

AUTHOR INDEX FOR VOLUME 14

A

- Abood, Leo G.** See *Aronstam and Hoss*, 575
Adler, M., Albuquerque, E. X., and Lebeda, F. J. Kinetic Analysis of End Plate Currents Altered by Atropine and Scopolamine, 514
Adrien, Joëlle. See *Enjalbert, Bourgoin, Hamon, and Bockaert*, 2
Ahland, Mary P. See *Trotta, Brown, and Balis*, 199
Albuquerque, E. X. See *Adler and Lebeda*, 514
Albuquerque, E. X. See *Garrison, Warnick, Daly, and Witkop*, 111
Albuquerque, Edson X. See *Tsai, Mansour, Eldefrawi, and Eldefrawi*, 787
Alvares, Alvito P. See *Eiseman*, 1176
Aronstam, Robert S., Abood, Leo G., and Hoss, Wayne. Influence of Sulfhydryl Reagents and Heavy Metals on the Functional State of the Muscarinic Acetylcholine Receptor in Rat Brain, 575
Ashley, T. See *Bhalla, Webb, Singh, and Brock*, 468

B

- Bachmann, Roland.** See *Köhler*, 155
Balis, M. Earl. See *Trotta, Ahland, and Brown*, 199
Ban, Matt. See *Ticku and Olsen*, 391
Banerjee, Shailesh P. See *Sharma*, 122
Banerjee, Shailesh P. See *Sharma*, 1204
Barbin, G. See *Palacios, Garbarg, and Schwartz*, 971
Barnett, D. B. See *Rugg and Nahorski*, 996
Beaudoin, Dominique M. See *Fillion, Rousselle, Fillion, Goïny, Deniau, and Jacob*, 50
Bell, William R., Jr. See *Graham, Tiffany, and Gutknecht*, 644
Bentley, Philip. See *Tunek, Platt, and Oesch*, 920
Berenbeim, David M. See *Ciaranello and Wong*, 490
Bergstrand, Håkan, Lundquist, Britta, and Schurmann, Annika. Rat Mast Cell Affinity Cyclic Nucleotide Phosphodiesterases: Separation and Inhibitory Effects of Two Antiallergic Agents, 848
Bhalla, R. C., Webb, R. C., Singh, D., Ashley, T., and Brock, T. Calcium Fluxes, Calcium Binding, and Adenosine Cyclic 3',5'-Monophosphate-Dependent Protein Kinase Activity in the Aorta of Spontaneously Hypertensive and Kyoto Wistar Normotensive Rats, 468
Bidoglia, Renata. See *Bussolati and Borgese*, 220
Bihler, I. and Sawh, P. C. Effects of Benzodiazepines on the Transport of Sugars and Ions in Rat Skeletal Muscle *in Vitro*, 879

- Billings, Ruth E. and McMahon, Robert E.** Microsomal Biphenyl Hydroxylation: the Formation of 3-Hydroxybiphenyl and Biphenyl Catechol, 145
Birdsall, N. J. M., Burgen, A. S. V., and Hulme, E. C. The Binding of Agonists to Brain Muscarinic Receptors, 723
Birdsall, N. J. M. See *Hulme, Burgen, and Mehta*, 737
Black, J. W. See *Kenakin*, 607
Bockaert, Joël. See *Enjalbert, Bourgoin, Hamon, and Adrien*, 2
Bockaert, Joël. See *Enjalbert, Hamon, and Bourgoin*, 11
Bockaert, Joël. See *Lucas and Hanoune*, 227
Boobis, Alan R. See *Pelkonen, Yagi, Jerina, and Nebert*, 306
Borgese, Nica. See *Bussolati and Bidoglia*, 220
Bourgoin, S. See *Nelson, Herbet, Glowinski, and Hamon*, 983
Bourgoin, Sylvie. See *Enjalbert, Hamon, Adrien, and Bockaert*, 2
Bourgoin, Sylvie. See *Enjalbert, Hamon, and Bockaert*, 11
Bourgoin, Sylvie. See *Hamon, Héry, and Simonnet*, 99
Bressler, Rubin. See *Hruska, Padjen, and Yamamura*, 77
Broadley, Kenneth J. See *Duncan*, 1063
Brock, T. See *Bhalla, Webb, Singh, and Ashley*, 468
Brooker, Gary. See *Harper*, 1031
Brown, George F. See *Trotta, Ahland, and Balis*, 199
Brufani, Mario, Cellai, Luciano, Cerrini, Silvio, Fedeli, Walter, and Vaciago, Alessandro. Structure-Activity Relationships in the Ansamycins: The Crystal Structure of Tolypomycinone, 693
Buening, M. See *Thakker, Yagi, Lehr, Levin, Lu, Chang, Wood, Conney, and Jerina*, 502
Buhler, Donald R. See *Miller and Henderson*, 323
Burgen, A. S. V. See *Birdsall and Hulme*, 723
Burgen, A. S. V. See *Hulme, Birdsall, and Mehta*, 737
Burgermeister, Wolfgang, Klein, William L., Nirenberg, Marshall, and Witkop, Bernhard. Comparative Binding Studies with Cholinergic Ligands and Histronicotoxin at Muscarinic Receptors of Neural Cell Lines, 751
Bussolati, Elena, Bidoglia, Renata, and Borgese, Nica. The Inhibitory Effect of Aurintricarboxylic Acid on the Attachment of Ribosomes to Microsomal Membranes *in Vitro*, 220

- Butlen, Daniel, Guillon, Gilles, Rajerison, Rabary M., Jard, Serge, Sawyer, Wilbur H., and Manning, Maurice.** Structural Requirements for Activation of Vasopressin-sensitive Adenylate Cyclase, Hormone Binding, and Antidiuretic Actions: Effects of Highly Potent Analogues and Competitive Inhibitors, 1006
- Byus, Craig V., Klimpel, Gary R., Lucas, David O., and Russell, Diane Haddock.** Ornithine Decarboxylase Induction in Mitogen-Stimulated Lymphocytes is Related to the Specific Activation of Type I Adenosine Cyclic 3',5'-Monophosphate-Dependent Protein Kinase, 431

C

- Carpenter, Donald E.** See *Gordon and Wilson*, 266
- Carpenter, J. G.** See *Dahle and Griffiths*, 278
- Cavalieri, Ercole.** See *Rogan*, 215
- Cellai, Luciano.** See *Brufani, Cerrini, Fedeli, and Vaciago*, 693
- Cerrini, Silvio.** See *Brufani, Cellai, Fedeli, and Vaciago*, 693
- Chang, Kwen-Jen, Miller, Richard J., and Cuatrecasas, Pedro.** Interaction of Enkephalin with Opiate Receptors in Intact Cultured Cells, 961
- Chang, L.** See *Thakker, Yagi, Lehr, Levin, Buening, Lu, Wood, Conney, and Jerina*, 502
- Cherkez, S., Yellin, H., Kashman, Y., Yaavetz, B., and Sokolovsky, M.** Structure-Activity Relationship in a New Series of Atropine Analogs. II. The Effect of an Asymmetric N-Substituent on the Antimuscarinic Activity, 781
- Childers, Steven R.** See *Simantov and Snyder*, 69
- Ciaramitaro, David.** See *Huxtable and Eisenstein*, 1189
- Ciaranello, Roland D.** Regulation of Phenylethanolamine *N*-Methyltransferase Synthesis and Degradation. I. Regulation by Rat Adrenal Glucocorticoids, 478
- Ciaranello, Roland D., Wong, Dona L., and Benenbeim, David M.** Regulation of Phenylethanolamine *N*-Methyltransferase Synthesis and Degradation. II. Control of the Thermal Stability of the Enzyme by an Endogenous Stabilizing Factor, 490
- Cohen, E. N.** See *Mastrangelo, Trudell, and Edmunds*, 463
- Conney, A. H.** See *Thakker, Yagi, Lehr, Levin, Buening, Lu, Chang, Wood, and Jerina*, 502
- Cragoe, Edward J., Jr.** See *Mandel, Rokach, and Rooney*, 930
- Crooke, S. T., Duvernay, V. H., Galvan, L., and Prestayko, A. W.** Structure-Activity Relationships of Anthracyclines Relative to Effects on Macromolecular Syntheses, 290
- Cuatrecasas, Pedro.** See *Chang and Miller*, 961
- Cutroneo, Kenneth R.** See *McNelis*, 1167
- Cutroneo, Kenneth R.** See *Newman*, 185

D

- Dahle, Dan B., Griffiths, T. D., and Carpenter, J. G.** Inhibition of Deoxyribonucleic Acid Synthesis and Replicon Elongation in Mammalian Cells Exposed to Methyl Methanesulfonate, 278
- Daly, J. W.** See *Garrison, Albuquerque, Warnick, and Witkop*, 111
- De Clercq, Erik, Descamps, Johan, Huang, Guang-Fu, and Torrence, Paul F.** 5-Nitro-2'-deoxyuridine and 5-Nitro-2'-deoxyuridine 5'-Monophosphate: Antiviral Activity and Inhibition of Thymidylate Synthetase *in Vivo*, 422
- Deloria, Laurel B.** See *Renton and Mannering*, 672
- DeLuca, Hector F.** See *Stern and Ness*, 357
- de Matteis, F.** See *Järvisalo and Gibbs*, 1099
- Deniau, Jean-Michel.** See *Fillion, Rousselle, Fillion, Beaudoin, Goigny, and Jacob*, 50
- de Paulis, Tomas, Kelder, Diana, Ross, Svante B., and Stiernström, Nils E.** On the Topology of the Norepinephrine Transport Carrier in Rat Hypothalamus. The Site of Action of Tricyclic Uptake Inhibitors, 596
- Descamps, Johan.** See *De Clercq, Huang, and Torrence*, 422
- DiCioccio, Richard A.** See *Srivastava, Rinehart, and Li*, 442
- Drach, John C.** See *Lipper, Machkovech, and Higuchi*, 366
- Duncan, Colin and Broadley, Kenneth J.** Correlation between cAMP Production in Guinea-Pig Left and Right Atria and Their Inotropic and Chronotropic Responses to Orciprenaline at Different Temperatures, 1063
- Dupont, M.** See *Rosenblatt, Whitehead, Vera, Pottier, and Vuchich*, 1143
- Dupont, M. M.** See *Rosenblatt, Whitehead, Vuchich, and Vera*, 210
- Duvernay, V. H.** See *Crooke, Galvan, and Prestayko*, 290

E

- Eiseman, Julie L. and Alvares, Alvito P.** Alterations Induced in Heme Pathway Enzymes and Monooxygenases by Gold, 1176
- Eisenstein, Douglas.** See *Huxtable and Ciaramitaro*, 1189
- Eldefrawi, Amira T.** See *Tsai, Mansour, Eldefrawi, and Albuquerque*, 787
- Eldefrawi, Mohyee E.** See *Tsai, Mansour, Eldefrawi, and Albuquerque*, 787
- Enjalbert, Alain, Bourgoïn, Sylvie, Hamon, Michel, Adreïn, Joëlle, and Bockaert, Joël.** Postsynaptic Serotonin-Sensitive Adenylate Cyclase in the Central Nervous System. I. Development and Distribution of Serotonin and Dopamine-Sensitive Adenylate Cyclases in Rat and Guinea Pig Brain, 2

Enjalbert, Alain, Hamon, Michel, Bourgoin, Sylvie, and Bockaert, Joël. Postsynaptic Serotonin-Sensitive Adenylate Cyclase in the Central Nervous System. II. Comparison with Dopamine- and Isoproterenol-Sensitive Adenylate Cyclases in Rat Brain, 11

Edmunds, H. N. See *Mastrangelo, Trudell, and Cohen*, 463

F

Fairhurst, Alan S. See *Spiehler and Randall*, 587

Fay, Fredric S. See *Honeyman and Merriam*, 86

Fedeli, Walter. See *Brufani, Cellai, Cerrini, and Vaciago*, 693

Fillion, Gilles M. B., Rousselle, Jean-Claude, Fillion, Marie-Paule, Beaudoin, Dominique M., Goiny, Michael R., Deniau, Jean-Michel, and Jacob, Joseph J. High-Affinity Binding of [³H]5-Hydroxytryptamine to Brain Synaptosomal Membranes: Comparison with [³H]Lysergic Acid Diethylamide Binding, 50

Fillion, Marie-Paule. See *Fillion, Rousselle, Beaudoin, Goiny, Deniau, and Jacob*, 50

Fischer, Peter W. F., Stephens, Janet K., and Marks, G. S. Effect of Varying the Insulin to Glucagon Ratio on Porphyrin Biosynthesis in Chick Embryo Liver Cells, 717

G

Gallet, D. See *Saez, Haour, Tell, and Sanchez*, 1054

Galli, C. L. See *Iuvone and Neff*, 1212

Galvan, L. See *Crooke, Duvernay, and Prestayko*, 290

Garbarg, M. See *Palacios, Barbin, and Schwartz*, 971

Garrison, D. L., Albuquerque, E. X., Warnick, J. E., Daly, J. W., and Witkop, B. Antagonism of Carbamylcholine-Induced Depolarization by Batrachotoxin and Veratridine, 111

Gibbs, A. H. See *Järvisalo and de Matteis*, 1099

Gilman, Alfred G. See *Howlett and Arsdale*, 531

Glazer, Robert I. See *Legraverend*, 1130

Glowinski, Irene B., Radtke, Harold E., and Weber, Wendell W. Genetic Variation in N-Acetylation of Carcinogenic Arylamines by Human and Rabbit Liver, 940

Glowinski, J. See *Nelson, Herbet, Bourgoin, and Hamon*, 983

Goiny, Michael R. See *Fillion, Rousselle, Fillion, Beaudoin, Deniau, and Jacob*, 50

Gordon, Michael A., Carpenter, Donald E., and Wilson, Irwin B. The Turnover Numbers of Acetylcholinesterase Forms, 266

Graham, Doyle G. Oxidative Pathways for Catecholamines in the Genesis of Neuromelanin and Cytotoxic Quinones, 633

Graham, Doyle G., Tiffany, Sylvia M., Bell, William R., Jr., and Gutknecht, William F. Autoxidation versus Covalent Binding of Qui-

nones as the Mechanism of Toxicity of Dopamine, 6-Hydroxydopamine, and Related Compounds toward C1300 Neuroblastoma Cells *in Vitro*, 644

Greenberg, David A. and Snyder, Solomon H. Pharmacological Properties of [³H]Dihydroergokryptine Binding Sites Associated with α -Noradrenergic Receptors in Rat Brain Membranes, 38

Greenberg, David A. See *Peroutka, U'Prichard, and Snyder*, 403

Griffiths, T. D. See *Dahle and Carpenter*, 278

Guillon, Gilles. See *Butlen, Rajerison, Jard, Sawyer, and Manning*, 1006

Gutknecht, William F. See *Graham, Tiffany, and Bell*, 644

H

Hamon, M. See *Nelson, Herbet, Bourgoin, and Glowinski*, 983

Hamon, Michel, Bourgoin, Sylvie, Héry, F., and Simonnet, G. Activation of Tryptophan Hydroxylase by Adenosine Triphosphate, Magnesium, and Calcium, 99

Hamon, Michel. See *Enjalbert, Bourgoin, Adrien, and Bockaert*, 2

Hamon, Michel. See *Enjalbert, Bourgoin, and Bockaert*, 11

Hanley, Michael R. and Iversen, L. L. Muscarinic Cholinergic Receptors in Rat Corpus Striatum and Regulation of Guanosine Cyclic 3',5'-Monophosphate, 246

Hanoune, Jacques. See *Lucas and Bockaert*, 227

Haour, F. See *Saez, Tell, Gallet, and Sanchez*, 1054

Harbon, Simone. See *Vesin and Khac*, 24

Harper, Jeffrey F. and Brooker, Gary. Amylase Secretion from the Rat Parotid: Refractoriness to Muscarinic and Adrenergic Agonists, 1031

Heinrich, Peter C. See *Weiss*, 1148

Henderson, Marilyn C. See *Miller and Buhler*, 323

Herbert, A. See *Nelson, Bourgoin, Glowinski, and Hamon*, 983

Héry, F. See *Hamon, Bourgoin, and Simonnet*, 99

Higuchi, William I. See *Lipper, Machkovech, and Drach*, 366

Hitzemann, Robert. See *Natsuki and Loh*, 448

Holtzman, Jordan L. See *Mason and Peterson*, 665

Honeyman, Thomas, Merriam, Philip, and Fay, Frederic S. The Effects of Isoproterenol on Adenosine Cyclic 3',5'-Monophosphate and Contractility in Isolated Smooth Muscle Cells, 86

Horwitz, Susan B. See *Sausville*, 1156

Hoss, Wayne. See *Aronstam and Abood*, 575

Howlett, Allyn C., Van Arsdale, Pamela M., and Gilman, Alfred G. Efficiency of Coupling between the β Adrenergic Receptor and Adenylate Cyclase, 531

Hruska, Robert E., Padjen, Ante, Bressler,

- Rubin, and Yamamura, Henry T.** Taurine: Sodium-Dependent, High-Affinity Transport into Rat Brain Synaptosomes, 77
- Hu, Eva H. and Venter, J. Craig.** Adenosine Cyclic 3',5'-Monophosphate Concentrations during the Positive Inotropic Response of Cat Cardiac Muscle to Polymeric Immobilized Isoproterenol, 237
- Huang, Guang-Fu.** See *De Clercq, Descamps, and Torrence*, 422
- Hudson, Richard A.** See *Tsernoglou and Petsko*, 710
- Hulme, E. C., Birdsall, N. J. M., Burgen, A. S. V., and Mehta, P.** The Binding of Antagonists to Brain Muscarinic Receptors, 737
- Hulme, E. C.** See *Birdsall and Burgen*, 723
- Huxtable, Ryan, Ciaramitaro, David, and Eisenstein, Douglas.** The Effect of a Pyrrolizidine Alkaloid, Monocrotaline, and a Pyrrole, Dehydroretroecine, on the Biochemical Functions of the Pulmonary Endothelium, 1189
- I**
- Insel, Paul A. and Stoolman, Lloyd M.** Radioligand Binding to *Beta* Adrenergic Receptors of Intact Cultured S49 Cells, 549
- Iuvone, P. Michael, Galli, C. L., and Neff, N. H.** Retinal Tyrosine Hydroxylase: Comparison of Short-term and Long-term Stimulation by Light, 1212
- Iversen, L. L.** See *Hanley*, 246
- Iwasaki, Kazuhide.** See *Kato and Noguchi*, 654
- J**
- Jacob, Joseph J.** See *Fillion, Rousselle, Fillion, Beaudoin, Goiny, and Deniau*, 50
- Jakobs, Karl H., Saur, Wilhelm, and Schultz, Günter.** Metal and Metal-ATP Interactions with Human Platelet Adenylate Cyclase: Effects of *Alpha* Adrenergic Inhibition, 1073
- Janssen, Lambert H. M. and Van Wilgenburg, Marianne T.** Experimental Observation of Ionic Forces in Drug-Protein Interactions as Illustrated by the Binding of Sulfaethidole by Human Serum Albumin, 884
- Jard, Serge.** See *Butlen, Guillon, Rajerison, Sawyer, and Manning*, 1006
- Järvisalo, J., Gibbs, A. H., and de Matteis, F.** Accelerated Conversion of Heme to Bile Pigments Caused in the Liver by Carbon Disulfide and other Sulfur-containing Chemicals, 1099
- Jerina, D. M.** See *Levin, Thomas, Korzeniowski, Lu, and Seifried*, 1107
- Jerina, D. M.** See *Thakker, Yagi, Lehr, Levin, Buening, Lu, Chang, Wood, and Conney*, 502
- Jerina, Donald M.** See *Pelkonen, Boobis, Yagi, and Nebert*, 306
- K**
- Kashman, Y.** See *Cherkez, Yellin, Yaavetz, and Sokolovsky*, 781
- Kato, Ryuichi, Iwasaki, Kazuhide, and Noguchi, Hideyo.** Reduction of Tertiary Amine *N*-Oxides by Cytochrome P-450. Mechanism of the Stimulatory Effect of Flavins and Methyl Viologen, 654
- Kelder, Diana.** See *de Paulis, Ross, and Stjernström*, 596
- Kellogg, Joan.** See *Oron and Larner*, 1018
- Kenakin, T. P. and Black, J. W.** The Pharmacological Classification of Practolol and Chloroprac-tolol, 607
- Kessel, David and McElhinney, R. Stanley.** Effect of Dithiocarbamates on Some Biological and Biophysical Properties of Leukemia L1210 Cell Membranes, 1121
- Khac, Lein Do.** See *Vesin and Harbon*, 24
- Kirsten, Eva, Sharma, Manohar L., and Kun, Ernest.** Molecular Toxicology of (-)-erythro-Fluorocitrate: Selective Inhibition of Citrate Transport in Mitochondria and the Binding of Fluorocitrate to Mitochondrial Proteins, 172
- Kitchell, Barbara B., Rauckman, Elmer J., and Rosen, Gerald M.** The Effect of Temperature on Mixed Function Amine Oxidase intrinsic Fluorescence and Oxidative Activity, 1092
- Kitchin, Kirk T. and Woods, James S.** 2,3,7,8-Tetrachlorodibenzo-*p*-Dioxin Induction of Aryl Hydrocarbon Hydroxylase in Female Rat Liver. Evidence for *De Novo* Synthesis of Cytochrome P-448, 890
- Klein, William L.** See *Burgermeister, Nirenberg, and Witkop*, 751
- Klimpel, Gary R.** See *Byus, Lucas, and Russell*, 431
- Köhler, Peter and Bachmann, Roland.** The Effects of the Antiparasitic Drugs Levamisole, Thia-bendazole, Praziquantel, and Chloroquine on Mitochondrial Electron Transport in Muscle Tissue from *Ascaris suum*, 155
- Korzeniowski, D.** See *Levin, Thomas, Lu, Seifried, and Jerina*, 1107
- Kun, Ernest.** See *Kirsten and Sharma*, 172
- Kupferberg, H. J.** See *Lust, Yonekawa, Penry, Pas-sonneau, and Wheaton*, 347
- Kurebe, Masaru.** Interaction of Dibucaine and Calcium Ion on a Calcium Pump Reconstituted from Defined Components of Intestinal Brush Border, 138
- L**
- Larner, Joseph.** See *Lawrence*, 1079
- Larner, Joseph.** See *Oron and Kellogg*, 1018
- Lau, Christopher.** See *Slotkin, Seidler, Whitmore, and Salvaggio*, 868
- Lawrence, John C., Jr., and Larner, Joseph.** Ef-

- fects of Insulin, Methoxamine, and Calcium on Glycogen Synthase in Rat Adipocytes, 1079
- Lebeda, F. J.** See *Adler and Albuquerque*, 514
- LeDuc, Louise E., Marshall, Garland R., and Needleman, Philip.** Differentiation of Bradykinin Receptors and of Kininases with Conformational Analogues of Bradykinin, 413
- Lefkowitz, Robert J., Mullikin, Debra, and Williams, Lewis T.** A Desensitized State of the Beta Adrenergic Receptor Not Associated with High-Affinity Agonist Occupancy, 376
- Lefkowitz, Robert J.** See *Pike*, 370
- Lefkowitz, Robert J.** See *Tsai*, 540
- Legraverend, Michel and Glazer, Robert I.** Inhibition of the Phosphorylation of Nonhistone Chromosomal Proteins by Cordycepin and Xylosyladenine in L1210 Cells *in Vitro*, 1130
- Lehr, R. E.** See *Thakker, Yagi, Levin, Buening, Lu, Chang, Wood, Conney, and Jerina*, 502
- Leslie, Barbara A.** See *Putney and VanDeWalle*, 1046
- Levin, W.** See *Thakker, Yagi, Lehr, Buening, Lu, Chang, Wood, Conney, and Jerina*, 502
- Levin, W., Thomas, P. E., Korzeniowski, D., Lu, A. Y. H., Seifried, H., and Jerina, D. M.** Liver Microsomal Epoxide Hydrase: Activation, Inhibition, and Immunological Properties of the Purified Enzyme, 1107
- Li, L. H.** See *Srivastava, DiCioccio, and Rinehart*, 442
- Lipper, Robert A., Machkovech, Susan M., Drach, John C., and Higuchi, William I.** Inhibition of Drug Metabolism by a Prodrug: 9- β -D-Arabinofuranosyladenine 5'-Valerate as an Inhibitor of Adenosine Deaminase, 366
- Loh, Horace.** See *Natsuki and Hitzemann*, 448
- Lu, A. Y. H.** See *Levin, Thomas, Korzeniowski, Seifried, and Jerina*, 1107
- Lu, A. Y. H.** See *Thakker, Yagi, Lehr, Levin, Buening, Chang, Wood, Conney, and Jerina*, 502
- Lucas, David O.** See *Byus, Klimpel, and Russell*, 431
- Lucas, Marguerite, Hanoune, Jacques, and Bockaert, Joël.** Chemical Modification of the Beta Adrenergic Receptors Coupled with Adenylate Cyclase by Disulfide Bridge-Reducing Agents, 227
- Lundquist, Britta.** See *Bergstrand and Schurmann*, 848
- Lust, W. D., Kupferberg, H. J., Yonekawa, W. D., Penry, J. K., Passonneau, J. V., and Wheaton, A. B.** Changes in Brain Metabolites Induced by Convulsants or Electroshock: Effects of Anticonvulsant Agents, 347
- M**
- Machkovech, Susan M.** See *Lipper, Drach, and Higuchi*, 366
- Mandel, Lewis R., Rokach, Joshua, Rooney, C. Stanley, and Cragoe, Edward J., Jr.** Inhibition of Dimethyltryptamine Biosynthesis by N,N'-Bis-(3-methyl-2-thiazolidinylidene)Succinamide (I) and 2-Imino-3-Methylthiazolidine (II), 930
- Mannering, Gilbert J.** See *Renton and Deloria*, 672
- Manning, Maurice.** See *Butlen, Guillon, Rajerison, Jard, and Sawyer*, 1006
- Mansour, Nabil A.** See *Tsai, Eldefrawi, Eldefrawi, and Albuquerque*, 787
- Mansour, Tag E.** See *Northup*, 804
- Mansour, Tag E.** See *Northup*, 820
- Marks, G. S.** See *Fischer and Stephens*, 717
- Marshall, Garland R.** See *DeDuc and Needleman*, 413
- Martin, Thea.** See *Puskin*, 454
- Mason, Ronald P., Peterson, Francis J., and Holtzman, Jordan L.** Inhibition of Azoreductase by Oxygen. The Role of the Azo Anion Free Radical Metabolite in the Reduction of Oxygen to Superoxide, 665
- Massa, T.** See *Mittag and Tormay*, 60
- Mastrangelo, C. J., Trudell, J. R., Edmunds, H. N., and Cohen, E. N.** Effect of Clinical Concentrations of Halothane on Phospholipid-Cholesterol Membrane Fluidity, 463
- McElhinney, R. Stanley.** See *Kessel*, 1121
- McMahon, Robert E.** See *Billings*, 145
- McNelis, Brian and Cutroneo, Kenneth R.** A Selective Decrease of Collagen Peptide Synthesis by Dermal Polysomes Isolated from Glucocorticoid-Treated Newborn Rats, 1167
- Mehta, P.** See *Hulme, Birdsall, and Burgen*, 737
- Meisner, Herman and Neet, Kenneth.** Competitive Binding of Long-Chain Free Fatty Acids, Octanoate, and Chlorophenoxyisobutyrate to Albumin, 337
- Merriam, Philip.** See *Honeyman and Fay*, 86
- Meyer, Amatzya Y.** See *Samuni*, 704
- Miller, Alexander, III, Henderson, Marilyn C., and Buhler, Donald R.** Cytochrome P-450-Mediated Covalent Binding of Hexachlorophene to Rat Tissue Proteins, 323
- Miller, Keith W., Wilson, Michael W., and Smith, Raymond A.** Pressure Resolves Two Sites of Action of Inert Gases, 950
- Miller, Richard J.** See *Chang and Cuatrecasas*, 961
- Miller, Thomas.** See *Olsen and Ticku*, 381
- Mittag, T. W., Tormay, A., and Massa, T.** Heterogeneity of Acetylcholine Receptors in Denervated Muscle: Interactions of Receptors with Immunoglobulin from Patients with Myasthenia Gravis, 60
- Möhler, Hanns and Okada, Toshikazu.** Properties of γ -Aminobutyric Acid Receptor Binding with (+)-[3 H]Bicuculline Methiodide in Rat Cerebellum, 256
- Mullikin, Debra.** See *Lefkowitz and Williams*, 376

N

- Nahorski, S. R.** See *Rugg and Barnett*, 996
Nair, M. G. See *Rosemond-Hornbeak*, 299
Natsuki, Reiko, Hitzemann, Robert, and Loh, Horace. Effects of Morphine on the Incorporation of [¹⁴C]Serine into Phospholipid via the Base-Exchange Reaction, 448
Nebert, Daniel W. See *Pelkonen, Boobis, Yagi, and Jerina*, 306
Needleman, Philip. See *LeDuc and Marshall*, 413
Neet, Kenneth. See *Meisner*, 337
Neff, N. H. See *Iuvone and Galli*, 1212
Nelson, D. L., Herbet, A., Bourgoin, S., Glowinski, J., and Hamon, M. Characteristics of Central 5-HT Receptors and Their Adaptive Changes following Intracerebral 5,7-Dihydroxytryptamine Administration in the Rat, 983
Ness, Earl M. See *Stern and DeLuca*, 357
Newman, Robert A. and Cutroneo, Kenneth R. Glucocorticoids Selectively Decrease the Synthesis of Hydroxylated Collagen Peptides, 185
Nirenberg, Marshall. See *Burgermeister, Klein, and Witkop*, 751
Noguchi, Hideyo. See *Kato and Iwasaki*, 654
Northup, John K. and Mansour, Tag E. Adenylate Cyclase from *Fasciola hepatica*. 1. Ligand Specificity of Adenylate Cyclase-Coupled Serotonin Receptors, 804
Northup, John K. and Mansour, Tag E. Adenylate Cyclase from *Fasciola hepatica*. 2. Role of Guanine Nucleotides in Coupling Adenylate Cyclase and Serotonin Receptors, 820
Noteboom, William D. See *Will*, 856

O

- Oesch, Franz.** See *Schmassmann*, 834
Oesch, Franz. See *Tunek, Platt, and Bentley*, 920
Okada, Toshikazu. See *Möhler*, 256
Olsen, Richard W., Ticku, Maharaj K., and Miller, Thomas. Dihydropicrotoxinin Binding to Crayfish Muscle Sites Possibly Related to γ -Aminobutyric Acid Receptor-Ionophores, 381
Olsen, Richard W. See *Ticku and Ban*, 391
Oron, Yoram, Kellogg, Joan, and Lerner, Joseph. α Adrenergic and Cholinergic-Muscarinic Regulation of Adenosine Cyclic 3',5'-Monophosphate Levels in the Rat Parotid, 1018

P

- Padjen, Ante.** See *Hruska, Bressler, and Yamamura*, 77
Palacios, J. M., Garbarg, M., Barbin, G. and Schwartz, J. C. Pharmacological Characterization of Histamine Receptors Mediating the Stimulation of Cyclic AMP Accumulation in Slices from Guinea-Pig Hippocampus, 971
Passonneau, J. V. See *Lust, Kupferberg, Yonekawa, Penry, and Wheaton*, 347

- Pelkonen, Olavi, Boobis, Alan R., Yagi, Haruhiko, Jerina, Donald M., and Nebert, Daniel W.** Tentative Identification of Benzo[*a*]pyrene Metabolite-Nucleoside Complexes Produced *in Vitro* by Mouse Liver Microsomes, 306
Penry, J. K. See *Lust, Kupferberg, Yonekawa, Passonneau, and Wheaton*, 347
Peroutka, Stephen J., Greenberg, David A., U'Prichard, David C., and Snyder, Solomon H. Regional Variations in α Adrenergic Receptor Interactions of [³H]-Dihydroergokryptine in Calf Brain: Implications for a Two-Site Model of α Receptor Function, 403
Peterson, Francis J. See *Mason and Holtzman*, 665
Petsko, Gregory A. See *Tsernoglou and Hudson*, 710
Pike, Linda Joy and Lefkowitz, Robert J. Agonist-Specific Alterations in Receptor Binding Affinity Associated with Solubilization of Turkey Erythrocyte Membrane β Adrenergic Receptors, 370
Pitha, Josef. See *Vengris, Pitha, and Sensenbrenner*, 271
Pitha, Paula M. See *Vengris, Sensenbrenner, and Pitha*, 271
Platt, Karl L. See *Tunek, Bentley, and Oesch*, 920
Pottier, A. See *Rosenblatt, Whitehead, Vera, Dupont, and Vuchich*, 1143
Prestayko, A. W. See *Crooke, Duvernay, and Galvan*, 290
Preston, A. M. See *Toro-Goyco and Rodriguez*, 130
Proverbio, F. and Rawlins, F. A. Increment in Sodium and Potassium Dependent Adenosine Triphosphatase of Brain Microsomal Fraction from Rats Treated with the Cholesterol Biosynthesis Inhibitor AY 9944, 911
Puskin, Jerome S. and Martin, Thea. Effects of Anesthetics on Divalent Cation Binding and Fluidity of Phosphatidylserine Vesicles, 454
Putney, James W., Jr., VanDeWalle, Cynthia M., and Leslie, Barbara A. Receptor Control of Calcium Influx in Parotid Acinar Cells, 1046

R

- Rabinovitz, Marco.** See *Vistica and Toal*, 1136
Radtke, Harold E. See *Glowinski and Weber*, 940
Rajerison, Rabary M. See *Butlen, Guillon, Jard, Sawyer, and Manning*, 1006
Randall, Lowell O. See *Spiehler and Fairhurst*, 587
Rauckman, Elmer J. See *Kitchell and Rosen*, 1092
Rawlins, F. A. See *Proverbio*, 911
Renton, Kenneth W., Deloria, Laurel B., and Mannering, Gilbert J. Effects of Polyribonucleosinic acid-polyribocytidylic acid and a Mouse Interferon Preparation on Cytochrome P-450-Dependent Monooxygenase Systems in Cultures of Primary Mouse Hepatocytes, 672

- Rinehart, K. L., Jr.** See *Srivastava, DiCioccio, and Li*, 442
- Rodriguez, M. B.** See *Toro-Goyco and Preston*, 130
- Rogan, Eleanor and Cavalieri, Ercole.** Differences between Nuclear and Microsomal Cytochrome P-450 in Uninduced and Induced Rat Liver, 215
- Rokach, Joshua.** See *Mandel, Rooney, and Cragoe*, 930
- Rooney, C. Stanley.** See *Mandel, Rokach, and Cragoe*, 930
- Rosemond-Hornbeak, Hortencia and Nair, M. G.** Transport and Inhibitory Activity of New Folate Analogues in HeLa Cells, 299
- Rosen, Gerald M.** See *Kitchell and Rauckman*, 1092
- Rosenblatt, D. S., Whitehead, V. M., Dupont, M. M., Vuchich, M.-J., and Vera, N.** Synthesis of Methotrexate Polyglutamates in Cultured Human Cells, 210
- Rosenblatt, D. S., Whitehead, V. M., Vera, N., Pottier, A., Dupont, M., and Vuchich, M.-J.** Prolonged Inhibition of DNA Synthesis Associated with the Accumulation of Methotrexate Polyglutamates by Cultured Human Cells, 1143
- Ross, Svante B.** See *de Paulis, Kelder, and Stjernström*, 596
- Roth, Jerome A.** Inhibition of Human Brain Type B Monoamine Oxidase by Tricyclic Psychoactive Drugs, 164
- Rousselle, Jean-Claude.** See *Fillion, Fillion, Beaudoin, Goigny, Deniau, and Jacob*, 50
- Rugg, E. L., Barnett, D. B., and Nahorski, S. R.** Coexistence of β_1 and β_2 Adrenoceptors in Mammalian Lung: Evidence from Direct Binding Studies, 996
- Russell, Diane Haddock.** See *Byus, Klimpel, and Lucas*, 431
- S**
- Saez, J. M., Haour, F., Tell, G. P. E., Gallet, D., and Sanchez, P.** Human Chorionic Gonadotropin-Induced Leydig Cell Refractoriness to Gonadotropin Stimulation, 1054
- Salvaggio, Maria.** See *Slotkin, Seidler, Whitmore, and Lau*, 868
- Samuni, Amram and Meyer, Amatzya Y.** Conformation Patterns in Penicillins and the Penicillin-Penicillinase Interaction, 704
- Sanchez, P.** See *Saez, Haour, Tell, and Gallet*, 1054
- Saur, Wilhelm.** See *Jakobs and Schultz*, 1073
- Sausville, Edward A. and Horwitz, Susan B.** Inhibition of SV40 DNA Synthesis by Camptothecin and Neocarzinostatin, 1156
- Sawh, P. C.** See *Bihler*, 879
- Sawyer, Wilbur H.** See *Butlen, Guillon, Rajerison, Jard, and Manning*, 1006
- Schmassmann, Hansueli and Oesch, Franz.** Trans-stilbene Oxide: A Selective Inducer of Rat Liver Epoxide Hydratase, 834
- Schultz, Günter.** See *Jakobs and Saur*, 1073
- Schurmann, Annika.** See *Bergstrand and Lundquist*, 848
- Schut, Herman A. J., Wirth, Peter J., and Thorgeirsson, Snorri S.** Mutagenic Activation of *N*-hydroxy-2-acetylaminofluorene in the *Salmonella* Test System: The Role of Deacetylation by Liver and Kidney Fractions from Mouse and Rat, 682
- Schwartz, J. C.** See *Palacios, Garbarg, and Barbin*, 971
- Seidler, Frederic J.** See *Slotkin, Whitmore, Salvaggio, and Lau*, 868
- Seifried, H.** See *Levin, Thomas, Korzeniowski, Lu, and Jerina*, 1107
- Sensenbrenner, Lyle L.** See *Vengris, Pitha, and Pitha*, 271
- Sharma, Manohar L.** See *Kirsten and Kun*, 172
- Sharma, Virendra K. and Banerjee, Shailesh P.** Denervation of Cat Fast- and Slow-Skeletal Muscles: Effect on Ouabain Binding, 1204
- Sharma, Virendra K. and Banerjee, Shailesh P.** Specific [3 H]Ouabain Binding to Rat Heart and Skeletal Muscle: Effects of Thyroidectomy, 122
- Simantov, Rabi, Childers, Steven R., and Snyder, Solomon H.** [3 H]Opiate Binding: Anomalous Properties in Kidney and Liver Membranes, 69
- Simonnet, G.** See *Hamon, Bourgoin, and Héry*, 99
- Singh, D.** See *Bhalla, Webb, Ashley, and Brock*, 468
- Slotkin, Theodore A., Seidler, Frederic J., Whitmore, William L., Salvaggio, Maria, and Lau, Christopher.** Ionic and Nucleotide Co-factor Requirements for Uptake of [3 H]Norepinephrine by Rat Brain Synaptic Vesicle Preparations, 868
- Smith, Raymond A.** See *Miller and Wilson*, 950
- Snyder, Solomon H.** See *Greenberg*, 38
- Snyder, Solomon H.** See *Peroutka, Greenberg, and U'Prichard*, 403
- Snyder, Solomon H.** See *Simantov and Childers*, 69
- Sokolovsky, M.** See *Cherkez, Yellin, Kashman, and Yaavetz*, 781
- Spiehler, Vina, Fairhurst, Alan S., and Randall, Lowell O.** The Interaction of Phenoxybenzamine with the Mouse Brain Opiate Receptor, 587
- Srivastava, B. I. Sahai, DiCioccio, Richard A., Rinehart, K. L., Jr., and Li, L. H.** Preferential Inhibition of Terminal Deoxynucleotidyltransferase Activity among Deoxyribonucleic Acid Polymerase Activities of Leukemic and Normal Cells by Geldanamycin, Streptoval C, Streptovarone, and Dapmavarone, 442
- Stephens, Janet K.** See *Fischer and Marks*, 717
- Stern, Paula H., Ness, Earl M., and DeLuca, Hector F.** Responses of Fetal Rat Bones to *Solanum malacoxylon* in Vitro: a Possible Explanation of Previous Paradoxical Results, 357
- Stjernström, Nils E.** See *de Paulis, Kelder, and Ross*, 596

Stoolman, Lloyd M. See *Insel*, 549

T

Tell, G. P. E. See *Saez, Haour, Gallet, and Sanchez*, 1054

Thakker, D. R., Yagi, H., Lehr, R. E., Levin, W., Buening, M., Lu, A. Y. H., Chang, R. L., Wood, A. W., Conney, A. H., and Jerina, D. M. Metabolism of *trans*-9,10-dihydrobenzo[*a*]pyrene Occurs Primarily by Arylhydroxylation Rather than Formation of a Diol Epoxide, 502

Thomas, P. E. See *Levin, Korzeniowski, Lu, Seifried, and Jerina*, 1107

Thorgeirsson, Snorri S. See *Schut and Wirth*, 682

Ticku, Maharaj K., Ban, Matt, and Olsen, Richard W. Binding of [³H]α-Dihydropicrotoxinin, γ-Aminobutyric Acid Synaptic Antagonist, to Rat Brain Membranes, 391

Ticku, Maharaj K. See *Olsen and Miller*, 381

Tiffany, Sylvia M. See *Graham, Bell, and Gutknecht*, 644

Toal, Jane N. See *Vistica and Rabinovitz*, 1136

Tormay, A. See *Mittag and Massa*, 60

Toro-Goyco, Efrain, Rodriguez, M. B., and Preston, A. M. On the Action of Δ⁹-Tetrahydrocannabinol as an Inhibitor of Sodium- and Potassium-Dependent Adenosine Triphosphatase, 130

Torrence, Paul F. See *De Clercq, Descamps, and Huang*, 422

Trotta, Paul P., Ahland, Mary P., Brown, George F., and Balis, M. Earl. Studies on the Effects of Infusion of Enzyme Inhibitors on Mouse Adenosine Deaminase, 199

Trudell, J. R. See *Mastrangelo, Edmunds, and Cohen*, 463

Tsai, Bie Shung and Lefkowitz, Robert J. Agonist-Specific Effects of Monovalent and Divalent Cations on Adenylate Cyclase-Coupled Alpha Adrenergic Receptors in Rabbit Platelets, 540

Tsai, Ming-Cheng, Mansour, Nabil A., Eldefrawi, Amira T., Eldefrawi, Mohyee E., and Albuquerque, Edson X. Mechanism of Action of Amantadine on Neuromuscular Transmission, 787

Tsernoglou, Demetrius, Petsko, Gregory A., and Hudson, Richard A. Structure and Function of Snake Venom Curarimimetic Neurotoxins, 710

Tunek, Anders, Platt, Karl L., Bentley, Philip, and Oesch, Franz. Microsomal Metabolism of Benzene to Species Irreversibly Binding to Microsomal Protein and Effects of Modifications of This Metabolism, 920

U

U'Prichard, David C. See *Peroutka, Greenberg, and Snyder*, 403

V

Vaciago, Alessandro. See *Brufani, Cellai, Cerrini, and Fedeli*, 639

Van Arsdale, Pamela M. See *Howlett and Gilman*, 531

VanDeWalle, Cynthia M. See *Putney and Leslie*, 1046

Van Wilgenburg, Marianne T. See *Janssen*, 884

Vengris, Vitolis E., Pitha, Paula M., Sensenbrenner, Lyle L., and Pitha, Josef. Polymeric Drugs: Direct Compared with Indirect Inhibition of Leukemia Virus Replication in Mice, 271

Venter, J. Craig. Cardiac Sites of Catecholamine Action: Diffusion Models for Soluble and Immobilized Catecholamine Action on Isolated Cat Papillary Muscles, 562

Venter, J. Craig. See *Hu*, 237

Vera, N. See *Rosenblatt, Whitehead, Dupont, and Vuchich*, 210

Vera, N. See *Rosenblatt, Whitehead, Pottier, Dupont, and Vuchich*, 1143

Vesin, Marie-Françoise, Khac, Lien Do, and Harbon, Simone. Modulation of Intracellular Adenosine Cyclic 3',5'-Monophosphate and Contractility of Rat Uterus by Prostaglandins and Polyunsaturated Fatty Acids, 24

Vistica, David T., Toal, Jane N., and Rabinovitz, Marco. Amino Acid Conferred Protection against Melphalan: Interference with Leucine Protection of Melphalan Cytotoxicity by the Basic Amino Acids in Cultured Murine L1210 Leukemia Cells, 1136

Vuchich, M.-J. See *Rosenblatt, Whitehead, Dupont, and Vera*, 210

Vuchich, M.-J. See *Rosenblatt, Whitehead, Vera, Pottier, and Dupont*, 1143

W

Warnick, J. E. See *Garrison, Albuquerque, Daly, and Witkop*, 111

Wastek, Gregory J. and Yamamura, Henry I. Biochemical Characterization of the Muscarinic Cholinergic Receptor in Human Brain: Alterations in Huntington's Disease, 768

Webb, R. C. See *Bhalla, Singh, Ashley, and Brock*, 468

Weber, Wendell W. See *Glowinski and Radtke*, 940

Weiss, Erich and Heinrich, Peter C. The Effect of Inhibitors of Transcription and Translation on Chromosomal Proteins, 1148

Wheaton, A. B. See *Lust, Kupferberg, Yonekawa, Penry, and Passonneau*, 347

Whitehead, V. M. See *Rosenblatt, Dupont, Vuchich, and Vera*, 210

Whitehead, V. M. See *Rosenblatt, Vera, Pottier, Dupont, and Vuchich*, 1143

Whitmore, William L. See *Slotkin, Seidler, Salvaggio, and Lau*, 868

- Will, Peter C. and Noteboom, William D.** Methadone Uptake by L5178Y Mouse Leukemic Cells, 856
- Williams, Lewis T.** See *Lefkowitz and Mullikin*, 376
- Wilson, Irwin B.** See *Gordon and Carpenter*, 266
- Wilson, Michael W.** See *Miller and Smith*, 950
- Wirth, Peter J.** See *Schut and Thorgeirsson*, 682
- Witkop, B.** See *Garrison, Albuquerque, Warnick, and Daly*, 111
- Witkop, Bernhard.** See *Burgermeister, Klein, and Nirenberg*, 751
- Wong, Dona L.** See *Ciaranello and Berenbeim*, 490
- Wood, A. W.** See *Thakker, Yagi, Lehr, Levin, Buening, Lu, Chang, Conney, and Jerina*, 502
- Woods, James S.** Alterations in Hepatic Heme Biosynthetic Capability and Mixed Function Oxidase Activity during Ethionine Exposure in Rats, 900
- Woods, James S.** See *Kitchin*, 890
- Y**
- Yaavetz, B.** See *Cherkez, Yellin, Kashman, and Sokolovsky*, 781
- Yagi, H.** See *Thakker, Lehr, Levin, Buening, Lu, Chang, Wood, Conney, and Jerina*, 502
- Yagi, Haruhiko.** See *Pelkonen, Boobis, Jerina, and Nebert*, 306
- Yamamura, Henry I.** See *Hruska, Padjen, and Bressler*, 77
- Yamamura, Henry I.** See *Wastek*, 768
- Yellin, H.** See *Cherkez, Kashman, Yaavetz, and Sokolovsky*, 781
- Yoda, Atsunobu and Yoda, Shizuko.** Influence of pH on the Interaction of Cardiotonic Steroids with Sodium- and Potassium-Dependent Adenosine Triphosphatase, 624
- Yoda, Shizuko.** See *Yoda*, 624
- Yonekawa, W. D.** See *Lust, Kupferberg, Penry, Passonneau, and Wheaton*, 347

SUBJECT INDEX FOR VOLUME 14

A

Acetylation

- rapid and slow, effects on activation of carcinogenic arylamines (human, rabbit), 940

Acetylcholine

- binding to acetylcholine receptor, no inhibition by amantadine, 787
- resemblance of neurotoxins to, 710

Acetylcholine receptor

- electric ray electric organ, 787
- frog skeletal muscle, 514, 787
- ionic channel, effect of amantadine, 787
- neuroblastoma cells (mouse), 751
- rat skeletal muscle, 60, 111, 787

Acetylcholinesterase

- forms, turnover numbers (eel), 266

N-Acetyldopamine

- toxicity, 644

Actinomycin D

- effect on nonhistone chromosomal proteins, liver (rat), 1148

Adenosine deaminase

- intestine, competitive inhibition (bovine), 366

Adenosine deaminase I and II

- inhibitor infusions, 199
- mouse lung, stomach, liver, jejunum, ileum, thymus, 199

Adenosine 3',5'-monophosphate

- accumulation, stimulation via histamine receptors, 971
- α -adrenergic and cholinergic control, 1018
- amylase secretion from parotid, 1031
- brain concentrations, changes after convulsants and anticonvulsants (mouse), 347
- cat heart muscle, 237, 562
- correlation with atrial inotropic and chronotropic responses, 1063
- dependent protein kinase
 - activity in aorta in hypertension (rat), 468
 - specific activation, 431
- guinea pig
 - hippocampus, 971
 - left and right atria, 1063
- isolated muscles
 - papillary, 237, 562
 - smooth, 86
- isoproterenol effects, 86
- noncorrelation with cardiac inotropic response (cat), 562
- production, effect of temperature, 1063
- prostaglandins and polyunsaturated fatty acids, 24
- rat parotid, 1018

- serotonin-sensitive adenylate cyclase, 2

S49 lymphoma cells, 549

Adenosine triphosphate

- activation of tryptophan hydroxylase, 99

Adenosine triphosphatase ($Mg^{2+} + Ca^{2+}$)

- intestinal brush border, 138

Adenosine triphosphatase ($Na^+ + K^+$)

- binding with ouabain and digoxigenin, 624
- cat denervated muscle, 1204
- effect of cholesterol biosynthesis inhibitor AY 9944, 911
- inhibition by Δ^9 -tetrahydrocannabinol, 130
- pH effect on
 - digoxigenin inhibition, 624
 - ouabain inhibition, 624
- rat brain microsomes, 911

Adenylate cyclase

activation

- by guanine nucleotides, 820
- by 5'-guanylyl imidophosphate, 820
- kinetics, 804

basal activity inhibition, 804

C6 glioma cells, 227

effects of α -adrenergic inhibition, 1073

frog erythrocytes, 376

guinea pig brain, 2

human platelet, 1073

inhibition by epinephrine, kinetics, 1073

liver fluke

cell-free particles, 804, 820

membrane fractions, 820

lysergic acid diethylamide activation, 804

membrane bound, desensitization, 376

rabbit platelets, 540

rat

brain, 2, 11

kidney membranes, 1006

liver cells, 227

uterus, 24

role of guanosine 5'-triphosphate, 820

serotonin activation, 804

S49 lymphoma cell membranes, 531

swine kidney membranes, 1099

5'-Adenylylimidodiphosphate

- tryptophan hydroxylase activation, 99

Adipocyte

- glycogen synthase: effects of insulin, methoxamine, and calcium (rat), 1079

α -Adrenergic receptor

- bovine brain, 403
- function, two-site model, 403

- rabbit platelets, 540
- rat adipocyte, 1079
- β -Adrenergic receptor
 - cat heart muscle, 237
 - C6 glioma cells, 227
 - frog erythrocytes, desensitization, 376
- rat
 - brain, 11
 - liver cells, 227
 - parotid, 1018
- S49 lymphoma cells
 - intact, 549
 - membranes, 531
- toad stomach smooth muscle, 86
- turkey erythrocyte membrane, 370
- β -Adrenoceptors
 - coexistence of β_1 and β_2 (rabbit, rat), 996
- Agonist
 - binding affinity shift (rabbit), 540
- Albumin
 - serum
 - defatted: competitive binding to (bovine), 337
 - drug binding by (human), 884
- α -Amanitin
 - effect on nonhistone chromosomal proteins, liver (rat), 1148
- Amantadine
 - antiparkinson, antiviral: effect on neuromuscular transmission, mechanism (electric ray, frog, rat), 787
- Amino acid
 - transport (leukemia cells), 1136
- γ -Aminobutyric acid
 - brain concentrations, changes after convulsants and anticonvulsants (mouse), 347
- γ -Aminobutyric acid receptor
 - binding with bicuculline methiodide, 256
- crayfish muscle, 381
- rat
 - brain membranes, 391
 - cerebellum, 256
- 5-Amino[4- 14 C]levulinate
 - labeling of liver heme and bilirubin by, 1099
- δ -Aminolevulinic acid synthetase
 - liver, effect of
 - ethionine (rat), 900
 - 2,3,7,8-tetrachlorodibenzo-*p*-dioxin (rat), 890
- Aminopyrine *N*-demethylase
 - activity in cultured hepatocytes (mouse), 672
- α -Amylase
 - rat parotid, 1031
 - secretion, refractoriness to muscarinic and adrenergic agonists, 1031
- Anesthetics
 - clinical concentration, effect on phospholipid-cholesterol membrane fluidity, 463
 - effects on divalent cation binding and fluidity of phosphatidylserine vesicles, 454
 - general, pressure reversal of high pressure neurolog-
ical syndrome anesthesia, 950
- 1-Anilinoanthracene-8-sulfonic acid effects on ribosomes, 220
- Ansamycins
 - conformation, 693
- Anthracyclines
 - effects on macromolecular synthesis, mechanism, 290
- Antiallergic agents
 - inhibition of cyclic nucleotide phosphodiesterase, 848
- Anticonvulsants
 - effects on brain metabolites (mouse), 347
- Antihistaminics
 - effect on H_1 and H_2 histamine receptors in brain (guinea pig), 971
- Antimuscarinic activity
 - effect of (N)-asymmetric atropine analogs (guinea pig), 781
- Antiviral activity
 - 5-nitro-2'-deoxyuridine, 422
 - 5-nitro-2'-deoxyuridine 5'-monophosphate, 422
- Apocytochrome *P*-448
 - de novo* protein synthesis of, 890
- Apocytochrome *P*-450
 - damage of, during oxidative desulfuration of chemicals, 1099
- Ara-A, *see* Arabinofuranosyladenine
- Arabinofuranosyladenine
 - ester prodrug, 366
- Arabinofuranosyladenine 5'-valerate prodrug, inhibition of adenosine deaminase (bovine), 366
- 9- β -D-Arabinofuranosyl-6-hydroxylaminopurine
 - effects on adenosine deaminase, 199
- Arachidonic acid
 - effect on cyclic AMP, 24
- Arginine homolog
 - promotion (leukemia cells), 1136
- Arylamines
 - carcinogens, genetic variation in *N*-acetylation of (human, rabbit), 940
- Aryl hydrocarbon hydroxylase
 - liver, induction by 2,3,7,8-tetrachlorodibenzo-*p*-dioxin (rat), 890
- Atrium
 - left and right, inotropic and chronotropic responses to orciprenaline (guinea pig), 1063
- Atropine
 - analog, effect of asymmetric N-substituent on antimuscarinic activity: ileum (guinea pig), 781
 - effect on end plate currents (frog), 514
- Aurintricarboxylic acid
 - effects on ribosomes, 220
- Autoradiography
 - DNA fiber, effect of methyl methanesulfonate, 278
- Azide
 - effect on
 - amylase secretion, 1031
 - cyclic AMP and cyclic GMP, 1031

- Azo**
 reduction, 665
- Azoreductase**
 inhibition by oxygen, 665
- B**
- Base exchange**
 [¹⁴C]serine incorporation into phospholipid, effects of morphine (rat), 448
- Batrachotoxin**
 muscle end plate receptors, 111
- Benzene**
 binding to microsomal protein (rat), 920
 liver microsomes, metabolism (rat), 920
- Benzene oxide**
 formation, in liver microsomes (rat), 920
- Benzodiazepines**
 effects on
 Ca²⁺ fluxes, 879
 Na⁺ and K⁺ distribution, 879
 sugar transport, 879
- Benzo[a]pyrene**
 BP 4,5-dihydrodiol, metabolism (rat), 502
 BP 9,10-dihydrodiol
 carcinogenicity (mouse), 502
 metabolism by arylhydroxylation (rat), 502
 BP 7,10-diol-8,9-epoxide, mutagenicity (bacteria), 502
 BP 9,10-diol-7,8-epoxides, mutagenicity (bacteria), 502
 metabolism, liver microsomes (mouse), 306
 metabolite-nucleoside complexes, liver microsomes (mouse), 306
- Benzo[a]pyrene arene oxides**
 binding to DNA (mouse), 306
- Benzo[a]pyrene diol epoxides**
 binding to DNA (mouse), 306
- Benzo[a]pyrene hydroxylase**
 activity in cultured hepatocytes (mouse), 672
- Benzo[a]pyrene phenols**
 binding to DNA (mouse), 306
- Benzo[a]pyrene quinones**
 binding to DNA (mouse), 306
- Bicuculline methiodide**
 binding in rat cerebellum, 256
- Bile**
 pigments, from heme conversion, 1099
- Binding**
 competitive, to albumin (bovine), 337
 covalent, hexachlorophene in liver microsomes (rat), 323
 divalent cation, and fluidity of phosphatidylserine vesicles, effects of anesthetics (bovine), 454
 muscarinic receptors
 agonists to, 723
 antagonists to, 737
 radioligand
 assay, 381
 [³H]dihydroalprenolol (lymphoma cells), 549
 (-)-[³H]dihydroalprenolol, 370, 376
 [³H]hydroxybenzylisoproterenol, 376
 [¹²⁵I]iodohydroxybenzylpindolol (lymphoma cells), 549
- Biphenyl**
 hydroxylation in liver microsomes, 145
- Biphenyl catechol**
 microsomal formation, 145
- N,N'-Bis-(3-methyl-2-thiazolidinylidene)succinamide**
 inhibition of dimethyltryptamine biosynthesis (human, rabbit), 930
- Bradykinin**
 conformational analogs, 413
 -potentiating peptide, inhibitor of kininases, 413
- Bradykininases**
 differentiation, 413
- Bradykinin receptor**
 heterogeneity, 413
- Brain**
 hippocampus, H₁ and H₂ histamine receptors (guinea pig), 971
 membranes
 α-adrenergic receptor binding, regional variations (bovine), 403
 [³H]α-dihydropicrotoxinin binding (rat), 391
 muscarinic receptor binding of agonists (rat), 723
 picrotoxinin binding (rat), 391
 microsomes, Na⁺,K⁺-ATPase activity: effect of cholesterol inhibition (rat), 911
 muscarinic receptors, alterations in Huntington's disease, 768
 synaptic vesicles, norepinephrine uptake (rat), 868
 synaptosome fraction
 muscarinic receptor binding of antagonists (rat), 737
 serotonin receptor changes after intracerebral 5,7-dihydroxytryptamine (rat), 983
- 2-Bromo-LSD**
 antagonism of serotonin activation, 804
 inhibition of basal adenylate cyclase activity, 804
- Bufotenine**
 serotonin-sensitive adenylate cyclase, 11
- α-Bungarotoxin**
 acetylcholine receptors in muscle, 60
 binding to acetylcholine receptor, no inhibition by amantadine, 787
- C**
- Calcium**
 accumulation, in aorta in hypertension (rat), 468
 activation tryptophan hydroxylase, 99
 binding, in aorta in hypertension (rat), 468
 effects on glycogen synthase, 1079
 influx in parotid acinar cells (rat), 1046
 metabolism, in vascular smooth muscle in hypertension (rat), 468
 pump, dibucaine and Ca²⁺ interaction, 138

- regulator of sugar transport, 879
- requirement for Ca^{2+} , parotid (rat), 1018
- Camptothecin
 - inhibition of DNA synthesis (virus), 1156
- Carbamylcholine
 - depolarization of muscle end plates, 111
 - isolated smooth muscle cells, 86
 - isolated uterus, 24
- Carbon disulfide
 - induction of liver heme oxygenase by, 1099
- Carcinogen
 - arylamines, genetic variation in *N*-acetylation of (human, rabbit), 940
 - binding to DNA (mouse), 306
- Carcinogenesis
 - chemical: epoxides, 834
 - liver, ethionine induced, 900
- Catecholamine enzymes
 - regulation of phenylethanolamine *N*-methyltransferase (rat), 478, 490
- Catecholamines
 - competitive binding with [^3H]dihydroalprenolol (turkey), 370
 - effect on adenylate cyclase (lymphoma cells), 531
 - oxidative pathways, 633
 - polymeric, action on heart muscle (cat), 562
 - propagated action, heart muscle (cat), 562
 - stimulation of adenylate cyclase (frog), 376
- Cation
 - divalent, binding to phosphatidylserine vesicles, 454
 - requirement for synaptic vesicle norepinephrine uptake (rat), 868
- Cell
 - growth, inhibition by folate analogues (HeLa cells), 299
- Central nervous system
 - brain membranes, [^3H] α -dihydropicrotoxinin binding (rat), 391
- Chloride
 - channel
 - in dihydropicrotoxinin binding (crayfish), 381
 - and picrotoxinin binding, brain membranes (rat), 391
- Chlorophenoxyisobutyrate
 - binding to albumin (bovine), 337
- Chloropractolol
 - pharmacological classification (rat), 607
- Chloroquine
 - inhibition of electron transport, 155
- Chlorpromazine
 - inhibition of monoamine oxidase, 164
 - interaction with dopamine and serotonin receptors, 11
- Chlorprothixene
 - inhibition of monoamine oxidase, 164
- Cholesterol
 - inhibition, effect on brain Na^+ , K^+ -ATPase activity (rat), 911
- Choline acetyltransferase
 - brain caudate nucleus, putamen, and globus pallidus: activity in Huntington's disease (human), 768
- Cholinergic-muscarinic receptor
 - rat parotid, 1018
- Cholinergic receptor
 - inhibition of, 710
- Chromatography
 - gas, halothane concentration in phospholipid bilayer, 463
- Chronotropic response
 - to orciprenaline, left and right atria (guinea pig), 1063
- Cinanserin
 - interaction with dopamine and serotonin receptors, 11
- Circular dichroism
 - protein structural changes, 1092
- Citrate
 - transport, inhibition by (-)-erythro-fluorocitrate, 172
- Clonidine
 - alpha receptor binding, 38
 - binding in brain (bovine), 403
- Clozapine
 - interaction with dopamine and serotonin receptors, 11
- Collagen
 - hydroxylated, polypeptides, 185
 - synthesis, in dermal polysomes: effect of glucocorticoids (rat), 1167
- Concanavalin A
 - acetylcholine receptors, 60
 - stimulation of lymphocytes: ornithine decarboxylase induction in (human), 431
- Converting enzyme
 - dipeptidyl carboxypeptidase, 413
- Convulsants
 - binding to muscle sites (crayfish), 381
 - brain
 - membranes (rat), 391
 - metabolites, changes after (mouse), 347
- Convulsion
 - chemically and electrically induced (mouse), 347
- Cordycepin
 - inhibition of phosphorylation, 1130
- Critical volume
 - hypothesis, pressure effects on inert gases, 950
- Crystallography
 - neurotoxins, 710
- Cultured cells
 - leukemic, L5178Y (mouse), 856
 - S49 lymphoma, β -adrenergic receptors, 549
- Cyclic nucleotide phosphodiesterase
 - rat mast cells, 848
- Cyclic nucleotides
 - brain concentrations, changes after convulsants and anticonvulsants (mouse), 347
- Cycloheximide

- effect on nonhistone chromosomal proteins, liver (rat), 1148
- Cyclooxygenase
inhibition, 24
- Cyproheptadine
interaction with dopamine and serotonin receptors, 11
- Cytochrome *P*-448
liver, *de novo* synthesis, 890
- Cytochrome *P*-450
hexachlorophene binding, liver microsomes (rat), 323
maximum turnover rate, 654
monooxygenases, liver microsomes (mouse), 306
rat liver nuclei and microsomes, 215
reconstitution *in vitro*, after 2,3,7,8-tetrachlorodibenzo-*p*-dioxin, 890
reduction, flavins and viologens stimulation, 654
- D**
- Dapmavarone
inhibition of terminal transferase in leukemic cells (human), 442
- Deacetylation
by liver and kidney, role in *N*-hydroxy-2-acetylaminofluorene mutagenesis (mouse, rat), 682
- Degradation
phenylethanolamine *N*-methyltransferase
after hypophysectomy (rat), 478
in vitro (rat), 490
- Dehydroretronecine
effect on lung endothelium (rat), 1189
- Deoxynucleotidyltransferase
terminal, inhibition in leukemic cells (human), 442
- Deoxyribonucleic acid
replicon elongation, effect of methyl methanesulfonate (hamster V-79 cells), 278
synthesis
inhibition by folate analogues (HeLa cells), 299
inhibition by methyl methanesulfonate (hamster V-79 cells), 278
suppression by steroid, 185
- Deoxyribonucleic acid polymerase
inhibition by geldanamycin, streptoval C, streptovarone, and dapmavarone, 442
- Deoxyuridine
analogs as *in vivo* inhibitors of thymidylate synthetase, 422
- Diazabicyclo
synthesis, 781
- Dibucaine
effect on calcium pump, 138
- Digital computer
simulations, end plate currents (frog), 514
- Digitonin
solubilization of erythrocyte membrane β -adrenergic receptors (turkey), 370
- [³H]Dihydroalprenolol
binding
 β -adrenergic receptors (lymphoma cells), 549
erythrocyte membrane (frog), 376; (turkey), 370
sites, lung (rabbit, rat), 996
- [³H]Dihydroergocryptine
binding
brain membranes (bovine), 403; (rat), 38
platelet lysates (rabbit), 540
- Dihydromorphine
opiate binding, 69
- Dihydropicrotoxinin
binding
brain membranes (rat), 391
muscle sites (crayfish), 381
- 3,4-Dihydroxybiphenyl
microsomal formation, 145
- trans*-9,10-Dihydroxy-9,10-dihydrobenzo[*a*]pyrene,
see Benzo[*a*]pyrene, BP 9,10-dihydrodiol
- 5,7-Dihydroxytryptamine
intracerebral, effect on serotonin receptors (rat), 983
- Dimethyltryptamine
biosynthesis, inhibition by substituted thiazolidines, 930
- Disodiumcromoglycate
inhibition of cyclic nucleotide phosphodiesterase, 848
- Dissociation constant
K_D, apparent vs "true," 768
- Disulfide
bridge-reducing agents, 227
- Dithiocarbamylates
effect on cell membranes, 1121
- Dithiothreitol
 β -adrenergic receptors coupled with adenylate cyclase, 227
- DNA
synthesis, inhibition by
camptothecin and neocarzinostatin (virus), 1156
methotrexate, fibroblasts (human), 1143
- Dopamine
oxidation, 644
receptor in rat brain, 2, 11, 38
sensitive adenylate cyclase, 2, 11
synthesis regulation, 1212
- Drug
diffusion, models for catecholamine action on heart muscle (cat), 562
metabolism, inhibition by prodrug (bovine), 366
- Drug-protein
interactions, ionic forces in, 884
- Duroquinone
reduction by NADH, 155
- E**
- Eicosatetraenoic acid
cyclooxygenase inhibitor, 24
- Electric organ
membranes, effect of amantadine (electric ray), 787
- Electric ray

- Torpedo ocellata*: electric organ, effect of amantadine, 787
- Electron paramagnetic resonance
divalent cation binding to phosphatidylserine vesicles, 454
phospholipid-cholesterol bilayer membrane, effects of halothane on fluidity, 463
- Electroshock
brain metabolites, changes after (mouse), 347
- Endorphin
effect on enkephalin interaction with opiate receptors (neuroblastoma cells), 961
- Endothelium
lung, effect of monocrotaline (rat), 1189
- Enkephalin
interaction with opiate receptors (neuroblastoma cells), 961
- End plate
currents
effect of atropine and scopolamine, kinetics (frog), 514
time course decrease, 787
- Epinephrine
-inhibited platelet, α -adrenergic effects (human), 1073
suppression of uterine adenylate cyclase, 24
- [³H]Epinephrine
binding to brain membranes, regional variations (bovine), 403
- Epoxide hydrase
antibodies, 1107
cyclohexene oxide inhibition, 1107
liver microsomes (rat), 1107
metyrapone activation and inhibition, 1107
species differences, 1107
- Epoxide hydratase
liver, induction by trans-stilbene oxide (rat), 834
- Ethionine
effect on heme biosynthesis and mixed function oxidase activity (rat), 900
- Ethyl isocyanide
binding to cytochrome *P*-450, 215
- Eye
retina, neurotransmitters (rat), 1212
- F**
- Fatty acids
free, long chain: binding to albumin (bovine), 337
rat uterus contractility, 24
- Ferrochelatase
liver, effect of ethionine exposure (rat), 900
- Fibroblasts
methotrexate metabolism (human), 1143
- Flavin
stimulatory effect on tertiary amine *N*-oxide reduction by cytochrome *P*-450, 654
- Fluorescence
mixed function amine oxidase, effect of temperature, 1092
- Fluorocitrate
binding to mitochondrial proteins, 172
- Fluphenazine
interaction with dopamine and serotonin receptors, 11
- Folate
and methotrexate, inhibition of transport (HeLa cells), 299
- Friend leukemia virus
inhibition of replication (mouse), 271
- G**
- GABA receptors, *see* γ -Aminobutyric acid receptors
- D-Galactosamine
effect on nonhistone chromosomal proteins, liver (rat), 1148
- Gases
inert, pharmacological effects of solubility parameter, 950
- Geldanamycin
inhibition of terminal transferase in leukemic cells (human), 442
- Genetic differences
in drug metabolism (mouse), 306
- Glucocorticoids
adrenal, regulation of phenylethanolamine *N*-methyltransferase (rat), 478
effect on
collagen peptide synthesis (rat), 1167
hydroxylated collagen peptide synthesis, 185
- Glucose
effect, porphyrin biosynthesis, 717
- Glycogen synthase
inactivation, adipocytes (rat), 1079
- Gold sodium thiomalate
heme and drug metabolism alterations induced by (rat), 1176
- Gonadotropin
chorionic (human): Leydig cell refractoriness (rat), 1054
- Guanine nucleotides
activation of adenylate cyclase, 820
effect on adenylate cyclase (lymphoma cells), 531
- Guanosine 3',5'-monophosphate
brain concentrations, changes after convulsants and anticonvulsants (mouse), 347
muscarinic cholinergic receptors (rat), 246
- Guanosine-5'-(3-*O*-thio)triphosphate
activation of adenylate cyclase, 820
- 5'-Guanylyl imidophosphate
activation of adenylate cyclase, decay of effect, 820
- 5'-Guanylyl methylenephosphate
Cr³⁺, activation of adenylate cyclase, 820
- H**
- Haloperidol
interaction with dopamine and serotonin receptors, 11

- Halothane**
clinical concentration, effect on phospholipid-cholesterol membrane fluidity, 463
- Heart**
left and right atria, inotropic and chronotropic responses to orciprenaline (guinea pig), 1063
- Heme**
liver
biosynthesis, effect of ethionine (rat), 900
conversion to bilirubin (rat), 1099
metabolism
acute effects of gold (rat), 1176
chronic effects of gold (rat), 1176
synthesis, gold inhibition (rat), 1176
- Heme oxygenase**
liver, induction by carbon disulfide and pentothal (rat), 1099
microsomes, gold induction of (rat), 1176
- Hexachlorophene**
binding, liver microsomes (rat), 323
- Hippocampus**
slices, H₁ and H₂ histamine receptors (guinea pig), 971
- Histamine**
stimulation of cyclic AMP accumulation, H₁ and H₂ receptors, 971
- Histamine receptors**
guinea pig hippocampus, 971
H₁ and H₂, pharmacological characterization, 971
- Histronicotoxin**
interaction with acetylcholine receptor (neuroblastoma cells), 751
- Homo- γ -linoleic acid**
effect on cyclic AMP, 24
- Human**
brain, muscarinic receptors: alterations in Huntington's disease, 768
chorionic gonadotropin-induced Leydig cell refractoriness (rat), 1054
fibroblasts: methotrexate polyglutamates, biosynthesis, 210
serum albumin, sulfaethidole binding, 884
- Huntington's disease**
brain muscarinic receptors, alterations in (human), 768
- N-Hydroxy-2-acetylaminofluorene**
mutagenic activation, role of deacetylation, 682
- Hydroxybenzylisoproterenol**
in desensitization of erythrocytes (frog), 376
- 2-Hydroxybiphenyl**
microsomal formation, 145
- 3-Hydroxybiphenyl**
microsomal formation, 145
- 4-Hydroxybiphenyl**
microsomal formation, 145
- 6-Hydroxydopamine**
oxidation, 633, 644
- Hydroxyl radical**
toxicity, 644
- 9-erythro-(2-Hydroxy-3-nonyl)adenine**
inhibition of adenosine deaminase, 199
- Hydroxyproline**
collagen peptides, 185
- Hypertension**
spontaneous, calcium metabolism in vascular smooth muscle (rat), 468
- I**
- 2-Imino-3-methylthiazolidine**
inhibition of dimethyltryptamine biosynthesis (human, rabbit), 930
- Imipramine**
inhibition of monoamine oxidase, 164
- Immune response**
to leukemia virus, enhanced by statolon (mouse), 271
- Immunoglobulin**
myasthenia gravis, 60
- Immunological properties**
epoxide hydrase, 1107
- Indoleamine-N-methyltransferase**
lung, inhibition by substituted thiazolidines (human, rabbit), 930
- Indoleamine receptors**
liver fluke cell-free particles, 804
- Indomethacin**
cyclooxygenase inhibitor, 24
- Indoramin**
 α -adrenergic receptor affinity (bovine), 403
- Inhibition**
 γ -aminobutyric acid synaptic responses, muscle (crayfish), 381
DNA polymerases, by geldanamycin, streptoval C, streptovarone, and dapmavarone, 442
synaptic responses of γ -aminobutyric acid, brain membranes (rat), 391
- Inotropic response**
heart muscle (cat)
positive, 237
propagated, 562
to orciprenaline, left and right atria (guinea pig), 1063
- Insulin**
effects on glycogen synthase, 1079
- Insulin-glucagon**
'ratio, explanation for glucose effect, 717
- Interferon**
effect on cytochrome P-450 systems in cultured hepatocytes (mouse), 672
- [¹²⁵I]iodohydroxybenzylpindolol**
binding to β -adrenergic receptors (lymphoma cells), 549
- Ionic channel**
acetylcholine receptor, effect of amantadine, 787
- Ionophore**
Ca²⁺, effect on glycogen synthase, 1079
- Ion pair**
guanidinium-carboxylate, 710

- Isoelectric focusing
 urea-soluble nuclear proteins, 1130
- Isoproterenol
 effects on smooth muscle cell cyclic AMP, 86
 immobilized, polymeric
 diffusion model, papillary muscle, 562
 effects on papillary muscle cyclic AMP, 237
 -sensitive adenylate cyclase, 11
- K**
- Kidney
 membranes, adenylate cyclase (rat, swine), 1006
 monooxygenases, gold inhibition (rat), 1176
- Kinase
 type I, specific activation, 431
- Kininsases
 inhibition by bradykinin-potentiating peptide, 413
- L**
- Leucine
 inhibition (leukemia cells), 1136
- Leukemia cells
 L1210
 melphalan cytotoxicity (mouse), 1136
 membranes, effect of dithiocarbamylates, 1121
 nonhistone chromosomal proteins: inhibition of phosphorylation, 1130
 terminal transferase inhibition (human), 442
- Leukemia virus
 Friend, inhibition of replication (mouse), 271
- Levallorphan
 opiate binding, 69
- Levamisole
 inhibition of electron transport, 155
- Leydig cell
 refractoriness to gonadotropin (rat), 1054
- Linoleic acid
 uterine cyclic AMP, 24
- γ -Linolenic acid
 uterine cyclic AMP, 24
- Lipid
 fluidity, effects of anesthetics (bovine), 454
- Lithium
 effect on synaptic vesicle norepinephrine uptake (rat), 868
- Liver
 cultured hepatocytes
 cytochrome *P*-450 monooxygenase systems (mouse), 672
 preparation (mouse), 672
 embryo, porphyrin accumulation in (chicken), 717
 epoxide hydratase, induction by trans-stilbene oxide (rat), 834
 heme, conversion to bilirubin (rat), 1099
 isoniazid *N*-acetyltransferase: *N*-acetylation of carcinogenic arylamines by (human, rabbit), 940
 microsomes
 epoxide hydrase, multiple forms (rat), 1107
 N-oxide reduction by cytochrome *P*-450 (rat), 654
 mixed function oxidase, effect of ethionine exposure (rat), 900
 monooxygenases, gold inhibition (rat), 1176
 nonhistone chromosomal proteins, drug action on (rat), 1148
- Liver fluke
 Fasciola hepatica
 cell-free particles, adenylate cyclase, 804, 820
 membrane fractions, adenylate cyclase, 820
- Lung
 endothelium, effects of monocrotaline (rat), 1189
 hypertension, after monocrotaline (rat), 1189
 membranes, coexistence of β_1 and β_2 adrenoceptors (rabbit, rat), 996
- Lymphocytes
 mitogen-stimulated (human), 431
- D-Lysergic acid diethylamide
 high-affinity binding to brain synaptosomal membranes, 50
 interaction with dopamine and serotonin receptors, 11
- Lysyl hydroxylase
 steroid effects, 185
- M**
- Macromolecules
 synthesis, effects of anthracyclines, 290
- Magnesium
 activation tryptophan hydroxylase, 99
- Manganese
 Mn²⁺, binding and fluidity of phosphatidylserine vesicles, 454
- Mast cells
 cyclic nucleotide phosphodiesterases from (rat), 848
- Meclofenamic acid
 cyclooxygenase inhibitor, 24
- Melphalan
 cytotoxicity, protection against (leukemia cells), 1136
- Membrane
 architecture crucial for adenylate cyclase activity, 24
 leukemia L1210 cells, effect of dithiocarbamylates, 1121
 phospholipid-cholesterol, effect of halothane on fluidity, 463
- Metal
 heavy, muscarinic binding effects (rat), 575
 interactions with platelet adenylate cyclase, 1073
- Metal-ATP
 interactions with platelet adenylate cyclase, 1073
- Methadone
 binding, to serum proteins (horse), 856
 uptake and diffusion, leukemic cells (mouse), 856
- Methergoline
 interaction with dopamine and serotonin receptors, 11

- Methiothepin**
interaction with dopamine and serotonin receptors, 11
- Methotrexate**
metabolism in fibroblasts (human), 1143
polyglutamates in cell culture (human)
accumulation, 1143
synthesis, 210
resistance, treatment with folate analogs (HeLa cells), 299
- Methoxamine**
effects on glycogen synthase, 1079
- 5-Methoxy-*N,N*-dimethyltryptamine**
adenylate cyclase activation, 11
- 3-Methylcholanthrene**
effect on
biphenyl metabolism, 145
hexachlorophene binding in liver microsomes (rat), 323
nuclear and microsomal cytochrome *P*-450, 215
- Methyl viologen**
stimulatory effect on tertiary amine *N*-oxide reduction by cytochrome *P*-450, 654
- Mianserin**
interaction with dopamine and serotonin receptors, 11
- Microsomes**
heme oxygenase, gold induction of (rat), 1176
- Mitogen**
-stimulated lymphocytes, ornithine decarboxylase induction in (human), 431
- Mixed function amine oxidase**
fluorescence of, 1092
swine liver microsomes, 1092
- Mixed function oxidase**
liver, effect of ethionine exposure (rat), 900
- Monoamine oxidase**
type B
human brain, 164
inhibition by tricyclic psychoactive drugs, 164
- Monocrotaline**
effect on lung endothelium (rat), 1189
- Morphine**
effects on [¹⁴C]serine incorporation into phospholipid via base-exchange reaction (rat), 448
tolerance, membrane constituents (rat), 448
- Muscarinic acetylcholine receptor**
rat brain, 575
- Muscarinic agonists**
and antagonists, inhibition of [³H]quinuclidinyl benzilate binding (human), 768
- Muscarinic receptor**
binding of
agonists, 723
antagonists, 737
effects on cyclic GMP (rat), 246
guinea pig ileum, 781
human brain, 768
[³H]quinuclidinyl benzilate binding, alterations in Huntington's disease (human), 768
rat
brain, 723, 737, 768
corpus striatum, 246
- Muscle**
skeletal
fast and slow, effect of denervation on ouabain binding (cat), 1204
neuromuscular transmission, effect of amantadine (frog, rat), 787
smooth, aorta: calcium metabolism in hypertension (rat), 468
- Mutagenic activation**
of *N*-hydroxy-2-acetylaminofluorene in *Salmonella* test system, 682
- N**
- Naloxone**
opiate binding, 69
- β -Naphthoflavone**
effect on biphenyl metabolism, 145
- Narcotic analgesics**
phenoxybenzamine (mouse), 587
- Neocarzinostatin**
inhibition of DNA synthesis (virus), 1156
- Neostigmine**
nicotinic activation, 111
- Nerve**
motor, effect of ablation on ouabain binding (cat), 1204
- Neuroblastoma cells**
binding of cholinergic ligands (mouse), 751
cytotoxicity from polyphenols (C1300), 644
enkephalin interaction with opiate receptors (N4TG1), 961
- Neuroleptic drugs**
anticholinergic, 246
antimuscarinic effects, 246
- Neuromelanin**
synthesis, 633
- Neuromuscular junction**
inhibition, effect on muscle binding sites (crayfish), 381
- Neuromuscular transmission**
end plate current kinetics (frog), 514
- Neurotoxins**
curarimimetic, 710
snake venom, structure and function, 710
- Nitrated uracil**
derivatives as antiviral agents, 422
- 5-Nitro-2'-deoxyuridine**
antiviral activity, 422
inhibition of thymidylate synthetase *in vivo*, 422
- Nonhistone chromosomal proteins**
liver, drug action on (rat), 1148
phosphorylation, inhibition by cordycepin and xylosyladenine, 1130

α -Noradrenergic receptor

bovine brain membranes, 403

rat brain membranes, 38

Norepinephrine

transport carrier in hypothalamus, topology (rat), 596

[³H]Norepinephrine

binding to brain membranes, regional variations (bovine), 403

synaptic vesicle uptake (rat), 868

Nucleoside

inhibitors, of phosphorylation of nuclear proteins, 1130

Nucleotides

requirement for synaptic vesicle norepinephrine uptake (rat), 868

O

Octanoate

binding to albumin (bovine), 337

Opiate

binding in guinea pig kidney and liver, 69

Opiate receptor

enkephalin interaction with, 961

mouse brain, 587

neuroblastoma cells (N4TG1), 961

phenoxybenzamine inhibition of, 587

Orciprenaline

atrial inotropic and chronotropic responses to (guinea pig), 1063

Organ culture

fetal bone, effect of *S. malacoxylon* on resorption (rat), 357

Ornithine decarboxylase

induction in mitogen-stimulated lymphocytes (human), 431

Ouabain

ATPases, 130

binding

fast- and slow-skeletal muscles (cat), 1204

heart and skeletal muscle, 122

digoxigenin binding, 624

pH effect on binding, 624

taurine transport, 77

Oxaaminopterin

transport and antifolate activity (HeLa cells), 299

Oxafolic acid

transport and antifolate activity (HeLa cells), 299

Oxidases

mixed function: hexachlorophene binding in liver microsomes (rat), 323

Oxidative activity

effect of temperature, 1092

N-Oxide

reduction by cytochrome P-450, 654

Oxotremorine

effects on cyclic GMP, 246

Oxygen

reduction to superoxide, 665

P

Paired electrical stimulation

cyclic AMP responses, cat heart muscle, 237

Paraoxon

inhibition of *N*-hydroxy-2-acetylaminofluorene mutagenesis, 682

Parotid

acinar cells, receptor control of calcium influx in (rat), 1046

adenosine 3',5'-monophosphate levels (rat), 1018

 α -amylase secretion (rat), 1031

Partition coefficients

water/lipid, phospholipid-cholesterol bilayer systems, 463

Penicillinase

conformative response in, induced by penicillins, 704

Penicillins

rotational conformations, calculated, 704

Peptide

collagen, synthesis by dermal polysomes (rat), 1167

Perhydrohistrionicotoxin

binding to ionic channel of acetylcholine receptor, inhibition by amantadine, 787

Perturbative configuration interaction using localized orbitals

method: conformational energy maps, penicillins, 704

pH

titration, of drug-protein complexes, 884

Phenobarbital

biphenyl metabolism, 145, 215

effect on hexachlorophene binding in liver microsomes (rat), 323

Phenoxybenzamine

interaction with opiate receptor (mouse), 587

Phenylethanolamine *N*-methyltransferasedegradation *in vivo* (rat), 490

stabilization

in vitro, 490*in vivo* (rat), 490

synthesis and degradation, regulation by adrenal glucocorticoids (rat), 478, 490

Phenylethylamine

deamination, 164

Phenytoin

brain metabolites, changes after (mouse), 347

Phosphatidylcholine

synthesis, effect of morphine (rat), 448

Phosphatidylserine

synthesis, effect of morphine (rat), 448

vesicles, effects of anesthetics on divalent cation binding and fluidity (bovine), 454

Phospholipase

effect on opiate receptors, intact cells, and membrane preparations, 961

Phospholipid

base exchange, effect of morphine (rat), 448

membrane, effect of halothane on fluidity, 463

- vesicles, effects of anesthetics on divalent cation binding and fluidity, 454
 - Phospholipid-cholesterol
 - bilayer membrane, effect of halothane on fluidity, 463
 - Phosphorylase
 - effect of methoxamine, 1079
 - Phosphorylation
 - of nuclear proteins, inhibition by cordycepin and xylosyladenine (L1210 cells), 1130
 - Picrotoxin
 - γ -aminobutyric acid synaptic antagonist (crayfish), 381
 - convulsant drug and inhibitor of γ -aminobutyric acid at synapses, 391
 - Picrotoxinin
 - binding
 - brain membranes (rat), 391
 - muscle (crayfish), 381
 - Platelets
 - adenylate cyclase, kinetics of epinephrine inhibition, 1073
 - α -adrenergic receptors (rabbit), 540
 - Polyamine
 - biosynthesis, 431
 - Polymeric drugs
 - catecholamines, action on heart muscle (cat), 562
 - inhibition of leukemia virus replication (mouse), 271
 - Polyphenols
 - autooxidation, 633, 644
 - periodate oxidation, 633
 - Polyriboinosinic acid-polyribocytidylic acid
 - effects on cytochrome *P*-450 systems in cultured hepatocytes (mouse), 672
 - Polysomes
 - skin, effect of glucocorticoids on collagen synthesis (rat), 1167
 - Porphyrins
 - allylisopropylacetamide-induced, 717
 - Practolol
 - pharmacological classification (rat), 607
 - Praziquantel
 - inhibition of electron transport, 155
 - Pressure
 - effects on inert gases (mouse), 950
 - Prodrug
 - enzyme inhibition by (bovine), 366
 - Proline
 - hydroxylated collagen peptides, 185
 - Prolyl hydroxylase
 - steroid effects, 185
 - 2-*o*-Propoxyphenyl-8-azapurin-6-one
 - inhibition of cyclic nucleotide phosphodiesterase, 848
 - Prostaglandin E_1
 - stimulation of adenylate cyclase (rabbit), 540
 - uterine cyclic AMP, 24
 - Prostaglandin E_2
 - uterine cyclic AMP, 24
 - Prostaglandin synthetase
 - rat uterus, 24
 - Protein
 - liver microsomes, hexachlorophene binding to (rat), 323
 - nonhistone chromosomal
 - liver, drug action on, 1148
 - phosphorylation, inhibition by cordycepin and xylosyladenine, 1130
 - nuclear, nucleoside inhibitors and, 1130
 - Protein kinase
 - adenosine cyclic 3',5'-monophosphate dependent
 - activity in aorta in hypertension (rat), 468
 - specific activation (human), 431
 - tryptophan hydroxylase activation, 99
 - Proteolysis
 - phenylethanolamine *N*-methyltransferase, after hypophysectomy (rat), 478
 - Pyrrole
 - effect on lung endothelium (rat), 1189
 - Pyrrolizidine alkaloid
 - effect on lung endothelium (rat), 1189
- Q**
- Quinones
 - absorption spectroscopy, 633
 - cytotoxicity, 644
 - inhibitors of DNA polymerase α , 644
 - products of catecholamine oxidation, 633, 644
 - as sulfhydryl reagents, 644
 - [^3H]Quinuclidinyl-benzilate
 - binding
 - acetylcholine receptor (neuroblastoma cells), 751
 - brain muscarinic receptors, alterations in Huntington's disease (human), 768
 - muscarinic receptors, 246
- R**
- Radioligand
 - binding, assay (crayfish), 381
 - Receptor
 - control of calcium influx in parotid acinar cells (rat), 1046
 - heterogeneity, 723
 - hormone, Leydig cell refractoriness to gonadotropin stimulation (rat), 1054
 - states, muscarinic: conversion between (rat), 575
 - topology: norepinephrine transport carrier, rat hypothalamus, 596
 - Receptor-ionophore
 - γ -aminobutyric acid, muscle sites (crayfish), 381
 - Reduction
 - and oxidation of β -adrenergic receptor, 227
 - Refractoriness
 - amylase secretion, 1031
 - Leydig cell (rat), 1054
 - Replication
 - leukemia virus, inhibition (mouse), 271

- Replicon
 elongation, DNA: effect of methyl methanesulfonate (hamster V-79 cells), 278
- Retine
 neurotransmitters (rat), 1212
- Ribonucleic acid
 nucleus, synthesis, 290
- RNA polymerase
 bacterial DNA-dependent, inhibition of, 693
- S**
- Salmonella*
 test system: *N*-hydroxy-2-acetylaminofluorene mutagenesis, 682
- Scopolamine
 effect on end plate currents (frog), 514
- [³H]Scopolamine
 binding to acetylcholine receptor (neuroblastoma cells), 751
- Seizures
 effects of anticonvulsants (mouse), 347
- Sephadex LH-20
 column chromatography, benzo[*a*]pyrene metabolite-nucleoside complexes, 306
- Serotonin
 activation of adenylate cyclase, GTP dependence, 820
 high-affinity binding
 brain synaptosomal membranes, 50
 hippocampus and striatum (rat), 983
 -sensitive adenylate cyclase, 2, 11
 transport, inhibition by monocrotaline (rat), 1189
- Serotonin receptor
 liver fluke
 cell-free particles, 804, 820
 membrane fractions, 820
 rat brain, 2, 11, 38, 983
 supersensitivity, 983
- Serotonin site
 negative cooperativity, 804
- Serum albumin, *see* Albumin, serum
- Skin
 polysomes, effect of glucocorticoids on collagen synthesis (rat), 1167
- Sodium
 efflux of [²²Na] from microsacs (electric ray), 787
 and magnesium, effects on agonist binding affinity (rabbit), 540
 Na⁺-Ca²⁺ exchange in muscle (rat), 879
- Solanum glaucophyllum*, *see* *Solanum malacoxylon*
- Solanum malacoxylon*
 fetal bone organ culture responses to (rat), 357
- Stabilizing factor
 endogenous, binding to phenylethanolamine *N*-methyltransferase (rat), 490
- Statolon
 inhibition of leukemia virus replication (mouse), 271
- Streptoval C
 inhibition of terminal transferase in leukemic cells (human), 442
- Streptovarone
 inhibition of terminal transferase in leukemic cells (human), 442
- Structure activity relationships
 ansamycins, 693
 anthracyclines, 290
 arginine-vasopressin structural analogs, 1006
 atropine analogs, 781
 mixed function amine oxidase, 1092
 taurine, 77
 tricyclic antidepressants, 596
- Sugar
 transport in muscle (rat), 879
- Sulfaethidole
 albumin binding by, 884
- Sulfanazo III
 role in oxygen reduction to superoxide, 665
- Sulfhydryl groups
 muscarinic receptor role (rat), 575
- Sulfotransferase
 role in mutagenic activation of *N*-hydroxy-2-acetylaminofluorene, 682
- Sulfur
 -containing chemicals, induction of liver heme oxygenase by, 1099
- Superoxide
 anion, toxicity, 644
 formation during futile azo reduction, 665
- Sympathectomy
 chemical, effect on ouabain binding (cat), 1204
 surgical, effect on ouabain binding (cat), 1204
- Synaptic vesicles
 brain, norepinephrine uptake (rat), 868
- T**
- Taurine
 transport in rat brain synaptosomes, 77
- Terminal transferase
 inhibition by geldanamycin, streptoval C, streptovarone, and dapsimavarone, 442
- Tertiary amine *N*-oxide
 reduction (rat), 654
- Testicle
 Leydig cell refractoriness to gonadotropin (rat), 1054
- 2,3,7,8-tetrachlorodibenzo-*p*-dioxin
 induction of aryl hydrocarbon hydroxylase in liver (rat), 890
- Δ⁹-Tetrahydrocannabinol
 ATPase inhibition, 130
- Tetrodotoxin
 muscle end plate, 111
- Theophylline
 smooth muscle cyclic AMP, 86
- Thermal stability
 phenylethanolamine *N*-methyltransferase, control, 490
- Thiabendazole
 inhibition of electron transport, 155

- Thiazolidines
 substituted, inhibition of dimethyltryptamine bio-synthesis, 930
- Thioaminopterin
 transport and antifolate activity (HeLa cells), 299
- Thiofolic acid
 transport and antifolate activity (HeLa cells), 299
- Thioridazine
 interaction with dopamine and serotonin receptors, 11
- Thymidylate synthetase
 inhibition by 5-substituted 2'-deoxyuridines *in vivo*, 422
 target for antiviral activity, 422
- Thyrotropin-releasing factor
 receptor specificity, 226
- Tityustoxin
 muscle end plate, 111
- Tolypomycinone
 X-ray crystal structure, 693
- Tolypomycin Y
 hydrolysis, 693
- Transferase
 terminal: inhibition by geldanamycin, streptoval C, streptovarone, and dapmavarone, 442
- Trans-stilbene oxide
 induction of liver epoxide hydratase (rat), 834
- Triamcinolone diacetate
 effects on hydroxylated collagen peptide synthesis, 185
- Tricyclic antidepressants
 rigid structures, uptake inhibition, 596
- Triiodothyronine
 effects on ouabain binding, 122
- Tryptophan hydroxylase
 activation by adenosine triphosphate, magnesium, and calcium, 99
- Turnover number
 acetylcholinesterase forms (eel), 266
- Tyrosine aminotransferase
 steroid effects, 185
- Tyrosine hydroxylase
 retina, regulation (rat), 1212
- U**
- Uptake inhibition
 norepinephrine, by tricyclic antidepressants, 596
- Uracil
 nitrated derivatives as antiviral agents, 422
- V**
- Vasopressin
 action, competitive inhibitors of, 1006
 structural analogs of, 1006
- Vasopressin receptor
 rat kidney, 1006
 swine kidney, 1006
- Veratridine
 muscle end plate, 111
- Vesicles
 phosphatidylserine, effects of anesthetics on divalent cation binding and fluidity (bovine), 454
- Vinyl polymers
 inhibition of leukemia virus replication (mouse), 271
- Virus
 Friend leukemia, inhibition of replication (mouse), 271
- Vitamin D
 1,25-(OH)₂D₃, fetal bone organ culture responses to (rat), 357
- W**
- WB-4101
 binding to alpha receptors, 38
- [³H]WB-4101
 binding to brain membranes, regional variations (bovine), 403
- X**
- Xanthine oxidase
 flavins, cytochrome *P*-450 reduction, 654
- Xylosyladenine
 inhibition of phosphorylation, 1130