INDEX

Volume 279, October-December, 1996

A2774 cells, effects of endogenous TNF secreted by, 84
Abai, A. M., *see* Bebök, Z., 1462
Abdel-Rahman, A. A., *see* Mao, L., 443
Abe, Y., Sekioka, K., Ishisu, R., Onishi, K., Ueda, Y. and Nakano, T.: Restoration of ischemic contractile failure of indo-1-loaded guinea pig heart by a calcium sensitizer, MCI-154, 47
Abecarnil, tolerance and dependence liability, in mice seizure models, 561
Abiko, Y., *see* Hara, A., 32
Abrahams, T. P., Liu, W. and Varner, K. J.: Blockade of *alpha*-2 adrenergic receptors in the rostral ventrolateral medulla attenuates the sympathoinhibitory response to cocaine, 967
Aceclidine, enantiomers, muscarinic receptor interactions, 1335
Acetaminophen, toxicity
  cholesteryl hemisuccinate protection against, 1470
  in male Wistar rats, 548
Acetylcholine
  -mediated vasodilation, inhibition by lipopolysaccharide, 918
  release at neuromuscular junction, tetrandrine effects on, in mouse, 891
  release in brain, enhancement by SA4503, in rat, 106
  release in tracheal smooth muscle, ET-1 effects on, in rat, 1142
Acetylcholine receptors
  muscarinic
    aceclidine enantiomer interactions, 1335
    allosteric lead structures for, 926
    Hm1, Hm3 and Hm5, functional properties, 593
    -operated potassium currents, inhibition by amiodarone, 617
  nicotinic
    agonist RJR-2403, *in vitro* characterization, 1413
    agonist RJR-2403, *in vivo* characterization, 1422
    hippocampal, mapping, 1491
    melatonin modulation of, in rat vas deferens, 18
N-(4-Acetyl-1-piperazinyl)-*p*-fluorobenzamidemonohydrate, *see* FK960
AChRs, *see* Acetylcholine receptors
Acquired immunodeficiency syndrome, ribavirin/ddI combination in, in murine model, 1009
Adams, J. L., *see* Badger, A. M., 1453
Adenosine deaminase, RBC-derived, 1250
Adenosine receptors
  A_1, 8-butylaminoadenosine partial agonism at, 1439
  A_3, bronchospasm induced by, in BDE rats, 1148
Adenylyl cyclase
  -mediated cell signaling, aging and, 478
  membrane-based activation assay for *beta*-3 agonist potency, 214
Adrenal gland, Egr-1 mRNA expression in, neural control of, 379
Adrenal medulla, catecholamine secretion and ion channel inhibition by protamine in, in bovine cells, 838
Adrenergic receptors
  alpha-2
    angiotensin receptor interactions, in rat nucleus reticularis gigantocellularis, 795
    in ethanol-clonidine interactions, in rats, 443
    rostral ventrolateral medullary blockade, and cocaine sympathoinhibition, 967
  beta-3, agonist potency, receptor density and, 214
Adrenocorticotropic hormone, m-CPP and DOI-induced secretion, 782
ω-Agatoxin-IVA, effects on motor nerve Ca^{++} currents, in mouse, 1229
Aging, and glucocorticoids, 478
Agmatine, platelet I_1 binding sites, 694
Agrawal, A. K. and Shapiro, B. H.: Imprinted overinduction of hepatic CYP2B1 and 2B2 in adult rats neonatally exposed to phenobarbital, 991
Aguayo, L. G., Tapia, J. C. and Pancetti, F. C.: Potentiation of the glycine-activated Cl^- current by ethanol in cultured mouse spinal neurons, 1116
AIDS, *see* Acquired immunodeficiency syndrome
Airway muscle
  cholinergic nerve-mediated contractions, ET-1 effects on, in rat, 1142
  non-neurogenic relaxation in, in canine, 813
Aizenman, E., *see* Boeckman, F. A., 515
Akaike, T., *see* Noda, J., 162
Åkerman, E. O., *see* Kukkonen, J. P., 593
Albuquerque, E. X., *see* Alkondon, M., 1491
Albuquerque, E. X., *see* Marchioro, M., 143
Alcohol, *see* Ethanol
Alendronate, comparison with raloxifene, in rats, 298
Aleo, M. D., Wang, T., Giebisch, G., Sanders, M. J., Walsh, A. H. and Lopez-Anaya, A.: Model development and analysis of tenidap-induced proteinuria in the rat, 1318
Aliño, S. F., *see* Blaya, C., 472
Alkondon, M., Pereira, E. F. R. and Albuquerque, E. X.: Mapping the location of functional nicotinic and γ-aminobutyric $acid_A$ receptors on hippocampal neurons, 1491
O^6-Alkylguanine DNA alkyltransferase, inactivation by triazene compounds, 416
Allergic response
  conjunctival itching, mediation by ketorolac, 137
  MDL 105,212 effects in, in guinea pig model, 732
Allosteric lead structures, 926
(±)-4-[(α-R^*)-α-((2S^*,5R^*)-4-Allyl-2,5-dimethyl-1-piperazinyl)-3-hydroxybenzyl]-N,N-diethylbenzamide, *see* (±)-BW373U86
Alpert, N. M., *see* Christian, B. T., 325
Alpert, N. M., *see* Fischman, A. J., 939
American Society for Pharmacology and Experimental Therapeutics (ASPET), Colloquium Report, 1
γ-Aminobutyric acid, -gated chloride channels, [^{3}H]EBOB binding and insecticide action on, 1191
γ-Aminobutyric acid receptors, agonist renal effects, in rat, 602
γ-Aminobutyric $acid_A$ receptors
  in benzodiazepine-tolerant rats, 1092
  hippocampal, mapping, 1491
  insecticides and, in cerebellar granule neurons, 1191
  stanozolol effects on, 186
(2R)-2-Amino-N-(2,6-dimethylphenyl)-N-[3-(3-pyridyl)propyl]propionamide D-tartrate, *see* Ro 22–9194
Aminoguanidine, pharmacokinetics and effects on diabetes, in nonobese diabetic mice, 790
2-(2′-Amino-3′-methoxyphenyl)-oxanaphthalen-4-one, *see* PD098059
N^6-2-(4-Aminophenyl)ethyladenosine, bronchospasm induced by, in BDE rats, 1148
4-Aminopyridine, Kv4.2 blockade by, 865
Amiodarone, effects on mAChR-operated potassium currents, in guinea pig atrial cells, 617
Ammonia, toxicity, trimethylamine preventive effects against, 194
Amore, B. M., *see* Bennett, G. D., 1237
Anabolic steroids, stanozolol
  effects on $GABA_A$ receptor function, 186
  liver microsome binding site, in male rat, 1123
Analgesia, *see also* Antinociception
  N-cyclobutylmethyl analog of normorphinone, 539
  peripheral morphine, 502
Anderson, D. J., *see* Nigam, R., 1527
Anderson, D. J., *see* Simon, W. C., 1535
Androgenic/anabolic steroids, stanozolol
  effects on $GABA_A$ receptor function, 186
  liver microsome binding site, in male rat, 1123
Anesthesia, erythropoietin pharmacokinetics after, in sheep, 1205

Angiotensin II receptors, *alpha*-2 adrenoceptor interactions, 795
Angiotensin III receptors, *alpha*-2 adrenoceptor interactions, 795
Angiotensin II, effects on cAMP release, 114
Angiotensin I converting enzyme, single-domain, 1582
Angiotensin-converting enzyme, inhibitor effects on bradykinin vasodepressor and prostacyclin responses, 703
Anions, inorganic, and basolateral organic cation transport system, in rabbit kidney proximal tubules, 1086
Antiarrhythmics, Ro 22–9194, effects on ventricular fibrillation, in dogs, 877
Antibody, *see also* Monoclonal antibody
  antihuman anti-IgE, in monkeys, 1000
  -conjugated plasminogen activators, pulmonary vasculature targeting, 1026
Anticonvulsants
  benzodiazepine
    effects, in direct cortical stimulation model, 803
    receptor ligands, tolerance and dependence liability, 561, 573
  L-701,324, profile, 492
Antidepressants
  BMS-181101, cerebral pharmacokinetics, 325
  chronic, and 5-HT_7 receptor activity, in rat frontocortical astrocytes, 1551
Antinociception, *see also* Analgesia
  angiotensin-*alpha*-2 receptor interactions in, in rat nucleus reticularis gigantocellularis, 795
  β-endorphin, pertussis toxin and, in mouse, 39
  inhalation opioid, in mice, 69
  morphine
    gender-related differences in, 767
    pertussis toxin and, in mouse, 39
  spinal SNX-111, in rat neuropathic pain, 1243
  sumatriptan, in rodents and guinea pigs, 884
  Δ^9-THC and morphine, dynorphins and, in spinal cord, 608
Antioxidants
  effects on fibronectin turnover, in mesangial cells, 1520
  liver enzymes, cocaine-induced peroxidative stress effects on, in rat, 359
Aorta, glutathione *S*-transferases, glyceryl trinitrate biotransformation by, in rat, 1527
APNEA, *see* N^6-2-(4-Aminophenyl)ethyladenosine
Apoptosis
  acetaminophen-induced, cholesteryl hemisuccinate protection against, 1470
  induction by CoA-independent transacylase inhibitors, in HL-60 cells, 956
  lead-induced, in newborn rat, 435
Aquino, A., *see* Prete, S. P., 1574
Aracava, Y., *see* Marchioro, M., 143
Arachidonic acid, effects on superoxide generation in HL-60 cells, 633
Archer, S., *see* Xu, J. Y., 539
Arends, R. H. G. P., *see* Hoogerkamp, A., 803
Argenzio, R. A., Armstrong, M. and Rhoads, J. M.: Role of the enteric nervous system in piglet cryptosporidiosis, 1109
Armstrong, M., *see* Argenzio, R. A., 1109
Aromatic compounds, nitroso, pyruvate dehydrogenase complex-catalyzed formation of N-arylacetohydroxamic acid from, in rat, 1282
Arrhythmias
  ischemia- and reperfusion-induced, Ro 22–9194 effects on, in dogs, 877
  proarrhythmic effects of flecainide, 317
  related to delayed repolarization, 231
Arrington, S., *see* Bencherif, M., 1413
Arthritis, antiarthritic effects of SB 203580 on, in animal models, 1453
N-Arylacetohydroxamic acid, formation of, in rat, 1282
Asano, M., *see* Nomura, Y., 830
ASPET, *see* American Society for Pharmacology and Experimental Therapeutics
Asthma, IL-5 suppression by T-440 in PBMCs, 240
Astrocytes, chronic antidepressants and 5-HT_7 receptor activity in, in rat frontal cortex, 1551
Atchison, W. D., *see* Xu, Y.-F., 1229
Atkinson, M. A., *see* Bowman, M. A., 790
Atochina, E. N., *see* Muzykantov, V. R., 1026
Atrial cells, mAChR-operated potassium currents, inhibition by amiodarone, in guinea pig, 617
Aulakh, C. S., *see* Mazzola-Pomietto, P., 782
Avenet, P., *see* Itier, V., 1092
3′-Azido-3′-dideoxythymidine, antiviral effects, in murine cells, 1268
AZT, *see* 3′-Azido-3′-dideoxythymidine

Babich, J. W., *see* Christian, B. T., 325
Babich, J. W., *see* Fischman, A. J., 939
Baclofen, renal effects, in rat, 602
Baculovirus expression system, muscarinic ACh receptor subtypes expressed in Sf9 cells with, 593
Badger, A. M., Bradbeer, J. N., Votta, B., Lee, J. C., Adams, J. L. and Griswold, D. E.: Pharmacological profile of SB 203580, a selective inhibitor of cytokine suppressive binding protein/p38 kinase, in animal models of arthritis, bone resorption, endotoxin shock and immune function, 1453
Baker, D. A., Khroyan, T. V., O'Dell, L. E., Fuchs, R. A. and Neisewander, J. L.: Differential effects of intra-accumbens sulpiride on cocaine-induced locomotion and conditioned place preference, 392
Bakshi, V., *see* Swerdlow, N. R., 1290
Barnathan, E. S., *see* Muzykantov, V. R., 1026
Baron, B. M., Siegel, B. W., Harrison, B. L., Gross, R. S., Hawes, C. and Towers, P.: [^{3}H]MDL 105,519, a high-affinity radioligand for the N-Methyl-D-aspartate-associated glycine recognition site, 62
Barone, F. C., Nelson, A. H., Ohlstein, E. H., Willette, R. N., Sealey, J. E., Laragh, J. H., Campbell, W. G., Jr. and Feuerstein, G. Z.: Chronic carvedilol and propranolol reduces mortality and renal damage in hypertensive stroke-prone rats, 948
Barrel field cortical neurons, cocaine substrates in, in rat, 582
Bartolini, A., *see* Ghelardini, C., 884
Bates, D. J., *see* Fox, J. A., 1000
BDF,6153, platelet I_1 binding sites, 694
Beanum, V. C., *see* Traylor, L. A., 91
Beauchamp, D., *see* Harvie, P., 1009
Bebök, Z., Abai, A. M., Dong, J.-Y., King, S. A., Kirk, K. L., Berta, G., Hughes, B. W., Kraft, A. S., Burgess, S. W., Shaw, W., Felgner, P. L. and Sorscher, E. J.: Efficiency of plasmid delivery and expression after lipid-mediated gene transfer to human cells *in vitro*, 1462
Bekavac, I., *see* Waterhouse, B. D., 582
Bell, R. A., *see* Morita, K., 379
Bemis, K., *see* Sato, M., 298
Bencherif, M., *see* Lippiello, P. M., 1422
Bencherif, M., Lovette, M. E., Fowler, K. W., Arrington, S., Reeves, L., Caldwell, W. S. and Lippiello, P. M.: RJR-2403: A nicotinic agonist with CNS selectivity I. *In vitro* characterization, 1413
Bennett, B. M., *see* Nigam, R., 1527
Bennett, B. M., *see* Simon, W. C., 1535
Bennett, G. D., Amore, B. M., Finnell, R. H., Wlodarczyk, B., Kalhorn, T. F., Skiles, G. L., Nelson, S. D. and Slattery, J. T.: Teratogenicity of carbamazepine-10,11-epoxide and oxcarbazepine in the SWV mouse, 1237
Benyas, S., *see* Picker, M. J., 1130
Benzodiazepines
  anticonvulsant effects, in direct cortical stimulation model, 803
  receptor ligands, in mice seizure models, 561, 573
  tolerance, $GABA_A$ receptors in, in rats, 1092
1-(1,3-Benzodioxol-5-yl)-2-(methylamino)butane, neuroendocrine pharmacology, 1261
Bergeron, M. G., *see* Harvie, P., 1009
Bergman, M. R. and Holycross, B. J.: Pharmacological modulation of myocardial tumor necrosis factor α production by phosphodiesterase inhibitors, 247
Berta, G., *see* Bebök, Z., 1462
Bertha, C. M., *see* Schetz, J. A., 1069
Bevan, J. A., *see* Xie, H., 668
Bicuculline, renal effects, in rat, 602
Bidlack, J. M., *see* Xu, J. Y., 539
Bigelow, G. E., *see* Walsh, S. L., 524
Biliary function, TP-680 effects on, 1404
Biotransformation, *see also* Metabolism
  diltiazem, P450 inhibition during, in rat liver, 1447
  glyceryl trinitrate, by rat aortic GSTs, 1527
Bladder, urinary, tachykinin NK-2 receptors in, in dog, 423
Blaney, B., *see* Higashiura, K., 1386

Blaya, C., Crespo, J., Crespo, A. and Aliño, S. F.: Anti-interleukin 4 antibody and indomethacin synergistic effect on B16 melanoma tumor progression, 472
Blink rate, dopamine agonist effects on, in cynomolgus monkeys, 1211
Blood, *see also* Peripheral blood
dynorphin A (1-17) biotransformation, human and rhesus monkey, 507
Blood pressure, bradykinin response, ACE inhibitor effects on, 703
Blood-brain barrier, peptide drug delivery, CNS effects, in rats, 77
Blower, P. R., *see* Grélot, L., 255
BMS-181101, cerebral pharmacokinetics, 325
Boada, L. D., Fernández, L., Zumbado, M., Luzardo, O. P., Chirino, R. and Díaz-Chico, B. N.: Identification of a specific binding site for the anabolic steroid stanozolol in male rat liver microsomes, 1123
Boeckman, F. A. and Aizenman, E.: Pharmacological properties of acquired excitotoxicity in Chinese hamster ovary cells transfected with N-methyl-D-aspartate receptor subunits, 515
Bomers, A. M., *see* Hoogerkamp, A., 803
Bonab, A. A., *see* Fischman, A. J., 939
Bone resorption, antiarthritic effects of SB 203580 on, in animal models, 1453
Bonmassar, E., *see* Lacal, P. M., 416
Bonmassar, E., *see* Prete, S. P., 1574
Bosche, M. C., *see* Nandi, J., 97
Bosron, W. F., *see* Kamendulis, L. M., 713
Boulanger, C. M., *see* Desta, B., 1077
Bowersox, S. S., Gadbois, T., Singh, T., Pettus, M., Wang, Y.-X. and Luther, R. R.: Selective N-type neuronal voltage-sensitive calcium channel blocker, SNX-111, produces spinal antinociception in rat models of acute, persistent and neuropathic pain, 1243
Bowman, M. A., Simell, O. G., Peck, A. B., Cornelius, J., Luchetta, R., Look, Z., Maclaren, N. K. and Atkinson, M. A.: Pharmacokinetics of aminoguanidine administration and effects on the diabetes frequency in nonobese diabetic mice, 790
Boyd, M. R., *see* Currens, M. J., 645
Boyd, M. R., *see* Currens, M. J., 652
Boyd, M. R., *see* Vistica, D. T., 1018
Boyle, F. M., Wheeler, H. R. and Shenfield, G. M.: Glutamate ameliorates experimental vincristine neuropathy, 410
Bradbeer, J. N., *see* Badger, A. M., 1453
Bradykinin, vasodepressor and prostacyclin responses, ACE inhibitor effects on, 703
Brain
acetylcholine release in, enhancement by SA4503, in rat, 106
CRF and CRF-R1 mRNA levels after binge cocaine administration, in rat, 351
dopamine neurons, NMDA currents in, in rat, 457
5-hydroxytryptamine release in, effects of repeated MDMA on, in rat, 277
Brain tumors, cytotoxins selective for, 1018
Brauneis, U., Oz, M., Peoples, R. W., Weight, F. F. and Zhang, L.: Differential sensitivity of recombinant N-methyl-D-aspartate receptor subunits to inhibition by dynorphin, 1063
Breimer, D. D., *see* Mathôt, R. A. A., 1439
Brenic, S., *see* Mayer, A. M. S., 633
Bristow, L. J., Hutson, P. H., Kulagowski, J. J., Leeson, P. D., Matheson, S., Murray, F., Rathbone, D., Saywell, K. L., Thorn, L., Watt, A. P. and Tricklebank, M. D.: Anticonvulsant and behavioral profile of L-701,324, a potent, orally active antagonist at the glycine modulatory site on the *N*-methyl-D-aspartate receptor complex, 492
Brixius, K., *see* Müller-Ehmsen, J., 1220
BRL 37344, potency, receptor density and, 214
N-[2-(p-Bromocinnamoylamino)ethyl]-5-isoquinoline-sulfonamide, effects on parietal cell function, in rabbit, 97
Bronchiolar cytotoxicity, 1,1-dichloroethylene, in adult and weanling mice, 1484
Bronchospasm, APNEA-induced, in BDE rats, 1148
Brown, N. J., Ryder, D., Gainer, J. V., Morrow, J. D. and Nadeau, J.: Differential effects of angiotensin converting enzyme inhibitors on the vasodepressor and prostacyclin responses to bradykinin, 703
Browne, M. J., *see* Wilson, S., 214
Brownfield, M. S., *see* Li, Q., 1261
Bryant, H. U., *see* Sato, M., 298
Brzezinski, M. R., *see* Kamendulis, L. M., 713
Buckheit, R. W., Jr., *see* Currens, M. J., 645
Buffini, J. D., *see* Fox, A. W., 686
Burcher, E., *see* Mussap, C. J., 423
Burgess, S. W., *see* Bebök, Z., 1462
Burgmer, U., *see* Tränkle, C., 926
Burka, L. T., *see* Nomeir, A. A., 222
Burke, T., *see* Zernig, G., 23
Burkhoff, D., *see* Todaka, K., 120
Burkholder, T. P., *see* Kudlacz, E. M., 732
Burr, D. B., *see* Sato, M., 298
Butelman, E. R., *see* Yu, J., 507
Butelman, E. R., Lewis, J. W. and Woods, J. H.: Methoclocinnamox: Agonist and antagonist effects of a novel long-lasting opioid in rhesus monkeys, 934
Butler, A. M., *see* Murray, M., 1447
Butorphanol, discriminative stimulus effects of, 1130
Butschky, M. F., *see* Pickworth, W. B., 450
8-Butylaminoadenosine, partial agonism at A_1 receptor, 1439
(±)-4-(3-*t*-Butylamino-2-hydroxypropoxy-)benzimidazol-2-one, *see* CGP 12177
[^{35S}] *t*-Butylbicyclophosphorothionate, GABA-stimulated binding, stanozolol effects on, 186
(±)-BW373U86, methylether derivative, metabolism of, 1069
Caillé, G., *see* Lefebvre, M., 902
Calanolide A
HIV inhibition by, 645
HIV reverse transcriptase inhibition by, 652
Calcium
buffering by sarcoplasmic reticulum, in rat femoral arterial smooth muscle, 830
-dependent potassium channels, activation, NO-synthase expression and, 1514
effects in torsades de pointes, 231
Calcium channels
L-type, cGMP effects on, in guinea pig ventricular myocytes, 1274
motor nerve, ω-agatoxin-IVA and ω-conotoxin-MVIIC effects on, in mouse, 1229
voltage-sensitive, N-type, and spinal antinociception in rat neuropathic pain, 1243
Calcium sensitizers
levosimendan, effects on myocardial contractility and oxygen consumption, 120
MCI-154, effects on ischemic dysfunction, in guinea pig heart, 47
Calderon, S. N., *see* Schetz, J. A., 1069
Caldwell, W. S., *see* Bencherif, M., 1413
Calphostin-C, effects on parietal cell function, in rabbit, 97
cAMP, *see* Cyclic adenosine monophosphate
Campbell, W. G., Jr., *see* Barone, F. C., 948
Cancer
CEA expression in, effects of 5-fluorouracil on, 1574
ovarian, effects of endogenous TNF in, 84
Carbamazepine-10,11-epoxide, teratogenicity, in SWV mouse, 1237
Carbon dioxide, inhalation, inhibitory effects on pulmonary stretch receptors, in rabbit, 402
Carboxylesterase-mediated heroin metabolism, 713
(R)-1-3-[3-(3-Carboxypyridine-2-yl)thio-2-(indol-2-yl)carbonylamino]propionyl-4-diphenyl-methyl-piperazine, *see* TP-680
Carcillo, J. A., Herzer, W. A., Mi, Z., Thomas, N. J. and Jackson, E. K.: Treatment with the type IV phosphodiesterase inhibitor Ro 20-1724 protects renal and mesenteric blood flow in endotoxemic rats treated with norepinephrine, 1197
Carcillo, J. A., Jr., *see* Jackson, E. K., 1250
Carcinoembryonic antigen, expression, effects of 5-fluorouracil on, in cancer cells, 1574
Cardiac hypertrophy, diuretic effects on, in spontaneously hypertensive rats, 983
Cardiac sympathetic ganglia, inhibition by dopamine receptors, in canine, 822
Cardiovascular system
regulation of, angiotensin-*alpha*-2 receptor interactions in, 795
thrombin receptor activation *in vivo* and, 1365
Carlsson, L., Drews, L. and Duker, G.: Rhythm anomalies related to de-

layed repolarization *in vivo*. Influence of sarcolemmal Ca^{++} entry and intracellular Ca^{++} overload, 231
Carneiro, R. C. G., *see* Markus, R. P., 18
Carnitine, derivatives containing trimethylamine, preventive effects against ammonia toxicity and glutamate neurotoxicity, 194
Carroll, F. I., *see* Fleckenstein, A. E., 200
Carvedilol, effects on survival in stroke-prone spontaneously hypertensive rats, 948
Casida, J. E., *see* Huang, J., 1191
Catalepsy, cholinergic neurons and, in mouse striatum, 1430
Catecholamine, secretion, inhibition by protamine, in bovine adrenal medullary cells, 838
Cathinone, N-methylated analog enantiomer effects, 1043
Cations, organic, basolateral transport system, in rabbit kidney proximal tubules, 1086
Cell death, *see* Apoptosis
Cell signaling, mediated through adenylyl cyclase, aging and, 478
Central nervous system
  effects of peptide drug delivery to blood-brain barrier on, in rats, 77
  -selective agonist RJR-2403
    in vitro characterization, 1413
    in vivo characterization, 1422
Cerebellum
  GABA-gated chloride channels in, [^{3}H]EBOB binding and insecticide action on, in granule neurons, 1191
  lead neurotoxicity and apoptotic effects in, in newborn rat, 435
Cerebrum
  BMS-181101 pharmacokinetics, by PET, 325
  thiopental kinetics, enantiomeric analysis in sheep, 291
cGMP, *see* Cyclic guanosine monophosphate
CGP 12177, potency, receptor density and, 214
Chabot-Fletcher, M., *see* Winkler, J. D., 956
Chait, B. T., *see* Yu, J., 507
Chambers, J. K., *see* Wilson, S., 214
Chan, A. W. K., *see* Devi, B. G., 359
Chan, B. S. H., Lazzaro, V. A., Seale, J. P. and Duggin, G. G.: Transport of paraquat in a renal epithelial cell line LLC-PK_1, 625
Chan, S. H. H., *see* Yang, C.-H., 795
Chapman, C. G., *see* Wilson, S., 214
Cheung, W.-M., *see* Damiano, B. P., 1365
Chiba, K., *see* Kim, R. B., 4
Chiba, K., *see* Zhao, X.-J., 1327
Chikkala, D. N., *see* Piletz, J. E., 694
Chilton, F. H., *see* Winkler, J. D., 956
Chinese hamster ovary cells, NMDA receptor subunit-transfected, acquired excitotoxicity in, 515
Chirino, R., *see* Boada, L. D., 1123
^{36}Chloride, GABA-stimulated influx, stanozolol effects on, 186
Chloride channels
  endothelin receptor coupling, in rat pulmonary arterial myocytes, 1053
  GABA-gated, [^{3}H]EBOB binding and insecticide action on, in cerebellar granule neurons, 1191
  glycine-activated, potentiation by ethanol, in mouse spinal neurons, 1116
7-Chloro-4-hydroxy-3-(3-phenoxy)phenyl-2(*H*)quinolone, *see* L-701,324
(*RR,SS*)-(±)-4-[(2-(2-(3-Chlorophenyl)-2-hydroxyethyl)amino)-propyl]phenoxyacetate, *see* BRL 37344
3β-(3-*p*-Chlorophenyl)tropan-2β-carboxylic acid *p*-isothiocyanatophenylethyl ester hydrochloride, *see* RTI-76
Chlorzoxazone, oral, disposition in Japanese and Caucasians, 4
CHO, *see* Chinese hamster ovary cells
Cholecystokinin, mechanisms of action, in canine GI tract, 306
Cholecystokinin receptors, antagonist TP-680, pharmacological profile, 1404
Cholesteryl hemisuccinate, protection against acetaminophen hepatotoxicity, 1470
Choline
  derivatives containing trimethylamine, preventive effects against ammonia toxicity and glutamate neurotoxicity, 194
  hepatic uptake, in rat, 774
Cholinergic system
  airway, ET-1 effects on, in rat tracheal smooth muscle, 1142
  effects in sumatriptan antinociception, in rodents and guinea pigs, 884
  neurons, and catalepsy, in mouse striatum, 1430
Christian, B. T., Livni, E., Babich, J. W., Alpert, N. M., Dischino, D. D., Ruediger, E., Salazar, D. E., Ford, N. F. and Fischman, A. J.: Evaluation of cerebral pharmacokinetics of the novel antidepressant drug, BMS-181101, by positron emission tomography, 325
Chu, Y., *see* Taguchi, H., 1514
Cicero, T. J.: Gender-related differences in the antinociceptive properties of morphine, 767
Cipris, S., *see* Vergara, P., 306
Cisplatin-induced emesis, delayed by granisetron, in piglet, 255
Claes, C., *see* De Ryck, M., 748
Clerico, L., *see* Debernardis, D., 84
Clincke, G., *see* De Ryck, M., 748
Clobazam
  anticonvulsant effects, in direct cortical stimulation model, 803
  tolerance and dependence liability, in mice seizure models, 561
Cloccinamox, opioid receptor blockade, 23
Clonazepam
  anticonvulsant effects, in direct cortical stimulation model, 803
  tolerance and dependence liability, in mice seizure models, 561
Clonidine, ethanol interactions, in rats, 443
Cocaine
  binge administration, CRF and CRF-R1 mRNA levels after, in rat brain and pituitary, 351
  chronic withdrawal, CRF and CRF-R1 mRNA levels during, in rat brain and pituitary, 351
  conditioned place preference induced by, intra-accumbens sulpiride and, 177
  esterase-mediated metabolism, 713
  immunotoxicity, in B6C3F1 and DBA/2 mice, 3
  liver toxicity, in rat, 359
  locomotive effects, intra-accumbens sulpiride and, 177
  opioid interactions, 524
  plasma concentrations, arterial and venous, 1345
  substrates, in rat barrel field cortical neurons, 582
  sympathoinhibitory responses, blockade by rostral ventrolateral medullary *alpha*-2 receptor, 967
Codeine, inhalation exposure, antinociceptive effects, in mice, 69
Coenzyme A-independent transacylase inhibitors, apoptosis induction by, in HL-60 cells, 956
Cognition, enhancement by FK960, in rats, 1157
Coirault, C., *see* Joseph, T., 464
Collins, A. C., *see* Lippiello, P. M., 1422
Collins, K. A., *see* Tseng, L. F., 39
Colon carcinoma, CEA expression in, effects of 5-fluorouracil on, 1574
Compounds, dermal application, local deep tissue penetration of, 908
Conditioned place preference
  cocaine-induced, intra-accumbens sulpiride and, 392
  morphine-induced, TAN-67 effects on, in mice, 177
Cone, E. J., *see* Evans, S. M., 1345
Conjunctival pruritus, ketorolac effects against, 137
ω-Conotoxin-MVIIC, effects on motor nerve Ca^{++} currents, in mouse, 1229
Contractions
  cGMP effects on, in guinea pig ventricular myocytes, 1274
  cholinergic nerve-mediated, ET-1 effects on, in rat tracheal smooth muscle, 1142
  flow-induced, PKC effects in, 668
  giant migrating, PAF-induced, during ileal inflammation, 207
  myocardial, levosimendan effects on, 120
Cornelius, J., *see* Bowman, M. A., 790
Coronary artery
  effects of dexfenfluramine on, porcine, 1077
  vasodilatory actions of nicorandil on, in human tissue, 1220
Corpus striatum
  cholinergic neurons, organization, in mouse, 1430
  dopamine transporter, inactivation by RTI-76, 200
  GDNF functional effects in, in rat, 1181
  histamine release in, effects of acute and chronic methamphetamine on, in rat, 271
Corradetti, R., *see* Pugliese, A. M., 1100
Cortex

chronic antidepressants and 5-HT_7 receptor activity in, in rat astrocytes, 1551
cocaine substrates in, in rat, 582
Corticotropin-releasing factor, mRNA levels after binge cocaine administration, 351
Corticotropin-releasing factor receptors, type 1, mRNA levels after binge cocaine administration, 351
Crankshaw, D. J., *see* Senchyna, M., 262
Crespo, A., *see* Blaya, C., 472
Crespo, J., *see* Blaya, C., 472
CRF, *see* Corticotropin-releasing factor
Cromakalim, mechano-energetic effects on left ventricular papillary muscle, in guinea pig, 464
Cronk, D. W., *see* Wilson, S., 214
Cryptosporidiosis, enteric nervous system in, in piglet, 1109
Currens, M. J., Gulakowski, R. J., Mariner, J. M., Moran, R. A., Buckheit, R. W., Jr., Gustafson, K. R., McMahon, J. B. and Boyd, M. R.: Antiviral activity and mechanism of action of calanolide A against the human immunodeficiency virus, 645
Currens, M. J., Mariner, J. M., McMahon, J. B. and Boyd, M. R.: Kinetic analysis of inhibition of human immunodeficiency virus reverse transcriptase by calanolide A, 652
Cu,Zn-superoxide dismutase, succinylated keratin fragment conjugate, effects, 162
Cyclic adenosine monophosphate
accumulation, 5-HT_7 receptor-mediated, chronic antidepressants and, in rat, 1551
accumulation assay for *beta*-3 agonist potency, 214
release in kidney, angiotensin II effects on, in spontaneously hypertensive rat, 114
Cyclic guanosine monophosphate, effects on L-type calcium current and contractions, in guinea pig ventricular myocytes, 1274
N-Cyclobutylmethyl, normorphinone analog binding and analgesia, 539
3-(3-Cyclopropyl-5-isoxazolyl)-6-fluoro-5-morpholino-imidazo[1,5-*a*]quinazoline, *see* NNC 14-0185
3-(5-Cyclopropyl-1,2,4-oxadiazol-3-yl)-7-fluoro-5-(4-methyl-1-piperazinyl)-imidazol[1,5-*a*]quinazoline, *see* NNC 14-0189
Cyclo[-D-*α*-aspartyl-3-[(4-phenylpiperazin-1-yl)carbonyl]-L-alanyl-L-*α*-aspartyl-D-2-(2-thienyl)glycyl-L-leucyl-D-tryptophyl]disodium salt, *see* TAK-044
Cytochrome P450
2B1, imprinted overinduction of, in adult rats neonatally exposed to phenobarbital, 991
2B2, imprinted overinduction of, in adult rats neonatally exposed to phenobarbital, 991
2C19, quinine 3-hydroxylation by, in liver microsomes, 1327
2D, impipramine-induced inactivation of, in rat liver microsomes, 724
2E1, activity in Japanese and Caucasians, 4
3A2, inhibition during diltiazem biotransformation, in rat liver, 1447
3A4, quinine 3-hydroxylation by, in liver microsomes, 1327
human recombinant, quinine 3-hydroxylation by, in liver microsomes, 1327
Cytokine receptors, soluble, as carrier proteins, 340
Cytokine suppressive binding protein, inhibitor SB 203580, pharmacological profile, in animal models, 1453
Cytotoxicity
bronchiolar, 1,1-dichloroethylene, in adult and weanling mice, 1484
indomethacin, leminoprazole protection against, in rabbit gastric mucosal cells, 975
lipid A, nitric oxide effects in, 91
Cytotoxins, brain tumor-selective, 1018

Daggett, L. P., *see* Varney, M. A., 367
Dahl, S. G., *see* Soulard, C. D., 1379
Dains, K., Hitzemann, B. and Hitzemann, R.: Genetics, neuroleptic response and the organization of cholinergic neurons in the mouse striatum, 1430
Dal Cason, T. A., *see* Sparago, M., 1043
Damiano, B. P., Cheung, W.-M., Mitchell, J. A. and Falotico, R.: Cardiovascular actions of thrombin receptor activation *in vivo*, 1365
Dan, K., *see* Mukai, M., 822
Danhof, M., *see* Hoogerkamp, A., 803
Danhof, M., *see* Mathôt, R. A. A., 1439
Daniel, E. E., *see* Vergara, P., 306
Danilov, S. M., *see* Muzykantov, V. R., 1026
D'Atri, S., *see* Lacal, P. M., 416
ddI, *see* 2',3'-Dideoxyinosine
De Filippi, R., *see* Prete, S. P., 1574
De Ryck, M., Keersmaekers, R., Duytschaever, H., Claes, C., Clincke, G., Janssen, M. and Van Reet, G.: Lubeluzole protects sensorimotor function and reduces infarct size in a photochemical stroke model in rats, 748
De Santis, S., *see* Prete, S. P., 1574
De Vecchis, L., *see* Prete, S. P., 1574
Deal, C., *see* Varney, M. A., 367
Dean, R. A., *see* Kamendulis, L. M., 713
Debernardis, D., Stanzione, S., Ottoboni, C., Clerico, L., Mancuso, T., Parodi, S. and Russo, P.: Endogenous tumor necrosis factor enhances topoisomerase II inhibitors activity in human ovarian cancer cell lines, 84
Deddish, P. A., Wang, L.-X., Jackman, H. L., Michel, B., Wang, J., Skidgel, R. A. and Erdös, E. G.: Single-domain angiotensin I converting enzyme (kininase II): Characterization and properties, 1582
Deitrich, R. A., *see* Erwin, V. G., 1310
Delyani, J. A., Nossuli, T. O., Scalia, R., Thomas, G., Garvey, D. S. and Lefer, A. M.: *S*-Nitrosylated tissue-type plasminogen activator protects against myocardial ischemia/reperfusion injury in cats: Role of the endothelium, 1174
Dependence
benzodiazepine receptor ligand liability, in mice, 561, 573
ethanol, ganglioside effects against, 128
morphine, substance P(1-7) effects on, 662
reverse use, of Kv4.2 blockade by 4-aminopyridine, 865
Depoortere, H., *see* Itier, V., 1092
L-Deprenyl, effects on excitatory synaptic transmission, in rat hippocampus, 740
Dermal application of compounds, local deep tissue penetration, 908
Désormeaux, A., *see* Harvie, P., 1009
Desta, B., Schultz, D., Ravel, D., Laudignon, N., Vanhoutte, P. M. and Boulanger, C. M.: Acute and chronic effects of dexfenfluramine on the porcine coronary artery, 1077
Devi, B. G. and Chan, A. W. K.: Cocaine-induced peroxidative stress in rat liver: Antioxidant enzymes and mitochondria, 359
Dexfenfluramine, acute and chronic effects on coronary artery, porcine, 1077
Diabetes, aminoguanidine effects on, in nonobese diabetic mice, 790
Díaz-Chico, B. N., *see* Boada, L. D., 1123
Diazepam
anticonvulsant effects, in direct cortical stimulation model, 803
dependence liability, in mice seizure models, 561
tolerance
$GABA_A$ receptors in, in rats, 1092
liability, in mice seizure models, 561
Dicarboxylate, carrier, fluorescein interactions, in rat kidney cortex mitochondria, 1559
1,1-Dichloroethylene, metabolism, in adult and weanling mice, 1484
2',3'-Dideoxyinosine, combined with ribavirin, in murine AIDS model, 1009
Dilazep, effects on PALCAR-induced mechanical derangement, in rat heart, 32
Diltiazem, metabolism
organ-specific, in rabbits, 902
P450 inhibition during, in rat liver, 1447
1-(2,5-Dimethoxy-4-iodophenyl)-2-aminopropane, neuroendocrine effects, tolerance, 782
1-(3,4-Dimethoxyphenethyl)-4-(3-phenylpropyl)piperazine dihydrochloride, *see* SA4503
Dischino, D. D., *see* Christian, B. T., 325
14*α*,14'*β*-[Dithiobis[(2-oxo-2,1-ethanediyl)imino]]bis[7,8-dihydro-N-(cyclobutylmethyl)-normorphinone], binding and analgesia, 539
Diuresis, effects of fedotozine *vs* other *κ* agonists on, in rats, 1379
Diuretics, effects on cardiac hypertrophy, in spontaneously hypertensive rats, 983
DOI, *see* 1-(2,5-Dimethoxy-4-iodophenyl)-2-aminopropane
Dombrowski, D. S., *see* Pugh, G., Jr., 608
Dong, J.-Y., *see* Bebök, Z., 1462

Dopamine
GDNF functional effects on, in rat striatum, 1181
neuron NMDA currents, in rat brain, 457
transporter inactivation by intrastriatal RTI-76, 200
Dopamine receptors
agonist effects on eye blink rate, in cynomolgus monkeys, 1211
antagonist effects on METH-induced histamine release, in rat striatum, 271
D_4 antagonist U-101387, pharmacological characterization, 1392
ganglionic inhibition by, in canine cardiac sympathetic ganglia, 822
Dowsley, T. F., *see* Forkert, P. G., 1484
Drews, L., *see* Carlsson, L., 231
Drug delivery
peptide blood-brain barrier, CNS effects, in rats, 77
solute structure and penetration, 908
Drug discrimination, butorphanol, 1130
Drug interactions, fluorescein, in rat kidney cortex mitochondria, 1559
Du Souich, P., *see* Lefebvre, M., 902
Duckles, S. P., Krause, D. N. and Miller, V. M.: Effects of gonadal steroids on vascular function, 1
Ducros, L., *see* Joseph, T., 464
Duggin, G. G., *see* Chan, B. S. H., 625
Duker, G., *see* Carlsson, L., 231
Dusserre, N., *see* Harvie, P., 1009
Dutton, P. L., *see* Johansson, J. S., 56
Duytschaever, H., *see* De Ryck, M., 748
Dynorphin
NMDA receptor sensitivity, 1063
and Δ^9-THC combined with morphine, in spinal cord, 608
Dynorphin A (1-17), biotransformation, human and rhesus monkey blood, 507

Eaton, M. J., *see* Merchant, K. M., 1392
Ebert, U., *see* Löscher, W., 561
Ebert, U., *see* Löscher, W., 573
[^{3}H]EBOB, *see* [^{3}H]Ethynylbicycloorthobenzoate
Eckhardt, U., *see* Kontaxi, M., 1507
Egr-1, neural control of, in rat adrenal gland, 379
Ehlert, F. J., Griffin, M. T. and Glidden, P.: The interaction of the enantiomers of aceclidine with subtypes of the muscarinic receptor, 1335
Elías, M. M., *see* Monasterolo, L. A., 602
Elías, M. M., *see* Trumper, L., 548
Ellipticines, quaternized, accumulation by human tumor cells, 1018
Elmaleh, D. R., *see* Fischman, A. J., 939
Emesis, delayed, by repeated granisetron, in piglet, 255
Endoh, T., *see* Suzuki, T., 177
β-Endorphin, antinociceptive effects, pertussis toxin and, in mouse, 39
Endothelin-1
effects on airway cholinergic nerves, in rat, 1142
electrophysiological effects, in rat pulmonary arterial myocytes, 1053
Endothelin receptors, potassium and chloride channel coupling, in rat pulmonary arterial myocytes, 1053
Endothelin$_A$ receptor, antagonism by TAK-044, 675
Endothelin$_B$ receptor, antagonism by TAK-044, 675
Endotoxemia, norepinephrine combined with Ro 20-1724 treatment, in rat, 1197
Endotoxin shock, antiarthritic effects of SB 203580 on, in animal models, 1453
Ensinger, H. A., *see* Meade, C. J., 1148
Enteric nervous system, in cryptosporidiosis, in piglet, 1109
Enterocyte microsomes, rifabutin disposition and metabolism by, in rats, 1300
Erdös, E. G., *see* Deddish, P. A., 1582
Eris, T., *see* Winkler, J. D., 956
Erwin, V. G. and Deitrich, R. A.: Genetic selection and characterization of mouse lines for acute functional tolerance to ethanol, 1310
Erythrocytes, injured, adenosine deaminase release by, 1250
Erythropoietin, pharmacokinetics, in sheep, 1205
Esterase-mediated heroin metabolism, 713
Estrogen, comparison with raloxifene, in rats, 298
ET, *see* Endothelin
Ethanol
clonidine interactions, in rats, 443
dependence, ganglioside effects against, 128
glycine receptor potentiation by, in mouse spinal neurons, 1116
tolerance, genetic selection for, in mouse lines, 1310
[^{3}H]Ethynylbicycloorthobenzoate, binding on GABA-gated chloride channel, in cerebellar granule neurons, 1191
ET-18-O-CH_3, *see* 1-*O*-Octadecyl-2-O-methyl-*sn*-glycero-3-phosphocholine
Evans, H. L., *see* Oberto, A., 435
Evans, S. M., Cone, E. J. and Henningfield, J. E.: Arterial and venous cocaine plasma concentrations in humans: Relationship to route of administration, cardiovascular effects and subjective effects, 1345
Excitation, decrease by felbamate, in CA1 rat hippocampal slices, 1100
Excitatory synaptic transmission, L-deprenyl effects on, in rat hippocampus, 740
Excitotoxicity, acquired, in NMDA receptor subunit-transfected CHO cells, 515
Eye blink rate, dopamine agonist effects on, in cynomolgus monkeys, 1211

Falotico, R., *see* Damiano, B. P., 1365
Fant, R. V., *see* Pickworth, W. B., 450
Faraci, F. M., *see* Taguchi, H., 1514
Fariss, M. W., *see* Ray, S. D., 1470
Fedotozine, effects on diuresis, in rats, 1379
Felbamate, excitation decrease by, in CA1 rat hippocampal slices, 1100
Felgner, P. L., *see* Bebök, Z., 1462
Felipo, V., *see* Miñna, M.-D., 194
Female-dominant sulfotransferases, ontogeny and hormonal basis, in rat liver, 386
Femoral arterial smooth muscle, sarcoplasmic reticulum calcium buffering action in, in rat, 830
Fentanyl, inhalation exposure, antinociceptive effects, in mice, 69
Fernandes, L. B., *see* Knott, P. G., 1142
Fernández, L., *see* Boada, L. D., 1123
Fernandez-Botran, R., *see* Ma, Y., 340
Ferrier, G. R., 317
Feuerstein, G. Z., *see* Barone, F. C., 948
Fibrinolytics, lung targeting, 1026
Fibronectin, turnover, silibinin effects on, in mesangial cells, 1520
Figini, M., *see* Ghelardini, C., 884
Finnell, R. H., *see* Bennett, G. D., 1237
Fischman, A. J., *see* Christian, B. T., 325
Fischman, A. J., Bonab, A. A., Babich, J. W., Alpert, N. M., Rauch, S. L., Elmaleh, D. R., Shoup, T. M., Williams, S. A. and Rubin, R. H.: Positron emission tomographic analysis of central 5-hydroxytryptamine$_2$ receptor occupancy in healthy volunteers treated with the novel antipsychotic agent, ziprasidone, 939
Fisher, A. B., *see* Muzykantov, V. R., 1026
FK960, cognitive enhancement by, in rats, 1157
Flecainide, proarrhythmic effects, 317
Fleckenstein, A. E., Pögün, S., Carroll, F. I. and Kuhar, M. J.: Recovery of dopamine transporter binding and function after intrastriatal administration of the irreversible inhibitor RTI-76 {3β-(3-*p*-chlorophenyl)tropan-2β-carboxylic acid *p*-isothiocyanatophenylethyl ester hydrochloride}, 200
Flow-induced contraction, PKC effects in, 668
Flunitrazepam, anticonvulsant effects, in direct cortical stimulation model, 803
Fluorescein, dicarboxylate carrier interactions, in rat kidney cortex mitochondria, 1559
4-(4-Fluorophenyl)-2-(4-methylsulfinylphenyl)-5-(4-pyridyl)imidazole, *see* SB 203580
5-Fluorouracil, effects on CEA expression, in cancer cells, 1574
Fluoxetine, chronic, desensitization of 5-HT_{1A} receptors by, 1035
Ford, N. F., *see* Christian, B. T., 325
Forkert, P. G., Dowsley, T. F., Lee, R. P., Hong, J.-Y. and Ulreich, J. B.: Differential formation of 1,1-dichloroethylene-metabolites in the lungs of adult and weanling male and female mice: Correlation with severities of bronchiolar cytotoxicity, 1484
Fossati, G., *see* Patrini, G., 172
Fowler, K. W., *see* Bencherif, M., 1413
Fox, A. W., Sullivan, B. W., Buffini, J. D., Neichin, M. L., Nicora,R., Hoehler, F. K., O'Rourke, R. and Stoltz, R. R.: Reduction of serum lactate by sodium dichloroacetate, and human pharmacokinetic-pharmacodynamic relationships, 686
Fox, J. A., Hotaling, T. E., Struble, C., Ruppel, J., Bates, D. J., and

Schoenhoff, M. B.: Tissue distribution and complex formation with IgE of an anti-IgE antibody after intravenous administration in cynomolgus monkeys, 1000
Fox-Threlkeld, J. E. T., *see* Vergara, P., 306
Free radicals, effects on K^+ channels in non-neurogenic relaxation, in canine airway muscle, 813
Friedlaender, M. H., *see* Woodward, D. F., 137
Frontal cortex, chronic antidepressants and 5-HT_7 receptor activity in, in rat astrocytes, 1551
Fuchs, R. A., *see* Baker, D. A., 392
Fujisawa, Y., *see* Masuda, Y., 675
Furosemide, effects on cardiac hypertrophy, in spontaneously hypertensive rats, 983
Furukawa, T., *see* Mukai, M., 822

Gadbois, T., *see* Bowersox, S. S., 1243
Gainer, J. V., *see* Brown, N. J., 703
Galeotti, N., *see* Ghelardini, C., 884
Gallagher, M. J., *see* Lynch, D. R., 154
Ganglia, sympathetic, inhibition by dopamine receptors, in canine heart, 822
Gangliosides, effects against ethanol dependence, 128
Garner, J. E., *see* Walsh, S. L., 524
Gartside, S. E., McQuade, R. and Sharp, T.: Effects of repeated administration of 3,4-methylenedioxymethamphetamine on 5-hydroxytryptamine neuronal activity and release in the rat brain *in vivo*, 277
Garvey, D. S., *see* Delyani, J. A., 1174
Gastric acid secretion
  inhibition by secretin, in canine, 718
  TP-680 effects on, 1404
Gastric mucosa, leminoprazole cytoprotection in, in rabbit, 975
Gastrointestinal tract, cholecystokinin mechanisms of action in, in canine, 306
GDNF, *see* Glial cell-line derived neurotrophic factor
Gender-related differences, in morphine antinociception, 767
Gene transfer, lipid-mediated, plasmid delivery efficiency after, 1462
Genes
  cardiac, diuretic effects on, in spontaneously hypertensive rats, 983
  PNMT, and Egr-1 mRNA expression, in rat adrenal gland, 379
  prostaglandin G/H synthase-2, thymocyte expression, in rats, 1566
  selection for ethanol tolerance, in mouse lines, 1310
  and striatal cholinergic neurons, in mouse, 1430
Gerber, J. G. and Payne, N. A.: Secretin inhibits canine gastric acid secretion in response to pentagastrin by modulating gastric histamine release, 718
Gerber, N., *see* Koudriakova, T., 1300
Gerhardt, G. A., *see* Hebert, M., 1181
Gessa, G. L., *see* Ghelardini, C., 884
Geyer, M. A., *see* Swerdlow, N. R., 1290
Ghanayem, B. I., *see* Nomeir, A. A., 222
Ghelardini, C., Galeotti, N., Figini, M., Imperato, A., Nicolodi, M., Sicuteri, F., Gessa, G. L. and Bartolini, A.: The central cholinergic system has a role in the antinociception induced in rodents and guinea pigs by the antimigraine drug sumatriptan, 884
Giant migrating contractions, PAF-induced, during ileal inflammation, 207
Giebisch, G., *see* Aleo, M. D., 1318
Gill, G. S., *see* Merchant, K. M., 1392
Giuliani, A., *see* Prete, S. P., 1574
Glaser, K. B., *see* Mayer, A. M. S., 633
Glial cell-line derived neurotrophic factor, functional effects, in rat striatum, 1181
Glidden, P., *see* Ehlert, F. J., 1335
Glucocorticoids, aging and, 478
Glucose, high, fibronectin turnover effects, silibinin and antioxidants and, 1520
Glutamate
  neurotoxicity
    lubeluzole protective effects against, 759
    trimethylamine preventive effects against, 194
  and vincristine neuropathy, 410
Glutathione *S*-transferase
  glyceryl trinitrate biotransformation by, in rat aorta, 1527
  inhibition, glyceryl trinitrate actions and, 1535
Glyceryl trinitrate
  biotransformation by rat aortic GSTs, 1527
  pharmacological actions after GST inhibition, 1535
Glycine receptors
  antagonist L-701,324, behavioral profile, 492
  [^{3}H]MDL 105,519 site, 62
  potentiation by ethanol, in mouse spinal neurons, 1116
Goldie, R. G., *see* Knott, P. G., 1142
Gonadal steroids, vascular effects, 1
Gori, E., *see* Patrini, G., 172
Gotzsch, U., *see* Wiegand, H., 891
Gould, E. M., *see* Waterhouse, B. D., 582
Gourde, P., *see* Harvie, P., 1009
Granger, P., *see* Itier, V., 1092
Granisetron, repeated, delayed emesis by, in piglet, 255
Grant, C., *see* Mather, L. E., 291
Gray, E., *see* Mather, L. E., 291
Gray, J. A., *see* Lippiello, P. M., 1422
Graziani, G., *see* Lacal, P. M., 416
Graziani, G., *see* Prete, S. P., 1574
Greiner, J. W., *see* Prete, S. P., 1574
Grélot, L., Le Stunff, H., Milano, S., Blower, P. R. and Romain, D.: Repeated administration of the 5-HT_3 receptor antagonist granisetron reduces the incidence of delayed cisplatin-induced emesis in the piglet, 255
Greven, J., *see* Hohage, H., 1086
Griffin, M. T., *see* Ehlert, F. J., 1335
Griffin, R. J., *see* Nomeir, A. A., 222
Grigoryan, G., *see* Lippiello, P. M., 1422
Grisolí, S., *see* Miñna, M.-D., 194
Griswold, D. E., *see* Badger, A. M., 1453
Gross, R. S., *see* Baron, B. M., 62
GST, *see* glutathione *S*-transferase
Guengerich, F. P., *see* Kim, R. B., 4
Guerif, S., *see* Soulard, C. D., 1379
Guidotti, A., *see* Oberto, A., 435
Gulakowski, R. J., *see* Currens, M. J., 645
Gustafson, K. R., *see* Currens, M. J., 645

H-7, *see* 1(5-Isoquinolinesulfonyl)-2 methyl piperazine
H-8, *see* N-[(Methylamine)ethyl]-5-isoquinoline sulfonamide
H-89, *see* N-[2-(p-Bromocinnamoylamino)ethyl]-5-isoquinoline-sulfonamide
HA-1004, *see* N-(2-Quindinoethyl)-5-isoquinoline sulfonamide
Hadac, E. M., *see* Holtmann, M. H., 555
Hagenbuch, B., *see* Kontaxi, M., 1507
Haloperidol, inhibition of NMDA receptors by, 154
Halothane, tetra-α-helix-bundle protein binding, 56
Halushka, P. V., *see* Higashiura, K., 1386
Hamaguchi, A., *see* Kim, S., 983
Hara, A., Hashizume, H. and Abiko, Y.: Dilazep and its derivative, K-7259, attenuate mechanical derangement induced by palmitoyl-L-carnitine in the isolated, perfused rat heart, 32
Hara, Y., *see* Watanabe, Y., 617
Harris, D. W., *see* Merchant, K. M., 1392
Harrison, B. L., *see* Baron, B. M., 62
Harvie, P., Omar, R. F., Dusserre, N., Lansac, N., Désormeaux, A., Gourde, P., Simard, M., Tremblay, M., Beauchamp, D. and Bergeron, M. G.: Ribavirin potentiates the efficacy and toxicity of 2',3'-dideoxyinosine in the murine acquired immunodeficiency syndrome model, 1009
Hashida, M., *see* Sawai, K., 284
Hashizume, H., *see* Hara, A., 32
Hatzidimitriou, G., *see* Sparago, M., 1043
Hawes, C., *see* Baron, B. M., 62
Heart
  PALCAR-induced mechanical derangement, dilazep and K-7259 effects on, in rat heart, 32
  sympathetic ganglia, inhibition by dopamine receptors, in canine, 822
Hebert, M., Van Horne, C. G., Hoffer, B. J. and Gerhardt, G. A.: Functional effects of GDNF in normal rat striatum: Presynaptic studies using *in vivo* electrochemistry and microdialysis, 1181
Heisler, B. E. and Ferrier, G. R.: Proarrhythmic actions of flecainide in an isolated tissue model of ischemia and reperfusion, 317
Heistad, D. D, *see* Taguchi, H., 1514
Helterbrand, J., *see* Sato, M., 298
Henningfield, J. E., *see* Evans, S. M., 1345
Henningfield, J. E., *see* Pickworth, W. B., 450
Henry, P. J., *see* Knott, P. G., 1142
Hepatectomy, erythropoietin pharmacokinetics after, in sheep, 1205
Hepatotoxicity, acetaminophen, cholesteryl hemisuccinate protection against, 1470
Hermenegildo, C., *see* Miñna, M.-D., 194
Heroin
  esterase-mediated metabolism, 713

inhalation exposure, antinociceptive effects, in mice, 69
Herzer, W. A., *see* Carcillo, J. A., 1197
Herzer W. A., *see* Jackson, E. K., 1250
Hess, S. D., *see* Varney, M. A., 367
Higashiura, K., Blaney, B., Morgan, E., Mathur, R. S. and Halushka, P. V.: Inhibition of testosterone 5α-reductase: Evidence for tissue-specific regulation of thromboxane A_2 receptors, 1386
Higgs, R., *see* Sato, M., 298
Hippocampus
CA1 region, excitation decrease by felbamate in, in rat, 1100
excitatory synaptic transmission, L-deprenyl effects on, in rat, 740
$GABA_A$ receptors
in benzodiazepine-tolerant rats, 1092
mapping, 1491
nicotinic receptors, mapping, 1491
NMDA receptors, lead effects on, in rat, 143
Histamine
gastric release, modulation by secretin, in canine, 718
striatal release, effects of acute and chronic methamphetamine on, in rat, 271
Hitzemann, B., *see* Dains, K., 1430
Hitzemann, R., *see* Dains, K., 1430
HIV, *see* Human immunodeficiency virus
HL-60 cells
apoptosis induction by CoA-independent transacylase inhibitors, 956
superoxide generation, 633
Ho, A., *see* Zhou, Y., 351
Hodges, H., *see* Lippiello, P. M., 1422
Hoehler, F. K., *see* Fox, A. W., 686
Hoffer, B. J., *see* Hebert, M., 1181
Hoffman, P. L., *see* Snell, L. D., 128
Hohage, H., Querl, I. U., Mörth, D. M. and Greven, J.: The basolateral organic cation transport system of rabbit kidney proximal tubules. Influence of anorganic anions, 1086
Hoischen, S., *see* Müller-Ehmsen, J., 1220
Holsapple, M. P., *see* Matulka, R. A., 3
Holtmann, M. H., Hadac, E. M., Ulrich, C. D. and Miller, L. J.: Molecular basis and species specificity of high affinity binding of vasoactive intestinal polypeptide by the rat secretin receptor, 555
Holycross, B. J., *see* Bergman, M. R., 247
Hönack, D., *see* Löscher, W., 561
Hönack, D., *see* Löscher, W., 573
Hong, J.-Y., *see* Forkert, P. G., 1484
Hoogerkamp, A., Arends, R. H. G. P., Bomers, A. M., Mandema, J. W., Voskuy, R. A., and Danhof, M.: Pharmacokinetic/pharmacodynamic relationship of benzodiazepines in the direct cortical stimulation model of anticonvulsant effect, 803
Horie, T., *see* Masubuchi, Y., 724
Hormones, regulation of female-dominant sulfotransferases by, in rat liver, 386
Horwitz, J. A., *see* Picker, M. J., 1130
Hotaling, T. E., *see* Fox, J. A., 1000
Hsu, K.-S., Huang, C.-C., Su, M.-T. and Tsai, J.-J.: L-Deprenyl (selegiline) decreases excitatory synaptic transmission in the rat hippocampus *via* a dopaminergic mechanism, 740
5-HT, *see* 5-Hydroxytryptamine
HT-29 cells, CEA expression, effects of 5-fluorouracil on, 1574
Huang, C.-C., *see* Hsu, K.-S., 740
Huang, J. and Casida, J. E.: Characterization of [^{3}H]ethynylbicycloorthobenzoate ([^{3}H]EBOB) binding and the action of insecticides on the γ-aminobutyric acid-gated chloride channel in cultured cerebellar granule neurons, 1191
Huang, J. L., *see* Mather, L. E., 291
Huang, S.-J., *see* Mazzola-Pomietto, P., 782
Huff, R. M., *see* Merchant, K. M., 1392
Hughes, B. W., *see* Bebök, Z., 1462
Human immunodeficiency virus
inhibition by calanolide A, 645
reverse transcriptase, inhibition by calanolide A, 652
Hursey, M., *see* Vistica, D. T., 1018
Hurst, H. E., *see* Ma, Y., 340
Hutson, P. H., *see* Bristow, L. J., 492
Hydrogen, secretion of, modulation by PKC, in rabbit parietal cells, 97
Hydromorphone, cocaine interactions, in humans, 524
3-Hydroxylation, quinine, by cytochrome P450 isoforms, in liver, 1327
5-Hydroxytryptamine
function, effects of repeated MDMA on, in rat, 277
mitogen-activated protein kinase activation by, in vascular smooth muscle, 1541
release in brain, effects of repeated MDMA on, in rat, 277
releasers, neuroendocrine pharmacology, 1261
5-Hydroxytryptamine$_{1A}$ receptors, desensitization by chronic fluoxetine, 1035
5-Hydroxytryptamine$_3$ receptors, antagonist granisetron, delayed emesis by, in piglet, 255
5-Hydroxytryptamine$_7$ receptors, chronic antidepressants and, in rat frontocortical astrocytes, 1551
5-Hydroxytryptamine$_2$ receptors, ziprasidone and, PET analysis, 939
Hypertension, spontaneous
angiotensin II effects on renal cAMP release in, in rat, 114
carvedilol effects on survival in, in stroke-prone rats, 948
effects of diuretics on cardiac hypertrophy in, in rats, 983
Hypertrophy, cardiac, diuretic effects on, in spontaneously hypertensive rats, 983
Hypothalamus, CRF and CRF-R1 mRNA levels after binge cocaine administration, in rat, 351
Hypothermia, early neuroprotective effects against metabolic stress, 332

Iatsimirskaia, E., *see* Koudriakova, T., 1300
Igarashi, S., *see* Masubuchi, Y., 724
IGROV-1 cells, effects of endogenous TNF secreted by, 84
Ijzerman, A. P., *see* Mathôt, R. A. A., 1439
Ikezawa, K., *see* Kaminuma, O., 240
IL, *see* Interleukin
Ileal inflammation, PAF contractile effects during, 207
Imaizumi, Y., *see* Nomura, Y., 830
Imidazoline, platelet binding sites, 694
Imidazoquinazolines, NNC 14-0185 and NNC 14-0189, tolerance and dependence liability, in mice seizure models, 573
Imipramine, inactivation of CYP2D by, in rat liver microsomes, 724
Immune cells, opioid receptor density, morphine and methadone effects on, on murine splenocytes, 172
Immune function, antiarthritic effects of SB 203580 on, in animal models, 1453
Immunodeficiency, *see* Acquired immunodeficiency syndrome; Human immunodeficiency virus
Immunoglobulin E, antihuman anti-IgE antibody, in monkeys, 1000
Immunotoxicity, cocaine, in B6C3F1 and DBA/2 mice, 3
Imperato, A., *see* Ghelardini, C., 884
Indomethacin
combined with anti-IL4, effect on tumor metastasis, 472
cytotoxicity, leminoprazole protection against, in rabbit gastric mucosal cells, 975
Infarcts, size, lubeluzole effects on, in rat photochemical stroke model, 748
Inflammation, ileal, PAF contractile effects during, 207
Inhalation
carbon dioxide, inhibitory effects on pulmonary stretch receptors, in rabbit, 402
opioid, antinociceptive effects, in mice, 69
Injury
ischemia/reperfusion
focal, lubeluzole neuroprotection in, in rat photochemical stroke model, 748
-induced arrhythmias, Ro 22–9194 effects on, in dogs, 877
mesenteric, norepinephrine combined with Ro 20-1724 and, in endotoxemic rats, 1197
myocardial, MCI-154 effects on, in guinea pig heart, 47
myocardial, NO-tPA effects against, in cats, 1174
proarrhythmic effects of flecainide in, in tissue model, 317
red blood cells, adenosine deaminase release by, 1250
Insecticides, action on GABA-gated chloride channel, in cerebellar granule neurons, 1191
Insulin-dependent diabetes, aminoguanidine effects on, in nonobese diabetic mice, 790
Interferon-*gamma*, in met-enkephalin antiviral effects, in murine cells, 1268
Interleukin-4
anti-IL4 effect on tumor metastasis, 472
pharmacokinetics, effects of soluble IL-4 receptors on, in mouse, 340

soluble, receptors effects on murine IL-4 pharmacokinetics, 340
Interleukin-5, suppression by T-440, in PBMCs, 240
Ion channels, inhibition by protamine, in bovine adrenal medullary cells, 838
Ischemia/reperfusion injury
arrhythmias, Ro 22-9194 effects on, in dogs, 877
focal, lubeluzole neuroprotection in, in rat photochemical stroke model, 748
mesenteric, norepinephrine combined with Ro 20-1724 and, in endotoxemic rats, 1197
myocardial
MCI-154 effects on, in guinea pig heart, 47
NO-tPA effects against, in cats, 1174
proarrhythmic effects of flecainide in, in tissue model, 317
Ishisu, R., *see* Abe, Y., 47
Ishizaki, T., *see* Kim, R. B., 4
Ishizaki, T., *see* Zhao, X.-J., 1327
S(−)-4-{-[2-(Isochroman-1-yl)ethyl]piperazin-1yl}benzenesulfonamide, *see* U-101387
Isoquinoline sulfonamides, effects on parietal cell function, in rabbit, 97
1(5-Isoquinolinesulfonyl)-2 methyl piperazine, effects on parietal cell function, in rabbit, 97
Itching, allergic conjunctival, mediation by ketorolac, 137
Itier, V., Granger, P., Perrault, G., Depoortere, H., Scatton, B. and Avenet, P.: Protracted treatment with diazepam reduces benzodiazepine$_1$ receptor-mediated potentiation of γ-aminobutyric acid-induced currents in dissociated rat hippocampal neurons, 1092
Ito, C., Onodera, K., Sakurai, E., Sato, M. and Watanabe, T.: Effects of dopamine antagonists on neuronal histamine release in the striatum of rats subjected to acute and chronic treatments with methamphetamine, 271
Ito, K., *see* Nomura, Y., 830
Itoh, Y., *see* Masuda, Y., 675
Iversen, P., *see* Sato, M., 298
Iwao, H., *see* Kim, S., 983
Izumi, F., *see* Minami, K., 838

Jachec, C., *see* Varney, M. A., 367
Jackman, H. L., *see* Deddish, P. A., 1582
Jackson, E. K., *see* Carcillo, J. A., 1197
Jackson, E. K., *see* Vyas, S. J., 114
Jackson, E. K., Mi, Z., Koehler, M. T., Carcillo, J. A., Jr. and Herzer W. A.: Injured erythrocytes release adenosine deaminase into the circulation, 1250
Jain, S., *see* Kolesnikov, Y. A., 502
Janssen, L. J. and Wattie, J.: Non-neurogenic electrically evoked relaxation in canine airway muscle involves action of free radicals on K^+ channels, 813
Janssen, M., *see* De Ryck, M., 748
Jiang, M., *see* Tseng, G.-N., 865
Johansson, J. S., Rabanal, F. and Dutton, P. L.: Binding of the volatile anesthetic halothane to the hydrophobic core of a tetra-α-helix-bundle protein, 56
Johnson, E. C., *see* Varney, M. A., 367
Johnson, S. W., *see* Wu, Y.-N., 457
Jordan, S. D., *see* Matulka, R. A., 3
Joseph, T., Coirault, C., Ducros, L., and Lecarpentier, Y.: Mechanical and energetic effects of cromakalim on guinea pig left ventricular papillary muscle, 464
Jouët, P. and Sarna, S. K.: Platelet-activating factor (PAF) stimulates giant migrating contractions during ileal inflammation, 207

K-7259, effects on PALCAR-induced mechanical derangement, in rat heart, 32
Kalhorn, T. F., *see* Bennett, G. D., 1237
Kallender, H., *see* Wilson, S., 214
Kamendulis, L. M., Brzezinski, M. R., Pindel, E. V., Bosron, W. F. and Dean, R. A.: Metabolism of cocaine and heroin is catalyzed by the same human liver carboxylesterases, 713
Kaminuma, O., Mori, A., Suko, M., Kikkewa, H., Ikezawa, K. and Okudaira, H.: Interleukin-5 production by peripheral blood mononuclear cells of asthmatic patients is suppressed by T-440: Relation to phosphodiesterase inhibition, 240
Kanagawa, K., *see* Tachibana, I., 1404
Kanazawa, T., *see* Murakami, M., 877
Kato, Y., *see* Kim, S., 983
Katz, J., *see* Sparago, M., 1043
Kawata, A., *see* Masuda, Y., 675
Keersmaekers, R., *see* De Ryck, M., 748
Kenney, S., *see* Vistica, D. T., 1018
Keratin, succinylated fragment, SOD conjugate, effects, 162
Ketorolac, antipruritic effects, 137
Khroyan, T. V., *see* Baker, D. A., 392
Kidney, *see also under* Renal
cAMP release, angiotensin II effects on, in spontaneously hypertensive rat, 114
GABA agonist effects on, in rat, 602
oligonucleotide disposition, in rat, 284
paraquat transport, in LLC-PK$_1$ cells, 625
proximal tubules
basolateral organic cation transport system, in rabbit, 1086
nitric oxide generation by, 91
Kidney cortex, dicarboxylate carrier, fluorescein interactions, in rat mitochondria, 1559
Kidney damage, carvedilol effects on, in stroke-prone spontaneously hypertensive rats, 948
Kidney failure, in endotoxemia, norepinephrine combined with Ro 20-1724 treatment, in rats, 1197
Kikkewa, H., *see* Kaminuma, O., 240
Kikuchi, T., *see* Masuda, Y., 675
Kim, R. B., Yamazaki, H., Chiba, K., O'Shea, D., Mimura, M., Guengerich, F. P., Ishizaki, T., Shimada, T. and Wilkinson, G. R.: *In vivo* and *in vitro* characterization of CYP2E1 activity in Japanese and Caucasians, 4
Kim, S., Hamaguchi, A., Shinkawa, T., Kato, Y., Tsuchiya, N., Miura, K., Ohta, K. and Iwao, H.: Molecular effects of M17055, furosemide and thiazide on cardiac hypertrophy of spontaneously hypertensive rats, 983
Kinase
inhibitor effects on superoxide generation in HL-60 cells, 633
inhibitor SB 203580, pharmacological profile, in animal models, 1453
mitogen-activated protein, activation by serotonin, in vascular smooth muscle, 1541
King, S. A., *see* Bebök, Z., 1462
Kininase II, characterization and properties, 1582
Kinukawa, M., *see* Murakami, M., 877
Kirk, K. L., *see* Bebök, Z., 1462
Kistard, J. A., *see* Widness, J. A., 1205
Klaassen, C. D., *see* Liu, L., 386
Kleven, M. S. and Koek, W.: Differential effects of direct and indirect dopamine agonists on eye blink rate in cynomolgus monkeys, 1211
Knecht, M., *see* Todaka, K., 120
Knippenberg, R. W., *see* Kudlacz, E. M., 732
Knott, P. G., Fernandes, L. B., Henry, P. J. and Goldie, R. G.: Influence of endothelin-1 on cholinergic nerve-mediated contractions and acetylcholine release in rat isolated tracheal smooth muscle, 1142
Kobayashi, T., Matsuno, K., Nakata, K. and Mita, S.: Enhancement of acetylcholine release by SA4503, a novel σ_1 receptor agonist, in the rat brain, 106
Koehler, M. T., *see* Jackson, E. K., 1250
Koek, W., *see* Kleven, M. S., 1211
Kolesnikov, Y. A., Jain, S., Wilson, R. and Pasternak, G. W.: Peripheral morphine analgesia: Synergy with central sites and a target of morphine tolerance, 502
Kontaxi, M., Eckhardt, U., Hagenbuch, B., Stieger, B., Meier, P. J. and Petzinger, E.: Uptake of the mycotoxin ochratoxin A in liver cells occurs *via* the cloned organic anion transporting polypeptide, 1507
Kostenis, E., *see* Tränkle, C., 926
Koudriakova, T., Iatsimirskaia, E., Tulebaev, S., Spetie, D., Utkin, I., Mullet, D., Thompson, T., Vouros, P. and Gerber, N.: *In vivo* disposition and metabolism by liver and enterocyte microsomes of the antitubercular drug rifabutin in rats, 1300
Kozlowski, R. Z., *see* Salter, K. J., 1053
Kraft, A. S., *see* Bebök, Z., 1462
Krämer, U., *see* Wiegand, H., 891
Krause, D. N., *see* Duckles, S. P., 1
Kreeger, J. S. and Larson, A. A.: The substance P amino-terminal metabolite substance P(1-7), administered peripherally, prevents the development of acute morphine tolerance and attenuates the expression of withdrawal in mice, 662

Kreek, M. J., *see* Yu, J., 507
Kreek, M. J., *see* Zhou, Y., 351
Kudlacz, E. M., Knippenberg, R. W., Logan, D. E. and Burkholder, T. P.: Effect of MDL 105,212, a nonpeptide NK-1/NK-2 receptor antagonist in an allergic guinea pig model, 732
Kuhar, M. J., *see* Fleckenstein, A. E., 200
Kukkonen, J. P., Näsman, J., Ojala, P., Oker-Blom, C. and Åkerman, E. O.: Functional properties of muscarinic receptor subtypes Hm1, Hm3 and Hm5 expressed in Sf9 cells using the baculovirus expression system, 593
Kulagowski, J. J., *see* Bristow, L. J., 492
Kuo, A., *see* Muzykantov, V. R., 1026
Kurl, R. N., *see* Olnes, M. J., 1566
Kushiku, K., *see* Mukai, M., 822
Kv4.2, blockade by 4-aminopyridine, 865
Kv1.2, quinidine effects on, 844
Kwon, Y., Lee, R. D. and Morris, M. E.: Hepatic uptake of choline in rat liver basolateral and canalicular membrane vesicle preparations, 774

L-701,324, anticonvulsant and behavioral profile, 492
L929 cells, effects of endogenous TNF against, 84
Lacal, P. M., D'Atri, S., Orlando, L., Bonmassar, E. and Graziani, G.: *In vitro* inactivation of human O^6-alkylguanine DNA alkyltransferase by antitumor triazene compounds, 416
Lactate, serum, reduction by sodium dichloroacetate, 686
Ladurner, A., *see* Wilson, S., 214
LaForge, K. S., *see* Zhou, Y., 351
Laher, I., *see* Xie, H., 668
Lansac, N., *see* Harvie, P., 1009
Laragh, J. H., *see* Barone, F. C., 948
Larson, A. A., *see* Kreeger, J. S., 662
Laser desorption/ionization mass spectrometry, matrix-assisted, dynorphin A (1-17) biotransformation, human and rhesus monkey blood, 507
Laudignon, N., *see* Desta, B., 1077
Lazzaro, V. A., *see* Chan, B. S. H., 625
Le Stunff, H., *see* Grélot, L., 255
Lead
  allosteric structures, 926
  neurotoxicity and apoptotic effects, in newborn rat, 435
  NMDA receptor effects, in rat hippocampal neurons, 143
Lecarpentier, Y., *see* Joseph, T., 464
Lee, J. C., *see* Badger, A. M., 1453
Lee, R. D., *see* Kwon, Y., 774
Lee, R. P., *see* Forkert, P. G., 1484
Lee, S.-F., *see* Nigam, R., 1527
Leeson, P. D., *see* Bristow, L. J., 492
Lefebvre, M., Caillé, G. and Du Souich, P.: Organ-specific pattern of inhibition of diltiazem metabolism at steady state in rabbits, 902
Lefer, A. M., *see* Delyani, J. A., 1174
Left ventricular papillary muscle, mechano-energetic effects of cromakalim on, in guinea pig, 464
Lemaire, M., *see* Yamada, T., 1357
Leminoprazole, cytoprotective effects, in rabbit gastric mucosal cells, 975
Leon, I., *see* Meade, C. J., 1148
Lesage, A. S., Peeters, L. and Leysen, J. E.: Lubeluzole, a novel long-term neuroprotectant, inhibits the glutamate-activated nitric oxide synthase pathway, 759
Levine, R. A., *see* Nandi, J., 97
Levosimendan, effects on myocardial contractility and oxygen consumption, 120
Levy, A. D., *see* Li, Q., 1261
Lewis, J. W., *see* Butelman, E. R., 934
Lewis, J. W., *see* Zernig, G., 23
Lewis, S. J., *see* Peters, T. S., 918
Leysen, J. E., *see* Lesage, A. S., 759
Li, Q., Muma, N. A. and Van De Kar, L. D.: Chronic fluoxetine induces a gradual desensitization of 5-HT_{1A} receptors: Reductions in hypothalamic and midbrain G_i and G_o proteins and in neuroendocrine responses to a 5-HT_{1A} agonist, 1035
Li, Q., Murakami, I., Stall, S., Levy, A. D., Brownfield, M. S., Nichols, D. E. and Van de Kar, L. D.: Neuroendocrine pharmacology of three serotonin releasers: 1-(1,3-Benzodioxol-5-yl)-2-(methylamino)butane (MBDB), 5-methoxy-6-methyl-2-aminoindan (MMAI) and *p*-methylthioamphetamine (MTA), 1261
Lichtman, A. H., Meng, Y. and Martin, B. R.: Inhalation exposure to volatilized opioids produces antinociception in mice, 69
Ling, S., *see* Tseng, G.-N., 844
Lipid-mediated gene transfer, plasmid delivery efficiency after, 1462
Lipid A, cytotoxicity, nitric oxide effects in, 91
Lipopolysaccharide, inhibition of ACh- and NO-mediated vasodilation by, 918
Liposome-mediated gene transfer, plasmid delivery efficiency after, 1462
Lippiello, P. M., *see* Bencherif, M., 1413
Lippiello, P. M., Bencherif, M., Gray, J. A., Peters, S., Grigoryan, G., Hodges, H. and Collins, A. C.: RJR-2403: A nicotinic agonist with CNS selectivity II. *In vivo* characterization, 1422
Liu, L. and Klaassen, C. D.: Ontogeny and hormonal basis of female-dominant rat hepatic sulfotransferases, 386
Liu, W., *see* Abrahams, T. P., 967
Liver
  acetaminophen toxicity, cholesteryl hemisuccinate protection against, 1470
  choline uptake, in rat basolateral membrane vesicles and canalicular membrane vesicles, 774
  cocaine toxicity, in rat, 359
  cytochrome P450
    inhibition during diltiazem biotransformation, in rat, 1447
    isoforms in quinine metabolism, 1327
  cytochrome P450 2D inactivation, impipramine-induced, in rat microsomes, 724
  heroin metabolism, carboxylesterase-mediated, 713
  membrane vesicles, choline uptake, in rat, 774
  microsomes
    quinine metabolism, cytochrome P450 isoforms in, 1327
    stanozolol binding site, in male rat, 1123
  ochratoxin A uptake, 1507
  rifabutin metabolism, in rats, 1300
  sulfotransferases, female-dominant, ontogeny and hormonal basis, 386
Livni, E., *see* Christian, B. T., 325
Llansola, M., *see* Miñna, M.-D., 194
LLC-PK_1 cells, paraquat transport by, 625
Locomotion, cocaine-induced, intra-accumbens sulpiride and, 392
Logan, D. E., *see* Kudlacz, E. M., 732
Look, Z., *see* Bowman, M. A., 790
Lookingland, K., *see* Merchant, K. M., 1392
Lopez-Anaya, A., *see* Aleo, M. D., 1318
Löscher, W., Rundfeldt, C., Hönack, D. and Ebert, U.: Long-term studies on anticonvulsant tolerance and withdrawal characteristics of benzodiazepine receptor ligands in different seizure models in mice. I. Comparison of diazepam, clonazepam, clobazam and abecarnil, 561
Löscher, W., Rundfeldt, C., Hönack, D. and Ebert, U.: Long-term studies on anticonvulsant tolerance and withdrawal characteristics of benzodiazepine receptor ligands in different seizure models in mice. II. The novel imidazoquinazolines NNC 14-0185 and NNC 14-0189, 573
Lovette, M. E., *see* Bencherif, M., 1413
Lowe, L. S., *see* Widness, J. A., 1205
Lubeluzole, neuroprotective effects
  in focal ischemia, in rat photochemical stroke model, 748
  against glutamate toxicity, 759
Luchetta, R., *see* Bowman, M. A., 790
Ludbrook, G. L., *see* Mather, L. E., 291
Lung
  arterial myocytes, endothelin receptor coupling to potassium and chloride channels in, in rat, 1053
  1,1-dichloroethylene metabolism, in adult and weanling mice, 1484
  fibrinolytic targeting to, 1026
  stretch receptors, inhibitory effects of CO_2 inhalation on, in rabbit, 402
  vasculature, antibody-conjugated plasminogen activator targeting to, 1026
Luther, R. R., *see* Bowersox, S. S., 1243
Lutzke, B. S., *see* Merchant, K. M., 1392
Luzardo, O. P., *see* Boada, L. D., 1123
Lynch, D. R. and Gallagher, M. J.: Inhibition of N-methyl-D-aspartate receptors by haloperidol: Developmental and pharmacological characterization in native and recombinant receptors, 154

M17055, effects on cardiac hypertrophy, in spontaneously hypertensive rats, 983
Ma, Y., Hurst, H. E. and Fernandez-Botran, R.: Soluble cytokine re-

ceptors as carrier proteins: Effects of soluble interleukin-4 receptors on the pharmacokinetics of murine interleukin-4, 340
Maclaren, N. K., *see* Bowman, M. A., 790
Maeda, H., *see* Noda, J., 162
Maeda, N., *see* Yamazaki, M., 1157
Maggos, C. E., *see* Zhou, Y., 351
Mahato, R. I., *see* Sawai, K., 284
Mancuso, T., *see* Debernardis, D., 84
Mandema, J. W., *see* Hoogerkamp, A., 803
Mao, L. and Abdel-Rahman, A. A.: Synergistic behavioral interaction between ethanol and clonidine in rats: Role of *alpha*-2 adrenoceptors, 443
MAPK, *see* Mitogen-activated protein kinase
Marchioro, M., Swanson, K. L., Aracava, Y. and Albuquerque, E. X.: Glycine- and calcium-dependent effects of lead on N-methyl-D-aspartate receptor function in rat hippocampal neurons, 143
Mariner, J. M., *see* Currens, M. J., 645
Mariner, J. M., *see* Currens, M. J., 652
Markham, P., *see* Nomeir, A. A., 222
Marks, N., *see* Oberto, A., 435
Markus, R. P., Zago, W. M. and Carneiro, R. C. G.: Melatonin modulation of presynaptic nicotinic acetylcholine receptors in the rat vas deferens, 18
Martin, B. R., *see* Lichtman, A. H., 69
Maruyama, K., *see* Murakami, M., 877
Masci, G., *see* Prete, S. P., 1574
Masereeuw, R., Saleming, W. C., Miller, D. S. and Russel, F. G. M.: Interaction of fluorescein with the dicarboxylate carrier in rat kidney cortex mitochondria, 1559
Masonis, A. E. T. and McCarthy, M. P.: Effects of the androgenic/anabolic steroid stanozolol on $GABA_A$ receptor function: GABA-stimulated $^{36}Cl^-$ influx and [^{35}S] TBPS binding, 186
Mass spectrometry, matrix-assisted laser desorption/ionization, dynorphin A (1-17) biotransformation, human and rhesus monkey blood, 507
Massi, P., *see* Patrini, G., 172
Masubuchi, Y., Igarashi, S., Suzuki, T., Horie, T. and Narimatsu, S.: Imipramine-induced inactivation of a cytochrome P450 2D enzyme in rat liver microsomes: In relation to covalent binding of its reactive intermediate, 724
Masuda, Y., Sugo, T., Kikuchi, T., Kawata, A., Satoh, M., Fujisawa, Y., Itoh, Y., Wakimasu, M. and Ohtaki, T.: Receptor binding and antagonist properties of a novel endothelin receptor antagonist, TAK-044 {cyclo[-D-α-aspartyl-3-[(4-phenylpiperazin-1-yl)carbonyl]-L-alanyl-L-α-aspartyl-D-2-(2-thienyl)glycyl-L-leucyl-D-tryptophyl]disodium salt}, in human $endothelin_A$ and $endothelin_B$ receptors, 675
Mather, L. E., Upton, R. N., Huang, J. L., Ludbrook, G. L., Gray, E. and Grant, C.: The systemic and cerebral kinetics of thiopental in sheep: Enantiomeric analysis, 291
Matheson, S., *see* Bristow, L. J., 492
Mathewson, C., *see* Picker, M. J., 1130
Mathôt, R. A. A., Van der Wenden, E. M., Soudijn, W., Breimer, D. D., Ijzerman, A. P. and Danhof, M.: Partial agonism of the nonselective adenosine receptor agonist 8-butylaminoadenosine at the A_1 receptor *in vivo*, 1439
Mathur, R. S., *see* Higashiura, K., 1386
Matrix-assisted laser desorption/ionization mass spectrometry, dynorphin A (1-17) biotransformation, human and rhesus monkey blood, 507
Matsumoto, S., Okamura, H., Suzuki, K., Sugai, N. and Shimizu, T.: Inhibitory mechanism of CO_2 inhalation on slowly adapting pulmonary stretch receptors in the anesthetized rabbit, 402
Matsuno, K., *see* Kobayashi, T., 106
Matsuoka, N., *see* Yamazaki, M., 1157
Matulka, R. A., Jordan, S. D., Stanulis, E. D. and Holsapple, M. P.: Evaluation of sex- and strain-dependency of cocaine-induced immunosuppression in B6C3F1 and DBA/2 mice, 3
Mayer, A. M. S., Brenic, S. and Glaser, K. B.: Pharmacological targeting of signaling pathways in protein kinase *C*-stimulated superoxide generation in neutrophil-like HL-60 cells: Effect of phorbol ester, arachidonic acid and inhibitors of kinase(s), phosphatase(s) and phospholipase A_2, 633
Mayer, R. J., *see* Winkler, J. D., 956
Mayeux, P. R., *see* Traylor, L. A., 91
Mazzola-Pomietto, P., Aulakh, C. S., Huang, S.-J. and Murphy, D. L.: Repeated administration of metachlorophenylpiperazine or 1-(2,5-dimethoxy-4-iodophenyl)-2-aminopropane produces tolerance to its stimulatory effect on adrenocorticotropin hormone but not prolactin or corticosterone secretion in rats, 782
Mazzone, A., *see* Patrini, G., 172
Mazzucchelli, I., *see* Patrini, G., 172
MBDB, *see* 1-(1,3-Benzodioxol-5-yl)-2-(methylamino)butane
McCall, R. B., *see* Merchant, K. M., 1392
McCarthy, M. P., *see* Masonis, A. E. T., 186
McCook, C., *see* Slotkin, T. A., 478
MCI-154, effects on ischemic dysfunction, in guinea pig heart, 47
McIntosh, L. J., *see* Wiegand, H., 891
McMahon, J. B., *see* Currens, M. J., 645
McMahon, J. B., *see* Currens, M. J., 652
m-CPP, *see* Meta-chlorophenylpiperazine
McQuade, R., *see* Gartside, S. E., 277
MDL 105,212, effects in allergic response, in guinea pig model, 732
MDL 105,519, NMDA receptor-glycine site, 62
MDMA, *see* 3,4-Methylenedioxymethamphetamine
Meade, C. J., Mierau, J., Leon, I. and Ensinger, H. A.: *In vivo* role of the adenosine A_3 receptor: N^6-2-(4-Aminophenyl)ethyladenosine induces bronchospasm in BDE rats by mast-like cell-mediated and neurally mediated mechanisms, 1148
Meier, P. J., *see* Kontaxi, M., 1507
Melanoma, B16 tumor progression, anti-IL4 effect on, 472
Melatonin, modulation of nAChRs by, in rat vas deferens, 18
Memory, enhancement by FK960, in rats, 1157
Meng, Y., *see* Lichtman, A. H., 69
Meperidine, inhalation exposure, antinociceptive effects, in mice, 69
Merchant, K. M., Gill, G. S., Harris, D. W., Huff, R. M., Eaton, M. J., Lookingland, K., Lutzke, B. S., McCall, R. B., Piercey, M. F., Schreur, P. J. K. D., Sethy, V. H., Smith, M. W., Svensson, K. A., Tang, A. H., Vonvoigtlander, P. F. and Tenbrink, R. E.: Pharmacological characterization of U-101387, a dopamine D4 receptor selective antagonist, 1392
Mesangial cells, fibronectin turnover, silibinin effects on, 1520
Mesenteric blood flow, in endotoxemia, norepinephrine combined with Ro 20-1724 and, in rats, 1197
Messenger RNA
  CRF and CRF-R1, levels after binge cocaine administration, in rat, 351
  Egr-1, neural control of, in rat adrenal gland, 379
Metabolic stress, hypothermia and neuroprotection against, 332
Metabolism
  diltiazem
    organ-specific, in rabbits, 902
    P450 inhibition during, in rat liver, 1447
  glyceryl trinitrate, by rat aortic GSTs, 1527
  heroin, esterase-mediated, 713
  methylether derivative of (±)-BW373U86, 1069
  nalidixic acid, species differences in, 222
  quinine, by cytochrome P450 isoforms, in liver, 1327
  rifabutin, in rats, 1300
Meta-chlorophenylpiperazine, neuroendocrine effects, tolerance, 782
Metastasis, tumor, anti-IL4 effect on, 472
Met-enkephalin, *see* Methionine enkephalin
METH, *see* Methamphetamine
Methadone, combined with morphine, opioid receptors and, on murine splenocytes, 172
Methamphetamine, acute and chronic, effects on neuronal histamine release, in rat striatum, 271
Methcathinone, enantiomer effects, 1043
Methionine enkephalin, antiviral effects, in murine cells, 1268
Methoclocinnamox, agonist and antagonist effects, in rhesus monkeys, 934
5-Methoxy-6-methyl-2-aminoindan, neuroendocrine pharmacology, 1261

N-[(Methylamine)ethyl]-5-isoquinoline sulfonamide, effects on parietal cell function, in rabbit, 97
N-Methyl-D-aspartate, currents in dopamine neurons, in rat brain, 457
N-Methyl-D-aspartate receptors
antagonist L-701,324, behavioral profile, 492
inhibition by dynorphin, 1063
inhibition by haloperidol, 154
[^{3}H]MDL 105,519-glycine site, 62
modulation by lead, in rat hippocampal neurons, 143
recombinant human subtypes NMDAR1A/2A and NMDAR1A/2B, in mammalian cells, 367
subunit-transfected CHO cells, acquired excitotoxicity in, 515
3,4-Methylenedioxymethamphetamine, repeated, effects on 5-HT function, in rat brain, 277
O^6-Methylguanine-DNA methyltransferase, *see* O^6-Alkylguanine DNA alkyltransferase
2-Methyl-4aα-(3-hydroxyphenyl)-1,2,3,4,4a,5,12,12aα-octahydroquinolino [2,3,3,-g] isoquinoline, *see* TAN-67
(E)-N-Methyl-4-(3-pyridinyl)-3-butene-1-amine, *see* RJR-2403
p-Methylthioamphetamine, neuroendocrine pharmacology, 1261
Meyer, E. R., *see* Cicero, T. J., 767
Mi, Z., *see* Carcillo, J. A., 1197
Mi, Z., *see* Jackson, E. K., 1250
Mi, Z., *see* Vyas, S. J., 114
Michel, B., *see* Deddish, P. A., 1582
Microsomes
impipramine-induced inactivation of CYP2D in, in rat liver, 724
quinine metabolism, cytochrome P450 isoforms in, 1327
stanozolol binding site, in male rat liver, 1123
Midazolam, anticonvulsant effects, in direct cortical stimulation model, 803
Mierau, J., *see* Meade, C. J., 1148
Migrating contractions, giant, PAF-induced, during ileal inflammation, 207
Milano, S., *see* Grélot, L., 255
Miller, D. S., *see* Masereeuw, R., 1559
Miller, L. J., *see* Holtmann, M. H., 555
Miller, V. M., *see* Duckles, S. P., 1
Mimura, M., *see* Kim, R. B., 4
Minami, K., Yanagihara, N., Segawa, K., Sata, T., Tsutsui, M., Shigematsu, A. and Izumi, F.: Inhibition by protamine of catecholamine secretion and ion influxes in bovine adrenal medullary cells in culture, 838
Miñna, M.-D., Hermenegildo, C., Llansola, M., Montoliu, C., Grisolí, S. and Felipo, V.: Carnitine and choline derivatives containing a trimethylamine group prevent ammonia toxicity in mice and glutamate toxicity in primary cultures of neurons, 194
Misawa, M., *see* Suzuki, T., 177
Mita, S., *see* Kobayashi, T., 106
Mitchell, J. A., *see* Damiano, B. P., 1365
Mitochondria
cocaine-induced peroxidative stress effects on, in rat liver, 359
dicarboxylate carrier, fluorescein interactions, in rat kidney cortex, 1559
Mitogen-activated protein kinase
activation by serotonin, in vascular smooth muscle, 1541
effects on superoxide generation in HL-60 cells, 633
Miura, K., *see* Kim, S., 983
Miyagi, M., *see* Murakami, M., 877
Miyata, H., *see* Murakami, M., 877
MMAI, *see* 5-Methoxy-6-methyl-2-aminoindan
Mohr, K., *see* Tränkle, C., 926
Monasterolo, L. A., *see* Trumper, L., 548
Monasterolo, L. A., Trumper, L., and Elías, M. M.: Effects of γ-aminobutyric acid agonists on the isolated perfused rat kidney, 602
Monoamine oxidase B inhibitors, L-deprenyl, effects on excitatory synaptic transmission, in rat hippocampus, 740
Monoclonal antibody, anti-IL4, effect on tumor metastasis, 472
Mononuclear cells, peripheral blood, IL-5 suppression by T-440 in, 240
Montoliu, C., *see* Miñna, M.-D., 194
Moran, R. A., *see* Currens, M. J., 645
Moran, T., *see* Varney, M. A., 367
Morgan, E., *see* Higashiura, K., 1386
Mori, A., *see* Kaminuma, O., 240
Mori, T., *see* Suzuki, T., 177
Morita, K., Bell, R. A., Siddall, B. J. and Wong, D. L.: Neural stimulation of Egr-1 messenger RNA expression in rat adrenal gland: Possible relation to phenylethanolamine *N*-methyltransferase gene regulation, 379
Morphine
acute, tolerance, substance P(1-7) effects on, 662
antinociceptive effects
gender-related differences in, 767
pertussis toxin and, in mouse, 39
combined with methadone, opioid receptors and, on murine splenocytes, 172
combined with Δ^9-THC, dynorphins and, in spinal cord, 608
dependence, substance P(1-7) effects on, 662
inhalation exposure, antinociceptive effects, in mice, 69
peripheral analgesia, 502
place preference induced by, TAN-67 effects on, in mice, 177
Morris, M. E., *see* Kwon, Y., 774
Morrison, J. H., *see* Varney, M. A., 367
Morrow, J. D., *see* Brown, N. J., 703
Mortality, carvedilol effects on, in stroke-prone spontaneously hypertensive rats, 948
Mörth, D. M., *see* Hohage, H., 1086
Motor nerve terminals, calcium channels in, ω-agatoxin-IVA and ω-conotoxin-MVIIC effects on, in mouse, 1229
Moxonidine, platelet I_1 binding sites, 694
MTA, *see p*-Methylthioamphetamine
Mucosa, gastric, leminoprazole cytoprotection in, in rabbit, 975
Mukai, M., Kushiku, K., Yamada, H., Yamada, K., Dan, K. and Furukawa, T.: The inhibition of ganglionic transmission *via* presynaptic dopamine DA_1 and postsynaptic DA_2 receptor activation in the canine cardiac sympathetic ganglia, 822
Müller-Ehmsen, J., Brixius, K., Hoischen, S., and Schwinger, R. H. G.: Inotropic and coronary vasodilatory actions of the K-adenosine triphosphate channel modulator nicorandil in human tissue, 1220
Mullet, D., *see* Koudriakova, T., 1300
Muma, N. A., *see* Li, Q., 1035
Mumaw, V. R., *see* Ray, S. D., 1470
Murakami, I., *see* Li, Q., 1261
Murakami, M., Kinukawa, M., Kanazawa, T., Maruyama, K., Miyagi, M., Miyata, H. and Ujiie, A.: Effects of the new class I antiarrhythmic agent Ro 22-9194, (2R)-2-amino-N-(2,6-dimethylphenyl)-N-[3-(3-pyridyl)propyl]propionamide D-tartrate, on ischemia- and reperfusion-induced arrhythmias in dogs: Involvement of thromboxane A_2 synthase inhibitory activity, 877
Murphy, D. L., *see* Mazzola-Pomietto, P., 782
Murphy, G. J., *see* Wilson, S., 214
Murray, F., *see* Bristow, L. J., 492
Murray, M. and Butler, A. M.: Enhanced inhibition of microsomal cytochrome P450 3A2 in rat liver during diltiazem biotransformation, 1447
Muscarinic receptors
aceclidine enantiomer interactions, 1335
allosteric lead structures for, 926
Hm1, Hm3 and Hm5, functional properties, in Sf9 cells, 593
-operated potassium currents, inhibition by amiodarone, 617
Muscimol, renal effects, in rat, 602
Muscle, *see also* Smooth muscle
airway, non-neurogenic relaxation in, in canine, 813
left ventricular papillary, mechano-energetic effects of cromakalim on, in guinea pig, 464
Mussap, C. J., Stamatakos, C. and Burcher, E.: Radioligand binding, autoradiographic and functional studies demonstrate tachykinin neurokinin-2 receptors in dog urinary bladder, 423
Muzykantov, V. R., Barnathan, E. S., Atochina, E. N., Kuo, A., Danilov, S. M. and Fisher, A. B.: Targeting of antibody-conjugated plasminogen activators to the pulmonary vasculature, 1026
Mycotoxins, ochratoxin A, hepatocellular transport, 1507
Myocardial ischemia/reperfusion injury
MCI-154 effects on, in guinea pig heart, 47
NO-tPA effects against, in cats, 1174
Myocardium
contractility, levosimendan effects on, 120

function, MCI-154 effects on, in guinea pig heart, 47
oxygen consumption, levosimendan effects on, 120
TNF-α production in, modulation by PDE inhibitors, 247
Myocytes
pulmonary arterial, endothelin receptor coupling to potassium and chloride channels in, in rat, 1053
ventricular, cGMP effects on L-type calcium current and contractions in, in guinea pig, 1274
Myometrium, TP receptors in, 262

Nadeau, J., *see* Brown, N. J., 703
Nagase, H., *see* Suzuki, T., 177
Nakano, T., *see* Abe, Y., 47
Nakata, K., *see* Kobayashi, T., 106
Nakaya, H., *see* Watanabe, Y., 617
Nalidixic acid, disposition and metabolism of, species differences in, 222
Naltrexone, effects on cocaine/opioid interactions, in humans, 524
Nandi, J., Bosche, M. C. and Levine, R. A.: Effects of a phorbol ester and isoquinoline sulfonamides on rabbit parietal cell function, 97
Naphazoline, platelet I_1 binding sites, 694
Narimatsu, S., *see* Masubuchi, Y., 724
Näsman, J., *see* Kukkonen, J. P., 593
N-CPM-TAMO, *see* 14α,14′β-[Dithiobis[(2-oxo-2,1-ethanediyl)imino-]]bis[7,8-dihydro-N-(cyclobutylmethyl)-normorphinone]
Necrosis, acetaminophen-induced, cholesteryl hemisuccinate protection against, 1470
Neichin, M. L., *see* Fox, A. W., 686
Neisewander, J. L., *see* Baker, D. A., 392
Nelson, A. H., *see* Barone, F. C., 948
Nelson, S. D., *see* Bennett, G. D., 1237
Neonates
exposed to phenobarbital, imprinted overinduction of CYP2B1 and 2B2 in, in adult rats, 991
lead neurotoxicity and apoptotic effects in, in rat, 435
Nephrectomy, erythropoietin pharmacokinetics after, in sheep, 1205
Nephrotoxicity, acetaminophen, in male Wistar rats, 548
Nervous system
central
effects of peptide drug delivery to blood-brain barrier on, in rats, 77
-selective agonist RJR-2403, *in vitro* characterization, 1413
-selective agonist RJR-2403, *in vivo* characterization, 1422
enteric, in cryptosporidiosis, in piglet, 1109
peripheral, morphine analgesia, 502
sympathetic
inhibition by cocaine, blockade by rostral ventrolateral medullary *alpha*-2 receptor, 967
inhibition by dopamine receptors, in canine heart, 822
Neurokinin receptors
NK-1/NK-2 antagonist MDL 105,212, effects in allergic response, in guinea pig model, 732
NK-2, in dog urinary bladder, 423
Neuroleptic response, cholinergic neurons and, in mouse striatum, 1430
Neuromuscular junction, acetylcholine release at, tetrandrine effects on, in mouse, 891
Neurons
cholinergic, and catalepsy, in mouse striatum, 1430
dopamine, NMDA currents, in rat brain, 457
Neuropathy
pain, SNX-111 spinal antinociception in, in rat models, 1243
vincristine, glutamate effects on, 410
Neuroprotection
early hypothermic, against metabolic stress, 332
lubeluzole
in focal ischemia, in rat photochemical stroke model, 748
against glutamate toxicity, 759
Neurotoxicity
glutamate
lubeluzole protective effects against, 759
trimethylamine preventive effects against, 194
lead, in newborn rat, 435
methcathinone enantiomers, 1043
vincristine, glutamate effects on, 410
Neurotrophic factor, glial cell-line derived, functional effects, in rat striatum, 1181
Newborns, *see* Neonates
Nichols, D. E., *see* Li, Q., 1261
Nicklas, W. J., *see* Zeevalk, G. D., 332
Nicolodi, M., *see* Ghelardini, C., 884
Nicora, R., *see* Fox, A. W., 686
Nicorandil, inotropic and coronary vasodilatory actions, in human tissue, 1220
Nicotine, acute withdrawal, transdermal nicotine and, 450
Nicotinic receptors
agonist RJR-2403
in vitro characterization, 1413
in vivo characterization, 1422
hippocampal, mapping, 1491
melatonin modulation of, in rat vas deferens, 18
Nieves, A. L., *see* Woodward, D. F., 137
Nigam, R., Anderson, D. J., Lee, S.-F. and Bennett, B. M.: Isoform-specific biotransformation of glyceryl trinitrate by rat aortic glutathione *S*-transferases, 1527
Niinuma, K., *see* Yamada, T., 1357
Nishida, A., *see* Shimizu, M., 1551
Nitric oxide
and cholecystokinin mechanisms of action, in canine GI tract, 306
generation by proximal tubules, 91
-mediated vasodilation, inhibition by lipopolysaccharide, 918
-tissue-type plasminogen activator, protective effects against myocardial ischemia/reperfusion injury, in cats, 1174
Nitric oxide synthase
glutamate-activated pathway, inhibition by lubeluzole, 759
inducible, vascular expression, and K^+ channel activation, 1514
Nitroso aromatic compounds, pyruvate dehydrogenase complex-catalyzed formation of N-arylacetohydroxamic acid from, in rat, 1282
NK, *see* Neurokinin
NMDA, *see* N-Methyl-D-aspartate
NNC 14-0185, tolerance and dependence liability, in mice seizure models, 573
NNC 14-0189, tolerance and dependence liability, in mice seizure models, 573
Nock, B., *see* Cicero, T. J., 767
Noda, J., Otagiri, M., Akaike, T. and Maeda, H.: Pharmacological advantages of conjugation of Cu,Zn-superoxide dismutase with succinylated keratin fragment: Improvement of biological properties and resistance to oxidative damage, 162
Nomeir, A. A., Markham, P., Burka, L. T., Griffin, R. J. and Ghanayem, B. I.: Species differences in the disposition and metabolism of nalidixic acid, 222
Nomura, Y., Asano, M., Ito, K., Uyama, Y., Imaizumi, Y. and Watanabe, M.: Superficial sarcoplasmic reticulum calcium buffering of resting, voltage-dependent, Ca^{++} influx in rat femoral arterial smooth muscle, 830
Norepinephrine, combined with Ro 20-1724, treatment for endotoxemia, in rats, 1197
Normorphinone, N-cyclobutylmethyl analog binding and analgesia, 539
Nossuli, T. O., *see* Delyani, J. A., 1174
Nucleus reticularis gigantocellularis, angiotensin-*alpha*-2 receptor interactions, in rat, 795

Oberto, A., Marks, N., Evans, H. L. and Guidotti, A.: Lead (Pb^{++}) promotes apoptosis in newborn rat cerebellar neurons: Pathological implications, 435
Ochratoxin A, hepatocellular transport, 1507
1-*O*-Octadecyl-2-O-methyl-*sn*-glycero-3-phosphocholine, apoptosis induction by, in HL-60 cells, 956
Octreotide, tissue distribution and biliary excretion mechanism, 1357
O'Dell, L. E., *see* Baker, D. A., 392
OGAT, *see* O^6-Alkylguanine DNA alkyltransferase
Ohkubo, Y., *see* Yamazaki, M., 1157
Ohlstein, E. H., *see* Barone, F. C., 948
Ohno, H., *see* Yoshioka, T., 1282
Ohta, K., *see* Kim, S., 983
Ohtaki, T., *see* Masuda, Y., 675
Ojala, P., *see* Kukkonen, J. P., 593
Oka, Y., *see* Sawai, K., 284
Okabe, S., *see* Takahashi, S., 975
Okamura, H., *see* Matsumoto, S., 402
Oker-Blom, C., *see* Kukkonen, J. P., 593
Okudaira, H., *see* Kaminuma, O., 240
Oligonucleotides, renal disposition, in rat, 284
Olnes, M. J., Verma, M. and Kurl, R. N.: 2,3,7,8-Tetrachlorodibenzo-*p*-dioxin modulates expression of the prostaglandin G/H synthase-2 gene in rat thymocytes, 1566
Omar, R. F., *see* Harvie, P., 1009
Onishi, K., *see* Abe, Y., 47
Onodera, K., *see* Ito, C., 271

Ontogeny, female-dominant sulfotransferase, in rat liver, 386
Ooboshi, H., *see* Taguchi, H., 1514
Opioid receptors
blockade by cloccinamox, 23
delta
agonist effects on butorphanol discrimination, 1130
agonist TAN-67 effects on morphine-induced place preference, in mice, 177
inhalation exposure, antinociceptive effects, in mice, 69
kappa
agonist effects on butorphanol discrimination, 1130
agonist effects on diuresis, in rats, 1379
mu
agonist effects on butorphanol discrimination, 1130
N-CPM-TAMO antagonism, 539
N-CPM-TAMO agonism, 539
splenocyte density, morphine and methadone effects on, in mouse, 172
Opioids
cocaine interactions, 524
methoclocinnamox, agonist and antagonist effects, in rhesus monkeys, 934
and Δ^9-THC combined with morphine, in spinal cord, 608
Organic cations, basolateral transport system, in rabbit kidney proximal tubules, 1086
Orlando, L., *see* Lacal, P. M., 416; Prete, S. P., 1574
O'Rourke, R., *see* Fox, A. W., 686
O'Shea, D., *see* Kim, R. B., 4
Otagiri, M., *see* Noda, J., 162
Otsuki, M., *see* Tachibana, I., 1404
Ottoboni, C., *see* Debernardis, D., 84
Ovarian cancer, effects of endogenous TNF in, 84
OVCAR-8 cells, effects of endogenous TNF secreted by, 84
Owan, I., *see* Sato, M., 298
Oxazepam, anticonvulsant effects, in direct cortical stimulation model, 803
Oxcarbazepine, teratogenicity, in SWV mouse, 1237
Oxygen consumption, myocardial, levosimendan effects on, 120
Oz, M., *see* Brauneis, U., 1063

p38 kinase, inhibitor SB 203580, pharmacological profile, in animal models, 1453
Packer, M., *see* Todaka, K., 120
Pain, neuropathic, SNX-111 spinal antinociception in, in rat models, 1243
PALCAR, *see* Palmitoyl-L-carnitine
Palmitoyl-L-carnitine, mechanical derangement induced by, dilazep and K-7259 effects on, in rat heart, 32
Pancetti, F. C., *see* Aguayo, L. G., 1116
Pancreas, function, TP-680 effects on, 1404
Papillary muscle, left ventricular, mechano-energetic effects of cromakalim on, in guinea pig, 464
Pappano, A. J., *see* Shirayama, T., 1274
Paraquat, renal transport, in LLC-PK_1 cells, 625
Pardridge, W. M., *see* Wu, D., 77
Parietal cells, H^+ secretion in, modulation by PKC, in rabbit, 97
Park, J. E., *see* Wilson, S., 214
Parodi, S., *see* Debernardis, D., 84
Parolaro, D., *see* Patrini, G., 172
Passanil, M. B., *see* Pugliese, A. M., 1100
Pasternak, G. W., *see* Kolesnikov, Y. A., 502
Patch, nicotine, and acute nicotine withdrawal, 450
Patrini, G., Massi, P., Ricevuti, G., Mazzone, A., Fossati, G., Mazzucchelli, I., Gori, E. and Parolaro, D.: Changes in opioid receptor density on murine splenocytes induced by *in vivo* treatment with morphine and methadone, 172
Payne, A., *see* Soulard, C. D., 1379
Payne, N. A., *see* Gerber, J. G., 718
PBMCs, *see* Peripheral blood mononuclear cells
PCP, *see* Phencyclidine
PD098059, and serotonin activation of MAPK, in vascular smooth muscle, 1541
Peck, A. B., *see* Bowman, M. A., 790
Peeters, L., *see* Lesage, A. S., 759
Pentagastrin, gastric acid secretion response, inhibition by secretin, in canine, 718
Peoples, R. W., *see* Brauneis, U., 1063
Pepeu, G., *see* Pugliese, A. M., 1100
Peptide, blood-brain barrier drug delivery, CNS effects, in rats, 77
Pereira, E. F. R., *see* Alkondon, M., 1491
Peripheral blood mononuclear cells, IL-5 suppression by T-440 in, 240
Peripheral morphine analgesia, 502
Peroxidative stress, cocaine-induced, in rat liver, 359
Perrault, G., *see* Itier, V., 1092
Pertussis toxin, effects in morphine and β-endorphin antinociception, in mouse, 39
PET, *see* Positron emission tomography
Peters, C., *see* Widness, J. A., 1205
Peters, S., *see* Lippiello, P. M., 1422
Peters, T. S. and Lewis, S. J.: Lipopolysaccharide inhibits acetylcholine- and nitric oxide-mediated vasodilation *in vivo*, 918
Pettus, M., *see* Bowersox, S. S., 1243
Petzinger, E., *see* Kontaxi, M., 1507
Phencyclidine, prepulse inhibition disruption, seroquel effects on, in rats, 1290
Phenobarbital, neonatal exposure, imprinted overinduction of CYP2B1 and 2B2 after, in adult rats, 991
(*E*)-3-(2-Phenyl-2-carboxyethenyl)-4,6-dichloro-1*H*-indole-2-carboxylic acid, *see* [^{3}H]MDL 105,519
Phenylethanolamine *N*-methyltransferase, gene regulation, and Egr-1 mRNA expression, in rat adrenal gland, 379
Phorbol ester
effects on parietal cell function, in rabbit, 97
effects on superoxide generation in HL-60 cells, 633
Phosphatase, effects on superoxide generation in HL-60 cells, 633
Phosphodiesterase inhibitors
modulation of myocardial TNF-α by, 247
T-440, IL-5 suppression by, in PBMCs, 240
type IV, Ro 20-1724, for endotoxemia, in rats, 1197
Phospholipase A_2, effects on superoxide generation in HL-60 cells, 633
Picker, M. J., Benyas, S., Horwitz, J. A., Thompson, K., Mathewson, C. and Smith, M. A.: Discriminative stimulus effects of butorphanol: Influence of training dose on the substitution patterns produced by *mu*, *kappa* and *delta* opioid agonists, 1130
Pickworth, W. B., Fant, R. V., Butschky, M. F. and Henningfield, J. E.: Effects of transdermal nicotine delivery on measures of acute nicotine withdrawal, 450
Piercey, M. F., *see* Merchant, K. M., 1392
Piletz, J. E., Zhu, H. and Chikkala, D. N.: Comparison of ligand binding affinities at human I_1-imidazoline binding sites and the high affinity state of alpha-2 adrenoceptor subtypes, 694
Pindel, E. V., *see* Kamendulis, L. M., 713
Pituitary gland, CRF and CRF-R1 mRNA levels after binge cocaine administration, in rat, 351
Place preference
cocaine-induced, intra-accumbens sulpiride and, 392
morphine-induced, TAN-67 effects on, in mice, 177
Plasma cocaine, arterial and venous concentrations, 1345
Plasmid delivery, efficiency after lipid-mediated gene transfer, 1462
Plasminogen activators
antibody-conjugated, targeting to pulmonary vasculature, 1026
S-nitrosylated tissue-type, protective effects against myocardial ischemia/reperfusion injury, in cats, 1174
Platelet-activating factor, contractile effects, during ileal inflammation, 207
Platelets, imidazoline binding sites, 694
PNMT, *see* Phenylethanolamine *N*-methyltransferase
Pögün, S., *see* Fleckenstein, A. E., 200
Porreca, F., *see* Schetz, J. A., 1069
Positron emission tomography
cerebral BMS-181101 pharmacokinetics by, 325
of ziprasidone and 5-HT_2 receptors, 939
Potassium channels
activation, NO-synthase expression and, 1514
Ca^{++}-activated, ω-agatoxin-IVA and ω-conotoxin-MVIIC effects on, in mouse motor nerve terminals, 1229
endothelin receptor coupling, in rat pulmonary arterial myocytes, 1053
free radical effects on, in non-neurogenic relaxation, in canine airway muscle, 813
Kv1.2 clone, quinidine effects on, 844
Kv4.2 clone, blockade by 4-aminopyridine, 865

mAChR-operated, inhibition by amiodarone, in guinea pig atrial cells, 617
slow delayed rectifier, blockade by quinidine, 856
Potassium-ATP channel openers, nicorandil, inotropic and coronary vasodilatory actions, 1220
Prepulse inhibition, disruption by phencyclidine, seroquel effects on, in rats, 1290
Preston, K. L., *see* Walsh, S. L., 524
Prete, S. P., Aquino, A., Masci, G., Orlando, L., Giuliani, A., De Santis, S., De Vecchis, L., De Filippi, R., Greiner, J. W., Bonmassar, E. and Graziani, G.: Drug-induced changes of carcinoembryonic antigen expression in human cancer cells: Effect of 5-fluorouracil, 1574
Proksch, J. W., *see* Traylor, L. A., 91
Propranolol, effects on survival in stroke-prone spontaneously hypertensive rats, 948
Prostacyclin, bradykinin response, ACE inhibitor effects on, 703
Prostaglandin D_2 receptors, effects in prostanoid-induced conjunctival pruritus, 137
Prostaglandin E_2 receptors, effects in prostanoid-induced conjunctival pruritus, 137
Prostaglandin G/H synthase-2, gene expression, in rat thymocytes, 1566
Prostaglandin I_2
mediation by enteric nerves, in piglet cryptosporidiosis, 1109
receptor effects in prostanoid-induced conjunctival pruritus, 137
Prostaglandins, pruritogenic, 137
Prostanoids, TP receptors, in human nonpregnant myometrium, 262
Protamine, catecholamine secretion and ion channel inhibition by, in bovine adrenal medullary cells, 838
Protein kinase C
effects on superoxide generation in HL-60 cells, 633
in flow-induced contraction, 668
modulation of H^+ secretion by, in rabbit parietal cells, 97
Protein serine-threonine phosphatase 1, effects on superoxide generation in HL-60 cells, 633
Protein serine-threonine phosphatase 2a, effects on superoxide generation in HL-60 cells, 633
Protein tyrosine phosphatase, effects on superoxide generation in HL-60 cells, 633
Proteins
mitogen-activated, kinase activation by serotonin, in vascular smooth muscle, 1541
tetra-α-helix-bundle, halothane binding, 56
Proteinuria, tenidap-induced, rat model, 1318
Proximal tubules
basolateral organic cation transport system, in rabbit, 1086
nitric oxide generation by, 91
Pruritogenic prostaglandins, 137
Pruritus, conjunctival, ketorolac effects against, 137
Pugh, G., Jr., Smith, P. B., Dombrowski, D. S. and Welch, S. P.: The role of endogenous opioids in enhancing the antinociception produced by the combination of Δ^9-tetrahydrocannabinol and morphine in the spinal cord, 608
Pugliese, A. M., Passanil, M. B., Pepeu, G. and Corradetti, R.: Felbamate decreases synaptic transmission in the CA1 region of the rat hippocampal slices, 1100
Pulmonary arterial myocytes, endothelin receptor coupling to potassium and chloride channels in, in rat, 1053
Pulmonary stretch receptors, inhibitory effects of CO_2 inhalation on, in rabbit, 402
Pulmonary vasculature, antibody-conjugated plasminogen activator targeting to, 1026
Pyruvate dehydrogenase complex, -catalyzed formation of N-arylacetohydroxamic acid, in rat, 1282

Quaternized ellipticines, accumulation by human tumor cells, 1018
Querl, I. U., *see* Hohage, H., 1086
N-(2-Quindinoethyl)-5-isoquinoline sulfonamide, effects on parietal cell function, in rabbit, 97
Quinidine
Kv1.2 effects, 844
slow delayed rectifier potassium channel blockade by, 856
Quinine, 3-hydroxylation by cytochrome P450 isoforms, in liver, 1327

Rabanal, F., *see* Johansson, J. S., 56
Raje, R. R., *see* Ray, S. D., 1470
Raloxifene, comparison with alendronate and estrogen, in rats, 298
Rathbone, D., *see* Bristow, L. J., 492
Rauch, S. L., *see* Fischman, A. J., 939
Ravel, D., *see* Desta, B., 1077
Ray, S. D., Mumaw, V. R., Raje, R. R. and Fariss, M. W.: Protection of acetaminophen-induced hepatocellular apoptosis and necrosis by cholesteryl hemisuccinate pretreatment, 1470
RBC, *see* Red blood cells
Receptors
adenosine A_3, bronchospasm induced by, in BDE rats, 1148
adenosine A_1, 8-butylaminoadenosine partial agonism at, 1439
adrenergic
alpha-2, angiotensin receptor interactions, 795
alpha-2, in ethanol-clonidine interactions, in rats, 443
alpha-2, rostral ventrolateral medullary blockade, and cocaine sympathoinhibition, 967
beta-3 agonist potency, receptor density and, 214
angiotensin, *alpha*-2 adrenoceptor interactions, 795
benzodiazepine, ligands, in mice seizure models, 561, 573
cholecystokinin, antagonist TP-680, pharmacological profile, 1404
corticotropin-releasing factor, type 1, mRNA levels after binge cocaine administration, 351
cytokine, soluble, as carrier proteins, 340
dopamine
agonist effects on eye blink rate, in cynomolgus monkeys, 1211
antagonist effects on METH-induced histamine release, in rat striatum, 271
ganglionic inhibition by, in canine cardiac sympathetic ganglia, 822
dopamine D_4, antagonist U-101387, pharmacological characterization, 1392
endothelin, potassium and chloride channel coupling, in rat pulmonary arterial myocytes, 1053
endothelin$_A$, antagonism by TAK-044, 675
endothelin$_B$, antagonism by TAK-044, 675
GABA, agonist renal effects, in rat, 602
$GABA_A$
in benzodiazepine-tolerant rats, 1092
hippocampal, mapping, 1491
insecticides and, in cerebellar granule neurons, 1191
stanozolol effects on, 186
glycine
antagonist L-701,324, behavioral profile, 492
[^{3}H]MDL 105,519 site, 62
potentiation by ethanol, in mouse spinal neurons, 1116
5-HT_{1A}, desensitization by chronic fluoxetine, 1035
5-HT_2, ziprasidone and, PET analysis, 939
5-HT_3, antagonist granisetron, delayed emesis by, in piglet, 255
5-HT_7, chronic antidepressants and, in rat frontocortical astrocytes, 1551
IL-4, soluble, effects on murine IL-4 pharmacokinetics, 340
imidazoline, platelet binding sites, 694
muscarinic
aceclidine enantiomer interactions, 1335
allosteric lead structures for, 926
Hm1, Hm3 and Hm5, functional properties, 593
-operated potassium currents, inhibition by amiodarone, 617
neurokinin NK-1/NK-2 antagonist MDL 105,212 effects in allergic response, in guinea pig model, 732
neurokinin NK-2, in dog urinary bladder, 423
nicotinic
agonist RJR-2403, *in vitro* characterization, 1413
agonist RJR-2403, *in vivo* characterization, 1422
hippocampal, mapping, 1491
melatonin modulation of, in rat vas deferens, 18
NMDA
antagonist L-701,324, behavioral profile, 492
[^{3}H]MDL 105,519-glycine site, 62
inhibition by dynorphin, 1063
inhibition by haloperidol, 154

modulation by lead, in rat hippocampal neurons, 143
recombinant human subtypes NMDAR1A/2A and NMDAR1A/2B, in mammalian cells, 367
subunit-transfected CHO cells, acquired excitotoxicity in, 515
opioid
blockade by cloccinamox, 23
delta, agonist effects on butorphanol discrimination, 1130
delta, agonist TAN-67 effects on morphine-induced place preference, in mice, 177
inhalation exposure, antinociceptive effects, in mice, 69
kappa, agonist effects on butorphanol discrimination, 1130
kappa, agonist effects on diuresis, in rats, 1379
methoclocinnamox agonist and antagonist effects, in rhesus monkeys, 934
mu, agonist effects on butorphanol discrimination, 1130
mu, N-CPM-TAMO antagonism, 539
N-CPM-TAMO agonism, 539
splenocyte density, morphine and methadone effects on, in mouse, 172
prostaglandin D_2, effects in prostanoid-induced conjunctival pruritus, 137
prostaglandin E_2, effects in prostanoid-induced conjunctival pruritus, 137
prostaglandin I_2, effects in prostanoid-induced conjunctival pruritus, 137
pulmonary stretch, inhibitory effects of CO_2 inhalation on, in rabbit, 402
scavenger, effects in renal oligonucleotide disposition, in rat, 284
secretin, VIP specificity, in rat, 555
σ_1, agonist SA4503, enhancement of acetylcholine release by, in rat brain, 106
soluble cytokine, as carrier proteins, 340
soluble IL-4, effects on murine IL-4 pharmacokinetics, 340
tachykinin, in dog urinary bladder, 423
thrombin, activation *in vivo*, cardiovascular effects of, 1365
thromboxane A_2, regulation by testosterone 5α-reductase, 1386
TP, in human nonpregnant myometrium, 262
Red blood cells, injured, adenosine deaminase release by, 1250
Reeves, L., *see* Bencherif, M., 1413
Relaxation, *see also* Vasodilation
non-neurogenic, in canine airway muscle, 813
Renal cortex, dicarboxylate carrier, fluorescein interactions, in rat mitochondria, 1559
Renal damage, carvedilol effects on, in stroke-prone spontaneously hypertensive rats, 948
Renal failure, in endotoxemia, norepinephrine combined with Ro 20-1724 treatment, in rats, 1197
Renal proximal tubules
basolateral organic cation transport system, in rabbit, 1086
nitric oxide generation by, 91
Reperfusion injury
arrhythmias, Ro 22–9194 effects on, in dogs, 877
NO-tPA effects against, in cats, 1174
proarrhythmic effects of flecainide in, in tissue model, 317
Repolarization, delayed, rhythm anomalies related to, 231
Reproductive tissues, long-term effects of raloxifene *vs* alendronate or estrogen on, in rats, 298
Reverse transcriptase, HIV, inhibition by calanolide A, 652
Reward, morphine, TAN-67 effects on, in mice, 177
Rhoads, J. M., *see* Argenzio, R. A., 1109
Rhythm anomalies, related to delayed repolarization, 231
Ribavirin, combined with 2′,3′-dideoxyinosine, in murine AIDS model, 1009
Ricaurte, G., *see* Sparago, M., 1043
Rice, K., *see* Schetz, J. A., 1069
Ricevuti, G., *see* Patrini, G., 172
Rifabutin, disposition and metabolism by liver, in rats, 1300
Rios, C. D., *see* Taguchi, H., 1514
RJR-2403
in vitro characterization, 1413
in vivo characterization, 1422
RNA, *see* Messenger RNA
Ro 20–1724, for endotoxemia, in rats, 1197
Ro 22–9194, and ventricular fibrillation, in dogs, 877
Roberts, M. S., *see* Singh, P., 908
Romain, D., *see* Grélot, L., 255
Rostral ventrolateral medulla, *alpha*-2 receptor blockade in, and cocaine sympathoinhibition, 967
RTI-76, intrastriatal, dopamine transporter inactivation by, 200
Rubin, R. H., *see* Fischman, A. J., 939
Ruediger, E., *see* Christian, B. T., 325
Rundfeldt, C., *see* Löscher, W., 561
Rundfeldt, C., *see* Löscher, W., 573
Ruppel, J., *see* Fox, J. A., 1000
Russel, F. G. M., *see* Masereeuw, R., 1559
Russo, P., *see* Debernardis, D., 84
Ryder, D., *see* Brown, N. J., 703

SA4503, enhancement of acetylcholine release by, in rat brain, 106
Sakurai, E., *see* Ito, C., 271
Salazar, D. E., *see* Christian, B. T., 325
Saleh, J. L., *see* Slotkin, T. A., 478
Saleming, W. C., *see* Masereeuw, R., 1559
Salter, K. J. and Kozlowski, R. Z.: Endothelin receptor coupling to potassium and chloride channels in isolated rat pulmonary arterial myocytes, 1053
Sanders, M. J., *see* Aleo, M. D., 1318
Sarcolemma, Ca^{++} entry and intracellular overload, effects in torsades de pointes, 231
Sarcoplasmic reticulum, calcium buffering action of, in rat femoral arterial smooth muscle, 830
Sarna, S. K., *see* Jouët, P., 207
Sata, T., *see* Minami, K., 838
Sato, M., *see* Ito, C., 271
Sato, M., Bryant, H. U., Iversen, P., Helterbrand, J., Smietana, F., Bemis, K., Higgs, R., Turner, C. H., Owan, I., Takano, Y. and Burr, D. B.: Advantages of raloxifene over alendronate or estrogen on nonreproductive and reproductive tissues in the long-term dosing of ovariectomized rats, 298
Satoh, M., *see* Masuda, Y., 675
Sawai, K., Mahato, R. I., Oka, Y., Takakura, Y. and Hashida, M.: Disposition of oligonucleotides in isolated perfused rat kidney: Involvement of scavenger receptors in their renal uptake, 284
Saywell, K. L., *see* Bristow, L. J., 492
SB 203580, pharmacological profile, in animal models, 1453
Scalia, R., *see* Delyani, J. A., 1174
Scatton, B., *see* Itier, V., 1092
Scavenger receptors, effects in renal oligonucleotide disposition, in rat, 284
Schetz, J. A., Calderon, S. N., Bertha, C. M., Rice, K. and Porreca, F.: Rapid *in vivo* metabolism of a methylether derivative of (±)-BW373U86: The metabolic fate of [^{3}H]SNC121 in rats, 1069
Schmidt, R. L., *see* Widness, J. A., 1205
Schoenhoff, M. B., *see* Fox, J. A., 1000
Schreur, P. J. K. D., *see* Merchant, K. M., 1392
Schultz, D., *see* Desta, B., 1077
Schwinger, R. H. G., *see* Müller-Ehmsen, J., 1220
Seale, J. P., *see* Chan, B. S. H., 625
Sealey, J. E., *see* Barone, F. C., 948
Secretin, gastric histamine release modulation by, in canine, 718
Secretin receptors, VIP specificity, in rat, 555
Segawa, K., *see* Minami, K., 838
Seidler, F. J., *see* Slotkin, T. A., 478
Seizures, benzodiazepine receptor ligands in, in mice models, 561, 573
Sekioka, K., *see* Abe, Y., 47
Selegiline, *see* L-Deprenyl
Senchyna, M. and Crankshaw, D. J.: Characterization of the prostanoid TP receptor population in human nonpregnant myometrium, 262
Sensitivity, dynorphin, to NMDA receptors, 1063
Sensorimotor gating, seroquel effects on, in PCP-treated rats, 1290
Seroquel, effects in PCP-treated rats, 1290
Serotonin, *see* 5-Hydroxytryptamine
Serum lactate, reduction by sodium dichloroacetate, 686
Sethy, V. H., *see* Merchant, K. M., 1392
Sex
and cocaine immunotoxicity, in B6C3F1 and DBA/2 mice, 3
differences in morphine antinociception, 767
Seyed-Mozaffari, A., *see* Xu, J. Y., 539
Sf9 cells, muscarinic receptor subtypes functional properties, 593
Shapiro, B. H., *see* Agrawal, A. K., 991
Sharp, T., *see* Gartside, S. E., 277
Shaw, W., *see* Bebök, Z., 1462
Shenfield, G. M., *see* Boyle, F. M., 410
Shigematsu, A., *see* Minami, K., 838
Shimada, T., *see* Kim, R. B., 4
Shimizu, M., Nishida, A., Zensho, H. and Yamawaki, S.: Chronic antidepressant exposure enhances

5-Hydroxytryptamine$_7$ receptor-mediated cyclic adenosine monophosphate accumulation in rat frontocortical astrocytes, 1551
Shimizu, T., *see* Matsumoto, S., 402
Shinkawa, T., *see* Kim, S., 983
Shirayama, T. and Pappano, A. J.: Biphasic effects of intrapipette cyclic guanosine monophosphate on L-type calcium current and contraction of guinea pig ventricular myocytes, 1274
Shock, endotoxin, antiarthritic effects of SB 203580 on, in animal models, 1453
Shoup, T. M., *see* Fischman, A. J., 939
Shyr, M.-H., *see* Yang, C.-H., 795
Sicuteri, F., *see* Ghelardini, C., 884
Siddall, B. J., *see* Morita, K., 379
Siegel, B. W., *see* Baron, B. M., 62
σ_1 receptors, agonist SA4503, enhancement of acetylcholine release by, in rat brain, 106
Silibinin, effects on fibronectin turnover, in mesangial cells, 1520
Simard, M., *see* Harvie, P., 1009
Simell, O. G., *see* Bowman, M. A., 790
Simon, W. C., Anderson, D. J. and Bennett, B. M.: Inhibition of the pharmacological actions of glyceryl trinitrate after the electroporetic delivery of a glutathione *S*-transferase inhibitor, 1535
Sin, J.-I. and Specter, S.: The role of interferon-*gamma* in antiretroviral activity of methionine enkephalin and AZT in a murine cell culture, 1268
Singh, P. and Roberts, M. S.: Local deep tissue penetration of compounds after dermal application: Structure-tissue penetration relationships, 908
Singh, T., *see* Bowersox, S. S., 1243
Skidgel, R. A., *see* Deddish, P. A., 1582
Skiles, G. L., *see* Bennett, G. D., 1237
Skvoretz, R., *see* Varney, M. A., 367
Slattery, J. T., *see* Bennett, G. D., 1237
Slotkin, T. A., Thai, L., McCook, C., Saleh, J. L., Zhang, J. and Seidler, F. J.: Aging and glucocorticoids: Effects on cell signaling mediated through adenylyl cyclase, 478
Slowly adapting pulmonary stretch receptors, inhibitory effects of CO_2 inhalation on, in rabbit, 402
Smietana, F., *see* Sato, M., 298
Smith, M. A., *see* Picker, M. J., 1130
Smith, M. W., *see* Merchant, K. M., 1392
Smith, P. B., *see* Pugh, G., Jr., 608
Smooth muscle
  femoral arterial, sarcoplasmic reticulum calcium buffering action in, in rat, 830
  tracheal, cholinergic nerve-mediated contractions, ET-1 effects on, in rat, 1142
  vascular, mitogen-activated protein kinase activation by serotonin in, 1541
[^{3}H]SNC121, metabolic fate, in rats, 1069
Snell, L. D., Szabó, G., Tabakoff, B. and Hoffman, P. L.: Gangliosides reduce the development of ethanol dependence without affecting ethanol tolerance, 128
SNX-111, spinal antinociceptive effects, in rat neuropathic pain, 1243
SOD, *see* Superoxide dismutase
Sodium dichloroacetate, serum lactate reduction by, 686
Solutes, structure and penetration, 908
Somatosensory-evoked discharges, cocaine-induced enhancement of, substrates of, in rat barrel field cortical neurons, 582
Soose, M., *see* Wenzel, S., 1520
Sorscher, E. J., *see* Bebök, Z., 1462
Soudijn, W., *see* Mathôt, R. A. A., 1439
Soulard, C. D., Guerif, S., Payne, A. and Dahl, S. G.: Differential effects of fedotozine compared to other κ agonists on diuresis in rats, 1379
Spangler, R., *see* Zhou, Y., 351
Sparago, M., Wlos, J., Yuan, J., Hatzidimitriou, G., Tolliver, J., Dal Cason, T. A., Katz, J. and Ricaurte, G.: Neurotoxic and pharmacologic studies on enantiomers of the N-methylated analog of cathinone (methcathinone): A new drug of abuse, 1043
Species differences, in nalidixic acid metabolism, 222
Specter, S., *see* Sin, J.-I., 1268
Spetie, D., *see* Koudriakova, T., 1300
Spinal antinociception, SNX-111, in rat neuropathic pain, 1243
Spinal cord, dynorphins and combined Δ^9-THC and morphine in, 608
Spinal neurons, glycine receptor potentiation by ethanol in, in mouse, 1116
Splenocytes, opioid receptor density, morphine and methadone effects on, in mouse, 172
Spontaneous hypertension
  angiotensin II effects on renal cAMP release in, in rat, 114
  carvedilol effects on survival in, in stroke-prone rats, 948
  effects of diuretics on cardiac hypertrophy in, in rats, 983
Stall, S., *see* Li, Q., 1261
Stamatakos, C., *see* Mussap, C. J., 423
Stanozolol
  effects on GABA$_A$ receptor function, 186
  liver microsome binding site, in male rat, 1123
Stanulis, E. D., *see* Matulka, R. A., 3
Stanzione, S., *see* Debernardis, D., 84
Stennett, R., *see* Todaka, K., 120
Steroids
  gonadal, vascular effects, 1
  stanozolol
    effects on GABA$_A$ receptor function, 186
    liver microsome binding site, in male rat, 1123
Stieger, B., *see* Kontaxi, M., 1507
Stolte, H., *see* Wenzel, S., 1520
Stoltz, R. R., *see* Fox, A. W., 686
Stomach
  gastric acid secretion
    inhibition by secretin, in canine, 718
    TP-680 effects on, 1404
  gastric mucosa, leminoprazole cytoprotection in, in rabbit, 975
  H^+ secretion, modulation by PKC, in rabbit parietal cells, 97
  histamine release, modulation by secretin, in canine, 718
Stress
  metabolic, hypothermia and neuroprotection against, 332
  peroxidative, cocaine-induced, in rat liver, 359
Stroke
  lubeluzole neuroprotective effects in, in rat photochemical model, 748
  -prone spontaneously hypertensive rats, carvedilol effects on survival in, 948
Struble, C., *see* Fox, J. A., 1000
Su, M.-T., *see* Hsu, K.-S., 740
Substance P(1-7), effects on morphine tolerance and dependence, 662
Succinylated keratin fragment, SOD conjugate, effects, 162
Sugai, N., *see* Matsumoto, S., 402
Sugiyama, Y., *see* Yamada, T., 1357
Sugo, T., *see* Masuda, Y., 675
Suko, M., *see* Kaminuma, O., 240
Sulfotransferases, female-dominant, ontogeny and hormonal basis, in rat liver, 386
Sullivan, B. W., *see* Fox, A. W., 686
Sullivan, J. T., *see* Walsh, S. L., 524
Sulpiride, intra-accumbens, effects on cocaine-induced locomotion and conditioned place preference, 392
Sumatriptan, antinociception, in rodents and guinea pigs, 884
Sung, C.-H., *see* Winkler, J. D., 956
Superoxide, generation in HL-60 cells, 633
Superoxide dismutase, succinylated keratin fragment conjugate, effects, 162
Surette, M. E., *see* Winkler, J. D., 956
Suzuki, K., *see* Matsumoto, S., 402
Suzuki, T., *see* Masubuchi, Y., 724
Suzuki, T., Tsuji, M., Mori, T., Misawa, M., Endoh, T. and Nagase, H.: Effect of the highly selective and non-peptide δ opioid receptor agonist TAN-67 on the morphine-induced place preference in mice, 177
Svensson, K. A., *see* Merchant, K. M., 1392
SW626 cells, effects of endogenous TNF secreted by, 84
Swanson, K. L., *see* Marchioro, M., 143
Swerdlow, N. R., Bakshi, V. and Geyer, M. A.: Seroquel restores sensorimotor gating in phencyclidine-treated rats, 1290
Sympathoinhibition
  cocaine, blockade by rostral ventrolateral medullary *alpha*-2 receptor, 967
  dopamine receptor, in canine heart, 822
Synaptic transmission, decrease by felbamate, in CA1 rat hippocampal slices, 1100
Synthetic proteins, halothane binding, 56
Szabó, G., *see* Snell, L. D., 128

T-440, IL-5 suppression by, in PBMCs, 240
Tabakoff, B., *see* Snell, L. D., 128
Tachibana, I., Kanagawa, K., Yamamoto, Y. and Otsuki, M.: Pharmacological profile of a new serine derivative, the cholecystokinin receptor antagonist TP-680, on pancreatic, biliary and gastric function, 1404

Tachykinin receptors, in dog urinary bladder, 423
Taguchi, H., Heistad, D. D, Chu, Y., Rios, C. D., Ooboshi, H. and Faraci, F. M.: Vascular expression of inducible nitric oxide synthase is associated with activation of Ca^{++}-dependent K^+ channels, 1514
TAK-044, endothelin receptor binding and antagonist properties, 675
Takahashi, S. and Okabe, S.: The cytoprotective effect of leminoprazole on indomethacin-induced damage to rabbit gastric mucosal cells, 975
Takakura, Y., *see* Sawai, K., 284
Takano, Y., *see* Sato, M., 298
Tamagawa, M., *see* Watanabe, Y., 617
TAN-67, effects on morphine-induced place preference, in mice, 177
Tan, P. P. C., *see* Yang, C.-H., 795
Tang, A. H., *see* Merchant, K. M., 1392
Tapia, J. C., *see* Aguayo, L. G., 1116
[^{35S}] TBPS, *see* [^{35S}] *t*-Butylbicyclophosphorothionate
Tenbrink, R. E., *see* Merchant, K. M., 1392
Tenidap proteinuria, rat model, 1318
Terasaki, T., *see* Yamada, T., 1357
Teratogenicity, carbamazepine-10,11-epoxide and oxcarbazepine, in SWV mouse, 1237
Testosterone 5α-reductase, regulation of thromboxane A_2 receptors by, 1386
2,3,7,8-Tetrachlorodibenzo-*p*-dioxin, prostaglandin G/H synthase-2 gene expression and, in rat thymocytes, 1566
12-*O*-Tetradecanoylphorbol-13-acetate, effects on parietal cell function, in rabbit, 97
Tetraethylammonium, tubular transport, in rabbit, 1086
Tetra-α-helix-bundle proteins, halothane binding, 56
Δ^9-Tetrahydrocannabinol, combined with morphine, dynorphins and, in spinal cord, 608
Tetrandrine, effects on acetylcholine release, in mouse neuromuscular junction, 891
Thai, L., *see* Slotkin, T. A., 478
THC, *see* Δ^9-Tetrahydrocannabinol
Thiazide, effects on cardiac hypertrophy, in spontaneously hypertensive rats, 983
Thiopental, systemic and cerebral kinetics, enantiomeric analysis in sheep, 291
Thomas, G., *see* Delyani, J. A., 1174
Thomas, N. J., *see* Carcillo, J. A., 1197
Thompson, K., *see* Picker, M. J., 1130
Thompson, T., *see* Koudriakova, T., 1300
Thorn, L., *see* Bristow, L. J., 492
Thrombin receptors, activation *in vivo*, cardiovascular effects of, 1365
Thromboxane A_2 receptors, regulation by testosterone 5α-reductase, 1386
Thromboxane A_2 synthase, inhibition by Ro 22–9194, in dogs, 877
Thymocytes, prostaglandin G/H synthase-2 genes expression in, in rats, 1566
Tissue
  octreotide distribution mechanism, 1357
  structure-tissue penetration relationships, 908
Tissue-type plasminogen activator, *S*-nitrosylated, protective effects against myocardial ischemia/reperfusion injury, in cats, 1174
Tizanidine, platelet I_1 binding sites, 694
TNF, *see* Tumor necrosis factor
Tobacco, *see* Nicotine
Todaka, K., Wang, J., Yi, G.-H., Stennett, R., Knecht, M., Packer, M. and Burkhoff, D.: Effects of levosimendan on myocardial contractility and oxygen consumption, 120
Tolerance
  acute ethanol, genetic selection for, in mouse lines, 1310
  acute morphine, substance P(1-7) effects on, 662
  benzodiazepine, $GABA_A$ receptors in, in rats, 1092
  benzodiazepine receptor ligand liability, in mice, 561, 573
  DOI, 782
  m-CPP, 782
  morphine, and peripheral morphine analgesia, 502
Tolliver, J., *see* Sparago, M., 1043
Topical application of compounds, local deep tissue penetration of, 908
Topoisomerase II, inhibitors, activity enhancement by endogenous TNF, in ovarian cancer cells, 84
Torsades de pointes, calcium effects in, 231
Towers, P., *see* Baron, B. M., 62
Toxicity
  acetaminophen
    cholesteryl hemisuccinate protection against, 1470
    in male Wistar rats, 548
  ammonia, trimethylamine preventive effects against, 194
  cocaine
    in B6C3F1 and DBA/2 mice, 3
    in rat liver, 359
  1,1-dichloroethylene, in adult and weanling mice, 1484
  excitotoxicity, acquired, in NMDA receptor subunit-transfected CHO cells, 515
  glutamate
    lubeluzole protective effects against, 759
    trimethylamine preventive effects against, 194
  indomethacin, leminoprazole protection against, in rabbit gastric mucosal cells, 975
  lead, in newborn rat, 435
  lipid A, nitric oxide effects in, 91
  vincristine, glutamate effects on, 410
Toxins
  ω-agatoxin-IVA, effects on motor nerve Ca^{++} currents, in mouse, 1229
  brain tumor-selective, 1018
  ω-conotoxin-MVIIC, effects on motor nerve Ca^{++} currents, in mouse, 1229
  ochratoxin A, hepatocellular transport, 1507
  pertussis, effects in morphine and β-endorphin antinociception, in mouse, 39
TP-680, pharmacological profile, 1404
TP receptors, in human nonpregnant myometrium, 262
Tränkle, C., Kostenis, E., Burgmer, U. and Mohr, K.: Search for lead structures to develop new allosteric modulators of muscarinic receptors, 926
Transacylase, CoA-independent, inhibitors, apoptosis induction by, 956
Transdermal nicotine, and acute nicotine withdrawal, 450
Traylor, L. A., Proksch, J. W., Beanum, V. C. and Mayeux, P. R.: Nitric oxide generation by renal proximal tubules: Role of nitric oxide in the cytotoxicity of lipid A, 91
Tremblay, M., *see* Harvie, P., 1009
Triazene compounds, OGAT inactivation by, 416
Tricklebank, M. D., *see* Bristow, L. J., 492
Trimethylamines, carnitine and choline derivatives containing, preventive effects against ammonia toxicity and glutamate neurotoxicity, 194
Trumper, L., *see* Monasterolo, L. A., 602
Trumper, L., Monasterolo, L. A. and Elías, M. M.: Nephrotoxicity of acetaminophen in male Wistar rats: Role of hepatically derived metabolites, 548
Trybulski, E. J., *see* Yao, J.-A., 856
Tsai, J.-J., *see* Hsu, K.-S., 740
Tseng, G.-N., *see* Yao, J.-A., 856
Tseng, G.-N., Jiang, M. and Yao, J.-A.: Reverse use dependence of Kv4.2 blockade by 4-aminopyridine, 865
Tseng, G.-N., Zhu, B., Ling, S. and Yao, J.-A.: Quinidine enhances and suppresses Kv1.2 from outside and inside the cell, respectively, 844
Tseng, L. F. and Collins, K. A.: Pretreatment with pertussis toxin differentially modulates morphine- and β-endorphin-induced antinociception in the mouse, 39
Tsuchiya, N., *see* Kim, S., 983
Tsuji, M., *see* Suzuki, T., 177
Tsutsui, M., *see* Minami, K., 838
Tulebaev, S., *see* Koudriakova, T., 1300
Tumor necrosis factor α, myocardial, modulation by PDE inhibitors, 247
Tumor necrosis factor, endogenous, topo II inhibitor activity enhancement by, in ovarian cancer cells, 84
Tumors
  brain, cytotoxins selective for, 1018
  metastasis, anti-IL4 effect on, 472
Turner, C. H., *see* Sato, M., 298

U-101387, pharmacological characterization, 1392
Ueda, Y., *see* Abe, Y., 47
Uematsu, T., *see* Yoshioka, T., 1282
Ujiie, A., *see* Murakami, M., 877
Ulreich, J. B., *see* Forkert, P. G., 1484
Ulrich, C. D., *see* Holtmann, M. H., 555
Upton, R. N., *see* Mather, L. E., 291
Urcan, M., *see* Varney, M. A., 367
Urinary bladder, tachykinin NK-2 receptors in, in dog, 423
Utkin, I., *see* Koudriakova, T., 1300
Uyama, Y., *see* Nomura, Y., 830

Van De Kar, L. D., *see* Li, Q., 1035

Van de Kar, L. D., *see* Li, Q., 1261
Van der Wenden, E. M., *see* Mathôt, R. A. A., 1439
Van Horne, C. G., *see* Hebert, M., 1181
Van Reet, G., *see* De Ryck, M., 748
Vanhoutte, P. M., *see* Desta, B., 1077
Varner, K. J., *see* Abrahams, T. P., 967
Varney, M. A., Jachec, C., Deal, C., Hess, S. D., Daggett, L. P., Skvoretz, R., Urcan, M., Morrison, J. H., Moran, T., Johnson, E. C. and Veliçelebi, G.: Stable expression and characterization of recombinant human heteromeric *N*-methyl-D-aspartate receptor subtypes NMDAR1A/2A and NMDAR1A/2B in mammalian cells, 367
Vas deferens, melatonin modulation of nAChRs, in rat, 18
Vascular function, gonadal steroid effects on, 1
Vascular smooth muscle, mitogen-activated protein kinase activation by serotonin in, 1541
Vasculature, pulmonary, antibody-conjugated plasminogen activator targeting to, 1026
Vasoactive intestinal peptide
  blood-brain barrier drug delivery, CNS effects, in rats, 77
  and cholecystokinin mechanisms of action, in canine GI tract, 306
  secretin receptor specificity, in rat, 555
Vasodilation
  ACh- and NO-mediated, inhibition by lipopolysaccharide, 918
  coronary, nicorandil effects, in human tissue, 1220
Vasospasm, coronary, acute and chronic dexfenfluramine and, porcine, 1077
Veliçelebi, G., *see* Varney, M. A., 367
Veng-Pedersen, P., *see* Widness, J. A., 1205
Ventricular fibrillation, Ro 22-9194 effects on, in dogs, 877
Ventricular function, levosimendan effects on, 120
Ventricular myocytes, cGMP effects on L-type calcium current and contractions in, in guinea pig, 1274
Ventricular papillary muscle, left, mechano-energetic effects of cromakalim on, in guinea pig, 464
Vergara, P., Woskowska, Z., Cipris, S., Fox-Threlkeld, J. E. T. and Daniel, E. E.: Mechanisms of action of cholecystokinin in the canine gastrointestinal tract: Role of vasoactive intestinal peptide and nitric oxide, 306
Verma, M., *see* Olnes, M. J., 1566
Vincristine, neurotoxicity, glutamate effects on, 410
VIP, *see* Vasoactive intestinal peptide
Viruses
  HIV
    inhibition by calanolide A, 645
    reverse transcriptase inhibition by calanolide A, 652
  met-enkephalin and AZT effects against, in murine cells, 1268
Vistica, D. T., Kenney, S., Hursey, M. and Boyd, M. R.: Role of membrane potential in the accumulation of quaternized ellipticines by human tumor cell lines, 1018
Voltage-sensitive calcium channels, N-type, and spinal antinociception in rat neuropathic pain, 1243
Vonvoigtlander, P. F., *see* Merchant, K. M., 1392
Voskuy, R. A., *see* Hoogerkamp, A., 803
Votta, B., *see* Badger, A. M., 1453
Vouros, P., *see* Koudriakova, T., 1300
Vyas, S. J., Mi, Z. and Jackson, E. K.: The inhibitory effect of angiotensin II on stimulus-induced release of cAMP is augmented in the genetically hypertensive rat kidney, 114

Wakimasu, M., *see* Masuda, Y., 675
Walsh, A. H., *see* Aleo, M. D., 1318
Walsh, S. L., Sullivan, J. T., Preston, K. L., Garner, J. E. and Bigelow, G. E.: Effects of naltrexone on response to intravenous cocaine, hydromorphone and their combination in humans, 524
Wang, J., *see* Deddish, P. A., 1582; Todaka, K., 120
Wang, L.-X., *see* Deddish, P. A., 1582
Wang, T., *see* Aleo, M. D., 1318
Wang, Y.-X., *see* Bowersox, S. S., 1243
Wanwimolruk, S., *see* Zhao, X.-J., 1327
Watanabe, M., *see* Nomura, Y., 830
Watanabe, T., *see* Ito, C., 271
Watanabe, Y., Hara, Y., Tamagawa, M. and Nakaya, H.: Inhibitory effect of amiodarone on the muscarinic acetylcholine receptor-operated potassium current in guinea pig atrial cells, 617
Waterhouse, B. D., Gould, E. M. and Bekavac, I.: Monoaminergic substrates underlying cocaine-induced enhancement of somatosensory-evoked discharges in rat barrel field cortical neurons, 582
Watt, A. P., *see* Bristow, L. J., 492
Wattie, J., *see* Janssen, L. J., 813
Watts, S. W.: Serotonin activates the mitogen-activated protein kinase pathway in vascular smooth muscle: Use of the mitogen-activated protein kinase kinase inhibitor PD098059, 1541
Weight, F. F., *see* Brauneis, U., 1063
Welch, S. P., *see* Pugh, G., Jr., 608
Wenzel, S., Stolte, H. and Soose, M.: Effects of silibinin and antioxidants on high glucose-induced alterations of fibronectin turnover in human mesangial cell cultures, 1520
Wheeler, H. R., *see* Boyle, F. M., 410
Widness, J. A., Veng-Pedersen, P., Schmidt, R. L., Lowe, L. S., Kistard, J. A. and Peters, C.: *In vivo* ^{125}I-Erythropoietin pharmacokinetics are unchanged after anesthesia, nephrectomy and hepatectomy in sheep, 1205
Wiegand, H., McIntosh, L. J., Gotzsch, U. and Krämer, U.: Effects of tetrandrine on spontaneous and evoked release of acetylcholine at the mouse neuromuscular junction, 891
Wilkinson, G. R., *see* Kim, R. B., 4
Willette, R. N., *see* Barone, F. C., 948
Williams, S. A., *see* Fischman, A. J., 939
Wilson, R., *see* Kolesnikov, Y. A., 502
Wilson, S., Chambers, J. K., Park, J. E., Ladurner, A., Cronk, D. W., Chapman, C. G., Kallender, H., Browne, M. J., Murphy, G. J., and Young, P. W.: Agonist potency at the cloned human *beta*-3 adrenoceptor depends on receptor expression level and nature of assay, 214
Winkler, J. D., Eris, T., Sung, C.-H., Chabot-Fletcher, M., Mayer, R. J., Surette, M. E. and Chilton, F. H.: Inhibitors of coenzyme A-independent transacylase induce apoptosis in human HL-60 cells, 956
Withdrawal
  acute nicotine, transdermal nicotine and, 450
  anticonvulsant, benzodiazepine receptor ligand characteristics, in mice, 561, 573
  chronic cocaine, CRF and CRF-R1 mRNA levels during, in rat brain and pituitary, 351
Wlodarczyk, B., *see* Bennett, G. D., 1237
Wlos, J., *see* Sparago, M., 1043
Wong, D. L., *see* Morita, K., 379
Woods, J. H., *see* Butelman, E. R., 934; Yu, J., 507; Zernig, G., 23
Woodward, D. F., Nieves, A. L. and Friedlaender, M. H.: Characterization of receptor subtypes involved in prostanoid-induced conjunctival pruritus and their role in mediating allergic conjunctival itching, 137
Woskowska, Z., *see* Vergara, P., 306
Wu, D. and Pardridge, W. M.: Central nervous system pharmacologic effect in conscious rats after intravenous injection of a biotinylated vasoactive intestinal peptide analog coupled to a blood-brain barrier drug delivery system, 77
Wu, Y.-N. and Johnson, S. W.: Pharmacological characterization of inward current evoked by N-Methyl-D-aspartate in dopamine neurons in the rat brain slice, 457

Xie, H., Laher, I. and Bevan, J. A.: Protein kinase C modulates flow-initiated contraction, 668
Xu, J. Y., Seyed-Mozaffari, A., Archer, S. and Bidlack, J. M.: N-Cyclobutylmethyl analog of normorphinone, 14α,14'β-[dithiobis[(2-oxo-2,1-ethanediyl)imino]]bis[7,8-dihydro-N-(cyclobutylmethyl)-normorphinone]: A short-term opioid agonist and long-term *mu*-selective irreversible opioid antagonism, 539
Xu, Y.-F. and Atchison, W. D.: Effects of ω-agatoxin-IVA and ω-conotoxin-MVIIC on perineurial Ca^{++} and Ca^{++}-activated K^+ currents of mouse motor nerve terminals, 1229

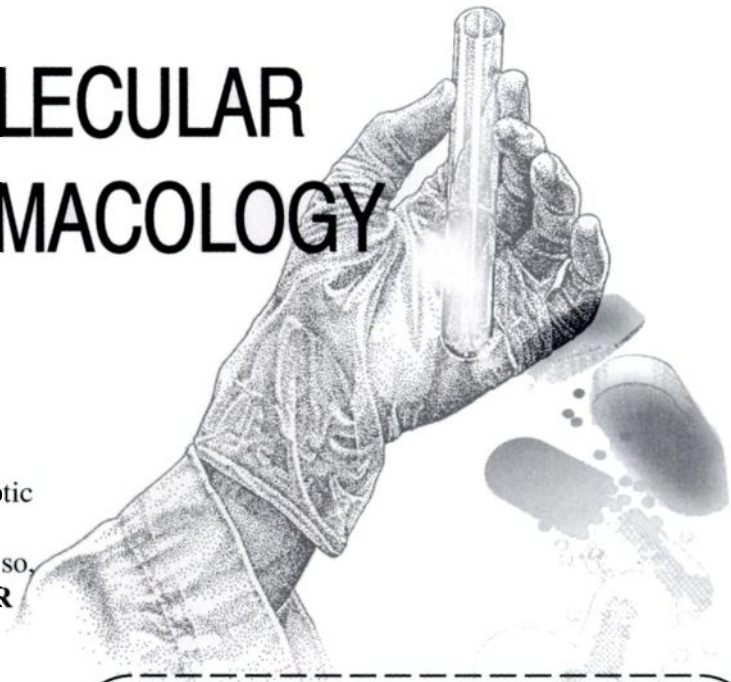
Yamada, H., *see* Mukai, M., 822

Yamada, K., *see* Mukai, M., 822
Yamada, T., Niinuma, K., Lemaire, M., Terasaki, T. and Sugiyama, Y.: Mechanism of the tissue distribution and biliary excretion of the cyclic peptide octreotide, 1357
Yamaguchi, I., *see* Yamazaki, M., 1157
Yamamoto, Y., *see* Tachibana, I., 1404
Yamawaki, S., *see* Shimizu, M., 1551
Yamazaki, H., *see* Kim, R. B., 4
Yamazaki, M., Matsuoka, N., Maeda, N., Ohkubo, Y. and Yamaguchi, I.: N-(4-Acetyl-1-piperazinyl)-*p*-fluorobenzamidemonohydrate ameliorates the impaired memory of rats in passive avoidance, water maze and eight-arm radial maze tasks through a novel mechanism of action, 1157
Yanagihara, N., *see* Minami, K., 838
Yang, C.-H., Shyr, M.-H., Tan, P. P. C. and Chan, S. H. H.: Participation of AT_1 and AT_2 receptors in the differential interaction between angiotensin II or III and *alpha*-2 adrenoceptors in the nucleus reticularis gigantocellularis in cardiovascular regulation and antinociception in rats, 795
Yao, J.-A., *see* Tseng, G.-N., 844
Yao, J.-A., *see* Tseng, G.-N., 865
Yao, J.-A., Trybulski, E. J. and Tseng, G.-N.: Quinidine preferentially blocks the slow, delayed rectifier potassium channel in the rested state, 856
Yi, G.-H., *see* Todaka, K., 120
Yokoyama, H., *see* Zhao, X.-J., 1327
Yoshioka, T., Ohno, H. and Uematsu, T.: Pyruvate dehydrogenase complex-catalyzed formation of N-arylacetohydroxamic acids from nitroso aromatic compounds in rat isolated cells and perfused organs, 1282
Young, P. W., *see* Wilson, S., 214
Yu, J., Butelman, E. R., Woods, J. H., Chait, B. T. and Kreek, M. J.: *In vitro* biotransformation of dynorphin A (1-17) is similar in human and rhesus monkey blood as studied by matrix-assisted laser desorption/ionization mass spectrometry, 507
Yuan, J., *see* Sparago, M., 1043

Zago, W. M., *see* Markus, R. P., 18
Zeevalk, G. D. and Nicklas, W. J.: Hypothermia and metabolic stress: Narrowing the cellular site of early neuroprotection, 332
Zensho, H., *see* Shimizu, M., 1551
Zernig, G., Burke, T., Lewis, J. W. and Woods, J. H.: Mechanism of cloccinamox blockade of opioid receptors: Evidence from *in vitro* and *ex vivo* binding and behavioral assays, 23
Zhang, J., *see* Slotkin, T. A., 478
Zhang, L., *see* Brauneis, U., 1063
Zhao, X.-J., Yokoyama, H., Chiba, K., Wanwimolruk, S. and Ishizaki, T.: Identification of human cytochrome P450 isoforms involved in the 3-hydroxylation of quinine by human liver microsomes and nine recombinant human cytochromes P450, 1327
Zhou, Y., Spangler, R., LaForge, K. S., Maggos, C. E., Ho, A. and Kreek, M. J.: Corticotropin-releasing factor and type 1 corticotropin-releasing factor receptor messenger RNAs in rat brain and pituitary during "binge"-pattern cocaine administration and chronic withdrawal, 351
Zhu, B., *see* Tseng, G.-N., 844
Zhu, H., *see* Piletz, J. E., 694
Ziprasidone, and 5-HT_2 receptors, PET analysis, 939
Zumbado, M., *see* Boada, L. D., 1123

Newsworthy and timely articles keep you up-to-date in your field.

MOLECULAR PHARMACOLOGY



Editor: **Raymond Dingledine, Ph.D.**
Emory University School of Medicine
Atlanta, Georgia

Is your special interest receptors and neurotransmitters...drug metabolism...antibiotic and anticancer drug actions...or other areas related to 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 anti-cancer drug action. Start your subscription today to ensure access to the most newsworthy papers in your field. *Monthly*

Mail in the coupon or call **1-800-638-6423** from anywhere in North America to start your subscription immediately. Outside North America, fax 1-410-361-8048 or call one of our international offices: Tokyo (03) 5689-5400, London 0171-385-2357, Hong Kong 852-2610-2339.

Williams & Wilkins
A Waverly Company

YES! Enter my subscription.

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

MOLECULAR PHARMACOLOGY(monthly)

☐ Individual: $125/yr ☐ Institution: $265/yr
(Please add $40.00/yr. 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 (payable to Williams & Wilkins)
☐ Bill me ☐ American Express ☐ Discover
☐ MasterCard ☐ VISA

Card # _____ Exp. date _____

Signature or P.O. # _____

MD subscribers must add state sales tax. Subscriptions outside the U.S. must be prepaid in U.S. dollars. International orders, fax your order to 1-410-361-8048. In Japan, contact Igaku-Shoin, MYW, Ltd. (03) 5689-5400. Rates valid through October 31, 1997.

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

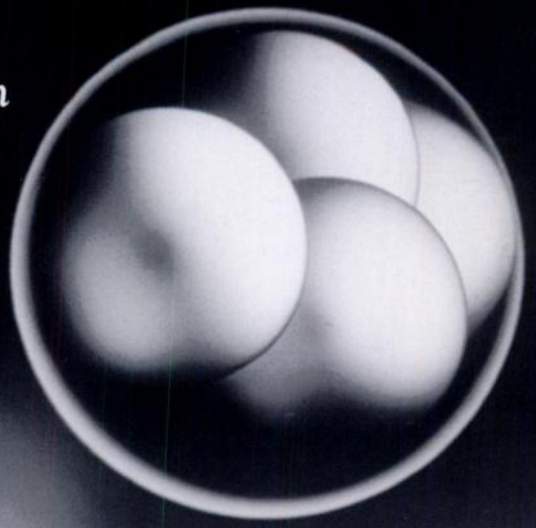
INTERNET E-mail: custserv@wwilkins.com Home page: http://www.wwilkins.com

Williams & Wilkins
A Waverly Company
P.O. Box 23291
Baltimore, MD 21203-9990

MOL 57679 Printed in USA S7J032Z

COPYRIGHT © 1996 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 of drug metabolizing enzymes and regulation of drug metabolizing enzyme gene expression. *Monthly*

Williams & Wilkins
A WAVERLY COMPANY

☐ Yes! Please start my subscription.

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

Drug Metabolism and Disposition (monthly)

☐ Individual $95/year
☐ Institutional $160/year
(Add $30 a year for postage outside the U.S.; in Canada, also add 7 % GST)

☐ New Subscription ☐ Renewal
☐ 3 years ☐ 2 years ☐ 1 year

PAYMENT OPTIONS: ☐ Bill me
☐ Check enclosed (payable to Williams & Wilkins)
☐ Am Ex ☐ MC ☐ VISA ☐ Discover

Card # Exp. date

Signature/P.O.#

Name

Address

City/State/Zip

MD subscribers must add state sales tax. Subscriptions outside the U.S. must be prepaid in U.S. dollars only. Rates valid through October 31, 1997.

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

Return coupon to: Williams & Wilkins, A Waverly Company, P.O. Box 23291, Baltimore, MD 21203-9990.

DMD 57666 Printed in USA ➡ S7J019Z

4 EASY WAYS TO ORDER

CALL 1-800-638-6423
Outside the U.S.: 410-528-8555
London: 171-385-2357
Hong Kong: 852-2610-2339
Tokyo: 03-5689-5400

FAX 410-528-8596

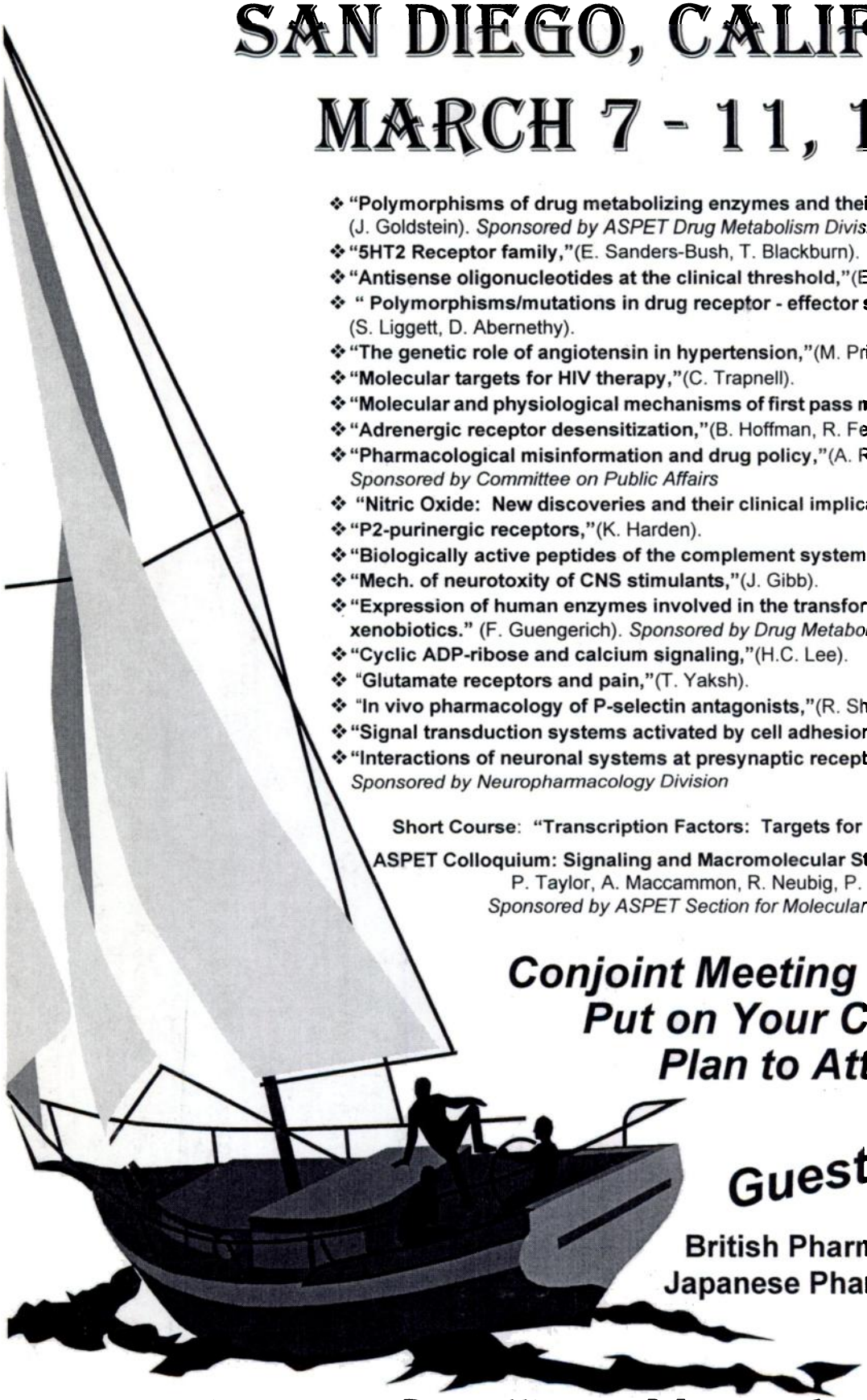
E-MAIL custserv@wwilkins.com

MAIL order form today to:
Williams & Wilkins,P.O. Box 23291,
Baltimore, MD 21203-9990

PHARMACOLOGY '97

SAN DIEGO, CALIFORNIA

MARCH 7 - 11, 1997



- **"Polymorphisms of drug metabolizing enzymes and their implications in man,"** (J. Goldstein). *Sponsored by ASPET Drug Metabolism Division*
- **"5HT2 Receptor family,"**(E. Sanders-Bush, T. Blackburn).
- **"Antisense oligonucleotides at the clinical threshold,"**(E. Wickstrom).
- **" Polymorphisms/mutations in drug receptor - effector signaling,"** (S. Liggett, D. Abernethy).
- **"The genetic role of angiotensin in hypertension,"**(M. Printz).
- **"Molecular targets for HIV therapy,"**(C. Trapnell).
- **"Molecular and physiological mechanisms of first pass metabolism,"** (S. Wrighton, S. Hall).
- **"Adrenergic receptor desensitization,"**(B. Hoffman, R. Feldman).
- **"Pharmacological misinformation and drug policy,"**(A. Robison). *Sponsored by Committee on Public Affairs*
- **"Nitric Oxide: New discoveries and their clinical implications,"**(T. Michel).
- **"P2-purinergic receptors,"**(K. Harden).
- **"Biologically active peptides of the complement system,"**(J. Regal).
- **"Mech. of neurotoxity of CNS stimulants,"**(J. Gibb).
- **"Expression of human enzymes involved in the transformation of drugs and other xenobiotics."** (F. Guengerich). *Sponsored by Drug Metabolism Division*
- **"Cyclic ADP-ribose and calcium signaling,"**(H.C. Lee).
- **"Glutamate receptors and pain,"**(T. Yaksh).
- **"In vivo pharmacology of P-selectin antagonists,"**(R. Shebuski).
- **"Signal transduction systems activated by cell adhesion molecules,"**(R. Juliano).
- **"Interactions of neuronal systems at presynaptic receptors,"**(C.B. Smith, H. Saito). *Sponsored by Neuropharmacology Division*

Short Course: "Transcription Factors: Targets for Therapy,"(L.J. Gudas).

ASPET Colloquium: Signaling and Macromolecular Structures in Pharmacology
P. Taylor, A. Maccammon, R. Neubig, P. Sternweis
Sponsored by ASPET Section for Molecular Pharmacology

Conjoint Meeting with ASCPT
Put on Your Calendar!
Plan to Attend!

Guest Societies:

British Pharmacological Society
Japanese Pharmacological Society

Abstract Deadline: November 20, 1996

For more information, call the ASPET office at (301) 530-7060.