A

- Abbott, Viola S. and Mannering, Gilbert J. Inhibition of Hepatic Microsomal Cytochrome P-450-Dependent Monooxygenase Reactions by Fatty Acyl CoA, 410
- Adrien, Joëlle. See Dolphin, Hamon, and Bockaert,
- Alderfer, James L. See O'Malley, Leong, Horoszewicz, Carter, and Ts'o, 165
- Anderson, E. P. See Liacouras, 331
- Andrews, A. W. See Kawalek and Pienta, 678
- Aronstam, Robert S., Triggle, David J., and Eldefrawi, Mohyee E. Structural and Stereochemical Requirements for Muscarinic Receptor Binding, 227
- Asano, Masahisa. See Hidaka, Yamaki, and Totsuka. 49

B

- Banerjee, Shailesh P. See Sharma, 35 Bartfai, Tamas. See Hedlund, 531
- Beckman, Robert A. See Krodel and Cohen, 294
- Belknap, John K. See Ondrusek and Leslie, 386
- Bend, John R. See Mukhtar, Elmamlouk, and Philpot, 192
- Bevilacqua, R. See Veronese and Chaiken, 313
- Blackmore, Peter F., El-Refai, Mahmoud F., and Exton, John H. α-Adrenergic Blockade and Inhibition of A23187 Mediated Ca²⁺ Uptake by the Calcium Antagonist Verapamil in Rat Liver Cells, 598
- Bockaert, Joël. See Dolphin, Adrien, and Hamon,
- Bockaert, Joël. See Lucas, Homburger, and Dolphin, 588
- Bourdeaux-Pontier, M. See Sarrazin, Sari, and Briand. 71
- Bourne, Henry R. See Johnson, Gleason, Coffino, Insel, and Melmon, 16
- Bourne, Henry R. See Kaslow, Farfel, and Johnson, 472
- Bradner, W. T. See DuVernay, Essery, Doyle, and Crooke, 341
- Breese, G. R. See Lundberg, Mailman, Frye, and Mueller, 246
- **Briand, C.** See Sarrazin, Sari, and Bourdeaux-Pontier, 71
- Brimijoin, Stephen. Axonal Transport and Subcellular Distribution of Molecular Forms of Acetylcholinesterase in Rabbit Sciatic Nerve, 641
- Bulger, William H., Muccitelli, Roseanna M., and Kupfer, David. Studies on the Estrogenic Activity of Chlordecone (Kepone) in the Rat: Effects on Uterine Estrogen Receptor, 515

Burstein, Sumner, Hunter, Sheila A., and Shoupe, T. Scott. Site of Inhibition of Leydig Cell Testosterone Synthesis by Δ¹-Tetrahydrocannabinol, 633

\mathbf{C}

- Cantrell, Charles E., Yielding, K. Lemone, and Pruitt, Kenneth M. Efficiency of Photolytic Binding of Ethidium Monoazide to Nucleic Acids and Synthetic Polynucleotides, 322
- Carter, William A. See O'Malley, Leong, Horoszewicz, Alderfer, and Ts'o, 165
- Carter, William A., Davis, Leslie R., Jr., Chadha, Kailash C., and Johnson, Frederick H., Jr. Porcine Leukocyte Interferon and Antiviral Activity in Human Cells, 685
- Catt, Kevin J. See Harwood and Dufau, 439
- Catterall, William A. See Galper, 174
- Chadha, Kailash C. See Carter, Davis, Jr., and Johnson, Jr., 685
- Chaiken, I. M. See Veronese and Bevilacqua, 313
- Chalfie, Martin, Settipani, Laurel, and Perlman, Robert L. The Role of Cyclic Adenosine 3',5'-Monophosphate in the Regulation of Tyrosine 3-monooxygenase Activity, 263
- Chang, Tien-Lan. See Pang and Miller, 729
- Chao, Lian-Yu. See Saunders, Robins, and Loo, 691 Charnock, J. S. See Simonson, 620
- Chavkin, Charles, Cox, B. M., and Goldstein, Avram. Stereospecific Opiate Binding in Bovine Adrenal Medulla, 751
- Chen, Chiadao. See Tu and Perry, 189
- Chia, Yuet Ching. See Waterhouse and Lees, 108 Chignell, Colin F. See Ortner, Sik, and Sokoloski, 179
- Coffino, Philip. See Johnson, Bourne, Gleason, Insel, and Melmon, 16
- Cohen, Jonathan B. See Krodel and Beckman, 294 Colpo, Frank T. See Filburn and Sacktor, 257
- Conney, A. H. See Thakker, Levin, Yagi, Ryan, Thomas, Karle, Lehr, and Jerina, 138
- Cooke, Roger. See Johnson, Lee, and Loh, 739
- Costa, Erminio. See Kurosawa and Guidotti, 115
- Coulter, A. W. See Sufrin and Talalay, 661
- Counts, David F., Rojas, Francisco J., and Cutroneo, Kenneth R. Glucocorticoids Decrease Prolyl Hydroxylase Activity without the Cellular Accumulation of Undehydroxylated Collagen. 99
- Cox, B. M. See Chavkin and Goldstein, 751
- Coyle, Joseph T. See London, 492
- Crooke, S. T. See DuVernay, Essery, Doyle, and Bradner, 341
- Culvenor, Anne J. and Jarrott, B. Reduction of

Aromatic L-Amino Acid Decarboxylase Protein in Rats after Chronic Administration of Alpha-Methyldopa, 86

Cutroneo, Kenneth R. See Counts and Rojas, 99

D

Daly, J. W. See Partington, 484

Davis, Leslie R., Jr. See Carter, Chadha, and Johnson, Jr., 685

de Haen, Christoph. See Johnson, 287

De Lean, Andre, Munson, Peter J., and Rodbard, David. Multi-subsite Receptors for Multivalent Ligands. Application to Drugs, Hormones, and Neurotransmitters, 60

Doerge, Daniel R., McNamee, Mark G., and Ingraham, Lloyd L. Modification of Acetylcholine Receptor-Mediated Ion Permeability by Thiamine, 747

Dolphin, Annette. See Lucas, Homburger, and Bockaert, 588

Dolphin, Annette, Adrien, Joëlle, Hamon, Michel, and Bockaert, Joël. Identity of [³H]-Dihydroalprenolol Binding Sites and β-Adrenergic Receptors Coupled with Adenylate Cyclase in the Central Nervous System: Pharmacological Properties, Distribution and Adaptive Responsiveness, 1

Doyle, T. W. See DuVernay, Essery, Bradner, and Crooke, 341

Dufau, Maria L. See Harwood and Catt, 439

Dulis, Beverly H., Gordon, Michael A., and Wilson, Irwin B. Identification of Muscarinic Binding Sites in Human Neutrophils by Direct Binding, 28

Dunn, William C. and Regan, James D. Inhibition of DNA Excision Repair in Human Cells by Arabinofuranosyl Cytosine: Effect of Normal and Xeroderma Pigmentosum Cells, 367

Dunnette, Joel and Weinshilboum, Richard. Human Plasma Dopamine-Beta-Hydroxylase: Variation in Thermal Stability, 649

DuVernay, V. H., Essery, J. M., Doyle, T. W., Bradner, W. T., and Crooke, S. T. The Antitumor Effects of Anthracyclines. The Importance of the Carbomethoxy-Group at Position-10 of Marcellomycin and Rudolfomycin, 341

E

Egozi, Yaacov. See Kloog and Sokolovsky, 545 el Azhary, Rokea and Mannering, Gilbert J. Effects of Interferon Inducing Agents (Polyriboinosinic Acid. Polyribocytidylic Acid, Tilorone) on Hepatic Hemoproteins (Cytochrome P-450, Catalase, Tryptophan 2,3-Dioxygenase, Mitochondrial Cytochromes), Heme Metabolism and Cytochrome P-450-Linked Monooxygenase Systems, 698 Eldefrawi, Mohyee E. See Aronstam and Triggle, 227

Elmamlouk, Tahani H. See Mukhtar, Philpot, and Bend. 192

El-Refai, Mahmoud. See Blackmore and Exton, 598 Essery, J. M. See DuVernay, Doyle, Bradner, and Crooke, 341

Exton, John H. See Blackmore and El-Refai, 598

F

Farfel, Zvi. See Kaslow, Johnson, and Bourne, 472
Farruggia, P., Sachs, S., and Palaic, D. Effect of
Angiotensinase Inhibitors on Angiotensin Receptors in Rabbit Aorta, 525

Fogt, Suzanne K. See Siegel, 43

Filburn, Charles R., Colpo, Frank T., and Sacktor, Bertram. Mechanism of Phenothiazine Inhibition of Ca²⁺-dependent Guanosine 3',5'-(cyclic) Monophosphate Phosphodiesterase of Brain, 257

Frisman, Dennis. See Weiland and Taylor, 213Frye, G. D. See Lundberg, Breese, Mailman, and Mueller, 246

G

Galper, Jonas B. and Catterall, William A. Inhibition of Sodium Channels by D600, 174

Gibson, G. See Waymire, Gilmer-Waymire, Noritake, Gibson, Kitayama, and Haycock, 78

Gillette, James R. See Hinson and Nelson, 419

Gilmer-Waymire, K. See Waymire, Noritake, Gibson, Kitayama, and Haycock, 78

Gleason, Mary K. See Johnson, Bourne, Coffino, Insel, and Melmon, 16

Goldstein, Avram. See Chavkin and Cox, 751

Gordon, Michael A. See Dulis and Wilson, 28
Graham, Allan B., Pechey, David T., and Wood,

Geoffrey C. Responses of Microsomal UDP-Glucuronyltransferase to Trypsin, 375

Greengard, Paul. See Kanof, 445

Guengerich, F. Peter and Mason, Patricia S. Immunological Comparison of Hepatic and Extrahepatic Cytochromes P-450, 154

Guenthner, Thomas M., Nebert, Daniel W., and Menard, Raymond H. Microsomal Aryl Hydrocarbon Hydroxylase in Rat Adrenal: Regulation by ACTH but not by Polycyclic Hydrocarbons, 719

Guidotti, Alessandro. See Kurosawa and Costa, 115

H

Hamon, Michel. See Dolphin, Adrien, and Bockaert,

Harwood, James P., Dufau, Maria L., and Catt, Kevin J. Differing Specificities in the Desensitization of Ovarian Adenylate Cyclase by Epinephrine and Human Chorionic Gonadotropin, 439

763

- Haycock, J. W. See Waymire, Gilmer-Waymire, Noritake, Gibson, and Kitayama, 78
- Hedlund, Britta and Bartfai, Tamas. The Importance of Thiol- and Disulfide Groups in Agonist and Antagonist Binding to the Muscarinic Receptor, 531
- Heron, Davis S. See Kloog, Korczyn, Sachs, and Sokolovsky, 581
- Hidaka, Hiroyoshi, Yamaki, Tokuo, Totsuka, Tsuyoshi, and Asano, Masahisa. Selective Inhibitors of Ca²⁺-Binding Modulator of Phosphodiesterase Produce Vascular Relaxation and Inhibit Actin-Myosin Interaction, 49
- Hinson, Jack A., Nelson, Sidney D., and Gillette, James R. Metabolism of [p-18O]-Phenacetin: The Mechanism of Activation of Phenacetin to Reactive Metabolites in Hamsters, 419
- Homburger, Vincent. See Lucas, Dolphin and Bockaert, 588
- Horoszewicz, Julius S. See O'Malley, Leong, Carter, Alderfer, and Ts'o, 165
- Howlett, D. R., Morris, Helen, and Nahorskki, S.
 R. Anomalous Properties of [³H]Spiperone
 Binding Sites in Various Areas of the Rat Limbic System, 506
- Hunter, Sheila A. See Burstein and Shoupe, 633

I

Ingraham, Lloyd L. See Doerge and McNamee, 747Insel, Paul A. See Johnson, Bourne, Gleason, Coffino, and Melmon, 16

J

- Jansson, Ingela. See Schenkman, Powis, and Kappus, 428
- Jarrott, B. See Culvenor, 86
- Jeffery, Elizabeth H. and Mannering, Gilbert J.
 Mechanism of the Nucleotide Pyrophosphatase
 Induced Distortion of Stoichiometry of TPNH
 Utilization and Product Formation by Hepatic
 Cytochrome P-450 Linked N-Demethylase Systems, 396
- Jerina, D. M. See Thakker, Levin, Yagi, Ryan, Thomas, Karle, Lehr, and Conney, 138
- Jering, Helmut and Toro-Goyco, Efrain. Effect of (-)-Δ⁹Tetrahydrocannabinol on Nucleoside and Amino Acid Uptake in Reuber-H-35 Hepatoma Cells, 627
- Johnson, David A., Lee, Nancy M., Cooke, Roger, and Loh, Horace H. Ethanol-Induced Fluidization of Brain Lipid Bilayers: Required Presence of Cholesterol in Membranes for the Expression of Tolerance, 739
- Johnson, David G. and de Haën, Christoph. 2,4-Diamino-5-cyano-6-halopyridines and Analogues. A New Family of Insulin Secretogogues That Resemble Glucose in Hydrogen Bonding Possibilities, 287

- Johnson, Eric F., Schwab, George E., and Muller-Eberhard, Ursula. Multiple Forms of Cytochrome P-450: Catalytic Differences Exhibited by Two Homogeneous Forms of Rabbit Cytochrome P-450, 708
- Johnson, Frederick H., Jr. See Carter, Davis, Jr., and Chadha, 685
- Johnson, Gary L. See Kaslow, Farfel, and Bourne,
- Johnson, Gary L., Bourne, Henry R., Gleason, Mary K., Coffino, Philip, Insel, Paul A., and Melmon, Kenneth L. Isolation and Characterization of S49 Lymphoma Cells Deficient in β-Adrenergic Receptors: Relation of Receptor Number to Activation of Adenylate Cyclase, 16

K

- Kanof, Philip D. and Greengard, Paul. Pharmacological Properties of Histamine-Sensitive Adenylate Cyclase from Guinea Pig Cardiac Ventricular Muscle, 445
- Kappus, Hermann. See Schenkman, Jansson, and Powis, 428
- Karle, J. M. See Thakker, Levin, Yagi, Ryan, Thomas, Lehr, Jerina, and Conney, 138
- Kaslow, Harvey R., Farfel, Zvi, Johnson, Gary L., and Bourne, Henry R. Adenylate Cyclase Assembled in Vitro: Cholera Toxin Substrates Determine Different Patterns of Regulation by Isoproterenol and Guanosine 5'-triphosphate, 472
- Kawalek, J. C., Andrews, A. W., and Pienta, R. J. 1-Naphthylthiourea: A Mutagenic Rodenticide that Transforms Hamster Embryo Cells, 679
- Keely, Stanley L. Prostaglandin E₁ Activation of Heart cAMP-dependent Protein Kinase: Apparent Dissociation of Protein Kinase Activation from Increases in Phosphorylase Activity and Contractile Force, 235
- Kirsch, Jan. See Ullman, 357
- Kitayama, D. See Waymire, Gilmer-Waymire, Noritake, Gibson, and Haycock, 78
- Kitchell, Barbara B. See Rauckman and Rosen, 131 Kloog, Yoel, Egozi, Yaacov, and Sokolovsky, Mordechai. Characterization of Muscarinic Acetylcholine Receptors from Mouse Brain: Evidence for Regional Heterogeneity and Isomerization, 545
- Kloog, Yoel, Heron, Davis S., Korczyn, Amos D., Sachs, Dan I., and Sokolovsky, Mordechai. Muscarinic Acetylcholine Receptors in Albino Rabbit Iris-Ciliary Body, 581
- Koblin, Donald D. and Lester, Henry A. Voltage-Dependent and Voltage-Independent Blockade of Acetylcholine Receptors by Local Anesthetics in *Electrophorus* Electroplaques, 559

Korczyn, Amos D. See Kloog, Heron, Sachs, and Sokolovsky, 581

Krodel, Elizabeth K., Beckman, Robert A., and Cohen, Jonathan B. Identification of a Local Anesthetic Binding Site in Nicotinic Post-Synaptic Membranes Isolated from Torpedo marmorata Electric Tissue, 294

Kupfer, David. See Bulger and Muccitelli, 515
 Kurosawa, Atsushi, Guidotti, Alessandro, and Costa, Erminio. Nuclear Translocation of Cyclic AMP-Dependent Protein Kinase Subunits during the Transsynaptic Activation of Gene Expression in Rat Adrenal Medulla, 115

L

Lee, Nancy M. See Johnson, Cooke, and Loh, 739 Lees. G. J. See Waterhouse and Chia. 108

Lehr, R. E. See Thakker, Levin, Yagi, Ryan, Thomas, Karle, Jerina, and Conney, 138

Leong, Susan S. See O'Malley, Horoszewicz, Carter, Alderfer, and Ts'o, 165

Leslie, Steven W. See Ondrusek and Belknap, 386 Lester, Henry A. See Koblin, 559

Levin, W. See Thakker, Yagi, Ryan, Thomas, Karle, Lehr, Jerina, and Conney, 138

Liacouras, A. S. and Anderson, E. P. Uridine-Cytidine Kinase IV. Kinetics of the Competition between 5-Azacytidine and the Two Natural Substrates, 331

Loh, Horace H. See Johnson, Lee, and Cooke, 739
London, Edythe D. and Coyle, Joseph T. Specific
Binding of [³H]Kainic Acid to Receptor Sites
in Rat Brain, 492

Loo, Ti Li. See Saunders, Chao, and Robins, 691
Lucas, Marguerite, Homburger, Vincent, Dolphin, Annette, and Bockaert, Joël. In Vitro and in Vivo Kinetic Analysis of the Interaction of a Norbornyl Derivative of Propranolol with β-Adrenergic Receptors of Brain and C6

β-Adrenergic Receptors of Brain and C6 Glioma Cells; an Irreversible or Slowly Reversible Ligand, 588

Lundberg, D. B. A., Breese, G. R., Mailman, R. B., Frye, G. D., and Mueller, R. A. Depression of Some Drug-Induced in Vivo Changes of Cerebellar Guanosine 3',5'-Monophosphate by Control of Motor and Respiratory Responses, 246

M

Mailman, R. B. See Lundberg, Breese, Frye, and Mueller. 246

Mannering, Gilbert J. See Abbott, 410

Mannering, Gilbert J. See el Azhary, 698

Mannering, Gilbert J. See Jeffery, 396

Mason, Patricia S. See Guengerich, 154

McNamee, Mark G. See Doerge and Ingraham, 747 Means, Gary E. See Sollenne, 754 Melmon, Kenneth L. See Johnson, Bourne, Gleason, Coffino, and Insel, 16

Menard, Raymond H. See Guenthner and Nebert,
719

Miller, Keith W. See Pang and Chang, 729 Morris, Helen. See Howlett and Nahorski, 506

Muccitelli, Roseanna M. See Bulger and Kupfer, 515

Mueller, R. A. See Lundberg, Breese, Mailman, and Frye, 246

Mukhtar, Hasan, Elmamlouk, Tahani H., Philpot, Richard M., and Bend, John R. Rat Hepatic Nuclear Cytochrome P-450 and Epoxide Hydrase in Membranes Prepared by Two Methods: Similarities with the Microsomal Enzymes, 192

Muller-Eberhard, Ursula. See Johnson and Schwab, 708

Munson, Peter J. See De Lean and Rodbard, 60

N

Nahorski, S. R. See Howlett and Morris, 506
Nebert, Daniel W. See Guenthner and Menard, 719
Nelson, Sidney D. See Hinson and Gillette, 419
Noritake, D. See Waymire, Gilmer-Waymire, Gibson, Kitayama, and Haycock, 78

O

O'Malley, Judith A., Leong, Susan S., Horoszewicz, Julius S., Carter, William A., Alderfer, James L., and Ts'o, Paul O. P. Polyinosinic Acid-Polycytidylic Acid and Its Mismatched Analogues: Differential Effects on Human Cell Function. 165

Ondrusek, Michael G., Belknap, John K., and Leslie, Steven W. Effects of Acute and Chronic Barbiturate Administration on Synaptosomal Calcium Accumulation, 386

Ontjes, David A. See Ways, 271

Ortner, Mary J., Sik, Robert H., Chignell, Colin F., and Sokoloski, Edward A. A Nuclear Magnetic Resonance Study of Compound 48/ 80, 179

P

Palaic, D. See Farruggia and Sachs, 525

Pang, Kam-Yee, Chang, Tien-Lan, and Miller, Keith W. On the Coupling between Anesthetic Induced Membrane Fluidization and Cation Permeability in Lipid Vesicles, 729

Partington, C. R. and Daly, J. W. Effect of Gangliosides on Adenylate Cyclase Activity in Rat Cerebral Cortical Membranes, 484

Pechey, David T. See Graham and Wood, 375

Perlman, Robert L. See Chalfie and Settipani, 263

Perry, Dennis. See Tu and Chen, 189

Philpot, Richard M. See Mukhtar, Elmamlouk, and Bend, 192 Pienta, R. J. See Kawalek and Andrews, 678

Powis, Garth. See Schenkman, Jansson, and Kappus, 428

Pruitt, Kenneth M. See Cantrell and Yielding, 322

R

Rauckman, Elmer J., Rosen Gerald M., and Kitchell, Barbara B. Superoxide Radical as an Intermediate in the Oxidation of Hydroxylamines by Mixed Function Amine Oxidase, 131

Regan, James D. See Dunn, 367

Richelson, Elliott. See Taylor, 462

Robins, Roland K. See Saunders, Chao, and Loo, 685

Rodbard, David. See De Lean and Munson, 60 Rojas, Francisco J. See Counts and Cutroneo, 99 Rosen, Gerald M. See Rauckman and Kitchell, 131 Ryan, D. See Thakker, Levin, Yagi, Thomas, Karle, Lehr, Jerina, and Conney, 138

S

Sachs, Dan I. See Kloog, Heron, Korczyn, and Sokolovsky, 581

Sachs, S. See Farruggia and Palaic, 525

Sacktor, Bertram. See Filburn and Colpo, 257

Salvaggio, Maria. See Slotkin, Seidler, and Whitmore, 607

Sari, J. C. See Sarrazin, Bourdeaux-Pontier, and Briand, 71

Sarrazin, M., Sari, J. C., Bourdeaux-Pontier, M., and Briand, C. NMR Study of the Interactions between Flurazepam and Human Serum Albumin. The Nature of the Complexation Site on the Benzodiazepin Molecule, 71

Saunders, Priscilla P., Chao, Lian-Yu, Robins, Roland K., and Loo, Tai Li. Action of 3-Deazaguanine in Escherichia coli, 691

Schenkman, John B., Jansson, Ingela, Powis, Garth, and Kappus, Hermann. Active Oxygen in Liver Microsomes: Mechanism of Epinephrine Oxidation, 428

Schwab, George E. See Johnson and Muller-Eberhard. 708

Seidler, Frederic J. See Slotkin, Salvaggio, and Whitmore, 607

Settipani, Laurel. See *Chalfie and Perlman*, 263 Sharma, Virendra K. and Banerjee, Shailesh P.

arma, Virendra K. and Banerjee, Shailesh P. Regeneration of [3H]Ouabain Binding to (Na+ K⁺)-ATPase in Chemically Sympathectomized Cat Pheripheral Organs, 35

Shoupe, T. Scott. See Burstein and Hunter, 633

Siegel, George J. and Fogt, Suzanne K. Effects of Pb⁺⁺ and Other Divalent Cations on Ouabain Binding to *E. electricus* Electroplax (Na⁺ + K⁺)-Adenosinetriphosphatase, 43

Sik, Robert H. See Ortner, Chignell, and Sokoloski, 179 Simonson, L. P. and Charnock, J. S. The Harmala Alkaloids: Evidence for Their Complex Inhibition of the K⁺-Acyl Phosphatase Reaction of Membranes. 620

Slotkin, Theodore A., Salvaggio, Maria, Seidler, Frederic J., and Whitmore, William L. Structural Characteristics for Inhibition of [3H]Norepinephrine Uptake into Rat Brain Synaptic Vesicles by Beta-Carboline, Indoleal-kylamine, Phenethylamine and n-Alkylamine Derivatives, 607

Sokoloski, Edward A. See Ortner, Sik, and Chignell. 179

Sokolovsky, Mordechai. See Kloog and Egozi, 545 Sokolovsky, Mordechai. See Kloog, Heron, Korczyn, and Sachs, 581

Sollenne, Nicholas P. and Means, Gary E. Characterization of a Specific Drug Binding Site of Human Serum Albumin, 754

Sufrin, Janice R., Coulter, A. W., and Talalay, Paul. Structural and Conformational Analogues of L-Methionine as Inhibitors of the Enzymatic Synthesis of S-Adenosyl-L-Methionine. IV. Further Mono-, Bi- and Tricyclic Amino Acids, 661

T

Talalay, Paul. See Sufrin and Coulter, 661

Taylor, John E. and Richelson, Elliott. Desensitization of Histamine H₁ Receptor-Mediated Cyclic GMP Formation in Mouse Neuroblastoma Cells, 462

Taylor, Palmer. See Weiland, 197

Taylor, Palmer. See Weiland and Frisman, 213

Thakker, D. R., Levin, W., Yagi, H., Ryan, D., Thomas, P. E., Karle, J. M., Lehr, R. E., Jerina, D. M., and Conney, A. H. Metabolism of Benzo[a]anthracene to Its Tumorigenic 3,4-Dihydrodiol, 138

Thomas, P. E. See Thakker, Levin, Yagi, Ryan, Karle, Lehr, Jerina, and Conney, 138

Toro-Goyco, Efraín. See Jering, 627

Totsuka, Tsuyoshi. See Hidaka, Yamaki, and Asano, 49

Triggle, David J. See Aronstam and Eldefrawi, 227 Ts'o, Paul O. P. See O'Malley, Leony, Horoszewicz, Carter, and Alderfer, 165

Tu, Mei-Hwa, Perry, Dennis, and Chen, Chiadao.
Mutagenic Effect of 7,12-Dimethylbenz[a]anthracene-epidioxide on Salmonella typhimurium, 189

U

Ullman, Buddy and Kirsch, Jan. Metabolism of 5-Fluorouracil in Cultured Cells. Protection from 5-Fluorouracil Cytotoxicity by Purines, 357 V

Veronese, F. M., Bevilacqua, R., and Chaiken, I. M. Drug-Protein Interactions: Evaluation of the Binding of Antipsychotic Drugs to Glutamate Dehydrogenase by Quantitative Affinity Chromatography, 313

W

Waterhouse, Marilyn J., Chia, Yuet Ching, and Lees, G. J. Inhibition of Human and Rat Hepatic Aminotransferase Activity with L-3,4-Dihydroxyphenylalanine by Inhibitors of Peripheral Aromatic Amino Acid Decarboxylase, 108

Waymire, J. C., Gilmer-Waymire, K., Noritake,
D., Gibson, G., Kitayama, D., and Haycock,
J. W. Induction of Tyrosine Hydroxylase and
Dopamine β-Hydroxylase in Cultured Mouse
Neuroblastoma by 8Br-cAMP. Involvement of
RNA and Protein Synthesis, 78

Ways, Kirk D. and Ontjes, David A. Reversal of Persistently Stimulated Steroidogenesis by GTP and an Inhibitory Adrenocorticotropin Analogue in Adrenal Cells Pretreated with Adrenocorticotropin, 271

Weiland, Gregory, Frisman, Dennis, and Taylor, Palmer. Affinity Labeling of the Subunits of the Membrane Associated Cholinergic Receptor, 213

Weiland, Gregory and Taylor, Palmer. Ligand Specificity of State Transitions in the Cholinergic Receptor: Behavior of Agonists and Antagonists, 197

Weinshilboum, Richard. See Dunnette, 649
Whitmore, William L. See Slotkin, Salvaggio, and
Seidler. 607

Wilson, Irwin B. See Dulis and Gordon, 28 Wood, Geoffrey C. See Graham and Pechey, 375

Y

Yagi, H. See Thakker, Levin, Ryan, Thomas, Karle, Lehr, Jerina, and Conney, 138

Yamaki, Tokuo. See Hidaka, Totsuka, and Asano, 49

Yielding, K. Lemone. See Cantrell and Pruitt, 322

NOTICE

The Subject Index for Volume 15 will appear in the November 1979 issue as part of a cumulative index for the year 1979.

Copyright © 1979 by Academic Press, Inc.

ALL RIGHTS RESERVED

No part of this publication may be reproduced or transmitted in any form or by any means, electronic or mechanical, including photocopy, recording, or any information storage and retrieval system, without permission in writing from the copyright owner.

The appearance of the code at the bottom of the first page of an article in this journal indicates the copyright owner's consent that copies of the article may be made for personal or internal use, or for the personal or internal use of specific clients. This consent is given on the condition, however, that the copier pay the stated per copy fee through the Copyright Clearance Center, Inc. (Operations Staff, P.O. Box 765, Schenectady, New York 12301), for copying beyond that permitted by Sections 107 or 108 of the U.S. Copyright Law. This consent does not extend to other kinds of copying, such as copying for general distribution, for advertising or promotional purposes, for creating new collective works, or for resale. Copy fees for pre-1979 articles are the same as those shown for current articles.

MADE IN THE UNITED STATES OF AMERICA

CONTENTS OF VOLUME 15

Number 1, January 1979

Annette Dolphin, Joëlle Adrien, Michel Hamon, and Joël Bockaert. Identity of [3 H]-Dihydroalprenolol Binding Sites and β -Adrener-	
gic Receptors Coupled with Adenylate Cyclase in the Central Nervous System: Pharmacological Properties, Distribution and Adaptive Responsiveness.	1
GARY L. JOHNSON, HENRY R. BOURNE, MARY K. GLEASON, PHILIP COFFINO, PAUL	1
A. INSEL, AND KENNETH L. MELMON. Isolation and Characterization of S49	
Lymphoma Cells Deficient in β -Adrenergic Receptors: Relation of Receptor Number to Activation of Adenylate Cyclase.	16
BEVERLY H. DULIS, MICHAEL A. GORDON, AND IRWIN B. WILSON. Identification	10
of Muscarinic Binding Sites in Human Neutrophils by Direct Binding.	28
VIRENDRA K. SHARMA AND SHAILESH P. BANERJEE. Regeneration of [3H]Ouabain Binding to (Na ⁺ + K ⁺)-ATPase in Chemically Sympathectomized Cat Periph-	
eral Organs.	35
GEORGE J. SIEGEL AND SUZANNE K. FOGT. Effects of Pb ⁺⁺ and Other Divalent	
Cations on Ouabain Binding to E . electricus Electroplax (Na ⁺ + K ⁺)-Adeno-	40
sinetriphosphatase. HIROYOSHI HIDAKA, TOKUO YAMAKI, TSUYOSHI TOTSUKA, AND MASAHISA	43
ASANO. Selective Inhibitors of Ca ²⁺ -Binding Modulator of Phosphodiesterase	
Produce Vascular Relaxation and Inhibit Actin-Myosin Interaction.	49
Andre De Lean, Peter J. Munson, and David Rodbard. Multi-subsite Receptors for Multivalent Ligands. Application to Drugs, Hormones, and Neurotrans-	
mitters.	60
M. SARRAZIN, J. C. SARI, M. BOURDEAUX-PONTIER, AND C. BRIAND. NMR Study	
of the Interactions between Flurazepam and Human Serum Albumin. J. C. WAYMIRE, K. GILMER-WAYMIRE, D. NORITAKE, G. GIBSON, D. KITAYAMA,	71
AND J. W. HAYCOCK. Induction of Tyrosine Hydroxylase and Dopamine β -	
Hydroxylase in Cultured Mouse Neuroblastoma by 8Br-cAMP. Involvement of	
RNA and Protein Synthesis. ANNE J. CULVENOR AND B. JARROTT. Reduction of Aromatic L-Amino Acid	78
Decarboxylase Protein in Rats after Chronic Administration of Alpha-Meth-	
yldopa	86
DAVID F. COUNTS, FRANCISCO J. ROJAS, AND KENNETH R. CUTRONEO.	
Glucocorticoids Decrease Prolyl Hydroxylase Activity without the Cellular Accumulation of Undehydroxylated Collagen	99
Accumulation of Undehydroxylated Collagen. MARILYN J. WATERHOUSE, YUET CHING CHIA, AND G. J. LEES. Inhibition of	
Human and Rat Hepatic Aminotransferase Activity with L-3,4-Dihydroxyphen-	100
ylalanine by Inhibitors of Peripheral Aromatic Amino Acid Decarboxylase. ATSUSHI KUROSAWA, ALESSANDRO GUIDOTTI, AND ERMINIO COSTA. Nuclear	108
Translocation of Cyclic AMP-Dependent Protein Kinase Subunits during the	
Transsynaptic Activation of Gene Expression in Rat Adrenal Medulla.	115
ELMER J. RAUCKMAN, GERALD M. ROSEN, AND BARBARA B. KITCHELL. Superoxide Radical as an Intermediate in the Oxidation of Hydroxylamines by Mixed	
Function Amine Oxidase.	131
D. R. THAKKER, W. LEVIN, H. YAGI, D. RYAN, P. E. THOMAS, J. M. KARLE, R. E.	
LEHR, D. M. JERINA, AND A. H. CONNEY. Metabolism of Benzo[a]anthracene to Its Tumorigenic 3,4-Dihydrodiol.	138
F. Peter Guengerich and Patricia S. Mason. Immunological Comparison of	100
Hepatic and Extrahepatic Cytochromes P-450. JUDITH A. O'MALLEY, SUSAN S. LEONG, JULIUS S. HOROSZEWICZ, WILLIAM A.	154
CARTER, JAMES L. ALDERFER, AND PAUL O. P. Ts'o. Polyinosinic Acid-	
Polycytidylic Acid and Its Mismatched Analogues: Differential Effects on	
Human Cell Function.	165
Short Communications	
JONAS B. GALPER AND WILLIAM A. CATTERALL. Inhibition of Sodium Chan-	
nels by D600.	174

MARY J. ORTNER, ROBERT H. SIK, COLIN F. CHIGNELL, AND EDWARD A. SOKOLOSKI. A Nuclear Magnetic Resonance Study of Compound 48/80. MEI-HWA TU, DENNIS PERRY, AND CHIADAO CHEN. Mutagenic Effect of 7,12-Dimethylbenz[a]anthracene-epidioxide on Salmonella typhimurium. HASAN MUKHTAR, TAHANI H. ELMAMLOUK, RICHARD M. PHILPOT, AND JOHN R. BEND. Rat Hepatic Nuclear Cytochrome P-450 and Epoxide Hydrase in Membranes Prepared by Two Methods: Similarities with the Microsomal	179 189
Enzymes.	192
·	
Number 2, March 1979	
GREGORY WEILAND AND PALMER TAYLOR. Ligand Specificity of State Transitions	
in the Cholinergic Receptor: Behavior of Agonists and Antagonists	197
GREGORY WEILAND, DENNIS FRISMAN, AND PALMER TAYLOR. Affinity Labeling	
of the Subunits of the Membrane Associated Cholinergic Receptor	213
ROBERT S. ARONSTAM, DAVID J. TRIGGLE, AND MOHYEE E. ELDEFRAWI. Structural	997
and Stereochemical Requirements for Muscarinic Receptor Binding	227
STANLEY L. KEELY. Prostaglandin E ₁ Activation of Heart cAMP-dependent Protein Kinase: Apparent Dissociation of Protein Kinase Activation from Increases	
in Phosphorylase Activity and Contractile Force	235
D. B. A. LUNDBERG, G. R. BREESE, R. B. MAILMAN, G. D. FRYE, AND R. A.	200
MUELLER. Depression of Some Drug-Induced in Vivo Changes of Cerebellar	
Guanosine 3',5'-Monophosphate by Control of Motor and Respiratory Re-	
sponses	246
CHARLES R. FILBURN, FRANK T. COLPO, AND BERTRAM SACKTOR. Mechanism of	
Phenothiazine Inhibition of Ca ²⁺ -dependent Guanosine 3',5'-(cyclic) Mono-	057
phosphate Phosphodiesterase of Brain MARTIN CHALFIE, LAUREL SETTIPANI, AND ROBERT L. PERLMAN. The Role of	257
Cyclic Adenosine 3',5'-Monophosphate in the Regulation of Tyrosine 3-	
monooxygenase Activity	263
D. KIRK WAYS AND DAVID A. ONTJES. Reversal of Persistently Stimulated	
Steroidogenesis by GTP and an Inhibitory Adrenocorticotropin Analogue in	
Adrenal Cells Pretreated with Adrenocorticotropin	271
DAVID G. JOHNSON AND CHRISTOPH DE HAËN. 2,4-Diamino-5-cyano-6-halopyri-	
dines and Analogues. A New Family of Insulin Secretogogues That Resemble Glucose in Hydrogen Bonding Possibilities	287
ELIZABETH K. KRODEL, ROBERT A. BECKMAN, AND JONATHAN B. COHEN.	201
Identification of a Local Anesthetic Binding Site in Nicotinic Post-Synaptic	
Membranes Isolated from Torpedo marmorata Electric Tissue	294
F. M. VERONESE, R. BEVILACQUA, AND I. M. CHAIKEN. Drug-Protein Interactions:	
Evaluation of the Binding of Antipsychotic Drugs to Glutamate Dehydrogenase	
by Quantitative Affinity Chromatography	313
CHARLES E. CANTRELL, K. LEMONE YIELDING, AND KENNETH M. PRUITT.	
Efficiency of Photolytic Binding of Ethidium Monoazide to Nucleic Acids and	322
Synthetic Polynucleotides A. S. LIACOURAS AND E. P. ANDERSON. Uridine-Cytidine Kinase IV. Kinetics of	322
the Competition between 5-Azacytidine and the Two Natural Substrates	331
V. H. DUVERNAY, J. M. ESSERY, T. W. DOYLE, W. T. BRADNER, AND S. T.	001
CROOKE. The Antitumor Effects of Anthracyclines. The Importance of the	
Carbomethoxy-Group at Position-10 of Marcellomycin and Rudolfomycin	341
BUDDY ULLMAN AND JAN KIRSCH. Metabolism of 5-Fluorouracil in Cultured Cells.	
Protection from 5-Fluorouracil Cytotoxicity by Purines	357
WILLIAM C. DUNN AND JAMES D. REGAN. Inhibition of DNA Excision Repair in	
Human Cells by Arabinofuranosyl Cytosine: Effect on Normal and Xeroderma Pigmentosum Cells	367
ALLAN B. GRAHAM, DAVID T. PECHEY, AND GEOFFREY C. WOOD. Responses of	JU /
Microsomal UDP-Glucuronyltransferase to Trypsin	375
MICHAEL G. ONDRUSEK, JOHN K. BELKNAP, AND STEVEN W. LESLIE. Effects of	3.3
Acute and Chronic Barbiturate Administration on Synaptosomal Calcium	
Accumulation	386

ELIZABETH H. JEFFERY AND GILBERT J. MANNERING. Mechanism of the Nucleo- tide Pyrophosphatase Induced Distortion of Stoichiometry of TPNH Utilization and Product Formation by Hepatic Cytochrome P-450 Linked N-Demethylase	200
System VIOLA S. ABBOTT AND GILBERT J. MANNERING. Inhibition of Hepatic Microsomal	396
Cytochrome P-450-Dependent Monooxygenase Reactions by Fatty Acyl CoA Jack A. Hinson, Sidney D. Nelson, and James R. Gillette. Metabolism of [p- 180]-Phenacetin: The Mechanism of Activation of Phenacetin to Reactive	410
Metabolites in Hamsters John B. Schenkman, Ingela Jansson, Garth Powis, and Hermann Kappus. Active Oxygen in Liver Microsomes: Mechanism of Epinephrine Oxidation	419428
Short Communication	
JAMES P. HARWOOD, MARIA L. DUFAU, AND KEVIN J. CATT. Differing Specificities in the Desensitization of Ovarian Adenylate Cyclase by Epinephrine and Human Chorionic Gonadotropin	439
Number 3, May 1979	
PHILIP D. KANOF AND PAUL GREENGARD. Pharmacological Properties of Histamine-Sensitive Adenylate Cyclase from Guinea Pig Cardiac Ventricular Muscle John E. Taylor and Elliott Richelson. Desensitization of Histamine H ₁	445
Receptor-Mediated Cyclic GMP Formation in Mouse Neuroblastoma Cells HARVEY R. KASLOW, ZVI FARFEL, GARY L. JOHNSON, AND HENRY R. BOURNE. Adenylate Cyclase Assembled in Vitro: Cholera Toxin Substrates Determine Different Patterns of Regulation by Isoproterenol and Guanosine	462
5'-triphosphate C. R. Partington and J. W. Daly. Effect of Gangliosides on Adenylate Cyclase	472
Activity in Rat Cerebral Cortical Membranes	484
EDYTHE D. LONDON AND JOSEPH T. COYLE. Specific Binding of [3H]Kainic Acid to Receptor Sites in Rat Brain	492
D. R. HOWLETT, HELEN MORRIS, AND S. R. NAHORSKI. Anomalous Properties of [3H]Spiperone Binding Sites in Various Areas of the Rat Limbic System WILLIAM H. BULGER, ROSEANNA M. MUCCITELLI, AND DAVID KUPFER. Studies	506
on the Estrogenic Activity of Chlordecone (Kepone) in the Rat: Effects on Uterine Estrogen Receptor	515
P. FARRUGGIA, S. SACHS, AND D. PALAIC. Effect of Angiotensinase Inhibitors on Angiotensin Receptors in Rabbit Aorta	525
BRITTA HEDLUND AND TAMAS BARTFAI. The Importance of Thiol- and Disulfide Groups in Agonist and Antagonist Binding to the Muscarinic Receptor YOEL KLOOG, YAACOV EGOZI, AND MORDECHAI SOKOLOVSKY. Characterization of	531
Muscarinic Acetylcholine Receptors from Mouse Brain: Evidence for Regional Heterogeneity and Isomerization Donald D. Koblin and Henry A. Lester. Voltage-Dependent and Voltage-	545
Independent Blockade of Acetylcholine Receptors by Local Anesthetics in <i>Electrophorus</i> Electroplaques	559
Yoel Kloog, Davis S. Heron, Amos D. Korczyn, Dan I. Sachs, and Mordechai Sokolovsky. Muscarinic Acetylcholine Receptors in Albino Rabbit Iris-Ciliary Body	581
MARGUERITE LUCAS, VINCENT HOMBURGER, ANNETTE DOLPHIN, AND JOËL BOCK- AERT. In Vitro and in Vivo Kinetic Analysis of the Interaction of a Norbornyl Derivative of Propranolol with β -Adrenergic Receptors of Brain and C6 Glioma	
Cells; an Irreversible or Slowly Reversible Ligand PETER F. BLACKMORE, MAHMOUD F. EL-REFAI, AND JOHN H. EXTON. α-Adrenergic Blockade and Inhibition of A23187 Mediated Ca ²⁺ Uptake by the Calcium	588
Antagonist Verapamil in Rat Liver Cells THEODORE A. SLOTKIN, MARIA SALVAGGIO, FREDERIC J. SEIDLER, AND WILLIAM L. WHITMORE. Structural Characteristics for Inhibition of [3H]Norepineph-	598

rine Uptake into Rat Brain Synaptic Vesicles by Beta-Carboline, Indolealkylamine, Phenethylamine and n-Alkylamine Derivatives	607
L. P. SIMONSON AND J. S. CHARNOCK. The Harmala Alkaloids: Evidence for Their Complex Inhibition of the K ⁺ -Acyl Phosphatase Reaction of Membranes Helmut Jering and Efraín Toro-Goyco. Effect of (-)-Δ ⁹ Tetrahydro-	620
cannabinol on Nucleoside and Amino Acid Uptake in Reuber-H-35 Hepatoma Cells	627
Sumner Burstein, Sheila A. Hunter, and T. Scott Shoupe. Site of Inhibition of Leydig Cell Testosterone Synthesis by Δ^1 -Tetrahydrocannabinol	633
STEPHEN BRIMIJOIN. Axonal Transport and Subcellular Distribution of Molecular Forms of Acetylcholinesterase in Rabbit Sciatic Nerve	641
JOEL DUNNETTE AND RICHARD WEINSHILBOUM. Human Plasma Dopamine-Beta- Hydroxylase: Variation in Thermal Stability	649
JANICE R. SUFRIN, A. W. COULTER, AND PAUL TALALAY. Structural and Conformational Analogues of L-Methionine as Inhibitors of the Enzymatic Synthesis	<i>CC</i> 1
of S-Adenosyl-L-Methionine. IV. Further Mono-, Bi- and Tricyclic Amino Acids J. C. KAWALEK, A. W. ANDREWS, AND R. J. PIENTA. 1-Naphthylthiourea: A Mutagenic Rodenticide that Transforms Hamster Embryo Cells	661 678
WILLIAM A. CARTER, LESLIE R. DAVIS, JR., KAILASH C. CHADHA, AND FREDERICK H. JOHNSON, JR. Porcine Leukocyte Interferon and Antiviral Activity in	
Human Cells Priscilla P. Saunders, Lian-Yu Chao, Roland K. Robins, and Ti Li Loo.	685
Action of 3-Deazaguanine in Escherichia coli	691
ROKEA EL AZHARY AND GILBERT J. MANNERING. Effects of Interferon Inducing Agents (Polyriboinosinic Acid Polyribocytidylic Acid, Tilorone) on Hepatic Hemoproteins (Cytochrome P-450, Catalase, Tryptophan 2,3-Dioxygenase, Mitochondrial Cytochromes), Heme Metabolism and Cytochrome P-450-Linked	
Monooxygenase Systems	698
ERIC F. JOHNSON, GEORGE E. SCHWAB, AND URSULA MULLER-EBERHARD. Multiple Forms of Cytochrome P-450: Catalytic Differences Exhibited by Two Homogeneous Forms of Rabbit Cytochrome P-450	708
THOMAS M. GUENTHNER, DANIEL W. NEBERT, AND RAYMOND H. MENARD. Microsomal Aryl Hydrocarbon Hydroxylase in Rat Adrenal: Reg-	700
ulation by ACTH but not by Polycyclic Hydrocarbons KAM-YEE PANG, TIEN-LAN CHANG, AND KEITH W. MILLER. On the Coupling	719
between Anesthetic Induced Membrane Fluidization and Cation Permeability in Lipid Vesicles	729
DAVID A. JOHNSON, NANCY M. LEE, ROGER COOKE, AND HORACE H. LOH. Ethanol-Induced Fluidization of Brain Lipid Bilayers: Required Presence of	
Cholesterol in Membranes for the Expression of Tolerance	739
Short Communications	
Daniel R. Doerge, Mark G. McNamee, and Lloyd L. Ingraham. Modification of Acetylcholine Receptor-Mediated Ion Permeability by	
Thiamine CHARLES CHAVKIN, B. M. COX, AND AVRAM GOLDSTEIN. Stereospecific Opiate	747
Binding in Bovine Adrenal Medulla NICHOLAS P. SOLLENNE AND GARY E. MEANS. Characterization of a Specific	751
Drug Binding Site of Human Serum Albumin	754
Erratum	758
Author Index for Volume 15	761

The Subject Index for Volume 15 will appear in the November 1979 issue as part of a cumulative index for the year 1979.

Academic Press publishes books and journals in many areas of the biological, medical, and biomedical sciences including:

anatomy, histology and cell biology biochemistry and molecular biology cancer research and oncology cardiology and the vascular system environmental science food science and nutrition genetics and human development immunology and hematology microbiology and virology neurosciences, neurology and psychiatry oceanography and marine biology ophthalmology and otolaryngology pathology, clinical pathology and parasitology pharmacology, therapeutics and toxicology physiology, biophysics and biostatistics radiology and nuclear medicine reproductive and perinatal medicine

For a list of titles in your subject area, please write to the publisher, attention: Sales Department.

AP 7400

ACADEMIC PRESS

A Subsidiary of Harcourt Brace Jovanovich, Publishers
111 FIFTH AVENUE, NEW YORK, N.Y. 10003
24-28 OVAL ROAD, LONDON NW1 7DX

Polymeric Drugs

Edited by L. GUY DONARUMA and OTTO VOGL

CONTENTS: A. Zaffaroni and P. Bonsen, Controlled Chemotherapy Through Macromolecules. N. M. Weinshenker, Polymeric Additives for Food. G. Manecke, Immobilized Enzymes. N. A. Plate, Synthesis and Some Properties of Antithrombogenic Polymers. D. Tirrell et al., Polymers with Ultraviolet Absorbers as Functional Groups. K. Takemoto, Recent Problems Concerning Functional Monomers Absorbers as Functional Groups. K. Takemoto, Recent Problems Concerning Functional Monomers and Polymers Containing Nucleic Acid Bases. J. Kálal et al., Synthetic Polymers in Chemotherapy. General Problems. C. M. Samour, Polymeric Drugs in the Chemotherapy of Microbial Infections. G. G. Allan et al., Polymeric Drugs for Plants. J. Burton et al., Solubility and Lipophilicity Relationships in the Design of Renin Inhibitors. E. P. Goldberg, Polymeric Affinity Drugs for Cardiovascular, Cancer, and Urolithiasis Therapy. R. M. Ottenbrite et al., Biological Activity of Polycarboxylic Acid Polymers. H. B. Levy. Polymers as Interferon Inducers. E. H. Schacht et al., Synthesis and Characterization of 2,6-Dichlorobenzaldehyde-Generating Polymers. L. 2.6-Dichlorobenzaldehyde-Generating Polymers. L. G. Donaruma et al., Potential Structure-Activity Relationships, Indigenous to Polymer Systems (1) 1978 400 pp

Cell Surface Carbohydrate Chemistry

Edited by ROBERT E. HARMON

FROM THE PREFACE:

This volume is a permanent record of the Cell Surface Carbohydrate Chemistry Symposium held on September 1 and 2, 1976 in conjunction with the American Chemical Society Centennial Meeting in San Francisco.

The main objective of this symposium was to bring together carbohydrate chemists and cell biologists who were involved in or interested in studying the oligiosaccharides which make up the glycoproteins and glycolipids found in the cell membranes of normal or neoplastic cells." 1978, 384 pp

SECOND EDITION

Principles of Psychopharmacology

A Textbook for Physicians, Medical Students, and **Behavioral Scientists**

Editors: WILLIAM G. CLARK and JOSEPH del GIUDICE SECTION HEADINGS: Introduction. Some Basic Anatomical, Biochemical and Physiological Considerations Chemistry, Metabolism and Classification of Psychotropic Drugs Pharmacological and Physiological Bases of Psychopharmacology Genetic and Environmental Aspects of Drugs and Behavior Psychopharmacologic Drug Design and Research Problems with Humans Toxicology and Adverse Side Effects of Psychotropic Drugs and Their Management Psychopharmacotherapy Special Problems in Psychopharmacology General Medical Use of Psychotropic Drugs Substance Abuse. Epilogue and Foreglimpse.

1978. about 950 pp

AP 7832

ACADEMIC PRESS, INC.

A Subsidiary of Harcourt Brace Jovanovich, Publishers 111 FIFTH AVENUE. NEW YORK, N.Y. 10003 24-28 OVAL ROAD, LONDON NW1 7DX

INSTRUCTIONS TO AUTHORS

Molecular Pharmacology will publish the results of investigations that shed significant light on drug action or selective toxicity at the molecular level. The term "drug" is defined broadly, to include chemical agents that selectively modify biological function.

Suitable papers are those which describe applications of the methods of biochemistry, biophysics, genetics, and molecular biology to problems in pharmacology or toxicology. Also suitable are reports of fundamental investigations which, although not concerned directly with drugs, nevertheless provide an immediate basis for further study of the molecular mechanism of drug action. Observations of phenomena that shed no light upon underlying molecular interactions are not regarded as appropriate for publication.

Specific areas of interest include: stereochemical, electronic, and other parameters of drug architecture; conformational analysis of receptors and their function; drug-enzyme and other interactions between drugs and macromolecules; drug effects upon gene replication and transcription and on protein synthesis; mechanism of action of antibiotics and other growth-inhibitory drugs; induction by drugs of changes in macromolecular structure or allosteric transitions; drug-induced alterations in metabolic pathways; effects of hormones and other drugs on cellular regulatory mechanisms; chemical mutagenesis, carcinogenesis, and teratogenesis; pharmacogenetics, idiosyncrasies, and drug allergies; selective toxicity in a single organism or in different species; drug actions on properties and functions of membranes; mechanisms of drug metabolism; distribution and transport of drug molecules between biological compartments.

"Short Communications" will be considered for rapid publication if their subject matter lies within the scope of the Journal, if they are concise, and if they are considered to be of sufficiently immediate importance to the work of other investigators to justify accelerated publication. They may contain experimental observations, theoretical material, or significant comment upon published investigations.

Page Charges. Authors will be billed at the rate of \$30.00 per page after the paper has been published. It is expected that the page charge will be paid if funds are available for that purpose from the author's institution or from the sponsor of his research. Payment of the charge is not a condition for publication. Neither the editors nor the reviewers will have knowledge as to who has paid the charge, and this payment will always be considered entirely voluntary.

Submission of manuscript. Manuscripts are published in English only and should be sent to the Editor. Dr. Norman Kirshner, Department of Pharmacology, Duke University Medical Center, Durham, North Carolina 27710, U.S.A. Manuscripts should be typewritten double spaced with ample margins on one side of the paper, $8-1/2 \times 11$ inches (ca. 215×280 mm). Submit three complete copies of the manuscript and three copies of each figure, plus one original drawing or photograph of each figure. All pages should be numbered consecutively beginning with the title page. Limit your reference listings to the minimal number required to adequately document the manuscript. In most instances 30 references or less should suffice.

It is understood that the manuscripts and the results they contain will not have been published previously and are not being submitted elsewhere. Manuscripts are accepted for review with the understanding that all persons listed as authors have given their approval for the submission of the paper; further, that any person cited as a source of personal communications has approved such citation. Written authorization may be required at the Editor's discretion. Articles and any systematic name and number given by the Commisother material published in Molecular Pharmacology sion on Enzymes of the International Union of Bio-

represent the opinions of the author(s) and should not be construed to reflect the opinions of the Editor(s) and the Publisher. If and when a manuscript is published, it will become the sole property of the Journal. The Society for Pharmacology and Experimental Therapeutics Inc. is the sole owner of the Journal, although for purposes of convenience, all copyright is taken out in the name of Academic Press, Inc. and all rights and copyright are reserved to Academic Press,

Authors submitting a manuscript do so on the understanding that if it is accepted for publication, copyright in the article, including the right to reproduce the article in all forms and media, shall be assigned exclusively to the Publisher. The Publisher will not refuse any reasonable request by the author for permission to reproduce any of his or her contributions to

Organization and style of manuscripts. The policy of the Journal is to allow authors maximum freedom in organizing and presenting their material, and in expressing their ideas, provided only that clarity and conciseness are achieved.

Certain conventions must be observed. Chemical and mathematical formulas and abbreviations should follow the Instructions to Authors of the Journal of Biological Chemistry (Vol. 246, pp. 1-8, January 10, 1971). Drugs must be referred to by their generic or chemical names throughout the text, but may be identified by trade name in parenthesis or a footnote. The

chemistry should be included for each enzyme of importance in a paper, at the point in the Summary or Introduction where the enzyme is first mentioned. The use of abbreviations should be minimized and abbreviations avoided in the Summary. All essential abbreviations should be defined in a single footnote when first introduced. Abbreviations of journal names should conform to the style of Biological Abstracts. References to papers that have been accepted for publication, but have not appeared, should be cited like other references with the abbreviated name of the journal followed by the words "in press." Copies of such papers should be sent whenever the findings described in them have a direct bearing on the paper being submitted for publication. "Personal Communications" and "Unpublished Observations" should be cited in footnotes to the text and should not be included in the reference list.

A manuscript should include the following, in the order listed: (1) Title. Numbered footnotes to the title should be avoided; acknowledgment of financial support should be given in an unnumbered footnote to the title. (2) Names of authors, their laboratory and institution. (3) A running title, not exceeding 60 characters and spaces. (4) Summary preceded by authors' names and title of article. For example:

SUMMARY

DAIRMAN, WALLACE, AND S. UDENFRIEND: Studies on the mechanism of the L-3,4-dihydroxyphenylalanine-induced decrease in tyrosine hydroxylase activity. *Mol. Pharmacol.* 8, 293–299 (1972).

(5) Text. Footnotes should be referred to by superscript numbers and references by numbers in parenthesis. (6) References, numbered according to order of citation in the text, including title and complete pagination. Example: 1. Goren, J. H., L. G. Bauce, and W. Vale. Forces and structural limitations of binding of thyrotropin-releasing receptor; the pyroglutamic acid moiety. *Mol. Pharmacol.* 13: 606-614, 1977. (7) Footnotes, numbered according to order of appearance

in the text. (8) Tables. (9) Figures. (10) Legends to figures. (11) Name and address of person to receive galley proof.

Tables. These should be numbered with arabic numerals and designed to fit the single-column width or the full-page width. Every table should have an explanatory title and sufficient experimental detail in a paragraph following the title to be intelligible without references to the text (unless the procedure is given in the Methods section, or under another table or figure). Footnotes to tables should appear beneath the tables themselves and should be designated by lower-case italic superscript letters, a, b, c, etc.

Figures. These should be numbered with arabic numerals. Each of the three manuscript copies should contain all the figures, but only the original set need be of quality suitable for reproduction. These should be unmounted glossy photographs (or original Indiaink drawings). Usually figures will be reduced to one column width (2% inches or 67 mm) and all numbers after such reduction should be at least 1.5 mm high. The figures must be ready, in all respects, for direct reproduction: no lettering or other art work will be done by the publisher. If symbols are not explained on the face of the figure, only standard characters, of which the printer has type, may be used $(\times, \bigcirc, \bullet, \square$ \blacksquare , \triangle , \triangle , \blacksquare). The back of each photograph should bear its number, and the legend TOP at the appropriate edge. The list of legends for the figures should give captions and sufficient experimental detail, as required for tables.

Galley proof. The cost of all changes on galley proof, other than printer's errors, will be charged to authors. The Editors are very much interested in having accepted contributions appear in the earliest possible issue of the Journal, and therefore request that galley proof be returned within 24 hours after its receipt. In exceptional cases, a "Note added in proof" may be attached and will be published if the Editor approves. Authors receive 25 reprints free; information about ordering additional reprints will be mailed with galley proof.