin in mice and rats, 22
Colon, distal, epithelial function in, role of VIP in regulation of, in guinea pig, 1124
Combre, A., *see* Perret, C., 787
Conanan, N., *see* Ellis, J. L., 1073
Conditioned place preference, cocaine, in Fischer and Lewis rats, 137
Conditioned taste aversion, cocaine, in Fischer and Lewis rats, 137
ω-Conotoxin, effects on heart H_3-receptors, 221
Conte Camerino, D., *see* De Luca, A., 948
Contractions
ADPβS, in human detrusor muscle, 193
adrenoceptor agonist, in nephrosis, 589
bradykinin, effects of bradykinin B_2 receptor antagonists on, 1136
cardiac myocyte, *sigma* receptor mediation of, 1300
ergonovine, in DOCA-salt hypertensive mesenteric artery, in rat, 617
Contrera, J. G., *see* Sistare, F. D., 1049
Cooke, H. J., *see* Reddix, R., 1124
Cooke, L. and Muntz, K. H.: Differences in *beta* adrenergic receptor agonist affinity between cardiac myocytes and coronary arterioles in canine heart, 351
Cooley, A. J., *see* Lash, L. H., 374
CoQ_{10}, *see* Coenzyme Q_{10}
Corcoran, J. J., *see* Huff, R. A., 329
Cordier, J., *see* Tence, M., 646
Coronary arterioles, *beta* receptor agonist binding in, in canine, 351
Corpus striatum
acetylcholine release in, dopamine D_1 receptor-stimulated, mediation by activation of neurokinin$_1$ receptors, in rat, 1144
arachidonic acid release in, stimulation by carbachol, in mouse, 646
chlorpyrifos oxon binding to muscarinic receptors in, in rat, 329
dopamine release in, 470
dopamine transporter binding in, effects of cocaine withdrawal on, in rats, 963
serotonin release in, regulation by 5-HT_{1A} autoreceptors, 1268
Corsi, M., *see* Palea, S., 193
Cortex, prefrontal, dopamine release in, 470
Cortical evoked potentials, differentiation between morphine analgesia/sedation by, in rats, 1100
Corticotropin-releasing factor, novel antagonist, characterization of, in rats, 564

D-Phe Corticotropin-releasing factor$_{12-41}$, characterization of, in rats, 564
Cossum, P. A., Truong, L., Owens, S. R., Markham, P. M., Shea, J. P. and Crooke, S. T.: Pharmacokinetics of a ^{14}C-labeled phosphorothioate oligonucleotide, ISIS 2105, after intradermal administration to rats, 89
Crabbe, J. C., Belknap, J. K., Mitchell, S. R. and Crawshaw, L. I.: Quantitative trait loci mapping of genes that influence the sensitivity and tolerance to ethanol-induced hypothermia in BXD recombinant inbred mice, 184
Crawshaw, L. I., *see* Crabbe, J. C., 184
CRF, *see* Corticotropin-releasing factor
Crockett, J., *see* Nandi, J., 932
Cromakalim, cardioprotective effects, meclofenamate blockade of, 536
Crooke, S. T., *see* Cossum, P. A., 89
Cross, A., *see* Hu, Y., 1286
Cross-tolerance, between *mu*- and *kappa*-opioid agonists, in guinea pig ileum myenteric plexus, 993
CTOP, *see* Cys^2-Tyr^3-Orn^5-Pen^7 amide
Cubeddu, L. X., *see* Agneter, E., 470
Cuccheddu, T., *see* Serra, M., 32
Cullinan, C. A., *see* Williams, C. L., 750
Curi-Pedrosa, R., Daujat, M., Pichard, L., Ourlin, J. C., Clair, P., Gervot, L., Lesca, P., Domergue, J., Joyeux, H., Fourtanier, G. and Maurel, P.: Omeprazole and lansoprazole are mixed inducers of *CYP*1A and *CYP*3A in human hepatocytes in primary culture, 384
Currie, J. L., *see* Rao, T. S., 917
CV-4151, modulation of immediate and late airway response by, in guinea pig, 1236
Cyclic AMP
  inhibition by chlorpyrifos oxon, in rat, 329
  inhibition by moxonidine, 897
  production of
    effects of misoprostol on, 1196
    effects of misoprostol and colchicine on, 1196
  stimulation by benzodioxole-containing phenethanolamines, 1000
Cyclopenthiazide, polysubstrate interaction with renal PAH, sulfate, and NMeN transport, 684
Cyclosporin A, interactions with doxorubicin, in mice and rats, 22
Cysteine *S*-conjugates, mechanism of toxicity, 374
Cys^2-Tyr^3-Orn^5-Pen^7 amide, effects on C-fiber reflex depression by intrathecal morphine and DAGO, in rat, 1007
Cytochrome P450
  3A
    effects of ethanol and isopentanol on, in rat liver, 838
    induction by benzimidazoles, in human hepatocytes, 384
  2B1/2, effects of ethanol and isopentanol on, in rat liver, 838
  2E, effects of ethanol and isopentanol on, in rat liver, 838
  2E1, expression of, inhibition by chlormethiazole, in rat liver, 1286
  1A, induction by benzimidazoles, in human hepatocytes, 384
  2C2, stereoselective epoxidation of arachidonic acid by, 1130
  2CAA, stereoselective epoxidation of arachidonic acid by, 1130
  effects of ethanol and isopentanol on, in rat liver, 838
Cytotoxicity, 4-ipomeanol, in immature Clara cells of neonatal rabbits, 867

Dafny, N., *see* Williams, C. L., 750
DAGO, intrathecal, C-fiber reflex depression by, effects of *mu*, *delta* and *kappa* opioid antagonists on, in rat, 1007
Daikh, B. E., Laethem, R. M. and Koop, D. R.: Stereoselective epoxidation of arachidonic acid by cytochrome P-450s 2CAA and 2C2, 1130
D-Ala^2,(NME)Phe,Gly-ol, *see* DAGO
D'Alonzo, A. J., *see* Grover, G. J., 536
DAMGO
  effects on alternation performance, in mice, 15
  effects on pedunculopontine nucleus and mediodorsal thalamus, behavioral and neurochemical studies of, 437
Danhof, M., *see* Hoogerkamp, A., 521
Danneman, P. J.: Cortical potentials evoked by tooth pulp stimulation differentiate between the analgesic and sedative effects of morphine in awake rats, 1100
Darbenzio, R. B., *see* Grover, G. J., 536
Daujat, M., *see* Curi-Pedrosa, R., 384
David, C., *see* Ullrich, K. J., 684
Davis, T. P., *see* Konkoy, C. S., 535
De Luca, A., Pierno, S., Cocchi, D. and Conte Camerino, D.: Growth hormone administration to aged rats improves membrane electrical properties of skeletal muscle fibers, 948
de Montigny, C., *see* Mongeau, R., 1152
3-Deazaadenosine, apoptosis initiated by, homocysteine effects on, in HL-60 cells, 1245
β-Dendrotoxin, inhibition of K^+ current by, in VSMCs, 209
Deoxycorticosterone acetate-salt hypertension, ergonovine-induced contraction in mesenteric artery in, in rat, 617
Derewlany, L. O., Knie, B. and Koren, G.: Arylamine N-acetyltransferase activity of the human placenta, 756
Derewlany, L. O., Knie, B. and Koren, G.: Human placental transfer and metabolism of *p*-aminobenzoic acid, 761
Desensitization, GABA-induced, effects of alcohols on, in human embryonic kidney cells, 157
Detrusor muscle, ADPβS contraction of, in human, 193
Dexamethasone, modulation of immediate and late airway response by, in guinea pig, 1236
Dexfenfluramine, neurotoxicity, 792
Dextrorphan, effects on motor coordination, 573
Dho, L., *see* Salvati, P., 238
S-(1,2-Dichlorovinyl)-L-cysteine, nephrotoxicity, 374
S-(1,2-Dichlorovinyl)-L-cysteine sulfoxide, nephrotoxicity, 374
Dieldrin, effects on $GABA_A$ receptor-channel, in rat, 164
10–11-Dihydro-5-methyl-5H-dibenzo[*a*,*d*]cyclohepten-5,10-imine hydrogen maleate, *see* MK-801
R-1-[2,3-Dihydro-1-(2′-methyl-phenacyl)-2-oxo-5-phenyl-1*H*-1,4-benzodiazepin-3-yl]-3-(3-methylphenyl)urea, pharmacological profile, 725
1,2-Dimethyl-3-hydroxypyrid-4-one, effects on alcoholic liver disease, in rats, 632
D'Incalci, M., *see* Colombo, T., 22
Dioxolane dicarboxylate phenethanolamines, *beta*-3 adrenoceptor selectivity of, 1000
Diphenyleneiodonium, pressor response to, effects of sympathectomy on, 463
Direct cortical stimulation model, of anticonvulsant effects, in rats, 521
Distal colon, epithelial function in, role of VIP in regulation of, in guinea pig, 1124
1,3-Di(2-tolyl)guanidine
  gastric fundic mucosa binding sites, porcine, 905
  sigma receptor-mediated effects on gastric ulcers, in rats, 799
Diuretics, vascular effects, in rat, 1094
Dizocilpine maleate, *see* MK-801
DOCA, *see* Deoxycorticosterone acetate
Dolan, J. A., Muenkel, H. A., Burns, M. G., Pellegrino, S. M., Fraser, C. M., Pietri, F., Strosberg, A. D., Largis, E. E., Dutia, M. D., Bloom, J. D., Bass, A. S., Tanikella, T. K., Cobuzzi, A., Lai, F. M. and Claus, T. H.: *Beta*-3 adrenoceptor selectivity of the dioxolane dicarboxylate phenethanolamines, 1000
Domergue, J., *see* Curi-Pedrosa, R., 384
Dopamine
  inhibition of calcium current by, in rat sympathetic neurons, 503
  neurotransmission, in novelty-induced motor activity, 976
  striatal *vs.* prefrontal release, 470
  transporter binding, effects of cocaine withdrawal on, in rats, 963
Dopamine receptors
  D_2, effects of cocaine withdrawal on, 743
  D_1, stimulation of striatal acetylcholine release by, mediation by neurokinin$_1$ receptors, in rat, 1144
Dopaminergic neurons, substantia nigra, electrophysiological effects of excitatory amino acid receptor subtypes on, in rat, 313
Dorsa, D. M., *see* Merchant, K. M., 806
Dorsal raphe neurons, calcium currents in, LSD effects on, 1160
Dorsal raphe nucleus, 5-HT_{1A} autoreceptors in, regulation of serotonin release by, 1268
Dorsal root ganglion neurons, effects of dieldrin on $GABA_A$ receptor-channel in, in rat, 164
Doxorubicin
  cardiotoxicity, vitamin A protection against, in rat, 430
  cyclosporin A interactions, in mice and rats, 22
Drapeau, G., *see* Marceau, F., 1136
Drug metabolites, class I, on rat cardiac myocytes, 477
Drug transport
  absorption enhancement, by palmitoylcarnitine, 813
  brain delivery, 344
  hepatic uptake, reduction by *alpha*-1-acid glycoprotein, 1176

recirculatory model, 609
transepithelial, lipophilicity effects on, 654
Drugs, *see specific drugs and drug types*
DTG, *see* 1,3-Di(2-tolyl)guanidine
Dubey, R. K.: Vasodilator-derived nitric oxide inhibits fetal calf serum- and angiotensin-II-induced growth of renal arteriolar smooth muscle cells, 402
Duchene-Marullaz, P., *see* Betoin, F., 7
Duescher, R. J., *see* Lash, L. H., 374
Duff, H., *see* Sheldon, R., 477
Duloxetine, neurochemical effects, in rats and mice, 132
Dutia, M. D., *see* Dolan, J. A., 1000
Dutt, A., Heath, L. A. and Nelson, J. A.: P-Glycoprotein and organic cation secretion by the mammalian kidney, 1254
Dynorphin A-(1–13), effects on DAMGO-induced impairment of alternation performance, in mice, 15
Dynorphin A, spinal cord injury induced by, in rat, 358
Dzwonczyk, S., *see* Grover, G. J., 536

Eager, S., *see* Sato, R., 1213
Ecclestone, P., *see* Chan, C.-C., 891
Eccrine clear cells
stimulation of Cl conductance by minoxidil sulfate in, 823
stimulation of K conductance by minoxidil in, 823
Efrati, S., *see* Barzago, M. M., 28
Egi, Y., Matsumura, Y., Murata, S., Umekawa, T., Hisaki, K., Takaoka, M. and Morimoto, S.: The effects of N^G-nitro-L-arginine, a nitric oxide synthase inhibitor, on norepinephrine overflow and antidiuresis induced by stimulation of renal nerves in anesthetized dogs, 529
Eicosanoids, biosynthesis of, effects of zymosan on, in mouse, 917
Eilam, Y., *see* Ela, C., 1300
Ela, C., Barg, J., Vogel, Z., Hasin, Y. and Eilam, Y.: *Sigma* receptor ligands modulate contractility, Ca^{++} influx and beating rate in cultured cardiac myocytes, 1300
Electroconvulsive therapy, long-term, effects on *alpha*-2 adrenoceptors modulating 5-HT neurotransmission, 1152
Elfarra, A. A., *see* Lash, L. H., 374
Ellenberger, E. A., *see* McDonald, C. E., 601
Ellinwood, E. H., Jr., *see* King, G. R., 743
Elliott, J. M., *see* Lynch, J. J., Jr., 541
Ellis, J. L. and Conanan, N.: L-Citrulline reverses the inhibition of nonadrenergic, noncholinergic relaxations produced by nitric oxide synthase inhibitors in guinea pig trachea and human bronchus, 1073
Embryonic kidney cells, effects of alcohols on $GABA_A$ receptor subunits in, in human, 157
Emmick, J. T., Kwon, S., Bidasee, K. R., Besch, K. T. and Besch, H. R., Jr.: Dual effect of suramin on calcium fluxes across sarcoplasmic reticulum vesicle membranes, 717
Enalapril
inhibition of cephradine uptake in intestinal brush-border membrane vesicles by, in rabbit, 1107
intestinal peptide carrier binding sites, 1107
Endoh, M., *see* Yang, H. T., 732
Endothelin-1, production of, effects of platelets on, 860
Endothelin converting enzyme, inhibition by phosphoramidon, 860
Endothelium-derived relaxing factor, release from endothelial cells, in nephrosis, 589
Endou, M., Poli, E. and Levi, R.: Histamine H_3-receptor signaling in the heart: Possible involvement of G_i/G_o proteins and N-type Ca^{++} channels, 221
Endresen, P. C., Prytz, P. S., Lysne, S. and Aarbakke, J.: Homocysteine increases the relative number of apoptotic cells and reduces the relative number of apoptotic bodies in HL-60 cells treated with 3-deazaadenosine, 1245
Engber, T. M., *see* Anderson, J. J., 1144
Epithelial cells, intestinal, lipophilicity effects on drug transport across, 654
Epithelial tissue, intestinal, role of VIP in regulation of, in guinea pig, 1124
Erdmann, E., *see* Schwinger, R.H.G., 778
Ergonovine, contractile effects in DOCA-salt hypertensive mesenteric artery, in rat, 617
Eschalier, A., *see* Betoin, F., 7
Ethanol, *see also* Alcohol
chronic, effects on liver, effects of iron chelators on, in rats, 632
effects on cytochrome P450s, in rat livers, 838
effects on $GABA_A$ receptor subunits, in human embryonic kidney cells, 157
first-pass metabolism of, 297
hypothermic effects, tolerance to, quantitative trait loci mapping of genes that influence, in BXD recombinant inbred mice, 184
Ethosuximide, pharmacodynamics of, in rats, 521
Etorphine, antinociceptive effects, latency to vocalization index, in mouse, 1021
Eugene, D., *see* Fau, D., 954
Excitatory amino acids
mediation of dynorphin A-induced spinal cord injury by, in rat, 358
neurotransmission, in novelty-induced motor activity, 976
receptor subtype effects on substantia nigra neurons, in rat, 313
Exocrine gland, muscarinic receptors in, kinetic analysis of, in rat, 1205

Facello, J. A., *see* Stevens, C. W., 1086
Fang, S.-N., *see* Williams, C. L., 750
Fau, D., Eugene, D., Berson, A., Letteron, P., Fromenty, B., Fisch, C. and Pessayre, D.: Toxicity of the antiandrogen flutamide in isolated rat hepatocytes, 954
Fentanyl
analgesic effects, acetic acid test, in amphibians, 1021
antinociceptive effects, latency to vocalization index, in mouse, 1021
Fenton, R. L., *see* Perkins, W. E., 151
Fetus
fluoxetine effects on brain $5\text{-}HT_{2A/2C}$ receptor, in male rats, 637
human microsomal epoxide hydrolase expression in, 417
Fisch, C., *see* Fau, D., 954
Fisher, C., *see* McCann, U., 792
Fix, J. A., *see* Hochman, J. H., 813
FK 506, *see* Tacrolimus
Flecainide
electrophysiologic effects, in canine Purkinje fibers, 336
K^+ channel blocking actions, in adult rat ventricular myocytes, 66
Fleisher, D., *see* Yuasa, H., 1107
(+)-Flesinoxan, α_1-antagonist effects, in spontaneous tail-flicks in rats, 121
Flesinoxan, renal functional responses, 215
Floris, S., *see* Serra, M., 32
Fluorescein, transport in proximal tubular cells, in rat, 1261
α-(4-Fluorophenyl)-4-(5-fluoro-2-pyrimidinyl)-1-piperazine butanol hydrochloride, *see* (±)-BMY 14802
Fluoroquinolones, intestinal secretion of, 496
5-Fluorouracil, mechanism of action, in human cells, 39
Fluoxetine, prenatal exposure to, effects on brain $5\text{-}HT_{2A/2C}$ receptor, in male rats, 637
Flupirtine, antinociceptive effects, latency to vocalization index, in mouse, 1021
5-FLUra, *see* 5-Fluorouracil
Flutamide, hepatotoxicity, in rat, 954
Folates, toxicity in cerebellar neurons, 393
Forster, D., *see* Perkins, W. E., 151
Foultier, M.-T., *see* Perret, C., 787
Fournier, A., *see* Van Rossum, D., 846
Fourtanier, G., *see* Curi-Pedrosa, R., 384
Fox, A. P., *see* Penington, N. J., 1160
France, C. P., *see* Carr, D.J.J., 693
Fraser, C. M., *see* Dolan, J. A., 1000
Freeman, A. S., *see* Zhang, J., 313
Fritzsch, G., *see* Ullrich, K. J., 684
Fromenty, B., *see* Fau, D., 954
Fuller, R. W., Hemrick-Luecke, S. K. and Snoddy, H. D.: Effects of duloxetine, an antidepressant drug candidate, on concentrations of monoamines and their metabolites in rats and mice, 132
Furosemide
polysubstrate interaction with renal PAH, sulfate, and NMeN transport, 684
vascular effects, in rat, 1094

G_i proteins, brain density, in human, 1062
G_i/G_o proteins, effects on heart H_3-receptors, 221
GABA, *see* γ-Aminobutyric acid
Gagnon, M. J., *see* Hodges, B. L., 596
Gagnon, M. J., *see* McDonald, C. E., 601
Garaulet, J. V., Laorden, M. L. and Milanés, M. V.: Cross-tolerance between *mu*- and *kappa*-opioid agonists in the guinea pig ileum myenteric plexus, 993
García-Sevilla, J. A., *see* Sastre, M., 1062
Gasiecki, A. F., *see* Perkins, W. E., 151
Gastric mucosa
N-allylnormetazocine and 1,3-di(2-tolyl)guanidine binding sites in, characterization of, porcine, 905
sigma receptor-mediated effects of KB-5492 in, in rats, 799
Gastrin/cholecystokinin-B receptor, novel antagonist, 725
Gaviraghi, G., *see* Giacometti, A., 424
Gaviraghi, G., *see* Palea, S., 193

Gehret, J. R., *see* Lynch, J. J., Jr., 541
Geiger, J. D., *see* Chen, Q.-M., 709
Gekker, G., *see* Chao, C. C., 198
Genes, that influence ethanol hypothermic tolerance, quantitative trait loci mapping of, in BXD recombinant inbred mice, 184
Gerak, L. R., *see* Carr, D.J.J., 693
Gervot, L., *see* Curi-Pedrosa, R., 384
Ghanayem, B. I., Sanchez, I. M. and Burka, L. T.: Investigation of methacrylonitrile metabolism and the metabolic basis for the differences in its toxicity in rats and mice, 581
Ghiani, C. A., *see* Serra, M., 32
Giacometti, A., Micheli, D., Gaviraghi, G. and Trist, D. G.: Quantification of the calcium antagonism of lacidipine by kinetic analysis, 424
Giacomini, K. M., *see* Ott, R. J., 204
Gillespie, T. R., *see* Hodges, B. L., 596
Giusti, P., *see* Serra, M., 32
Glavin, G. B., *see* Chen, Q.-M., 709
Glioma cells, C_6, signal transduction pathways to nucleotide receptor and P_{2Y} receptor in, 926
Glowinski, J., *see* Tence, M., 646
Glutamate
  effects on substantia nigra neurons, in rat, 313
  inhibition by BW619C89, in rat, 854
P-Glycoprotein, role in renal secretion of organic cations, in mammals, 1254
Gobert, A., *see* Millan, M. J., 121
Gori, E., *see* Pacifici, R., 1112
Graham, S. H., Chen, J., Lan, J., Leach, M. J. and Simon, R.: Neuroprotective effects of a use-dependent blocker of voltage-dependent sodium channels, BW619C89, in rat middle cerebral artery occlusion, 854
Greenwood, B., *see* Shannon, H. E., 271
Greven, J., *see* Hohage, H., 659
Grid-shock analgesia test, in mouse, 1021
Griffiths, N. M., Hirst, B. H. and Simmons, N. L.: Active intestinal secretion of the fluoroquinolone antibacterials ciprofloxacin, norfloxacin and pefloxacin; A common secretory pathway?, 496
Gross, G. J., *see* Pieper, G. A., 451
Grossie, J., *see* Aguayo, L. G., 503
Grover, G. J., D'Alonzo, A. J., Sleph, P. G., Dzwonczyk, S., Hess, T. A. and Darbenzio, R. B.: The cardioprotective and electrophysiological effects of cromakalim are attenuated by meclofenamate through a cyclooxygenase-independent mechanism, 536
Growth hormone, effects on membrane electrical properties of skeletal muscle, in rats, 948
GTP, *see* Guanosine 5′-triphosphate
Gu, J. G., *see* Chen, Q.-M., 709
Guan, X., *see* Shirley, M. A., 1166
Guanosine 5′-triphosphate-binding protein, dopamine activation of, in rat sympathetic neurons, 503
Guillonneau, C., *see* Breugnot, C., 515
Guirimand, F., Strimbu-Gozariu, M., Willer, J.-C. and Le Bars, D.: Effects of *mu*, *delta* and *kappa* opioid antagonists on the depression of a C-fiber reflex by intrathecal morphine and DAGO in the rat, 1007
H_7, *see* 1-(5-Isoquinoline-sulfonyl)-2-methyl piperazine
hAAG, *see* Human *alpha*-1-acid glycoprotein
Hall, J. M., *see* Chin, S. Y., 989
Hallucinogenesis, LSD, role of 5-HT_{1A} receptors in, 1160
Haloperidol
  acute, effects on neurotensin/c-*fos* mRNA, in rat, 806
  effects on neurotensin metabolism, in rat brain, 535
Halstead, G. W., *see* Shirley, M. A., 1166
Hamilton, B. J., *see* Marszalec, W., 157
Han, J. S., *see* Xu, W., 1182
Hanson, G. R., *see* Merchant, K. M., 806
Hara, H., *see* Harada, Y., 905
Hara, H., Tanaka, K., Harada, Y. and Sukamoto, T.: Sigma receptor-mediated effects of a new antiulcer agent, KB-5492, on experimental gastric mucosal lesions and gastric alkaline secretion in rats, 799
Hara, S., *see* Hodges, B. L., 596
Harada, Y., *see* Hara, H., 799
Harada, Y., Hara, H. and Sukamoto, T.: Characterization of specific (+)-[^{3}H] N-allylnormetazocine and [^{3}H]1,3-di(2-tolyl)guanidine binding sites in porcine gastric fundic mucosa, 905
Hasegawa, T., *see* Maurice, T., 665
Hashimoto, A., *see* Tanii, Y., 1040
Hashimoto, S., Kawai, Y. and Ohhashi, T.: Effects of vasoactive substances on the pig isolated hepatic lymph vessels, 482
Hasin, Y., *see* Ela, C., 1300
Hatzidimitriou, G., *see* McCann, U., 792
hCGRP, *see* Human calcitonin gene-related peptide
Heart, *see also under* Cardiac
  beta receptor agonist binding in, in canine, 351
  H_3-receptor signaling in, effects of PTX and ω-CTX on, 221
  protein phosphorylation in, effects of adenosine and muscarinic receptor agonists on, 1310
Heath, L. A., *see* Dutt, A., 1254
Heinrichs, S. C., *see* Menzaghi, F., 564
Hematoporphyrin derivative, photodynamic therapy with, malondialdehyde assay for, 787
Hemrick-Luecke, S. K., *see* Fuller, R. W., 132
Henthorn, T. K., *see* Krejcie, T. C., 609
Hepatic injury, alcoholic, prevention by cimetidine, in rat, 832
Hepatic lymph vessels, responses to vasoactive substances, in pig, 482
Hepatocytes
  benzimidazole induction of P450s in, in human, 384
  drug uptake in, reduction by *alpha*-1-acid glycoprotein, 1176
  flutamide toxicity, in rat, 954
  histamine H_2 receptor antagonist transport into, in rat, 1220
  TNF-α binding to, in mouse, 367
Herbert, J. M., *see* Savi, P., 772
Herbet, A., *see* Betoin, F., 7
Hermsmeyer, K., *see* Mishra, S. K., 178
Herzer, W. A., *see* Kost, C. K., Jr., 82
Hess, T. A., *see* Grover, G. J., 536
3(3-Hexyloxy-1,2,5-thiadiazol-4-yl)-1,2,5,6-tetrahydro-1-methylpyridine, *see* Xanomeline
Hippocampus, serotonin release in, regulation by 5-HT_{1A} autoreceptors, 1268
Hiramatsu, M., *see* Maurice, T., 665
Hiramatsu, Y., Kawai, R., Reba, R. C., Blasberg, R. G. and Baum, B. J.: Kinetic analysis of rat exocrine gland muscarinic receptors *in vivo*, 1205
Hirozane, K., *see* Takano, M., 970
Hirst, B. H., *see* Griffiths, N. M., 496
Hisaki, K., *see* Egi, Y., 529
Hisatome, I., *see* Sato, R., 1213
Histamine receptors
  H_2, antagonist transport into rat hepatocytes, 1220
  H_3, heart, effects of PTX and ω-CTX on, 221
HL-60 cells, homocysteine effects on 3-deazaadenosine apoptosis in, 1245
Hochman, J. H., Fix, J. A. and LeCluyse, E. L.: *In vitro* and *in vivo* analysis of the mechanism of absorption enhancement by palmitoylcarnitine, 813
Hodges, B. L., *see* McDonald, C. E., 601
Hodges, B. L., Gagnon, M. J., Gillespie, T. R., Breneisen, J. R., O'Leary, D. F., Hara, S. and Quock, R. M.: Antagonism of nitrous oxide antinociception in the rat hot plate test by site-specific *mu* and *epsilon* opioid receptor blockade, 596
HOE-140, bradykinin B_2 receptor antagonist effects of, 1136
Hoffmann, I. S., *see* Agneter, E., 470
Hohage, H., Löhr, M., Querl, U. and Greven, J.: The renal basolateral transport system for organic anions: Properties of the regulation mechanism, 659
Homocysteine, effects on 3-deazaadenosine apoptosis, in HL-60 cells, 1245
Honda, K., *see* Nishida, A., 725
Hoogerkamp, A., Vis, P. W., Danhof, M. and Voskuyl, R. A.: Characterization of the pharmacodynamics of several antiepileptic drugs in a direct cortical stimulation model of anticonvulsant effect in the rat, 521
Hooks, M. S. and Kalivas, P. W.: Involvement of dopamine and excitatory amino acid transmission in novelty-induced motor activity, 976
Hori, R., *see* Takano, M., 970
Howard, R. L., *see* Menzaghi, F., 564
Hruby, V. J., *see* Williams, C. L., 750
5-HT, *see* Serotonin
Hu, S., *see* Chao, C. C., 198
Hu, Y., Mishin, V., Johansson, I., von Bahr, C., Cross, A., Ronis, M.J.J., Badger, T. M. and Ingelman-Sundberg, M.: Chlormethiazole as an efficient inhibitor of cytochrome P-450 2E1 expression in rat liver, 1286
Huff, R. A., Corcoran, J. J., Anderson, J. K. and Abou-Donia, M. B.: Chlorpyrifos oxon binds directly to muscarinic receptors and inhibits cAMP accumulation in rat striatum, 329
Hui, A. C., *see* Ott, R. J., 204
Hull, K. M., Tolland, D. E. and Maher, T. J.: L-Tyrosine potentiation of opioid-induced analgesia utilizing the hot-plate test, 1190
Human *alpha*-1-acid glycoprotein, reduction of hepatocyte drug uptake by, 1176

[^{125}I-Tyr]Human calcitonin gene-related peptide$_{8-37}$, binding profile of, in rat brain, 846
Human immunodeficiency virus-1 expression, effects of morphine on, 198
Human leukemia HL-60 cells, homocysteine effects on 3-deazaadenosine apoptosis in, 1245
Hydrochlorothiazide
  polysubstrate interaction with renal PAH, sulfate, and NMeN transport, 684
  vascular effects, in rat, 1094
Hydrogen ion, secretion of, effects of NSAIDs on, mediation by protein kinase C, 932
(+)-8-Hydroxy-2-(di-N-propylamino)tetralin hydrobromide, *see* 8-OH-DPAT
5-Hydroxyindoleacetic acid, effects of duloxetine on, in rats and mice, 132
5-Hydroxytryptamine, *see* Serotonin
Hyperactivity, PCP-induced, effects of alanine and serine enantiomers on, in rat, 1040
Hypertension
  DOCA-salt, ergonovine-induced contraction in mesenteric artery in, in rat, 617
  spontaneous, vascular reactivity to angiotensin II in, in rat kidneys, 82
Hypertrophy, cardiac, minoxidil-induced, 290
Hypotension, ocular, moxonidine-induced, 897
Hypothermia, ethanol-induced, tolerance to, quantitative trait loci mapping of genes that influence, in BXD recombinant inbred mice, 184

IAR, *see* Immediate asthmatic response
Ibuprofen, taurine conjugation in humans and in rat liver *in vitro*, 1166
ICI-204,219, inhibition of LTD_4-induced cytosolic calcium increase in THP-1 cells by, 891
Idazoxan, long-term, effects on *alpha*-2 adrenoceptors modulating 5-HT neurotransmission, 1152
Ileal ion transport, regulation by nitric oxide, in mouse, 626
Ileum myenteric plexus, cross-tolerance between *mu*- and *kappa*-opioid agonists in, in guinea pig, 993
Iliac vasodilation, stress-induced, in rats, 305
Imagawa, J.-I., Kamei, K., Yoshida, S., Sugo, I., Koga, T. and Nabata, H.: *In vivo* bronchodilator action of a novel K^+ channel opener, KC 399, in the guinea pig, 1
Imidazenil, effects on $GABA_A$ receptor function, 32
Imidazoline receptors, mediation of ocular effects of moxonidine by, 897
Immediate airway response, *see* Immediate asthmatic response
Immediate asthmatic response, pharmacological modulation of, in guinea pig, 1236
Immunomodulation, acute methadone and morphine, in mice, 1112
Immunosuppression, morphine, naltrexone antagonism of, in mice, 693
Indapamide, vascular effects, in rat, 1094
Inflammation, peritoneal, zymosan-induced, in mouse, 917
Inflammatory cells, lung infiltration, pharmacological modulation of, in guinea pig, 1236
Ingelman-Sundberg, M., *see* Hu, Y., 1286
Inoue, S., *see* Ohnota, H., 489
Insecticides, binding to muscarinic receptors, in rat, 329
Intestines
  brush-border membrane vesicles, cephradine uptake in, inhibition by enalapril, in rabbit, 1107
  epithelial cells, drug transport across, lipophilicity effects on, 654
  epithelial secretion, role of VIP in regulation of, in guinea pig, 1124
  ion transport across, regulation by nitric oxide, in mouse, 626
  ischemia-reperfusion injury, A-64077 effects in, 75
  peptide carrier, enalapril inhibitory binding site on, 1107
  transepithelial secretion, of fluoroquinolones, 496
Intraocular pressure, effects of moxonidine on, 897
Ion transport, ileal, regulation by nitric oxide, in mouse, 626
4-Ipomeanol, cytotoxicity in immature Clara cells of neonatal rabbits, 867
Iris-ciliary body, moxonidine effects in, 897
Iron chelators, effects on alcoholic liver disease, in rats, 632
Isakson, P. C., *see* Rao, T. S., 917
Ischemia-reperfusion injury, intestinal, A-64077 effects in, 75
Ischemic spinal cord injury, dynorphin A-induced, in rat, 358
ISIS 2105, pharmacokinetics, in rats, 89
Isopentanol, effects on cytochrome P450s, in rat livers, 838
8-Isoprostane, plasma levels, correlation with severity of liver injury, 1280
1-(5-Isoquinoline-sulfonyl)-2-methyl piperazine, effects on H^+ secretion, 932
Ito, H., *see* Nishida, A., 725
Ito, M., Naruse, A., Yamamoto, I., Oguri, M., Suzuki, Y., Satake, N. and Shibata, S.: Nephrosis augments contractile response to adrenoceptor agonists by the decrease in release of endothelium-derived relaxing factor from the endothelial cells, 589
Itoh, J., Ukai, M. and Kameyama, T.: Dynorphin A-(1–13) potently improves the impairment of spontaneous alternation performance induced by the μ-selective opioid receptor agonist DAMGO in mice, 15
Iwamoto, E. T. and Marion, L.: Pharmacological evidence that nitric oxide mediates the antinociception produced by muscarinic agonists in the rostral ventral medulla of rats, 699

Jackson, E. K., *see* Kost, C. K., Jr., 82
Jia, H., *see* Sato, R., 1213
Johansson, I., *see* Hu, Y., 1286
Johns, E. J., *see* Chamienia, A. L., 215
Johnson, M. G., *see* Bombardt, P. A., 145
Jones, L. R., *see* Neumann, J., 1310
Jones, P. H., *see* Perkins, W. E., 151
Jordan, B., *see* Sistare, F. D., 1049
Joyeux, H., *see* Curi-Pedrosa, R., 384
Joyner, C. M., *see* King, G. R., 743
Junien, J. L., *see* Rao, R. K., 626
Jurkiewicz, N. K., *see* Lynch, J. J., Jr., 541
Jusko, W. J., *see* Piekoszewski, W., 103

KAD-1229, hypoglycemic effects, 489
Kainate, effects on substantia nigra neurons, in rat, 313
Kaiser, D. G., *see* Shirley, M. A., 1166
Kalivas, P. W., *see* Hooks, M. S., 976
Kalivas, P. W., *see* Klitenick, M. A., 437
Kamato, T., *see* Nishida, A., 725
Kamei, K., *see* Imagawa, J.-I., 1
Kameyama, T., *see* Itoh, J., 15
Kameyama, T., *see* Maurice, T., 665
Kang, Y.-S. and Pardridge, W. M.: Use of neutral avidin improves pharmacokinetics and brain delivery of biotin bound to an avidin-monoclonal antibody conjugate, 344
Karpinski, E., *see* Ren, J., 209
Katuyama, Y., *see* Nishida, A., 725
Katz, J., *see* McCann, U., 792
Kawai, R., *see* Hiramatsu, Y., 1205
Kawai, Y., *see* Hashimoto, S., 482
KB-5492, sigma receptor-mediated effects on gastric ulcers, in rats, 799
KC 399, *in vivo* bronchodilator effects, in guinea pig, 1
Kelly, G., *see* Salzman, S. K., 322
Kemeny, J. L., *see* Betoin, F., 7
Ketamine, effects on motor coordination, 573
Khairallah, P. A., *see* Moravec, C. S., 290
Khwaja, S., *see* Nanji, A. A., 832, 1280
Kidney, *see also under* Renal
  arteriolar smooth muscle cells, effects of NO on, 402
  bradykinin effects on, potentiation of, in dogs, 263
  $CGRP_1$ receptors in, in rat, 989
  embryonic cells, effects of alcohols on $GABA_A$ receptor subunits in, in human, 157
  flesinoxan effects on, 215
  fluorescein transport in, in proximal tubular cells, in rat, 1261
  nephrosis, contractile effects of adrenoceptor agonists in, 589
  OK cells, apical and basolateral membranes, *p*-aminohippurate transport in, 970
  organic anion transport in
    polysubstrate interaction with, 684
    regulation of, 659
  organic cation transport in
    effect of phenylisothiocyanate on, in opossum, 204
    polysubstrate interaction with, 684
    role of P-glycoprotein in, in mammals, 1254
  proximal tubular cells, organic anion transport in, in rat, 1261
  vascular reactivity to angiotensin II in, in spontaneously hypertensive rats, 82
King, G. R., Ellinwood, E. H., Jr., Silvia, C., Joyner, C. M., Xue, Z., Caron, M. G. and Lee, T. H.: Withdrawal from continuous or intermittent cocaine I.: Changes in D_2 receptor function, 743
Klitenick, M. A. and Kalivas, P. W.: Behavioral and neurochemical studies of opioid effects in the pedunculopontine nucleus and mediodorsal thalamus, 437
Klopp, A. J., *see* Stevens, C. W., 1086
Knie, B., *see* Derewlany, L. O., 756, 761

Knuepfer, M. M., *see* Branch, C. A., 674
Kobayashi, A., *see* Nishida, A., 725
Kobayashi, M., *see* Ohnota, H., 489
Koch, A., *see* Schwinger, R.H.G., 778
Koga, T., *see* Imagawa, J.-I., 1
Koizumi, T., *see* Ohnota, H., 489
Konkoy, C. S., Waters, S. M. and Davis, T. P.: Acute administration of neuroleptics decreases neurotensin metabolism on intact, regional rat brain slices, 535
Koob, G. F., *see* Menzaghi, F., 564
Koop, D. R., *see* Daikh, B. E., 1130
Koren, G., *see* Derewlany, L. O., 756, 761
Kost, C. K., Jr., Herzer, W. A., Li, P. and Jackson, E. K.: Vascular reactivity to angiotensin II is selectively enhanced in the kidneys of spontaneously hypertensive rats, 82
Kosten, T. A., Miserendino, M. J. D., Chi, S. and Nestler, E. J.: Fischer and Lewis rat strains show differential cocaine effects in conditioned place preference and behavioral sensitization but not in locomotor activity or conditional taste aversion, 137
Kostrubsky, V., *see* Louis, C. A., 838
Kothstein, T., *see* Lynch, J. J., Jr., 541
Koumi, S.-I., *see* Sato, R., 1213
Kowalski, D. L., *see* Perkins, W. E., 151
Kreiss, D. S. and Lucki, I.: Differential regulation of serotonin (5-HT) release in the striatum and hippocampus by 5-HT_{1A} autoreceptors of the dorsal and median raphe nuclei, 1268
Krejcie, T. C., Henthorn, T. K., Shanks, C. A. and Avram, M. J.: Circulatory mixing, tissue distribution and elimination of antipyrine in dogs, 609
Kuhar, M. J., *see* Pilotte, N. S., 963
Kuhawara, A., *see* Reddix, R., 1124
Kuo, S., *see* Anderson, J. J., 1144
Kurata, Y., *see* Marszalec, W., 157
Kwon, S., *see* Emmick, J. T., 717

L-702,958, cardiac electrophysiologic and antiarrhythmic effects of, 541
L-706,000, cardiac electrophysiologic and antiarrhythmic effects of, 541
L-687,414, effects on motor coordination, 573
LaBella, F. S., *see* Chen, Q.-M., 709
Lacidipine, kinetic analysis of, 424
Lacrimal gland, muscarinic receptors in, kinetic analysis of, in rat, 1205
Laethem, R. M., *see* Daikh, B. E., 1130
Lai, F. M., *see* Dolan, J. A., 1000
Lan, J., *see* Graham, S. H., 854
Lansoprazole, induction of *CYP*1A and *CYP*3A by, in human hepatocytes, 384
Laorden, M. L., *see* Garaulet, J. V., 993
Laplace, M.-Cl., *see* Savi, P., 772
LAR, *see* Late asthmatic response
Largis, E. E., *see* Dolan, J. A., 1000
Lash, L. H., Sausen, P. J., Duescher, R. J., Cooley, A. J. and Elfarra, A. A.: Roles of cysteine conjugate β-lyase and *S*-oxidase in nephrotoxicity: Studies with *S*-(1,2-dichlorovinyl)-L-cysteine and *S*-(1,2-dichlorovinyl)-L-cysteine sulfoxide, 374
Late asthmatic response, pharmacological modulation of, in guinea pig, 1236
Lavarenne, J., *see* Betoin, F., 7
Layer, R. T., *see* Paul, I. A., 95
Le Bars, D., *see* Guirimand, F., 1007
Leach, M. J., *see* Graham, S. H., 854
LeCluyse, E. L., *see* Hochman, J. H., 813
Lee, C., *see* Batsche, K., 1029
Lee, T. H., *see* King, G. R., 743
Left atrium, A_1 adenosine receptors in, in guinea pig, 1228
Legrain, S., *see* Wils, P., 654
Lehoux, S., Sirois, M. G., Sirois, P. and Plante, G. E.: Acute and chronic diuretic treatment selectively affects vascular permeability in the unanesthetized normal rat, 1094
Lenaers, A., *see* Breugnot, C., 515
Lesca, P., *see* Curi-Pedrosa, R., 384
Letteron, P., *see* Fau, D., 954
Leukocytes
  effects of nitric oxide on, 451
  lung infiltration, pharmacological modulation of, in guinea pig, 1236
Leukotriene D_4, effects on cytosolic calcium in THP-1 cells, 891
Leukotrienes, synthesis of, effects of ischemia on, 75
Levesque, L., *see* Marceau, F., 1136
Levi, R., *see* Endou, M., 221
Levine, R. A., *see* Nandi, J., 932
Levitt, D. G., *see* Levitt, M. D., 297
Levitt, M. D. and Levitt, D. G.: The critical role of the rate of ethanol absorption in the interpretation of studies purporting to demonstrate gastric metabolism of ethanol, 297
Levorphanol, analgesic potency, by acetic acid test, in amphibians, 1021
Lewis, J. W., *see* Zernig, G., 57
Li, P., *see* Kost, C. K., Jr., 82
Lin, W.-W. and Chuang, D.-M.: Different signal transduction pathways are coupled to the nucleotide receptor and the P_{2Y} receptor in C_6 glioma cells, 926
Lipid peroxidation
  correlation with severity of liver injury, 1280
  effects of iron chelators on, in chronically ethanol-fed rats, 632
  inhibition by cimetidine, in rat, 832
Lipophilicity, effects on drug transport across intestinal epithelial cells, 654
Lipoprotein, *see* Low-density lipoprotein
Liver, *see also under* Hepatic
  CYP2E1 expression in, inhibition by chlormethiazole, in rat, 1286
  ethanol metabolism by, 297
  taurine conjugation of ibuprofen in, in rat, 1166
Liver disease, alcoholic
  effects of iron chelators on, in rats, 632
  prevention by cimetidine, in rat, 832
  severity of liver injury in, correlation with 8-isoprostane plasma levels, 1280
Livrea, M. A., *see* Tesoriere, L., 430
Locomotor activity, cocaine effects on, in Fischer and Lewis rats, 137
Löhr, M., *see* Hohage, H., 659
Long, J. B., Rigamonti, D. D., Oleshansky, M. A., Wingfield, C. P. and Martinez-Arizala, A.: Dynorphin A-induced rat spinal cord injury: Evidence for excitatory amino acid involvement in a pharmacological model of ischemic spinal cord injury, 358
Loop diuretics, polysubstrate interaction with renal PAH, sulfate, and NMeN transport, 684
Louis, C. A., Wood, S. G., Kostrubsky, V., Sinclair, P. R. and Sinclair, J. F.: Synergistic increases in rat hepatic cytochrome P450s by ethanol and isopentanol, 838
Low-density lipoprotein, oxidative modification of, inhibition by S 12340, in WHHL rabbits, 515
LSD
  effects on calcium currents in dorsal raphe neurons, 1160
  hallucinogenic effects, role of 5-HT_{1A} receptors in, 1160
LTD_4, *see* Leukotriene D_4
Lucchini, G., *see* Barzago, M. M., 28
Lucki, I., *see* Kreiss, D. S., 1268
Lungs
  aminopeptidase P in, in rat, 941
  4-ipomeanol cytotoxicity, in neonatal rabbits, 867
  leukocyte infiltration, pharmacological modulation of, in guinea pig, 1236
  naphthalene toxicity, 881
Luteinizing hormone, secretion of, effects of nitric oxide on, in rat, 230
LY246708/NNC11-0232, *see* Xanomeline
LY165163, α_1-antagonist effects, in spontaneous tail-flicks in rats, 121
Lymph vessels, hepatic, responses to vasoactive substances, in pig, 482
Lynch, J. J., Jr., Wallace, A. A., Stupienski, R. F. III, Baskin, E. P., Beare, C. M., Appleby, S. D., Salata, J. J., Jurkiewicz, N. K., Sanguinetti, M. C., Stein, R. B., Gehret, J. R., Kothstein, T., Claremon, D. A., Elliott, J. M., Butcher, J. W., Remy, D. C. and Baldwin, J. J.: Cardiac electrophysiologic and antiarrhythmic actions of two long-acting spirobenzopyran piperidine class III agents, L-702,958 and L-706,000 [MK-499], 541
D-Lysergic acid diethylamide, *see* LSD
Lysne, S., *see* Endresen, P. C., 1245

Maffrand, J. P., *see* Savi, P., 772
Maher, T. J., *see* Hull, K. M., 1190
Malawista, S. E., *see* Smallwood, J. I., 1196
Malfatto, G., *see* Zaza, A., 336
Malondialdehyde, dosimetry in HPD-PDT treated tissues, 787
m-AMPH, *see* Methamphetamine
MAN, *see* Methacrylonitrile
Mangino, M. J., Murphy, M. K. and Anderson, C. B.: Effects of the arachidonate 5-lipoxygenase synthesis inhibitor A-64077 in intestinal ischemia-reperfusion injury, 75
Marceau, F., Levesque, L., Drapeau, G., Rioux, F., Salvino, J. M., Wolfe, H. R., Seoane, P. R. and Sawutz, D. G.: Effects of peptide and nonpeptide antagonists of bradykinin B_2 receptors on the venoconstrictor action of bradykinin, 1136
Maresi, E., *see* Tesoriere, L., 430
Marini, A. M., *see* Weller, M., 393
Marion, L., *see* Iwamoto, E. T., 699
Markham, P. M., *see* Cossum, P. A., 89
Marshall, J. F., *see* O'Dell, S. J., 1319
Marszalec, W., Kurata, Y., Hamilton, B. J., Carter, D. B. and Narahashi, T.: Selective effects of alcohols on γ-aminobutyric acid A receptor subunits

expressed in human embryonic kidney cells, 157
Martin, B., *see* Weller, M., 393
Martin, P. L. and May, J. M.: Identification and functional characterization of A_1 and A_2 adenosine receptors in the rat vas deferens: A comparison with A_1 receptors in guinea pig left atrium and A_2 receptors in guinea pig aorta, 1228
Martinez-Arizala, A., *see* Long, J. B., 358
Masereeuw, R., van den Bergh, E. J., Bindels, R. J. M. and Russel, F. G. M.: Characterization of fluorescein transport in isolated proximal tubular cells of the rat: Evidence for mitochondrial accumulation, 1261
Matsumoto, T., Ashida, Y. and Tsukuda, R.: Pharmacological modulation of immediate and late airway response and leukocyte infiltration in the guinea pig, 1236
Matsumura, Y., *see* Egi, Y., 529
Matsumura, Y., *see* Umekawa, T., 860
Maurel, P., *see* Curi-Pedrosa, R., 384
Maurice, T., Hiramatsu, M., Kameyama, T., Hasegawa, T. and Nabeshima, T.: Cholecystokinin-related peptides, after systemic or central administration, prevent carbon monoxide-induced amnesia in mice, 665
4-MAX, *see* 4-Methylaminorex
May, J. M., *see* Martin, P. L., 1228
McCann, U., Hatzidimitriou, G., Ridenour, A., Fisher, C., Yuan, J., Katz, J. and Ricaurte, G.: Dexfenfluramine and serotonin neurotoxicity: Further preclinical evidence that clinical caution is indicated, 792
McDonald, C. E., Gagnon, M. J., Ellenberger, E. A., Hodges, B. L., Ream, J. K., Tousman, S. A. and Quock, R. M.: Inhibitors of nitric oxide synthesis antagonize nitrous oxide antinociception in mice and rats, 601
McGrath, M. P., *see* Perkins, W. E., 151
McKenzie, J. K., *see* Chen, Q.-M., 709
McPherson, R. J., *see* O'Dell, S. J., 1319
MDA, *see* Malondialdehyde
Mean arterial pressure, response to diphenyleneiodonium, effects of sympathectomy on, 463
Meclofenamate, K_{ATP} blockade by, 536
Median raphe nucleus, 5-HT_{1A} autoreceptors in, regulation of serotonin release by, 1268
Mediodorsal thalamus, opioid effects in, 437
Mefloquine, placental transfer, 28
Memory, effects of DAMGO and dynorphin A-(1–13) on, in mice, 15
Ménard, D. P., *see* Van Rossum, D., 846
Menzaghi, F., Howard, R. L., Heinrichs, S. C., Vale, W., Rivier, J. and Koob, G. F.: Characterization of a novel and potent corticotropin-releasing factor antagonist in rats, 564
Meperidine
  analgesic effects, acetic acid test, in amphibians, 1021
  antinociceptive effects, latency to vocalization index, in mouse, 1021
N-[2-(Mercaptomethyl)-1-oxo-3-phenylpropyl]-β-alanine, *see* SQ 28,603
Merchant, K. M., Hanson, G. R. and Dorsa, D. M.: Induction of neurotensin and c-*fos* mRNA in distinct subregions of rat neostriatum after acute methamphetamine: Comparison with acute haloperidol effects, 806
Mesenteric artery, DOCA-salt hypertensive, ergonovine-induced contraction in, in rat, 617
Mesoprefrontal cortex, dopamine release in, 470
Messenger RNA, neurotensin/c-*fos*, effects of acute methamphetamine on, in rat, 806
METH, *see* Methamphetamine
Methacrylonitrile, metabolism, in rats and mice, 581
Methadone
  acute, immunomodulatory effects, in mice, 1112
  analgesic effects, acetic acid test, in amphibians, 1021
  antinociceptive effects, latency to vocalization index, in mouse, 1021
Methamphetamine
  acute, effects on neurotensin/c-*fos* mRNA, in rat, 806
  neurotoxicity
    effects of (±)-BMY 14802 on, 44
    protective effects of quinolinic acid against, 1319
Methoxamine, cardiac effects, in rabbit, 732
4-Methoxyphenyl 4-(3,4,5-trimethoxybenzyl)-1-piperazine acetate monofumarate monohydrate, *see* KB-5492
4-Methylaminorex, stereoisomers of, behavioral effects in rat, 1029
N-Methyl-D-aspartate receptors
  antagonist effects on motor coordination, 573
  effects of antidepressants on, 95
  effects on substantia nigra neurons, in rat, 313
  mediation of dynorphin A-induced spinal cord injury by, in rat, 358
(+)-N-Methyl-3-(1-naphthalenyloxy)-2-thiophenepropanamine, *see* Duloxetine
N^1-Methylnicotinamide, renal transport, polysubstrate interaction with, 684
Methylprednisolone, interaction with tacrolimus, in rabbits, 103
[^{3}H]-2-Methylthio ADP, binding to rat platelets, 772
Metters, K. M., *see* Chan, C.-C., 891
Meyer, E. R., *see* Adams, M. L., 230
Mianserin
  long-term, effects on *alpha*-2 adrenoceptors modulating 5-HT neurotransmission, 1152
  neuroprotective effects, 322
Micheli, D., *see* Giacometti, A., 424
Microglia, release of TNF-α from, effect of morphine on, 198
Microsomal epoxide hydrolase, human, developmental expression of, 417
Middle cerebral artery occlusion, neuroprotective effects of BW619C8 in, in rat, 854
Milanés, M. V., *see* Garaulet, J. V., 993
Millan, M. J., *see* Bervoets, K., 110
Millan, M. J., Rivet, J.-M., Gobert, A., Canton, H., Veiga, S. and Bervoets, K.: 5-HT_{1A} receptors and the tail-flick response. VI. Intrinsic α_{1A}-adrenoceptor antagonist properties can mask the actions of 5-HT_{1A} receptor agonists in the spontaneous tail-flick paradigm, 121
Milovanovic, M., *see* Moravec, C. S., 290
Minoxidil
  cardiac hypertrophy induced by, structural and functional effects, 290
  stimulation of K conductance by, in eccrine clear cells, 823
Minoxidil sulfate, stimulation of Cl conductance by, in eccrine clear cells, 823
Miserendino, M.J.D., *see* Kosten, T. A., 137
Mishin, V., *see* Hu, Y., 1286
Mishra, S. K. and Hermsmeyer, K.: Resting state block and use independence of rat vascular muscle Ca^{++} channels by Ro 40-5967, 178
Misoprostol
  active isomer of, polymer delivery of, 151
  in combination with colchicine, effects on cAMP production, 1196
  effects on cAMP production, 1196
Mitch, C. H., *see* Bymaster, F. P., 282; Shannon, H. E., 271
Mitchell, S. R., *see* Crabbe, J. C., 184
Miyata, K., *see* Nishida, A., 725
MK-499, *see* L-706,000
MK-801
  effects on motor coordination, 573
  prevention of CO-induced amnesia by, in mice, 665
MK-0571, inhibition of LTD_4-induced cytosolic calcium increase in THP-1 cells by, 891
Molinoff, P. B., *see* Unsworth, C. D., 246
Mongeau, R., de Montigny, C. and Blier, P.: Effects of long-term *alpha*-2 adrenergic antagonists and electroconvulsive treatments on the *alpha*-2 adrenoceptors modulating serotonin neurotransmission, 1152
Monoamines, effects of duloxetine on, in rats and mice, 132
Monoclonal antibodies, anti-PCP, Fab fragments, effects on PCP pharmacokinetics, in rats, 1079
Montrucchio, G., *see* Alloatti, G., 766
Morano, I., *see* Schwinger, R.H.G., 778
Moravec, C. S., Ruhe, T., Cifani, J. R., Milovanovic, M. and Khairallah, P. A.: Structural and functional consequences of minoxidil-induced cardiac hypertrophy, 290
Morimoto, S., *see* Egi, Y., 529
Morimoto, S., *see* Umekawa, T., 860
Morin, D., *see* Cho, M., 881
Morphine
  acute, immunomodulatory effects, in mice, 1112
  analgesic effects
    acetic acid test, in amphibians, 1021
    measurement by cortical evoked potentials, in rats, 1100
    naltrexone antagonism of, in mice, 693
  antinociceptive effects, latency to vocalization index, in mouse, 1021
  effect on TNF-α release from microglia, 198
  immunosuppressive effects, naltrexone antagonism of, in mice, 693
  sedative effects, measurement by cortical evoked potentials, in rats, 1100
  spinal, antinociceptive effects, roles of *mu*, *delta* and *kappa* opioid receptors in, in rat, 1007
Morton, I. K. M., *see* Chin, S. Y., 989

Motor activity, novelty-induced, dopamine and excitatory amino acid neurotransmission in, 976
Motor coordination, NMDA antagonist effects on, 573
Motzo, C., *see* Serra, M., 32
Mouse grid-shock analgesia test, 1021
Moxonidine, ocular effects, 897
mRNA, *see* Messenger RNA
Muenkel, H. A., *see* Dolan, J. A., 1000
Muntz, K. H., *see* Cooke, L., 351
Murata, S., *see* Egi, Y., 529
Murata, S., *see* Umekawa, T., 860
Murphy, M. K., *see* Mangino, M. J., 75
Muscarinic receptors
  agonists
    antinociceptive effects, latency to vocalization index, in mouse, 1021
    antinociceptive effects, mediation by nitric oxide, in rats, 699
    effects on cardiac protein phosphorylation, 1310
  chlorpyrifos oxon binding to, in rat, 329
  exocrine gland, kinetic analysis of, in rat, 1205
  m1 agonists
    stimulation of arachidonic acid release from mouse striatal neurons by, 646
    xanomeline, 271, 282
Muscle, *see also* Smooth muscle
  cross-tolerance between *mu*- and *kappa*-opioid agonists in, in guinea pig, 993
  membrane electrical properties, effects of growth hormone on, in rats, 948
  vascular, calcium channel block by Ro 40-5967 in, 178
Myocardium
  2,3-butanedione monoxime effects in, in human, 778
  energy metabolism, effects of CoQ_{10} on, in rats, 51
  ventricular, effects of methoxamine in, in rabbit, 732
Myocytes
  cardiac
    beta receptor agonist binding in, in canine, 351
    class I drug metabolites on, in rat, 477
    sigma receptor mediation of contractility, calcium influx and beating rate in, 1300
  ventricular, K^+ channel blocking actions of antiarrhythmic agents in, in adult rat, 66

N18TG2 cells, 5-HT receptor in, in mice, 246
Nabata, H., *see* Imagawa, J.-I., 1
Nabeshima, T., *see* Maurice, T., 665
Nagai, J., *see* Takano, M., 970
Nagata, K. and Narahashi, T.: Dual action of the cyclodiene insecticide dieldrin on the γ-Aminobutyric acid receptor-chloride channel complex of rat dorsal root ganglion neurons, 164
Nakada-Kometani, Y., *see* Ozawa, M., 457
Nakamura, H., Sano, H., Yamazaki, M. and Sugiyama, Y.: Carrier-mediated active transport of histamine H_2 receptor antagonists, cimetidine and nizatidine, into isolated rat hepatocytes: Contribution of type I system, 1220
Nalorphine, analgesic potency, by acetic acid test, in amphibians, 1021
Naloxone, effects on C-fiber reflex depression by intrathecal morphine and DAGO, in rat, 1007
Naltrexone, antagonism of morphine analgesia and immunosuppression by, in mice, 693
Naltrindole, effects on C-fiber reflex depression by intrathecal morphine and DAGO, in rat, 1007
Nandi, J., Crockett, J. and Levine, R. A.: A possible role of protein kinase C in augmenting H^+ secretion by nonsteroidal anti-inflammatory drugs, 932
Nanji, A. A., *see* Sadrzadeh, S.M.H., 632
Nanji, A. A., Khwaja, S., Tahan, S. R. and Sadrzadeh, S.M.H.: Plasma levels of a novel noncyclooxygenase-derived prostanoid (8-isoprostane) correlate with severity of liver injury in experimental alcoholic liver disease, 1280
Nanji, A. A., Zhao, S., Khwaja, S., Sadrzadeh, S.M.H. and Waxman, D. J.: Cimetidine prevents alcoholic hepatic injury in the intragastric feeding rat model, 832
Naoyuki, T., *see* Ohnota, H., 489
Naphthalene, arylation of proteins by, 881
Narahashi, T., *see* Marszalec, W., 157
Narahashi, T., *see* Nagata, K., 164
Naruse, A., *see* Ito, M., 589
Nelson, J. A., *see* Dutt, A., 1254
Neonates
  beta adrenergic control of c-*fos* in brain, in rats, 1292
  fluoxetine effects on brain $5\text{-}HT_{2A/2C}$ receptor, in male rats, 637
  4-ipomeanol cytotoxicity in Clara cells, in rabbits, 867
Neostriatum, effects of acute methamphetamine on neurotensin/c-*fos* mRNA in, in rat, 806
Nephrosis, contractile effects of adrenoceptor agonists in, 589
Nephrotoxicity, *S*-conjugate-induced, 374
Nestler, E. J., *see* Kosten, T. A., 137
Neumann, J., Bokník, P., Bodor, G. S., Jones, L. R., Schmitz, W. and Scholz, H.: Effects of adenosine receptor and muscarinic cholinergic receptor agonists on cardiac protein phosphorylation. Influence of pertussis toxin, 1310
Neuroblastoma N18TG2 cells, 5-HT receptor in, in mice, 246
Neurokinin$_1$ receptors, striatal, activation of, mediation of dopamine D_1 receptor-stimulated release of acetylcholine by, in rat, 1144
Neuroleptics, effects on neurotensin metabolism, in rat brain, 535
Neurons
  cerebellar, folate toxicity of, 393
  dorsal raphe, calcium currents in, LSD effects on, 1160
  dorsal root ganglion, effects of dieldrin on $GABA_A$ receptor-channel in, in rat, 164
  serotonergic, calcium currents in, LSD effects on, 1160
  substantia nigra, electrophysiological effects of excitatory amino acid receptor subtypes on, in rat, 313
Neurotensin
  gene expression, effects of acute methamphetamine on, in rat, 806
  metabolism, effects of neuroleptics on, in rat, 535
Neurotoxicity
  clostridial, effects of bafilomycin A1 on, 256
  dexfenfluramine, 792
  folate, 393
  methamphetamine
    effects of (±)-BMY 14802 on, 44
    protective effects of quinolinic acid against, 1319
  pteroate, 393
Neurotoxins
  botulinum, effects of bafilomycin A1 on, 256
  clostridial, effects of bafilomycin A1 on, 256
Neutral endopeptidase 3.4.24.11, inhibition of, potentiation of renal bradykinin by, in dogs, 263
Nicholson, D. W., *see* Chan, C.-C., 891
Nigrostriatum, dopamine release in, 470
Nilsson, M., *see* Qin, M., 1176
Nishida, A., Miyata, K., Tsutsumi, R., Yuki, H., Akuzawa, S., Kobayashi, A., Kamato, T., Ito, H., Yamano, M., Katuyama, Y., Satoh, M., Ohta, M. and Honda, K.: Pharmacological profile of *R*-1-[2,3-dihydro-1-(2′-methylphenacyl)-2-oxo-5-phenyl-1*H*-1,4-benzodiazep in-3-yl]-3-(3-methylphenyl)urea (YM022), a new potent and selective gastrin/cholecystokinin-B receptor antagonist, in vitro and in vivo, 725
Nishikawa, T., *see* Tanii, Y., 1040
Nishio, S. J., *see* Plopper, C. G., 867
Nissenson, R. A., *see* Babich, M., 172
Nitric oxide
  effects on leukocyte function, 451
  effects on renal arteriolar smooth muscle cell growth, 402
  effects on testicular function, in rat, 230
  mediation of ileal ion transport by, in mouse, 626
  mediation of muscarinic antinociception by, in rats, 699
Nitric oxide synthase inhibitors
  effects on renal nerve stimulation, in dogs, 529
  mediation of nitrous oxide antinociception by, in mice and rats, 601
  reversal by L-citrulline, in guinea pig trachea and human bronchus, 1073
L-Nitro monomethyl arginine, reversal by L-citrulline, in guinea pig trachea and human bronchus, 1073
N^G-Nitro-L-arginine
  effects on renal nerve stimulation, in dogs, 529
  mediation of nitrous oxide antinociception by, in mice and rats, 601
L-Nitro-*n*-arginine, reversal by L-citrulline, in guinea pig trachea and human bronchus, 1073
Nitrous oxide antinociception
  mediation by L-NOARG, in mice and rats, 601
  mediation by opioid receptors, in rat hot plate test, 596
Nitrovasodilators
  effects on growth of renal arteriolar smooth muscle cells, 402
  effects on leukocyte function, 451
Niwano, Y., *see* Sanbe, A., 51

Nizatidine, transport into rat hepatocytes, 1220
L-NMA, *see* L-Nitro monomethyl arginine
NMDA receptors, *see* N-Methyl-D-aspartate
NMeN, *see* N^1-Methylnicotinamide
L-NNA, *see* L-Nitro-*n*-arginine
NOARG, *see* N^G-Nitro-L-arginine
Nonadrenergic, noncholinergic factors, regulation of stress-induced vasodilation by, in rats, 305
Nonadrenergic, noncholinergic nerve relaxations, inhibition by NO synthase inhibitors, reversal by L-citrulline, in guinea pig trachea and human bronchus, 1073
Nonsteroidal anti-inflammatory drugs, effects on H^+ secretion, mediation by protein kinase C, 932
Nor-Binaltorphimine, effects on C-fiber reflex depression by intrathecal morphine and DAGO, in rat, 1007
Norepinephrine
  contractile effects, in nephrosis, 589
  effects of duloxetine on, in rats and mice, 132
  effects on pig hepatic lymph vessels, 482
  release of
    effects of NOARG on, in dogs, 529
    inhibition by moxonidine, 897
Norfloxacin, intestinal secretion of, 496
Novelty-induced motor activity, dopamine and excitatory amino acid neurotransmission in, 976
Nowak, G., *see* Paul, I. A., 95
Nucleotide receptors, signal transduction pathways in C_6 glioma cells, 926
Nucleus accumbens
  dopamine transporter binding in, effects of cocaine withdrawal on, in rats, 963
  neurotransmission in, in novelty-induced motor activity, 976

Octanol, effects on $GABA_A$ receptor subunits, in human embryonic kidney cells, 157
Ocular hypotension, moxonidine-induced, 897
O'Dell, S. J., Weihmuller, F. B., McPherson, R. J. and Marshall, J. F.: Excitotoxic striatal lesions protect against subsequent methamphetamine-induced dopamine depletions, 1319
Ogidigben, M., Chu, T.-C. and Potter, D. E.: Ocular actions of moxonidine: A possible role for imidazoline receptors, 897
Oguri, M., *see* Ito, M., 589
8-OH-DPAT
  regulation of serotonin release by, 1268
  spinal antinociceptive effects, in rats, 1182
Ohhashi, T., *see* Hashimoto, S., 482
Ohnota, H., Koizumi, T., Naoyuki, T., Kobayashi, M., Inoue, S. and Sato, F.: Novel rapid- and short-acting hypoglycemic agent, a calcium(2s)-2-benzyl-3-(*cis*-hexahydro-2-isoindolinylcarbonyl) propionate (KAD-1229) that acts on the sulfonylurea receptor: comparison of effects between KAD-1229 and gliclazide, 489
Ohta, M., *see* Nishida, A., 725
Ohtsuyama, M., Sato, F., Toyomoto, T. and Sato, K.: Stimulation of Cl conductance by minoxidil sulfate and K conductance by minoxidil in eccrine clear cells, 823
Øie, S., *see* Qin, M., 1176
Okamura, M., *see* Takano, M., 970
OKY-046, modulation of immediate and late airway response by, in guinea pig, 1236
O'Leary, D. F., *see* Hodges, B. L., 596
Olesen, P. H., *see* Bymaster, F. P., 282
Olesen, P. H., *see* Shannon, H. E., 271
Oleshansky, M. A., *see* Long, J. B., 358
Oligonucleotides, phosphorothioate, pharmacokinetics, in rats, 89
Omarini, D., *see* Barzago, M. M., 28
Omeprazole, induction of *CYP*1A and *CYP*3A by, in human hepatocytes, 384
Omiecinski, C. J., Aicher, L. and Swenson, L.: Developmental expression of human microsomal epoxide hydrolase, 417
Opioid receptors
  delta, antagonist effects on C-fiber reflex depression by intrathecal morphine and DAGO, in rat, 1007
  epsilon, mediation of nitrous oxide antinociception by, in rat hot plate test, 596
  kappa
    agonist cross-tolerance with *mu* agonists, in guinea pig ileum myenteric plexus, 993
    analgesic effects, in amphibians, 1086
    antagonist effects on C-fiber reflex depression by intrathecal morphine and DAGO, in rat, 1007
  mu
    agonists, antinociceptive effects, latency to vocalization index of, in mouse, 1021
    agonists, cross-tolerance with *kappa* agonists, in guinea pig ileum myenteric plexus, 993
    analgesic effects, in amphibians, 1086
    antagonist effects on C-fiber reflex depression by intrathecal morphine and DAGO, in rat, 1007
    in vivo turnover, in rhesus monkeys, 57
    mediation of nitrous oxide antinociception by, in rat hot plate test, 596
Opioids
  analgesic effects
    acetic acid test, in amphibians, 1086
    L-tyrosine potentiation of, 1190
  effects in pedunculopontine nucleus and mediodorsal thalamus, behavioral and neurochemical studies of, 437
Oral iron chelators, effects on alcoholic liver disease, in rats, 632
Organic anion transport, renal
  polysubstrate interaction with, 684
  in proximal tubular cells, in rat, 1261
  regulation of, 659
Organic cation transport, renal
  effect of phenylisothiocyanate on, in opossum, 204
  polysubstrate interaction with, 684
  role of P-glycoprotein in, in mammals, 1254
Organophosphorus insecticides, binding to muscarinic receptors, in rat, 329
Osteoblasts, UMR-106, P_{2T} and P_{2U} purinoceptors in, 1049
Osteosarcoma cells, PTH and thrombin signal regulation in, in rat, 172
Ott, R. J., Chan, J. K., Ramanathan, V. K., Hui, A. C. and Giacomini, K. M.: Effect of phenylisothiocyanate on organic cation transport in opossum kidney cells, 204
Ourlin, J. C., *see* Curi-Pedrosa, R., 384
Owens, S. M., *see* Valentine, J. L., 1079
Owens, S. R., *see* Cossum, P. A., 89
Oxazepam, pharmacodynamics of, in rats, 521
Oxidative modification, of low-density lipoprotein, inhibition by S 12340, in WHHL rabbits, 515
Oxotremorine, antinociceptive effects, latency to vocalization index, in mouse, 1021
Oxycodone, antinociceptive effects, latency to vocalization index, in mouse, 1021
Oxygen radicals
  leukocyte production of, effects of nitric oxide on, 451
  platelet-activating factor synthesis by, 766
Ozawa, M., Sugimachi, K., Nakada-Kometani, Y., Akai, T. and Yamaguchi, M.: Chronic pharmacological activities of the novel anxiolytic β-carboline abecarnil in rats, 457

PABA, *see* *p*-Aminobenzoic acid
Pacifici, R., Patrini, G., Venier, I., Parolaro, D., Zuccaro, P. and Gori, E.: Effect of morphine and methadone acute treatment on immunological activity in mice: Pharmacokinetic and pharmacodynamic correlates, 1112
PAF, *see* Platelet-activating factor
PAH, *see* *p*-Aminohippuric acid
Palea, S., Corsi, M., Pietra, C., Artibani, W., Calpista, A., Gaviraghi, G. and Trist, D. G.: ADPβS induces contraction of the human isolated urinary bladder through a purinoceptor subtype different from P_{2X} and P_{2Y}, 193
Palmitoylcarnitine, mechanism of absorption enhancement, 813
Pang, C.C.Y., *see* Wang, Y.-X., 463
Parathyroid hormone, signal regulation, in rat osteosarcoma cells, 172
Pardridge, W. M., *see* Kang, Y.-S., 344
Parolaro, D., *see* Pacifici, R., 1112
Pascaud, X., *see* Rao, R. K., 626
Patrice, T., *see* Perret, C., 787
Patrini, G., *see* Pacifici, R., 1112
Patrono, C., *see* Salvati, P., 238
Paul, I. A., Nowak, G., Layer, R. T., Popik, P. and Skolnick, P.: Adaptation of the N-methyl-D-aspartate receptor complex following chronic antidepressant treatments, 95
Paul, S. M., *see* Weller, M., 393
PCP, *see* Phencyclidine
Pedunculopontine nucleus, opioid effects in, 437
Pefloxacin, intestinal secretion of, 496
Pellegrino, S. M., *see* Dolan, J. A., 1000
Penington, N. J. and Fox, A. P.: Effects of LSD on Ca^{++} currents in central 5-HT-containing neurons: $5\text{-}HT_{1A}$ receptors may play a role in hallucinogenesis, 1160
Pentazocine, antinociceptive effects, latency to vocalization index, in mouse, 1021
Peptides

cholecystokinin, prevention of CO-induced amnesia by, in mice, 665
intestinal carrier, enalapril inhibitory binding site on, 1107
Peritoneal inflammation, zymosan-induced, in mouse, 917
Perkins, W. E., Bianchi, R. G., Tremont, S. J., Collins, P. W., Casler, J. J., Fenton, R. L., Wagner, G. M., McGrath, M. P., Stolzenbach, J. C., Kowalski, D. L., Gasiecki, A. F., Forster, D. and Jones, P. H.: Polymer delivery of the active isomer of misoprostol: A solution to the intestinal side effect problem, 151
Perret, C., Foultier, M.-T., Vonarx-Coinsman, V., Quancard, O., Combre, A. and Patrice, T.: Malondialdehyde dosimetry in laser-irradiated tissues sensitized by hematoporphyrin derivative, 787
Pertussis toxin
effects on adenosine and muscarinic receptor agonist effects on cardiac protein phosphorylation, 1310
effects on heart H_3-receptors, 221
Pessayre, D., *see* Fau, D., 954
Pesticides, muscarinic receptor binding, in rat, 329
Peterson, P. K., *see* Chao, C. C., 198
Pfaffendorf, M., *see* Zhang, J. S., 509
Phencyclidine
behavioral effects, effects of alanine and serine enantiomers on, in rat, 1040
effects on motor coordination, 573
pharmacokinetics, effects of anti-PCP monoclonal Fab fragments on, in rats, 1079
Phenethanolamines, benzodioxole-containing, *beta*-3 adrenoceptor selectivity of, 1000
Phenobarbital, pharmacodynamics of, in rats, 521
Phenylephrine, cardiac effects, in rabbit, 732
(–)-N^6-Phenylisopropyladenosine, effects on cardiac protein phosphorylation, 1310
Phenylisothiocyanate, effect on renal organic cation transport, in opossum, 204
Phenytoin, pharmacodynamics of, in rats, 521
Philpot, R. M., *see* Plopper, C. G., 867
Phorbol esters, effects on PTH and thrombin signal regulation, in rat osteosarcoma cells, 172
Phosphoinositide hydrolysis, effects of methoxamine on, in rabbit ventricular myocardium, 732
Phospholamban, cardiac phosphorylation of, effects of adenosine and muscarinic receptor agonists on, 1310
Phospholipase C, effects on PTH and thrombin signal regulation, in rat osteosarcoma cells, 172
Phosphonium, [[4-[[2-[[bis(cyclohexylamino)methylene]amino]-3-(2-naphthalenyl)-1-oxopropyl]amino]phenyl]methyl] tributyl chloride monohydrochloride, *see* WIN 64338
Phosphoramidon, inhibition of platelet-induced endothelin-1 production by, 860
Phosphorothioate oligonucleotides, pharmacokinetics, in rats, 89
Photodynamic therapy, malondialdehyde assay for, 787
Phung-Ba, V., *see* Wils, P., 654
Physostigmine, antinociceptive effects, latency to vocalization index, in mouse, 1021
Pichard, L., *see* Curi-Pedrosa, R., 384
Piekoszewski, W., Chow, F. S. and Jusko, W. J.: Pharmacokinetic and pharmacodynamic effects of coadministration of methylprednisolone and tacrolimus in rabbits, 103
Pieper, G. M., Clarke, G. A. and Gross, G. J.: Stimulatory and inhibitory action of nitric oxide donor agents *vs.* nitrovasodilators on reactive oxygen production by isolated polymorphonuclear leukocytes, 451
Pierno, S., *see* De Luca, A., 948
Pietra, C., *see* Palea, S., 193
Pietri, F., *see* Dolan, J. A., 1000
Pilotte, N. S., Share, L. G. and Kuhar, M. J.: Withdrawal of repeated intravenous infusions of cocaine persistently reduces binding to dopamine transporters in the nucleus accumbens of Lewis rats, 963
Piretanide, polysubstrate interaction with renal PAH, sulfate, and NMeN transport, 684
Placenta
arylamine N-acetyltransferase activity, 756
mefloquine transfer, 28
p-aminobenzoic acid transfer and metabolism, 761
Plante, G. E., *see* Lehoux, S., 1094
Platelet-activating factor, synthesis by oxygen radicals, 766
Platelets
effects on endothelin-1 production, 860
[^{3}H]-2-methylthio ADP binding to, in rat, 772
Plopper, C., *see* Cho, M., 881
Plopper, C. G., Weir, A. J., Nishio, S. J., Chang, A., Voit, M., Philpot, R. M. and Buckpitt, A. R.: Elevated susceptibility to 4-ipomeanol cytotoxicity in immature Clara cells of neonatal rabbits, 867
Pogrel, J. W., *see* Chaplan, S. R., 1117
Poli, E., *see* Endou, M., 221
Polymer delivery, of prostaglandin, 151
Polymorphonuclear leukocytes, effects of nitric oxide on, 451
Polysubstrates, interaction with renal PAH, sulfate, and NMeN transport, 684
Pon, D. J., *see* Chan, C.-C., 891
Popik, P., *see* Paul, I. A., 95
Porreca, F., *see* Rao, R. K., 626
Portal vein, angiotensin II receptor antagonism by BIBS 222 in, in rat, 509
Potassium channels
ATP-sensitive, meclofenamate blockade, 536
blockers, antiarrhythmic agents as, in adult rat ventricular myocytes, 66
inhibition by β-dendrotoxin, in VSMCs, 209
inward rectifier, amiodarone effects on, in guinea pig ventricular cells, 1213
muscle, growth hormone effects on, in rats, 948
openers, effects on airways, in guinea pig, 1
stimulation by minoxidil, in eccrine clear cells, 823
Potter, D. E., *see* Ogidigben, M., 897
Prazosin, effects on cocaine-induced ventricular fibrillation, 409
Prefrontal cortex, dopamine release in, 470
Premont, J., *see* Tence, M., 646
Prenatal development, fluoxetine effects on brain 5-$HT_{2A/2C}$ receptor during, in male rats, 637
Price, P. L., *see* Sadrzadeh, S.M.H., 632
Privat, S., *see* Breugnot, C., 515
Propafenone
electrophysiologic effects, in canine Purkinje fibers, 336
K^+ channel blocking actions, in adult rat ventricular myocytes, 66
Prostaglandin, polymer delivery of, 151
Protein kinase C
effects on PTH and thrombin signal regulation, in rat osteosarcoma cells, 172
mediation of NSAID effects on H^+ secretion by, 932
renal PAH transport regulation by, 659
Proteins
arylation by naphthalene, 881
cardiac phosphorylation, effects of adenosine and muscarinic receptor agonists on, 1310
G_i, brain density, in human, 1062
G_i/G_o, effects on heart H_3-receptors, 221
Proximal tubular cells, fluorescein transport in, in rat, 1261
Prytz, P. S., *see* Endresen, P. C., 1245
Pteroates, reduced unsubstituted, neurotoxicity of, 393
PTH, *see* Parathyroid hormone
Pulmonary vasculature, aminopeptidase P in, in rat, 941
Puniak, M. A., *see* Salzman, S. K., 322
Purinoceptors
contractile subtypes in human detrusor muscle, 193
P_{2T}, in UMR-106 osteoblasts, 1049
P_{2U}, in UMR-106 osteoblasts, 1049
P_{2Y}, signal transduction pathways in C_6 glioma cells, 926
Purkinje fibers, electrophysiologic effects of propafenone and flecainide in, in canine, 336

Qin, M., Nilsson, M. and Øie, S.: Decreased elimination of drug in the presence of *alpha*-1-acid glycoprotein is related to a reduced hepatocyte uptake, 1176
Qiu, X. C., *see* Xu, W., 1182
Quancard, O., *see* Perret, C., 787
Quantitative trait loci mapping, of genes that influence ethanol hypothermic tolerance, in BXD recombinant inbred mice, 184
Querl, U., *see* Hohage, H., 659
Quinidine, K^+ channel blocking actions, in adult rat ventricular myocytes, 66
Quinolinic acid, protective effects against methamphetamine neurotoxicity, 1319
Quirion, R., *see* Van Rossum, D., 846
Quock, R. M., *see* Hodges, B. L., 596
Quock, R. M., *see* McDonald, C. E., 601

Ramanathan, V. K., *see* Ott, R. J., 204
Rao, R. K., Riviere, P.J.M., Pascaud, X., Junien, J. L. and Porreca, F.: Tonic

regulation of mouse ileal ion transport by nitric oxide, 626
Rao, T. S., Currie, J. L., Shaffer, A. F. and Isakson, P. C.: *In vivo* characterization of zymosan-induced mouse peritoneal inflammation, 917
Reactive metabolites, naphthalene, arylation of proteins by, 881
Ream, J. K., *see* McDonald, C. E., 601
Reba, R. C., *see* Hiramatsu, Y., 1205
Recirculatory model, of antipyrine disposition, in dogs, 609
Reddix, R., Kuhawara, A., Wallace, L. and Cooke, H. J.: Vasoactive intestinal polypeptide: A transmitter in submucous neurons mediating secretion in guinea pig distal colon, 1124
Regnier, G., *see* Breugnot, C., 515
Remy, D. C., *see* Lynch, J. J., Jr., 541
Ren, J., Karpinski, E. and Benishin, C. G.: Inhibition of a K^+ current by β-dendrotoxin in primary and subcultured vascular smooth muscle cells, 209
Renal nerve stimulation, effects of NOARG on, in dogs, 529
Respiratory burst activity, effects of morphine on, 198
Ricaurte, G., *see* McCann, U., 792
Ridenour, A., *see* McCann, U., 792
Rigamonti, D. D., *see* Long, J. B., 358
Rimoldi, O., *see* Salvati, P., 238
Rioux, F., *see* Marceau, F., 1136
Rivet, J.-M., *see* Millan, M. J., 121
Rivier, J., *see* Menzaghi, F., 564
Riviere, P.J.M., *see* Rao, R. K., 626
Ro 40-5967, calcium channel blocking actions, 178
Rodger, I. W., *see* Chan, C.-C., 891
Rogers, W. L., *see* Seymour, A. A., 263
Ronis, M. J. J., *see* Hu, Y., 1286
Rosenfeld, G. C., *see* Williams, C. L., 750
Rosenzweig, B. A., *see* Sistare, F. D., 1049
Rostral ventral medulla, antinociceptive effects of muscarinic agonists in, mediation by nitric oxide, in rats, 699
Rüegg, J. C., *see* Schwinger, R.H.G., 778
Ruhe, T., *see* Moravec, C. S., 290
Rumrich, G., *see* Ullrich, K. J., 684
Russel, F. G. M., *see* Masereeuw, R., 1261
Ryan, J. W., Berryer, P., Chung, A.Y.K. and Sheffy, D. H.: Characterization of rat pulmonary vascular aminopeptidase P *in vivo:* Role in the inactivation of bradykinin, 941

S 12340, inhibition of LDL oxidative modification by, in WHHL rabbits, 515
Sadrzadeh, S. M. H., *see* Nanji, A. A., 832
Sadrzadeh, S. M. H., *see* Nanji, A. A., 1280
Sadrzadeh, S. M. H., Nanji, A. A. and Price, P. L.: The oral iron chelator, 1,2-dimethyl-3-hydroxypyrid-4-one reduces hepatic-free iron, lipid peroxidation and fat accumulation in chronically ethanol-fed rats, 632
Salata, J. J., *see* Lynch, J. J., Jr., 541
Salbutamol, modulation of immediate and late airway response by, in guinea pig, 1236
Salvati, P., Dho, L., Ukmar, G., Vaga, L., Rimoldi, O. and Patrono, C.: A comparative evaluation of thromboxane receptor blockade, thromboxane synthase inhibition and both in animal models of arterial thrombosis, 238
Salvino, J. M., *see* Marceau, F., 1136
Salzman, S. K., Kelly, G., Chavin, J., Wang, L., Puniak, M. A., Agresta, C. A. and Azim, S.: Characterization of mianserin neuroprotection in experimental spinal trauma: Dose/route response and late treatment, 322
Sanbe, A., Tanonaka, K., Niwano, Y. and Takeo, S.: Improvement of cardiac function and myocardial energy metabolism of rats with chronic heart failure by long-term coenzyme Q_{10} treatment, 51
Sanchez, I. M., *see* Ghanayem, B. I., 581
Sanguinetti, M. C., *see* Lynch, J. J., Jr., 541
Sano, H., *see* Nakamura, H., 1220
Sarcoplasmic reticulum, calcium release channel, suramin effect on, 717
Sastre, M. and García-Sevilla, J. A.: Density of *alpha*-2A adrenoceptors and G_i proteins in the human brain: Ratio of high-affinity agonist sites to antagonist sites and effect of age, 1062
Satake, N., *see* Ito, M., 589
Sato, F., *see* Ohnota, H., 489
Sato, F., *see* Ohtsuyama, M., 823
Sato, K., *see* Ohtsuyama, M., 823
Sato, R., Koumi, S.-I., Singer, D. H., Hisatome, I., Jia, H., Eager, S. and Wasserstrom, J. A.: Amiodarone blocks the inward rectifier potassium channel in isolated guinea pig ventricular cells, 1213
Satoh, M., *see* Nishida, A., 725
Sauerberg, P., *see* Bymaster, F. P., 282
Sauerberg, P., *see* Shannon, H. E., 271
Sausen, P. J., *see* Lash, L. H., 374
Savi, P., Laplace, M.-Cl., Maffrand, J. P. and Herbert, J. M.: Binding of [^{3}H]-2-methylthio ADP to rat platelets—Effect of clopidogrel and ticlopidine, 772
Sawutz, D. G., *see* Marceau, F., 1136
Sawyer, B. D., *see* Shannon, H. E., 271
SC-53450, intestinal side effects, 151
SC-30249, polymer delivery of, 151
Schachat, F. H., *see* Wagner, J. P., 1292
Scherman, D., *see* Wils, P., 654
Schmitz, W., *see* Neumann, J., 1310
Schoepp, D. D., *see* Bymaster, F. P., 282
Scholz, H., *see* Neumann, J., 1310
Schwartz, J., *see* Batsche, K., 1029
Schwartz, P. J., *see* Zaza, A., 336
Schwinger, R. H. G., Böhm, M., Koch, A., Morano, I., Rüegg, J. C. and Erdmann, E.: Inotropic effect of the cardioprotective agent 2,3-butanedione monoxime in failing and nonfailing human myocardium, 778
Sedation, morphine, measurement by cortical evoked potentials, in rats, 1100
Seidler, F. J., *see* Wagner, J. P., 1292
Sensitivity
  differential cardiovascular, to cocaine, in rats, 674
  ethanol hypothermic, quantitative trait loci mapping of genes that influence, in BXD recombinant inbred mice, 184
Sensitization, cocaine
  effects on D_2 receptors, 743
  in Fischer and Lewis rats, 137
Seoane, P. R., *see* Marceau, F., 1136
Serine, enantiomer effects on PCP-induced hyperactivity, stereotypy and ataxia, in rat, 1040
Serotonergic neurons, calcium currents in, LSD effects on, 1160
Serotonin
  dexfenfluramine neurotoxicity, 792
  effects of duloxetine on, in rats and mice, 132
  neurotransmission, effects of long-term *alpha*-2 adrenergic antagonists and electroconvulsive shocks on, 1152
  release, regulation by 5-HT_{1A} autoreceptors, 1268
Serotonin receptors
  in N18TG2 cells, in mice, 246
  spinal antinociception subtypes, in rat, 1182
Serotonin$_{1A}$ receptors
  agonists
    renal functional responses, 215
    spinal antinociceptive effects, in rats, 1182
  mediation of tail-flicks by, in rats, 110, 121
  regulation of serotonin release by, 1268
  role in LSD hallucinogenesis, 1160
Serotonin$_{1B}$ receptors, agonist antinociceptive effects
  latency to vocalization index, in mouse, 1021
  spinal, in rats, 1182
Serotonin$_{2A/2C}$ receptors, in brain, prenatal fluoxetine effects on, in male rats, 637
Serotonin$_{1C/2}$ receptors, spinal agonist antinociceptive effects, in rats, 1182
Serra, M., Ghiani, C. A., Motzo, C., Cuccheddu, T., Floris, S., Giusti, P. and Biggio, G.: Imidazenil, a new partial agonist of benzodiazepine receptors, reverses the inhibitory action of isoniazid and stress on γ-aminobutyric acid$_A$ receptor function, 32
Sewing, B. N., *see* Adams, M. L., 230
Seymour, A. A., Sheldon, J. H., Smith, P. L., Asaad, M. and Rogers, W. L.: Potentiation of the renal responses to bradykinin by inhibition of neutral endopeptidase 3.4.24.11 and angiotensin-converting enzyme in anesthetized dogs, 263
Shaffer, A. F., *see* Rao, T. S., 917
Shanks, C. A., *see* Krejcie, T. C., 609
Shannon, H. E., *see* Bymaster, F. P., 282
Shannon, H. E., Bymaster, F. P., Calligaro, D. O., Greenwood, B., Mitch, C. H., Sawyer, B. D., Ward, J. S., Wong, D. T., Olesen, P. H., Sheardown, M. J., Swedberg, M.D.B., Suzdak, P. D. and Sauerberg, P.: Xanomeline: A novel muscarinic receptor agonist with functional selectivity for M_1 receptors, 271
Share, L. G., *see* Pilotte, N. S., 963
Shea, J. P., *see* Cossum, P. A., 89
Sheardown, M. J., *see* Bymaster, F. P., 282
Sheardown, M. J., *see* Shannon, H. E., 271
Sheffy, D. H., *see* Ryan, J. W., 941
Sheldon, J. H., *see* Seymour, A. A., 263
Sheldon, R., Thakore, E., Wilson, L. and Duff, H.: Interaction of drug metabolites with the class I antiarrhythmic drug receptor on rat cardiac myocytes, 477
Sheng, W. S., *see* Chao, C. C., 198
Shibata, S., *see* Ito, M., 589
Shirley, M. A., Guan, X., Kaiser, D. G.,

Halstead, G. W. and Baillie, T. A.: Taurine conjugation of ibuprofen in humans and in rat liver *in vitro*. Relationship to metabolic chiral inversion, 1166
Sigma receptors
gastric mucosa sites, in pig, 905
mediation of contractility, calcium influx and beating rate in cardiac myocytes by, 1300
mediation of ulceroprotective effects of KB-5492 by, in rats, 799
Silvia, C., *see* King, G. R., 743
Simmons, N. L., *see* Griffiths, N. M., 496
Simon, R., *see* Graham, S. H., 854
Simpson, L. L., Coffield, J. A. and Bakry, N.: Inhibition of vacuolar adenosine triphosphatase antagonizes the effects of clostridial neurotoxins but not phospholipase A2 neurotoxins, 256
Sinclair, J. F., *see* Louis, C. A., 838
Sinclair, P. R., *see* Louis, C. A., 838
Singer, D. H., *see* Sato, R., 1213
Singer, E. A., *see* Agneter, E., 470
Sirois, M. G., *see* Lehoux, S., 1094
Sirois, P., *see* Lehoux, S., 1094
Sirover, M. A., *see* Wurzer, J. C., 39
Sistare, F. D., Rosenzweig, B. A., Contrera, J. G. and Jordan, B.: Separate P_{2T} and P_{2U} purinergic receptors with similar second messenger signaling pathways in UMR-106 osteoblasts, 1049
Skeletal muscle, membrane electrical properties, effects of growth hormone on, in rats, 948
SKF 10,047, *see* N-Allylnormetazocine
SKF 100300A, antinociceptive effects, latency to vocalization index, in mouse, 1021
Skolnick, P., *see* Paul, I. A., 95
Slawski, M. T. and Castle, N. A.: K^+ channel blocking actions of flecainide compared with those of propafenone and quinidine in adult rat ventricular myocytes, 66
Sleph, P. G., *see* Grover, G. J., 536
Slotkin, T. A., *see* Wagner, J. P., 1292
Smallwood, J. I. and Malawista, S. E.: Misoprostol stimulates leukocyte cyclic adenosine 3′,5′ monophosphate production and synergizes with colchicine: Novel combination of established drugs may boost anti-inflammatory potential, 1196
Smith, P. L., *see* Seymour, A. A., 263
Smooth muscle
renal arteriolar cells, effects of NO on, 402
vascular cells, inhibition of K^+ current by β-dendrotoxin in, 209
Smyth, D. D., *see* Chen, Q.-M., 709
SNF9007, antinociceptive effects, 750
Snoddy, H. D., *see* Fuller, R. W., 132
Sodium channels, voltage-dependent, use-dependent blockers, neuroprotective effects, in rat middle cerebral artery occlusion, 854
Somatostatin analogs, antinociceptive effects, 7
Sonsalla, P. K., *see* Terleckyj, I., 44
Spinal cord injury, dynorphin A-induced, in rat, 358
Spinal trauma, mianserin neuroprotection in, 322
Spirobenzopyran piperidine class III antiarrhythmics, cardiac electrophysiologic and antiarrhythmic effects, 541
Spontaneous alternation performance, effects of DAMGO and dynorphin A-(1–13) on, in mice, 15
Spontaneous hypertension, vascular reactivity to angiotensin II in, in rat kidneys, 82
Spontaneous tail-flicks
mediation by 5-HT_{1A}, in rat, 110, 121
serotonin receptor subtypes in, 1182
SQ 28,603, potentiation of renal bradykinin by, in dogs, 263
Stein, R. B., *see* Lynch, J. J., Jr., 541
Stellari, F. F., *see* Barzago, M. M., 28
Stereotypy, PCP-induced, effects of alanine and serine enantiomers on, in rat, 1040
Steroids, interaction with tacrolimus, in rabbits, 103
Stevens, C. W., Klopp, A. J. and Facello, J. A.: Analgesic potency of *mu* and *kappa* opioids after systemic administration in amphibians, 1086
Stolzenbach, J. C., *see* Perkins, W. E., 151
Stomach, ethanol metabolism by, 297
Stomach ulcers, sigma receptor-mediated effects of KB-5492 against, in rats, 799
St-Pierre, S., *see* Van Rossum, D., 846
Stress, iliac vasodilation during, in rats, 305
Strimbu-Gozariu, M., *see* Guirimand, F., 1007
Strosberg, A. D., *see* Dolan, J. A., 1000
Stupienski, R. F. III, *see* Lynch, J. J., Jr., 541
Sublingual gland, muscarinic receptors in, kinetic analysis of, in rat, 1205
Submandibular gland, muscarinic receptors in, kinetic analysis of, in rat, 1205
Substance P, striatal release, mediation of dopamine D_1 receptor-stimulated release of acetylcholine by, in rat, 1144
Substantia nigra neurons, electrophysiological effects of excitatory amino acid receptor subtypes on, in rat, 313
Sugimachi, K., *see* Ozawa, M., 457
Sugiyama, Y., *see* Nakamura, H., 1220
Sugo, I., *see* Imagawa, J.-I., 1
Sukamoto, T., *see* Hara, H., 799
Sukamoto, T., *see* Harada, Y., 905
Sulfamoylbenzoates, polysubstrate interaction with renal PAH, sulfate, and NMeN transport, 684
Sulfamoylthiazides, polysubstrate interaction with renal PAH, sulfate, and NMeN transport, 684
Sulfate, renal transport of, polysubstrate interaction with, 684
Sulfonylureas, polysubstrate interaction with renal PAH, sulfate, and NMeN transport, 684
Superoxide anion radicals, leukocyte production of, effects of nitric oxide on, 451
Suramin, effect on sarcoplasmic reticulum calcium release channel, 717
Suzdak, P. D., *see* Bymaster, F. P., 282
Suzdak, P. D., *see* Shannon, H. E., 271
Suzuki, Y., *see* Ito, M., 589
Sweat glands
stimulation of Cl conductance by minoxidil sulfate in, 823
stimulation of K conductance by minoxidil in, 823
Swedberg, M. D. B.: The mouse grid-shock analgesia test: Pharmacological characterization of latency to vocalization threshold as an index of antinociception, 1021
Swedberg, M. D. B., *see* Bymaster, F. P., 282
Swedberg, M. D. B., *see* Shannon, H. E., 271
Swenson, L., *see* Omiecinski, C. J., 417
Sympathectomy, effects on pressor responses to diphenyleneiodonium, 463

Tachycardia, response to diphenyleneiodonium, effects of sympathectomy on, 463
Tacrolimus, interaction with methylprednisolone, in rabbits, 103
Tactile allodynia, voltage-dependent calcium channel subtypes in, 1117
Tahan, S. R., *see* Nanji, A. A., 1280
Tail-flick response
mediation by 5-HT_{1A}, in rat, 110, 121
serotonin receptor subtypes in, 1182
Takada, K., *see* Umekawa, T., 860
Takahashi, K., *see* Tanii, Y., 1040
Takano, M., Hirozane, K., Okamura, M., Takayama, A., Nagai, J. and Hori, R.: *p*-Aminohippurate transport in apical and basolateral membranes of the OK kidney epithelial cells, 970
Takaoka, M., *see* Egi, Y., 529
Takaoka, M., *see* Umekawa, T., 860
Takayama, A., *see* Takano, M., 970
Takeo, S., *see* Sanbe, A., 51
Tallarida, R. J., *see* Wurzer, J. C., 39
Tanaka, K., *see* Hara, H., 799
Tanii, Y., Nishikawa, T., Hashimoto, A. and Takahashi, K.: Stereoselective antagonism by enantiomers of alanine and serine of phencyclidine-induced hyperactivity, stereotypy and ataxia in the rat, 1040
Tanikella, T. K., *see* Dolan, J. A., 1000
Tanonaka, K., *see* Sanbe, A., 51
Taurine conjugation, of ibuprofen, in humans and in rat liver *in vitro*, 1166
Tence, M., Cordier, J., Premont, J. and Glowinski, J.: Muscarinic cholinergic agonists stimulate arachidonic acid release from mouse striatal neurons in primary culture, 646
Terleckyj, I. and Sonsalla, P. K.: The *sigma* receptor ligand (±)-BMY 14802 prevents methamphetamine-induced dopaminergic neurotoxicity *via* interactions at dopamine receptors, 44
Tesoriere, L., Ciaccio, M., Valenza, M., Bongiorno, A., Maresi, E., Albiero, R. and Livrea, M. A.: Effect of vitamin A administration on resistance of rat heart against doxorubicin-induced cardiotoxicity and lethality, 430
Testicular function, effects of nitric oxide on, in rat, 230
Testosterone, levels, effects of nitric oxide on, in rat, 230
Tetanus toxin, effects of bafilomycin A1 on, 256
4,5,6,7-Tetrahydroisoxazolo[5,4-c]pyridin-3(2H)-one, antinociceptive effects, latency to vocalization index, in mouse, 1021

Thakore, E., *see* Sheldon, R., 477
Thalamus, mediodorsal, opioid effects in, 437
Theophylline, modulation of immediate and late airway response by, in guinea pig, 1236
Thiazide diuretics, polysubstrate interaction with renal PAH, sulfate, and NMeN transport, 684
THIP, *see* 4,5,6,7-Tetrahydroisoxazolo[5,4-c]pyridin-3(2H)-one
THP-1 cells, LTD_4 effects on cytosolic calcium in, 891
Thrombin, signal regulation, in rat osteosarcoma cells, 172
Thrombosis, TXA_2 inhibition in, in animal models, 238
Thromboxane, inhibition by cimetidine, in rat, 832
Thromboxane A_2, inhibition in thrombosis, in animal models, 238
Thromboxane A_2 receptor, antagonist modulation of immediate and late airway response by, in guinea pig, 1236
Thromboxane synthase, inhibition in thrombosis, in animal models, 238
Thromboxane synthetase inhibitors, modulation of immediate and late airway response by, in guinea pig, 1236
Tiagabine, antinociceptive effects, latency to vocalization index, in mouse, 1021
Ticlopidine, effects on binding of [^{3}H]-2-methylthio ADP to rat platelets, 772
Tight junctions disruption, by palmitoylcarnitine, 813
Tirilazad, serum protein binding, in human, Sprague-Dawley rat, beagle dog and cynomolgus monkey, 145
Tolbutamide, polysubstrate interaction with renal PAH, sulfate, and NMeN transport, 684
Tolerance, *see also* Cross-tolerance
  cocaine, effects on D_2 receptors, 743
  ethanol hypothermic, quantitative trait loci mapping of genes that influence, in BXD recombinant inbred mice, 184
Tolland, D. E., *see* Hull, K. M., 1190
Torasemide, polysubstrate interaction with renal PAH, sulfate, and NMeN transport, 684
Tousman, S. A., *see* McDonald, C. E., 601
Toxicity, *see also* Neurotoxicity
  doxorubicin, vitamin A protection against, in rat heart, 430
  flutamide, in rat hepatocytes, 954
  4-ipomeanol, in immature Clara cells of neonatal rabbits, 867
  methacrylonitrile, in rats and mice, 581
  naphthalene, 881
Toxins
  ω-conotoxin, effects on heart H_3-receptors, 221
  β-dendrotoxin, inhibition of K^+ current by, in VSMCs, 209
  pertussis, effect on adenosine and muscarinic receptor agonist effects on cardiac protein phosphorylation, 1310
  tetanus, effects of bafilomycin A1 on, 256
Toyomoto, T., *see* Ohtsuyama, M., 823
Trachea, reversal of NO synthase inhibition by NO synthase inhibitors by L-citrulline, in guinea pig, 1073
Transforming growth factor-β_1, effects on endothelin-1 production, 860
Tremont, S. J., *see* Perkins, W. E., 151
1-[3-(Trifluoromethyl)phenyl]-piperazine, spinal antinociceptive effects, in rats, 1182
1-(*m*-Trifluoromethyl)piperazine, antinociceptive effects, latency to vocalization index, in mouse, 1021
Trist, D. G., *see* Giacometti, A., 424
Trist, D. G., *see* Palea, S., 193
Troponin, inhibitory subunit, cardiac phosphorylation of, effects of adenosine and muscarinic receptor agonists on, 1310
Truong, L., *see* Cossum, P. A., 89
Tsang, M., *see* Chao, C. C., 198
Tsukahara, Y., *see* Umekawa, T., 860
Tsukuda, R., *see* Matsumoto, T., 1236
Tsutsumi, R., *see* Nishida, A., 725
Tumor necrosis factor-α
  binding to hepatocytes, in mouse, 367
  release from microglia, effect of morphine on, 198
L-Tyrosine, potentiation of opioid analgesia by, 1190

U-74006, *see* Tirilazad
U-50488, analgesic potency, by acetic acid test, in amphibians, 1021
Ukai, M., *see* Itoh, J., 15
Ukmar, G., *see* Salvati, P., 238
Ulcers, sigma receptor-mediated effects of KB-5492 against, in rats, 799
Ullrich, K. J., Fritzsch, G., Rumrich, G. and David, C.: Polysubstrates: Substances that interact with renal contraluminal PAH, sulfate, and NMeN transport: Sulfamoyl-, sulfonylurea-, thiazide- and benzeneamino-carboxylate (nicotinate) compounds, 684
Umekawa, T., *see* Egi, Y., 529
Umekawa, T., Matsumura, Y., Yoshimura, N., Murata, S., Takada, K., Tsukahara, Y., Takaoka, M. and Morimoto, S.: Platelets-induced stimulation of endothelin-1 production and inhibition by phosphoramidon, 860
UMR-106 osteoblasts, P_{2T} and P_{2U} purinoceptors in, second messenger signaling pathways, 1049
Unsworth, C. D. and Molinoff, P. B.: Characterization of a 5-hydroxytryptamine receptor in mouse neuroblastoma N18TG2 cells, 246
Urinary bladder, ADPβS contraction of, in human, 193

Vacuolar adenosine triphosphatase, inhibition of, 256
Vaga, L., *see* Salvati, P., 238
Vale, W., *see* Menzaghi, F., 564
Valentine, J. L., Arnold, L. W. and Owens, S. M.: Antiphencyclidine monoclonal Fab fragments markedly alter phencyclidine pharmacokinetics in rats, 1079
Valenza, M., *see* Tesoriere, L., 430
Valproate, pharmacodynamics of, in rats, 521
van de Westerlo, E. M. A., *see* Blevins, G. T., Jr., 911
Van Meel, J. C. A., *see* Zhang, J. S., 509
Van Rossum, D., Ménard, D. P., Fournier, A., St-Pierre, S. and Quirion, R.: Binding profile of a selective calcitonin gene-related peptide (CGRP) receptor antagonist ligand, [^{125}I-Tyr] $hCGRP_{8-37}$, in rat brain and peripheral tissues, 846
Van Zwieten, P. A., *see* Zhang, J. S., 509
Vapreotide, antinociceptive effects, 7
Vas deferens, A_1 and A_2 adenosine receptors in, in rat, 1228
Vascular muscle, calcium channel block by Ro 40-5967 in, 178
Vascular permeability, effects of diuretics on, in rat, 1094
Vascular reactivity, to angiotensin II, in spontaneously hypertensive rat kidneys, 82
Vascular smooth muscle cells, inhibition of K^+ current by β-dendrotoxin in, 209
Vasoactive intestinal polypeptide, role in regulation of epithelial function, in guinea pig distal colon, 1124
Vasoactive substances, effects on pig hepatic lymph vessels, 482
Vasodilation
  iliac, stress-induced, in rats, 305
  renal, mediation by $CGRP_1$ receptors, in rat, 989
Veiga, S., *see* Millan, M. J., 121
Venier, I., *see* Pacifici, R., 1112
Venoconstriction, bradykinin, effects of bradykinin B_2 receptor antagonists on, 1136
Ventral medulla, antinociceptive effects of muscarinic agonists in, mediation by nitric oxide, in rats, 699
Ventral pallidum, neurotransmission in, in novelty-induced motor activity, 976
Ventral tegmental area, neurotransmission in, in novelty-induced motor activity, 976
Ventricular cells, amiodarone effects on inward rectifier potassium channels in, in guinea pig, 1213
Ventricular fibrillation, cocaine-induced, effects of *alpha* adrenoceptor antagonists on, 409
Ventricular myocardium, effects of methoxamine in, in rabbit, 732
Ventricular myocytes, K^+ channel blocking actions of antiarrhythmic agents in, in adult rat, 66
Vilaine, J. P., *see* Breugnot, C., 515
VIP, *see* Vasoactive intestinal polypeptide
Vis, P. W., *see* Hoogerkamp, A., 521
Vitamin A, protective effects against doxorubicin-induced cardiotoxicity, in rat, 430
Vocalization threshold, latency to, as index of antinociception, 1021
Vogel, Z., *see* Ela, C., 1300
Voit, M., *see* Plopper, C. G., 867
Voltage-dependent calcium channels, subtypes, in tactile allodynia, 1117
Voltage-dependent sodium channels, use-dependent blockers, neuroprotective effects, in rat middle cerebral artery occlusion, 854
von Bahr, C., *see* Hu, Y., 1286
Vonarx-Coinsman, V., *see* Perret, C., 787
Voskuyl, R. A., *see* Hoogerkamp, A., 521
VSMCs, *see* Vascular smooth muscle cells

Wagner, G. M., *see* Perkins, W. E., 151
Wagner, J. P., Seidler, F. J., Schachat, F. H. and Slotkin, T. A.: *Beta* adrenergic control of c-*fos* protooncogene expression in developing rat brain regions, 1292

Walker, E. A., *see* Zernig, G., 57
Wallace, A. A., *see* Lynch, J. J., Jr., 541
Wallace, L., *see* Reddix, R., 1124
Wang, L., *see* Salzman, S. K., 322
Wang, R. Y., *see* Batsche, K., 1029
Wang, Y.-X. and Pang, C.C.Y.: Effects of adrenalectomy and chemical sympathectomy on pressor and tachycardic responses to diphenyleneiodonium, 463
Ward, J. S., *see* Bymaster, F. P., 282
Ward, J. S., *see* Shannon, H. E., 271
Warnery, A., *see* Wils, P., 654
Wasserstrom, J. A., *see* Sato, R., 1213
Waters, S. M., *see* Konkoy, C. S., 535
Watts, S. W. and Webb, R. C.: Mechanism of ergonovine-induced contraction in the mesenteric artery from deoxycorticosterone acetate-salt hypertensive rat, 617
Waxman, D. J., *see* Nanji, A. A., 832
Webb, R. C., *see* Watts, S. W., 617
Weihmuller, F. B., *see* O'Dell, S. J., 1319
Weir, A. J., *see* Plopper, C. G., 867
Weller, M., Marini, A. M., Martin, B. and Paul, S. M.: The reduced unsubstituted pteroate moiety is required for folate toxicity of cultured cerebellar granule neurons, 393
Willer, J.-C., *see* Guirimand, F., 1007
Williams, C. L., Rosenfeld, G. C., Dafny, N., Fang, S.-N., Hruby, V. J., Bowden, G., Cullinan, C. A. and Burks, T. F.: SNF9007: A novel analgesic that acts simultaneously at *delta*$_1$, *delta*$_2$, and *mu* opioid receptors, 750
Williams, J. A., *see* Blevins, G. T., Jr., 911
Wils, P., Warnery, A., Phung-Ba, V., Legrain, S. and Scherman, D.: High lipophilicity decreases drug transport across intestinal epithelial cells, 654
Wilson, L., *see* Sheldon, R., 477
WIN 64338, bradykinin B_2 receptor antagonist effects of, 1136
Wingfield, C. P., *see* Long, J. B., 358
Withdrawal, cocaine
  effects on dopamine D_2 receptors, 743
  effects on dopamine transporter binding, in rats, 963
Wolfe, H. R., *see* Marceau, F., 1136
Wong, D. T., *see* Bymaster, F. P., 282
Wong, D. T., *see* Shannon, H. E., 271
Wood, S. G., *see* Louis, C. A., 838
Woods, J. H., *see* Zernig, G., 57
WR-2721, protective effects against malondialdehyde, 787
Wurzer, J. C., Tallarida, R. J. and Sirover, M. A.: New mechanism of action of the cancer chemotherapeutic agent 5-fluorouracil in human cells, 39

Xanomeline, 271, neurochemical effects, 282
Xu, W., Qiu, X. C. and Han, J. S.: Serotonin receptor subtypes in spinal antinociception in the rat, 1182
Xue, Z., *see* King, G. R., 743

Yaksh, T. L., *see* Chaplan, S. R., 1117
Yamaguchi, M., *see* Ozawa, M., 457
Yamamoto, I., *see* Ito, M., 589
Yamano, M., *see* Nishida, A., 725
Yamazaki, M., *see* Nakamura, H., 1220
Yang, H.-T. and Endoh, M.: Dissociation of the positive inotropic effect of methoxamine from the hydrolysis of phosphoinositide in rabbit ventricular myocardium: A comparison with the effects of phenylephrine and the subtype of the *alpha*-1 adrenoceptor involved, 732
YM022, *see* *R*-1-[2,3-Dihydro-1-(2′-methylphenacyl)-2-oxo-5-phenyl-1*H*-1,4-benzodiazep in-3-yl]-3-(3-methylphenyl)urea
Yoshida, S., *see* Imagawa, J.-I., 1
Yoshimura, N., *see* Umekawa, T., 860
Yuan, J., *see* McCann, U., 792
Yuasa, H., Fleisher, D. and Amidon, G. L.: Noncompetitive inhibition of cephradine uptake by enalapril in rabbit intestinal brush-border membrane vesicles: An enalapril specific inhibitory binding site on the peptide carrier, 1107
Yuki, H., *see* Nishida, A., 725
Yule, D. I., *see* Blevins, G. T., Jr., 911

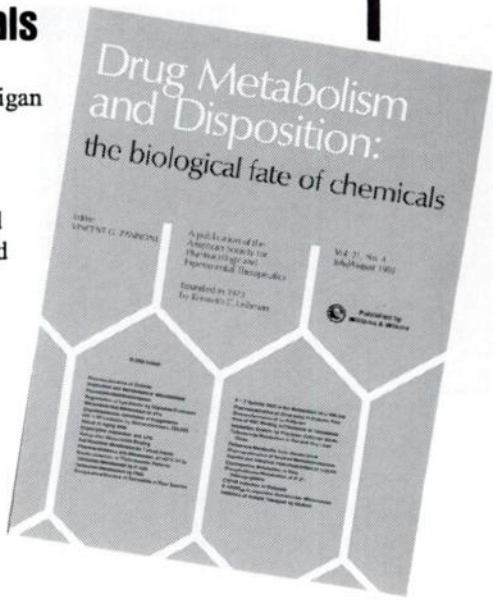
Zaza, A., Malfatto, G. and Schwartz, P. J.: Diverse electrophysiologic effects of propafenone and flecainide in canine Purkinje fibers: Implications for antiarrhythmic drug classification, 336
Zernig, G., Butelman, E. R., Lewis, J. W., Walker, E. A. and Woods, J. H.: *In vivo* determination of *mu* opioid receptor turnover in rhesus monkeys after irreversible blockade with clocinnamox, 57
Zhang, J., Chiodo, L. A. and Freeman, A. S.: Influence of excitatory amino acid receptor subtypes on the electrophysiological activity of dopaminergic and nondopaminergic neurons in rat substantia nigra, 313
Zhang, J. S., Van Meel, J.C.A., Pfaffendorf, M. and Van Zwieten, P. A.: Different types of angiotensin II receptor antagonism induced by BIBS 222 in the rat portal vein and rabbit aorta; The influence of receptor reserve, 509
Zhao, S., *see* Nanji, A. A., 832
Zink, M. H. III, *see* Alper, R. H., 305
Zuccaro, P., *see* Pacifici, R., 1112
Zucchetti, M., *see* Colombo, T., 22
Zymosan, intraperitoneal, inflammatory effects of, in mouse, 917

COPYRIGHT © 1994 BY THE AMERICAN SOCIETY FOR PHARMACOLOGY AND EXPERIMENTAL THERAPEUTICS

An important resource for everyone involved in research on the metabolism of drugs and chemicals

DRUG METABOLISM AND DISPOSITION

The Biological Fate of Chemicals



Editor: Raymond F. Novak, Ph.D., Wayne State University, Detroit, Michigan

DRUG METABOLISM AND DISPOSITION publishes experimental results from ***in vitro*** and ***in vivo*** systems that bring readers significant and original information on the metabolism and disposition of endogenous and exogenous compounds, including the metabolism of therapeutic agents and environmental chemicals. The journal also invites timely reviews, short communications and letters to the Editor. All submissions are refereed to ensure a high standard of publication. The areas covered are:

- metabolism, metabolite identification and mechanisms of metabolite formation
- expression of drug metabolizing enzymes
- regulation of drug metabolizing enzyme gene expression
- toxicological consequences of xenobiotic metabolism
- pharmacokinetics
- pharmacodynamics

This journal should be a standard reference in all pharmacology and toxicology departments. It is also a valuable resource for all medicinal chemists involved in drug design and all biochemists with interest in drug metabolism, expression or drug metabolizing enzymes and regulation of drug metabolizing enzyme gene expression. ***Bimonthly***

YES! Enter my subscription:

Avoid future rate increases and ensure uninterrupted service — enter your multiyear subscription today!

Drug Metabolism and Disposition (bimonthly)
☐ Individual: $85/yr ☐ Institutions: $140/yr
(Please add $20.00 outside the U.S.; in Canada, also add 7% GST.)
☐ New Subscription ☐ Renewal ☐ 3 yrs ☐ 2 yrs ☐ 1 yr

Payment options:
☐ Check enclosed ☐ Bill me
☐ VISA ☐ MasterCard ☐ American Express

card #

signature/P.O. #

MD and PA subscribers must add state sales tax. Subscriptions from outside the US and Canada must be prepaid, *in US dollars only*. In Japan, contact Igaku-Shoin MYW, Ltd. (03) 5689-5400. Rates valid for orders received before October 31, 1994.

Please allow 8 weeks for delivery of your first issue. Surface mail delivery to countries outside the US may take up to 16 weeks. Airmail rates available upon request.

Discounts available to members on all ASPET publications. SAVE 10% when ordering two. SAVE 15% when ordering three. SAVE 20% when ordering all four.

name

address

city/state/zip

Williams & Wilkins
A WAVERLY COMPANY

P.O. Box 23291
Baltimore, Maryland 21203-9990

Broadway House
2-6 Fulham Broadway
London SW6 1AA England

DMD 55392

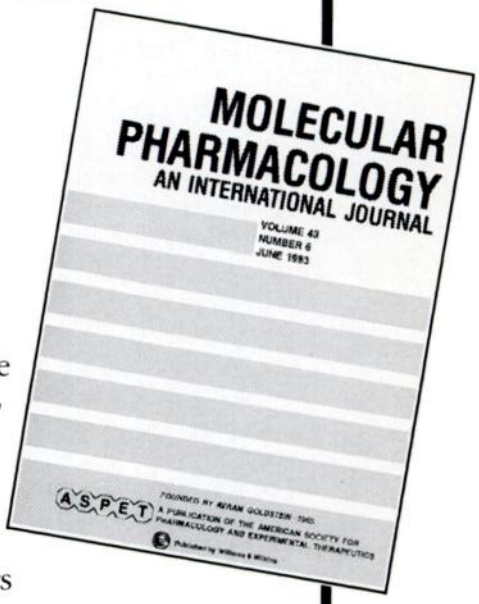
Printed in USA

J4224S Z DMD

SANS TACHE

Newsworthy and timely articles in your field

MOLECULAR PHARMACOLOGY



Editor: **T. Kendall Harden, PhD,** University of North Carolina School of Medicine, Chapel Hill, North Carolina

Is your special interest receptors and neurotransmitters . . . drug metabolism . . . antibiotic and anticancer drug actions . . . or other areas related to the molecular basis of drug action? If so, you should be subscribing to **MOLECULAR PHARMACOLOGY.**

The editor's and editorial board's high standards ensure that the papers you read in **MOLECULAR PHARMACOLOGY** are on the cutting edge of research on drug action and selective toxicity at the molecular level. Original applications of biochemistry, biophysics, genetics, and molecular biology are juxtaposed with innovative pharmacologic research to elucidate basic problems in pharmacology and toxicology, including such areas as molecular mechanisms involved in drug receptor-effector coupling, xenobiotic metabolism, and antibiotic and anticancer drug action. Start your subscription today to ensure access to the most newsworthy papers in your field. **Monthly**

Call toll-free to start your subscription immediately, **1-800-638-6423** from anywhere in the U.S. or Canada.

YES! Enter my subscription:

Avoid future rate increases and ensure uninterrupted service—enter your multiyear subscription today!

Molecular Pharmacology (monthly)
☐ Individual: $105/yr ☐ Institutions: $230/yr
(Please add $30.00 outside the U.S.; in Canada, also add 7% GST.)
☐ New Subscription ☐ Renewal ☐ 3 yrs ☐ 2 yrs ☐ 1 yr

name

address

city state zip

Payment options:
☐ Check enclosed ☐ Bill me
☐ VISA ☐ MasterCard ☐ American Express

card #

signature P.O.#

MD and PA subscribers must add state sales tax. Subscriptions from outside the US and Canada must be prepaid, *in US dollars only*. In Japan, contact Igaku-Shoin MYW, Ltd. (03) 5689-5400. Rates valid for orders received through October 31, 1994.

Please allow 8 weeks for delivery of your first issue. Surface mail delivery to countries outside the US may take up to 16 weeks. Airmail rates available upon request.

Discounts available to members on all ASPET publications. SAVE 10% when ordering two. SAVE 15% when ordering three. SAVE 20% when ordering all four.

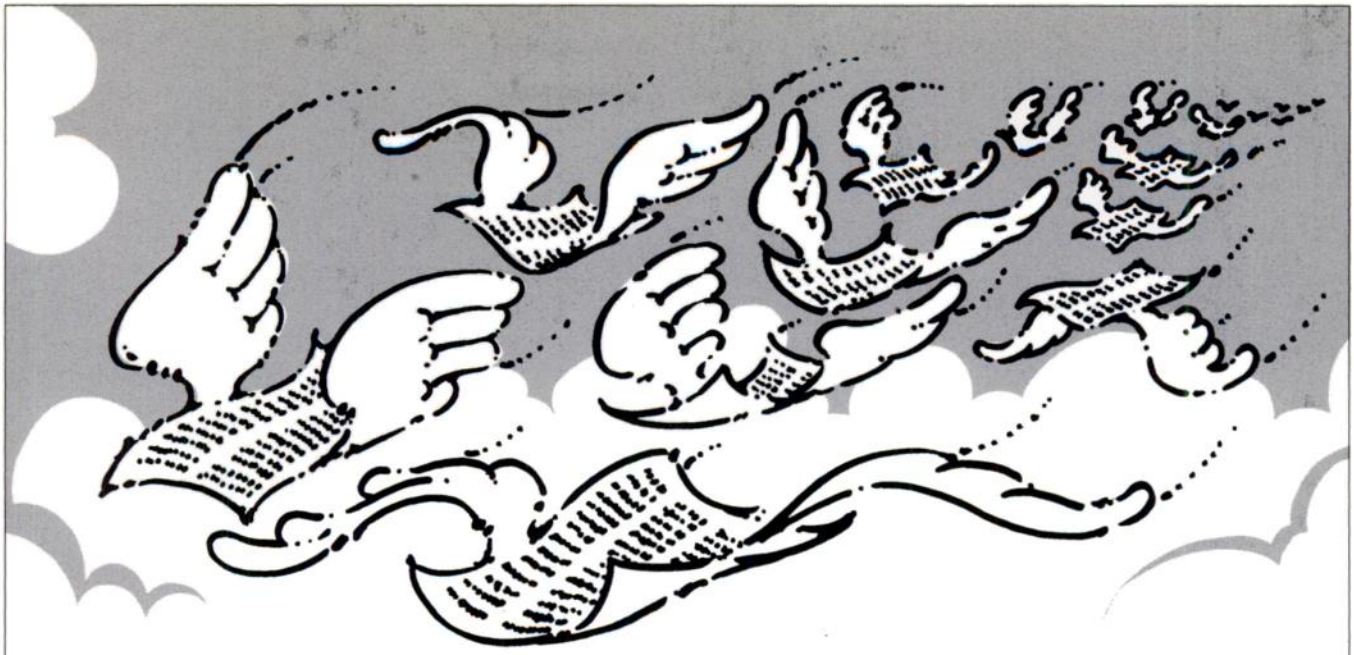
Williams & Wilkins
A WAVERLY COMPANY

P.O. Box 23291
Baltimore, Maryland 21203-9990

Broadway House
2-6 Fulham Broadway
London SW6 1AA England

MOL 55049 Printed in USA J4049S ZMOL

SANS TACHE



Williams & Wilkins Quick Copies. Tell us today. Read it tomorrow.

You can get copies of any article published in any Williams & Wilkins journal. It's fast – because we're the primary source, we can fax an article to you within **24 hours** of when we receive your request. It costs less – there are **no copyright fees** and the **cost of faxing is included in the price.** It's affordable – look at the table to the right.

Williams & Wilkins Quick Copies. Tell us today. Read it tomorrow.

RATES, PER ARTICLE		
1–5	pages	$10
6–10	pages	$12
11–15	pages	$15
16–20	pages	$18
21–25	pages	$20
26+	pages	$25
($20, Federal Express)		

Call toll-free from the U.S. or Canada to 1-800-354-9685, or fax this form to 1-410-528-4312, or mail to the address on the order form.

Williams & Wilkins
A WAVERLY COMPANY

ORDER FORM

PLEASE SEND ME THIS ARTICLE:

Journal Title _____

Volume / Issue / Year _____

Beginning / Ending Page # _____ Number of copies _____

Author _____

Article Title _____

DELIVERY:

☐ Fax ☐ First class mail

☐ Air mail ☐ Federal Express

Fax, phone, or mail your citation to:

Williams & Wilkins / Quick Copies
428 E. Preston Street / Baltimore, MD 21202-3993
Call 1-800-354-9685 (toll free) / Fax 1-410-528-4312

PAYMENT:

☐ Check enclosed (to Williams & Wilkins)

☐ Charge VISA ☐ Charge MasterCard

Acct. # _____ Exp. Date _____

Signature _____

SHIP TO:

Name _____

Department _____

Institution _____

Address _____

City / State / Zip _____

Country _____

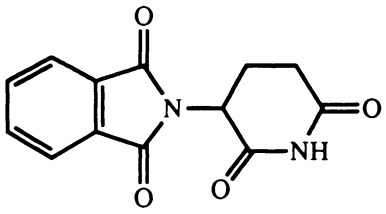
Telephone # _____ Fax # _____

DDSAD 55429

RBI THE RESEARCHER'S GOLD STANDARD

Thalidomide and its Enantiomers

NEW



Cat. No. T-144
Exclusively available from RBI

(±)-Thalidomide
Inhibits synthesis of tumor necrosis factor α (*PNAS* **90**, 5974 (1993)); inhibitor of angiogenesis (*PNAS* **91**, 4082 (1994)); immunosuppressant; sedative; teratogen
Cat. No. T-144

(–)-Thalidomide
Cat. No. T-150

(+)-Thalidomide
Cat. No. T-151

OTHER RBI PRODUCTS OF INTEREST

AMPA HBr
Potent excitatory amino acid that interacts selectively with central glutamate/quisqualate receptors *Cat. No. G-017*

2-Amino-5-phosphonopentanoic acid
(+/–)-AP-5 NMDA antagonist *Cat. No. A-110*
D(–)-AP-5 Active enantiomer *Cat. No. A-169*

Charybdotoxin
37-amino acid peptide present in the venom of the scorpion *Leiurus quinquestriatus hebracus* *Cat. No. C-133*

Epibatidine
(+/–)- Potent nicotinic agonist *Cat. No. E-127*
(+)- Natural enantiomer *Cat. No. E-129*
(–)- *Cat. No. E-130*

Forskolin
Activates adenylate cyclase; isolated from *Coleus forskohlii* *Cat. No. F-105*

GBR-12909 diHCl
Selective dopamine uptake inhibitor *Cat. No. D-052*

8-Hydroxy-DPAT HBr
(+/–)- Selective 5-HT_{1A} agonist *Cat. No. S-002*
R(+)- Full 5-HT_{1A} agonist *Cat. No. H-140*
S(–)- Partial 5-HT_{1A} agonist *Cat. No. H-141*

(±)-7-Hydroxy-DPAT HBr
Selective D_3 dopamine agonist *Cat. No. H-145*

Rp-cAMPS triethylamine salt
Specific inhibitor of cAMP-dependent protein kinase I and II *Cat. No. A-165*

Sp-cAMPS triethylamine salt
Activator of cAMP-dependent protein kinase I and II *Cat. No. A-166*

(–)-Quinpirole HCl
Selective D_2 dopamine receptor agonist *Cat. No. Q-102*

Fax or write for our 1993-94 Catalog/Handbook, *Neurochemicals for the Neuroscientist*, listing 1,000 pharmacologically active compounds.

RBI RESEARCH BIOCHEMICALS INTERNATIONAL

One Strathmore Road, Natick, MA 01760-2447 USA
800-736-3690 • 508-651-8151 • Fax 508-655-1359

Local Distributors

Denmark, Roedovre • 044-948822
France, Illkirch • 88-67-14-14
Germany, Köln • 0221-497-2034
Israel, Jerusalem • 2-619940
Italy, Milano • 02-50-97-720
Japan, Tokyo • 03-5684-1622
South Africa, Port Elizabeth • 041-41-4841
Switzerland, Zurich • 01-312-2124
United Kingdom, St. Albans • 0727-8-41414