Aarbakke, Jarle. See Ueland and Bessesen, 108

Abita, Jean-Pierre. See Gespach, 78

Abou-Donia, Mohamed B. See Sivarajah, Lasker, and Eling, 133 Aguayo, Luis G., Warnick, Jordan E., Maayani, Saul, Glick, Stanley D., Weinstein, Harel, and Albuquerque, Edson X. Site of Action of Phencyclidine. IV. Interaction of Phencyclidine and Its Analogues on Ionic Channels of the Electrically Excitable Membrane and Nicotinic Receptor: Implications for Behavioral Effects, 637

Aktories, Klaus, Schultz, Günter, and Jakobs, Karl H. Stimulation of a Low K_m GTPase by Inhibitors of Adipocyte Adenylate Cyclase, 336

Albuquerque, Edson X.

See Aguayo, Warnick, Maayani, Glick, and Weinstein, 637

See Spivak, Maleque, Oliveira, Masukawa, Tokuyama, and Daly,

Alexander, R. Wayne. See Mooney, Horne, Handin, and Schildkraut, 600

Anderson, Karen S. See Ruffolo and Miller, 259

Baird, Terry M. See Rudolph and Wardell, 503

Balzarini, J. See De Clercq, Descamps, Huang, Torrence, Bergstrom, Jones, Serafinowski, Verhelst, and Walker, 217

Banks, R. Bruce. See Hanna and Marhevka, 159

Barwick, Joyce L. See Heuman, Gallagher, Elshourbagy, and Guzelian, 753

Bases, Robert. See Neubort, Liebeskind, Mendez, Elequin, and Hsu,

Bastow, Kenneth F. See Domin, Grill, and Cheng, 478

Batardy-Grégoire, M. See Razzouk and Roberfroid, 449

Baum, Bruce J. See Uchida, Ito, Roth, Filburn, and Sacktor, 128

Beaulieu, D. See Rosenblatt, Whitehead, Matiaszuk, Pottier, and Vuchich, 718

Ben-Baruch, Gilad, Schreiber, Gabriel, and Sokolovsky, Mordechai. Cooperativity Pattern in the Interaction of the Antiestrogen Drug Clomiphene with the Muscarinic Receptors, 287

Bennett, L. Lee, Jr. See Tseng, Derse, Cheng, and Brockman, 474 Bent, David A. See Siegel, McConnell, Chandrasurin, Macfarlane, and McNeal, 688

Bergstrom, D. E. See De Clercq, Balzarini, Descamps, Huang, Torrence, Jones, Serafinowski, Verhelst, and Walker, 217

Bessesen, Atle. See Ueland and Aarbakke, 108

Bickers, David R., Dutta-Choudhury, Tapu, and Mukhtar, Hasan. Epidermis: A Site of Drug Metabolism in Neonatal Rat Skin: Studies on Cytochrome P-450 Content and Mixed-Function Oxidase and Epoxide Hydrolase Activity, 239

Borchardt, Ronald T.

Kuonen, Donald, Huber, Joan A., and Moorman, Allan. Inhibition of Calf Thymus and Rat Hypothalamic Synaptosomal Protein Carboxymethyltransferase by Analogues of S-Adenosylhomocysteine, 181

See Yoffe, 362, 368

Bornheim, Lester M., and Franklin, Michael R. Metabolic-Intermediate Complex Formation Reveals Major Changes in Rat Hepatic Cytochrome P-450 Subpopulations in Addition to Those Forms Previously Purified after Phenobarbital, β-Naphthoflavone, and Isosafrole Induction, 527

Bösterling, Bernard. See Trudell and Trevor, 710

Bourdeaux, M. See Briand, Sarrazin, Peyrot, Gilli, and Sari, 92

Briand, C., Sarrazin, M., Peyrot, V., Gilli, R., Bourdeaux, M., and Sari. J. C. Study of the Interaction between Human Serum Albumin and Cephalosporins, 92

Bristow, Michael R., Cubicciotti, Roger, Ginsburg, Robert, Stinson, E. B., and Johnson, Carl. Histamine-Mediated Adenylate Cyclase Stimulation in Human Myocardium, 671

Brockman, R. Wallace. See Tseng, Derse, Cheng, and Bennett, 474 Brufani, Mario, Cellai, Luciano, Cerrini, Silvio, Fedeli, Walter, Segre, Annalaura, and Vaciago, Alessandro. Structure-Activity Relationships in the Ansamycins: Molecular Structure and Activity of 3-Carbomethoxy Rifamycin S, 394

Bulger, William H., and Kupfer, David. β-Diethylaminoethyl-2,2diphenylpentanoate (SKF 525-A)-Mediated Translocation of Uterine Estrogen Receptor from the Cytosolic to the Nuclear Compartment in Isolated Rat Uteri, 533

Burch, Ronald M., and Halushka, Perry V. Inhibition of Prostaglandin Synthesis Antagonizes the Colchicine-Induced Reduction of Vasopressin-Stimulated Water Flow in the Toad Urinary Bladder, 142

Butcher, Fred R. See Spearman, 121

Bylund, David B., Martinez, J. Ricardo, and Pierce, Dan L. Regulation of Autonomic Receptors in Rat Submandibular Gland, 27

 \mathbf{C}

Carpy, A., Leger, J. M., Leclerc, G., Decker, N., Rouot, B., and Wermuth, C. G. Comparison of Crystallographic and Quantum Mechanical Analysis with Biological Data on Clonidine and Some Related Analogues, 400

Cavagnaro, Joy. See Rauckman and Rosen, 458

Cellai, Luciano. See Brufani, Cerrini, Fedeli, Segre, and Vaciago,

Cerrini, Silvio. See Brufani, Cellai, Fedeli, Segre, and Vaciago, 394 Cha. Sun-Ju. See Park, Miller, Persson, Coon, and Gelboin, 248 Chabner, Bruce A. See Liang and Donehower, 224

Champion, Serge

and Mauchamp, Jean. Muscarinic Cholinergic Receptors on Cultured Thyroid Cells. I. Biological Effect of Carbachol and Characterization of the Receptors, 66

and Mauchamp, Jean. Muscarinic Cholinergic Receptors on Cultured Thyroid Cells. II. Carbachol-Induced Desensitization, 73

Chandrasurin, Pisal. See Siegel, McConnell, Bent, Macfarlane, and McNeal, 688

Chao, Haiyen, and Chung, Leland W. K. Neonatal Imprinting and Hepatic Cytochrome P-450: Immunochemical Evidence for the Presence of a Sex-Dependent and Neonatally Imprinted Form(s) of Hepatic Cytochrome P-450, 744

Chatelain, P.

See Robberecht, Waelbroeck, Claeys, Huu, and Christophe, 589 See Waelbroeck, Robberecht, and Christophe, 581

Chen, H.-C. See Shimohigashi, Costa, Matsuura, and Rodbard, 558 Cheng, Yung-Chi

See Domin and Hakala, 231

See Domin, Grill, and Bastow, 478

See Tseng, Derse, Brockman, and Bennett, 474

Chiu, Ted H., Dryden, David M., and Rosenberg, Howard C. Kinetics of [3H]Flunitrazepam Binding to Membrane-Bound Benzodiazepine Receptors, 57

Cho, Arthur K. See Ransom and Kammerer, 380 Christophe, J.

See Robberecht, Waelbroeck, Claeys, Huu, and Chatelain, 589 See Waelbroeck, Robberecht, and Chatelain, 581

Chung, Leland W. K. See Chao, 744

Claeys, M. See Robberecht, Waelbroeck, Huu, Chatelain, and Christophe, 589

Cobb, Melanie H., Heagy, Wyrta, Danner, Jean, Lenhoff, Howard M., and Marshall, Garland R. Structural and Conformational Properties of Peptides Interacting with the Glutathione Receptor of Hydra, 629

Coon, Minor J. See Park, Cha, Miller, Persson, and Gelboin, 248 Cooper, Mark J. See Goodman, Gavish, and Snyder, 329

Costa, T. See Shimohigashi, Matsuura, Chen, and Rodbard, 558

Covey, Douglas F., and Hood, William F. Aromatase Enzyme Catalysis Is Involved in the Potent Inhibition of Estrogen Biosynthesis Caused by 4-Acetoxy- and 4-Hydroxy-4-androstene-3,17-dione, 173

Creese, Ian. See Hamblin, 44, 52

Crooke, Stanley T. See DuVernay, Eubanks, Perales, and Prestayko,

Cubicciotti, Roger. See Bristow, Ginsburg, Stinson, and Johnson, 671

Dahl, Svein, Hjorth, Michael, and Hough, Edward. Chlorpromazine, Methotrimeprazine, and Metabolites: Structural Changes Accompanying the Loss of Neuroleptic Potency by Ring Sulfoxidation, 409

Daigneault, E. A. See Robert and Hagardorn, 315 Daly, J. W.

See Siegl and Smith, 680

See Spivak, Maleque, Oliveira, Masukawa, Tokuyama, and Albuquerque, 351

Daniels, Christopher K., and Goldstein, Dora B. Movement of Free Cholesterol from Lipoproteins or Lipid Vesicles into Erythrocytes: Acceleration by Ethanol in Vitro, 694

Danner, Jean. See Cobb, Heagy, Lenhoff, and Marshall, 629 Decker, N. See Carpy, Leger, Leclerc, Rouot, and Wermuth, 400

De Clercq, E., Balzarini, J., Descamps, J., Huang, G.-F., Torrence, P. F., Bergstrom, D. E., Jones, A. S., Serafinowski, P., Verhelst, G., and Walker, R. T. Antiviral, Antimetabolic, and Cytotoxic Activities of 5-Substituted 2'-Deoxycytidines, 217

De Lean, Andre, Hancock, Arthur A., and Lefkowitz, Robert J. Validation and Statistical Analysis of a Computer Modeling Method for Quantitative Analysis of Radioligand Binding Data for Mixtures of Pharmacological Receptor Subtypes, 5

Derse, David. See Tseng, Cheng, Brockman, and Bennett, 474 Descamps, J. See De Clercq, Balzarini, Huang, Torrence, Bergstrom, Jones, Serafinowski, Verhelst, and Walker, 217

Domin, Barbara A.

Cheng, Yung-Chi, and Hakala, Maire T. Properties of Dihydrofolate Reductase from a Methotrexate-Resistant Subline of Human KB Cells and Comparison with Enzyme from KB Parent Cells and Mouse S180 AT/3000 Cells, 231

Grill, Susan P., Bastow, Kenneth F., and Cheng, Yung-Chi. Effect of Methotrexate on Dihydrofolate Reductase Activity in Methotrexate-Resistant Human KB Cells, 478

Donehower, Ross C. See Liang and Chabner, 224

Drummond, George S. See Rosenberg and Kappas, 150

Dryden, David M. See Chiu and Rosenberg, 57

Duffel, Michael W., and Jakoby, William B. Cysteine S-Conjugate N-Acetyltransferase from Rat Kidney Microsomes, 444

Dutta-Choudhury, Tapu. See Bickers and Mukhtar, 239

DuVernay, Virgil H., Eubanks, David, Perales, Richard, Prestayko, Archie W., and Crooke, Stanley T. The Antitumor Effects of Anthracyclines. II. The Stereospecificity of the Carbomethoxy Group at Position 10 of the Class II Anthracycline Molecule, 196

Eckhardt, S. B., Maxwell, R. A., and Ferris, R. M. A Structure-Activity Study of the Transport Sites for the Hypothalamic and Striatal Catecholamine Uptake Systems, 374

Ehler, Frederick J. See Ringdahl and Jenden, 594

Elequin, Flora. See Neubort, Liebeskind, Mendez, Hsu, and Bases,

Eling, Thomas E. See Sivarajah, Lasker, and Abou-Donia, 133 Elshourbagy, Nabil A. See Heuman, Gallagher, Barwick, and Guz-

Engelborghs, Yves. See Maes, Hoebeke, Maras, and Vercruysse, 100 Eubanks, David. See DuVernay, Perales, Prestayko, and Crooke,

Fedeli, Walter. See Brufani, Cellai, Cerrini, Segre, and Vaciago, 394 Fehske, Klaus J., Schläfer, Uwe, Wollert, Uwe, and Müller, Walter E. Characterization of an Important Drug Binding Area on Human Serum Albumin Including the High-Affinity Binding Sites of Warfarin and Azapropazone, 387

Feinstein, M. B., and Hadjian, R. A. Effects of the Calmodulin Antagonist Trifluoperazine on Stimulus-Induced Calcium Mobilization, Aggregation, Secretion, and Protein Phosphorylation in Platelets, 422

Ferraiolo, Bobbe L. and Mieyal, John J. Subunit Selectivity in the Monooxygenase-Like Activity of Tetrameric Hemoglobin, 1

Ferris, R. M. See Eckhardt and Maxwell, 374

Filburn, Charles R. See Uchida, Ito, Baum, Roth, and Sacktor, 128 Finkelstein, Eli, Rosen, Gerald M., and Rauckman, Elmer J. Production of Hydroxyl Radical by Decomposition of Superoxide Spin-Trapped Adducts, 262

Francis, P. R. See Taylor, Slowiaczek, and Tattersall, 204 Franklin, Michael R. See Bornheim, 527

Fyfe, James A. Differential Phosphorylation of (E)-5-(2-Bromovinyl)-2'-deoxyuridine Monophosphate by Thymidylate Kinases from Herpes Simplex Viruses Types 1 and 2 and Varicella Zoster Virus, 432

Gainer, Marjorie W. See Meyer and Nathanson, 280

Gallagher, Erin J. See Heuman, Barwick, Elshourbagy, and Guzelian, 753

Gavish, Moshe. See Goodman, Cooper, and Snyder, 329

Gelboin, Harry V. See Park, Cha, Miller, Persson, and Coon, 248 Gespach, Christian, and Abita, Jean-Pierre. Human Polymorphonuclear Neutrophils: Pharmacological Characterization of Histamine Receptors Mediating the Elevation of Cyclic AMP, 78

Gilli, R. See Briand, Sarrazin, Peyrot, Bourdeaux, and Sari, 92 Ginsburg, Robert. See Bristow, Cubicciotti, Stinson, and Johnson,

Glazer, Robert I., and Lloyd, Linda S. Association of Cell Lethality with Incorporation of 5-Fluorouracil and 5-Fluorouridine into Nuclear RNA in Human Colon Carcinoma Cells in Culture, 468

Glick, Stanley D. See Aguayo, Warnick, Maayani, Weinstein, and Albuquerque, 637

Goldstein, Dora B. See Daniels, 694

bagy, 753

Gommeren, W. See Laduron, Janssen, and Leysen, 294

Gonzalez, Frank J., and Kasper, Charles B. Differential Inducibility of Nuclear Envelope Expoxide Hydratase by Trans-stilbene Oxide and Phenobarbital, 511

Goodman, Robert R., Cooper, Mark J., Gavish, Moshe, and Snyder, Solomon H. Guanine Nucleotide and Cation Regulation of the Binding of [3H]Cyclohexyladenosine and [3H]Diethylphenylxanthine to Adenosine A1 Receptors in Brain Membranes, 329

Goulian, Mehran. See Ingraham and Tseng, 211 Grill, Susan P. See Domin, Bastow, and Cheng, 478 Guzelian, Philip S. See Heuman, Gallagher, Barwick, and Elshour-

Hadjian, R. A. See Feinstein, 422 Hagardorn, A. N. See Robert and Daigneault, 315 Hakala, Maire T. See Domin and Cheng, 231

Halpert, James. Further Studies of the Suicide Inactivation of Purified Rat Liver Cytochrome P-450 by Chloramphenicol, 166

Halushka, Perry V. See' Burch, 142

Hamblin, Mark W.

and Creese, Ian. Heat Treatment Mimics Guanosine-5'-Triphosphate Effects on Dopaminergic ³H-Ligand Binding to Bovine Caudate Membranes, 52

and Creese, Ian. Phenoxybenzamine Treatment Differentiates Dopaminergic ³H-Ligand Binding Sites in Bovine Caudate Membranes, 44

Hancock, Arthur A. See De Lean and Lefkowitz, 5

Handin, Robert I. See Mooney, Horne, Schildkraut, and Alexander, 600

Hanna, Patrick E., Banks, R. Bruce, and Marhevka, Virginia Creedon. Suicide Inactivation of Hamster Hepatic Arylhydroxamic Acid N,O-Acyltransferase: A Selective Probe of N-Acetyltransferase Multiplicity, 159

Harbon, Simone. See Leiber, 654

Harden, T. Kendall, Scheer, Anthony G., and Smith, McHardy M. Differential Modification of the Interaction of Cardiac Muscarinic Cholinergic and Beta-Adrenergic Receptors with a Guanine Nucleotide Binding Component(s), 570

Haubrich, D. R., and Pflueger, A. B. the Autoreceptor Control of Dopamine Synthesis: An in Vitro and in Vivo Comparison of Dopamine Agonists, 114

Heagy, Wyrta. See Cobb, Danner, Lenhoff, and Marshall, 629

Herz, A. See Law, Nicksic, O'Rourke, Koehler, and Loh, 492 Herz, Albert. See Pfeiffer, 266

Heuman, Douglas M., Gallagher, Erin J., Barwick, Joyce L., Elshourbagy, Nabil A., and Guzelian, Philip S. Immunochemical Evidence for Induction of a Common Form of Hepatic Cytochrome P-450 in Rats Treated with Pregnenolone-16α-

carbonitrile or Other Steroidal or Nonsteroidal Agents, 753

Hirsch, James D., Kochman, Ronald L., and Sumner, Paul R.

Heterogeneity of Brain Benzodiazepine Receptors Demonstrated by [³H]Propyl β-Carboline-3-carboxylate Binding, 618

Hiorth, Michael. See Dahl and Hough, 409

Hoebeke, Johan. See Maes, Engelborghs, Maras, and Vercruysse, 100

Hood, William F. See Covey, 173

Hopfinger, A. J., and Potenzone, R., Jr. Ames Test and Antitumor Activity of 1-(X-Phenyl)-3,3-dialkyltriazenes: Quantitative Structure-Activity Studies Based upon Molecular Shape Analysis, 187

Horne, William C. See Mooney, Handin, Schildkraut, and Alexander, 600

Hough, Edward. See Dahl and Hjorth, 409

Howlett, Allyn C. Stimulation of Neuroblastoma Adenylate Cyclase by Arachidonic Acid Metabolites, 664

Hsu, Konrad C. See Neubort, Liebeskind, Mendez, Elequin, and Bases, 739

Huang, G.-F. See De Clercq, Balzarini, Descamps, Torrence, Bergstrom, Jones, Serafinowski, Verhelst, and Walker, 217

Huber, Joan A. See Borchardt, Kuonen, and Moorman, 181

Huu, A. Nguyen. See Robberecht, Waelbroeck, Claeys, Chatelain, and Christophe, 589

Ingraham, Holly A., Tseng, Ben Y., and Goulian, Mehran. Nucleotide Levels and Incorporation of 5-Fluorouracil and Uracil into DNA of Cells Treated with 5-Fluorodeoxyuridine. 211

Insel, Paul A. See Karliner and Motulsky, 36

Ito, Hediki. See Uchida, Baum, Roth, Filburn, and Sacktor, 128

J

Jakobs, Karl H. See Aktories and Schultz, 336 Jakoby, William B. See Duffel, 444 Janssen, P. F. M. See Laduron, Gommeren, and Leysen, 294
Jenden, Donald J. See Ringdahl and Ehler, 594
Ji, Sungchul. See Kashiwagi, Lemasters, and Thurman, 438
Johnson, Carl. See Bristow, Cubicciotti, Ginsburg, and Stinson, 671
Jones, A. S. See De Clercq, Balzarini, Descamps, Huang, Torrence, Bergstrom, Serafinowski, Verhelst, and Walker, 217

K

Kahn, Deborah J., Mitrius, Joan C., and U'Prichard, David C.

Alpha₂-Adrenergic Receptors in Neuroblastoma × Glioma Hybrid Cells: Characterization with Agonist and Antagonist Radioligands and Relationship to Adenylate Cyclase, 17

Kammerer, R. Craig. See Ransom and Cho, 380

Kappas, Attallah. See Rosenberg and Drummond, 150

Karliner, Joel S., Motulsky, Harvey J., and Insel, Paul A. Apparent "Down-Regulation" of Human Platelet Alpha₂-Adrenergic Receptors Is Due to Retained Agonist, 36

Kashiwagi, Toru, Ji, Sungchul, Lemasters, John J., and Thurman, Ronald G. Rates of Alcohol Dehydrogenase-Dependent Ethanol Metabolism in Periportal and Pericentral Regions of the Perfused Rat Liver, 438

Kasper, Charles B., See Gonzalez, 511

Katada, Toshiaki. See Yamazaki and Ui, 648

Klotz, Alan V. See Stegeman, Woodin, Wolke, and Orme-Johnson,

Kochman, Ronald L. See *Hirsch and Sumner*, 618 Koehler, J. E.

See Law and Loh, 483

See Law, Nicksic, O'Rourke, Herz, and Loh, 492

Kouakou, Y., Zajac, J. M., Moisand, C., and Meunier, J. C. The Opiate Receptor-Binding Interactions of Opiate Alkaloids and of an Opioid Peptide in Rat Brain Membranes: Selection by Manganese Ions and by Cholic Acid (Sodium Salt) and Minimalization of Cross-Reaction in Vitro, 564

Kuonen, Donald. See Borchardt, Huber, and Moorman, 181

Kupfer, David. See Bulger, 533

Kurowski, Michael. See Perry, Rosenbaum, and Sadée, 272

L

Laduron, P. M., Janssen, P. F. M., Gommeren, W., and Leysen, J. E. In Vitro and in Vivo Binding Characteristics of a New Long-Acting Histamine H₁ Antagonist, Astemizole, 294

Lasker, Jerome M. See Sivarajah, Eling, and Abou-Donia, 133 Law. P. Y.

Koehler, J. E., and Loh, H. H. Comparison of Opiate Inhibition of Adenylate Cyclase Activity in Neuroblastoma × Glioma NG108-15 Hybrid Cell Lines, 483

Nicksic, T. D., O'Rourke, M. A., Koehler, J. E., Herz, A., and Loh, H. H. Potentiation of Opiate Action in Neuroblastoma N18TG2 Cells by Lipid Incorporation, 492

Leclerc, G. See Carpy, Leger, Decker, Rouot, and Wermuth, 400
Leeb-Lundberg, Fredrik, and Olsen, Richard W. Interactions of Barbiturates of Various Categories with Benzodiazepine Receptors, 320

Lefkowitz, Robert J. See De Lean and Hancock, 5

Leger, J. M. See Carpy, Leclerc, Decker, Rouot, and Wermuth, 400
Leiber, Denis, and Harbon, Simone. The Relationship between the
Carbachol Stimulatory Effect on Cyclic GMP Content and Activation by Fatty Acid Hydroperoxide of a Soluble Guanylate
Cyclase in the Guinea Pig Myometrium, 654

Lemasters, John J. See Kashiwagi, Ji, and Thurman, 438 Lenhoff, Howard M. See Cobb, Heagy, Danner, and Marshall, 629 Leysen, J. E.

Niemegeers, C. J. E., Van Nueten, J. M., and Laduron, P. M. [³H]Ketanserin (R 41 468), a Selective ³H-Ligand for Serotonin₂ Receptor Binding Sites: Binding Properties, Brain Distribution, and Functional Role, 301

See Laduron, Janssen, and Gommeren, 294

Liang, Chi-Ming, Donehower, Ross C., and Chabner, Bruce A. Biochemical Interactions between N-(Phosphonacetyl)-L-aspartate and 5-Fluorouracil, 224

Liebeskind, Doreen. See Neubort, Mendez, Elequin, Hsu, and Bases, 739

Limbird, Lee E., Speck, Janice L., and Smith, Sharon K. Sodium Ion Modulates Agonist and Antagonist Interactions with the Human Platelet Alpha₂-Adrenergic Receptor in Membrane and Solubilized Preparations, 609

Lloyd, Linda S. See Glazer, 468

Loh, H. H.

See Law and Koehler, 483

See Law, Nicksic, O'Rourke, Koehler, and Herz, 492

M

Maayani, Saul. See Aguayo, Warnick, Glick, Weinstein, and Albuqueraue. 637

Macfarlane, Ronald D. See Siegel, McConnell, Bent, Chandrasurin, and McNeal, 688

Maes, Viviane, Engelborghs, Yves, Hoebeke, Johan, Maras, Yvan, and Vercruysse, Antoine. Fluorimetric Analysis of the Binding of Warfarin to Human Serum Albumin: Equilibrium and Kinetic Study, 100

Maleque, M. A. See Spivak, Oliveira, Masukawa, Tokuyama, Daly, and Albuquerque, 351

Maras, Yvan. See Maes, Engelborghs, Hoebeke, and Vercruysse, 100 Marhevka, Virginia Creedon. See Hanna and Banks, 159

Marshall, Garland R. See Cobb, Heagy, Danner, and Lenhoff, 629

Martinez, J. Ricardo. See Bylund and Pierce, 27

Masukawa, L. M. See Spivak, Maleque, Oliveira, Tokuyama, Daly,
and Albuquerque, 351

Matiaszuk, N. Vera. See Rosenblatt, Whitehead, Pottier, Vuchich, and Roselies, 718

and Beaulieu, 718

Matsuura, S. See Shimohigashi, Costa, Chen, and Rodbard, 558

Mauchamp, Jean. See Champion, 66, 73

Maxwell, R. A. See Eckhardt and Ferris, 374

McConnell, Randy T. See Siegel, Bent, Chandrasurin, Macfarlane, and McNeal, 688

McNeal, Catherine J. See Siegel, McConnell, Bent, Chandrasurin, and Macfarlane, 688

Mendez, Frances. See Neubort, Liebeskind, Elequin, Hsu, and Bases, 739

Meunier, J. C. See Kouakou, Zajac, and Moisand, 564

Meyer, Mark R., Gainer, Marjorie W., and Nathanson, Neil M. In Vivo Regulation of Muscarinic Cholinergic Receptors in Embryonic Chick Brain, 280

Mieyal, John J. See Ferraiolo, 1

Miller, Duane D. See Ruffolo and Anderson, 259

Miller, Haruko. See Park, Cha, Persson, Coon, and Gelboin, 248

Mitrius, Joan C. See Kahn and U'Prichard, 17

Moisand, C. See Kouakou, Zajac, and Meunier, 564

Mooney, John J., Horne, William C., Handin, Robert I., Schildkraut, Joseph J., and Alexander, R. Wayne. Sodium Inhibits Both Adenylate Cyclase and High-Affinity ³H-Labeled p-Aminoclonidine Binding to Alpha₂-Adrenergic Receptors in Purified Human Platelet Membranes, 600

Moorman, Allan. See Borchardt, Kuonen, and Huber, 181

Motulsky, Harvey J. See Karliner and Insel, 36

Mukhtar, Hasan. See Bickers and Dutta-Choudhury, 239

Müller, Walter E. See Fehske, Schläfer, and Wollert, 387

N

Nathanson, Neil M. See Meyer and Gainer, 280

Neal, Robert A. See Sawahata, 464

Neubort, Simon, Liebeskind, Doreen, Mendez, Francis, Elequin, Flora, Hsu, Konrad C., and Bases, Robert. Morphological Transformation, DNA Strand Separation, and Antinucleoside Immunoreactivity following Exposure of Cells to Intercalating Drugs, 739

Nicksic, T. D. See Law, O'Rourke, Koehler, Herz, and Loh, 492 Niemegeers, C. J. E. See Leysen, Van Nueten, and Laduron, 301

Novak, Raymond F., and Vatsis, Kostas P. 1 H-Fourier Transform Nuclear Magnetic Resonance Relaxation Rate Studies on the Interaction of Acetanilide with Purified Isozymes of Rabbit Liver Microsomal Cytochrome P-450 and with Cytochrome b_5 , 701

0

Orme-Johnson, Nanette R. See Stegeman, Woodin, Klotz, and Wolke, 517

O'Rourke, M. A. See Law, Nicksic, Koehler, Herz, and Loh, 492 Oliveira, A. C. See Spivak, Maleque, Masukawa, Tokuyama, Daly, and Albuquerque, 351

Olsen, Richard W. See Leeb-Lundberg, 320

p

Palatini, Pietro. Magnesium-Dependent Inhibition of Beef Heart Soluble Mitochondrial Adenosine Triphosphatase by Tricyclic Antipsychotics, 415

Park, Sang S., Cha, Sun-Ju, Miller, Haruko, Persson, Anders V., Coon, Minor J., and Gelboin, Harry V. Monoclonal Antibodies to Rabbit Liver Cytochrome P-450_{LM2} and Cytochrome P-450_{LM4}, 248

Perales, Richard. See DuVernay, Eubanks, Prestayko, and Crooke, 196

Perry, David C., Rosenbaum, Jan S., Kurowski, Michael, and Sadée, Wolfgang. [3H]Etorphine Receptor Binding in Vivo: Small Fractional Occupancy Elicits Analgesia, 272

Persson, Anders V. See Park, Cha, Miller, Coon, and Gelboin, 248 Peyrot, V. See Briand, Sarrazin, Gilli, Bourdeaux, and Sari, 92

Pfeiffer, Andreas, and Herz, Albert. Discrimination of Three Opiate Receptor Binding Sites with the Use of a Computerized Curve-Fitting Technique, 266

Pflueger, A. B. See Haubrich, 114

Pierce, Dan L. See Bylund and Martinez, 27

Potenzone, R., Jr. See Hopfinger, 187

Pottier, A. See Rosenblatt, Whitehead, Matiaszuk, Vuchich, and Beaulieu, 718

Prestayko, Archie W. See DuVernay, Eubanks, Perales, and Crooke, 196

R

Ransom, Richard W., Kammerer, R. Craig, and Cho, Arthur K. Chemical Transformations of Xylamine (N-2'-Chloroethyl-N-Ethyl-2-Methylbenzylamine) in Solution: Pharmacological Activity of the Species Derived from This Irreversible Norepinephrine Uptake Inhibitor, 380

Rauckman, Elmer J.

Rosen, Gerald M., and Cavagnaro, Joy. Norcocaine Nitroxide: A Potential Hepatotoxic Metabolite of Cocaine, 458

See Finkelstein and Rosen, 262

Razzouk, C., Batardy-Grégoire, M., and Roberfroid, M. Induction and Modification of Rat Liver Microsomal Arylamide N-Hydroxylase by Various Pretreatments, 449

Ringdahl, Björn, Ehler, Frederick J., and Jenden, Donald J. Muscarinic Activity and Receptor Binding of the Enantiomers of Aceclidine and Its Methiodide, 594

Robberecht, P.

Waelbroeck, M., Claeys, M., Huu, A. Nguyen, Chatelain, P., and Christophe, J. Rat Cardiac Muscarinic Receptors. II. Influence of Thyroid Status and Cardiac Hypertrophy, 589

See Waelbroeck, Chatelain, and Christophe, 581
Roberfroid, M. See Razzouk and Batardy-Grégoire, 449

Robert, T. A., Hagardorn, A. N., and Daigneault, E. A. Differential Stereoselectivity of Methotrimeprazine Enantiomers for Selected Central Nervous System Receptor Types, 315 Rodbard, D. See Shimohigashi, Costa, Matsuura, and Chen, 558 Rosen, Gerald M.

See Finkelstein and Rauckman, 262

See Rauckman and Cavagnaro, 458

Rosenbaum, Jan S. See Perry, Kurowski, and Sadée, 272

Rosenberg, Daniel W., Drummond, George S., and Kappas, Attallah. The Influence of Organometals on Heme Metabolism: In Vivo and in Vitro Studies with Organotins, 150

Rosenberg, Howard C. See Chiu and Dryden, 57

Rosenblatt, D. S., Whitehead, V. M., Matiaszuk, N. Vera, Pottier, A., Vuchich, M.-J., and Beaulieu, D. Differential Effects of Folinic Acid and Glycine, Adenosine, and Thymidine as Rescue Agents in Methotrexate-Treated Human Cells in Relation to the Accumulation of Methotrexate Polyglutamates, 718

Roth, George S. See *Uchida*, *Ito*, *Baum*, *Filburn*, and *Sacktor*, 128 Rothman, Richard B.

and Westfall, Thomas C. Allosteric Coupling between Morphine and Enkephalin in Vitro, 548

and Westfall, Thomas C. Morphine Allosterically Modulates the Binding of [³H]Leucine Enkephalin to a Particulate Fraction of Rat Brain, 538

Rouot, B. See Carpy, Leger, Leclerc, Decker, and Wermuth, 400

Rudolph, Stephen A., Baird, Terry M., and Wardell, Jonathan W. Cyclic AMP Receptors and Cation Fluxes in the Turkey Erythrocyte, 503

Ruffolo, Robert R., Jr., Anderson, Karen S., and Miller, Duane D. Conformational Requirements of Alpha₂-Adrenergic Receptors, 259

S

Sacktor, Bertram. See Uchida, Ito, Baum, Roth, and Filburn, 128
Sadée, Wolfgang. See Perry, Rosenbaum, and Kurowski, 272
Sari, J. C. See Briand, Sarrazin, Peyrot, Gilli, and Bourdeaux, 92
Sarrazin, M. See Briand, Peyrot, Gilli, Bourdeaux, and Sari, 92
Sawahata, Tadashi, and Neal, Robert A. Inhibition of Rat Liver Cytochrome P-450 by Benzyl Hydrodisulfide, 464

Scheer, Anthony G. See Harden and Smith, 570

Schildkraut, Joseph J. See Mooney, Horne, Handin, and Alexander, 600

Schläfer, Uwe. See Fehske, Wollert, and Müller, 387 Schreiber, Gabriel. See Ben-Baruch and Sokolovsky, 287 Schultz, Günter. See Aktories and Jakobs, 336

Segre, Annalaura. See Brufani, Cellai, Cerrini, Fedeli, and Vaciago, 394

Sellinger-Barnette, Mary, and Weiss, Benjamin. Interaction of β-Endorphin and Other Opioid Peptides with Calmodulin, 86

Serafinowski, P. See De Clercq, Balzarini, Descamps, Huang, Torrence, Bergstrom, Jones, Verhelst, and Walker, 217

Shimohigashi, Y., Costa, T., Matsuura, S., Chen, H.-C., and Rodbard, D. Dimeric Enkephalins Display Enhanced Affinity and Selectivity for the *Delta* Opiate Receptor, 558

Siegel, Marvin I., McConnell, Randy T., Bent, David A., Chandrasurin, Pisal, Macfarlane, Ronald D., and McNeal, Catherine J. The Formation of Diarachidonyl Diglyceride by Rat Neutrophils, 688

Siegl, A. M., Daly, J. W., and Smith, J. B. Inhibition of Aggregation and Stimulation of Cyclic AMP Generation in Intact Human Platelets by the Diterpene Forskolin, 680

Sivarajah, Kandiah, Lasker, Jerome M., Eling, Thomas E., and Abou-Donia, Mohamed B. Metabolism of N-Alkyl Compounds during the Biosynthesis of Prostaglandins: N-Dealkylation during Prostaglandin Biosynthesis, 133

Slowiaczek, P. See Taylor, Francis, and Tattersall, 204

Smith, J. B. See Siegl and Daly, 680

Smith, McHardy M. See Harden and Scheer, 570

Smith, Sharon K. See Limbird and Speck, 609

Snyder, Solomon H. See Goodman, Cooper, and Gavish, 329 Sokolovsky, Mordechai. See Ben-Baruch and Schreiber, 287 Spearman, Terry N., and Butcher, Fred R. Rat Parotid Gland Protein Kinase Activation: Relationship to Enzyme Secretion, 121

Speck, Janice L. See Limbird and Smith. 609

Spivak, C. E., Maleque, M. A., Oliveira, A. C., Masukawa, L. M., Tokuyama, T., Daly, J. W., and Albuquerque, E. X. Actions of the Histrionicotoxins at the Ion Channel of the Nicotinic Acetylcholine Receptor and at the Voltage-Sensitive Ion Channels of Muscle membranes, 351

Stegeman, John J., Woodin, Bruce R., Klotz, Alan V., Wolke, Richard E., and Orme-Johnson, Nanette R. Cytochrome P-450 and Monooxygenase Activity in Cardiac Microsomes from the Fish Stenotomus chrysops, 517

Stinson, E. B. See *Bristow, Cubicciotti, Ginsburg, and Johnson*, 671
Strichartz, Gary. Structure of the Saxitonin Binding Site at Sodium
Channels in Nerve Membranes: Exchange of Tritium from
Bound Toxin Molecules, 343

Sumner, Paul R. See Hirsch and Kochman, 618

Т

Tattersall, M. H. N. See Taylor, Slowiaczek, and Francis, 204
 Taylor, I. W., Slowiaczek, P., Francis, P. R., and Tattersall, M.
 H. N. Biochemical and Cell Cycle Perturbations in Methotrexate-Treated Cells, 204

Tew, Kenneth D., and Wang, Ann L. Selective Cytotoxicity of Haloethylnitrosoureas in a Carcinoma Cell Line Resistant to Bifunctional Nitrogen Mustards, 729

Thurman, Ronald G. See Kashiwagi, Ji, and Lemasters, 438
Tokuyama, T. See Spivak, Maleque, Oliveira, Masukawa, Daly, and
Albuquerque, 351

Torrence, P. F. See De Clercq, Balzarini, Descamps, Huang, Bergstrom, Jones, Serafinowski, Verhelst, and Walker, 217

Trevor, Anthony J. See Trudell and Bösterling, 710

Trudell, James R., Bösterling, Bernard, and Trevor, Anthony J.
Reductive Metabolism of Halothane by Human and Rabbit
Cytochrome P-450: Binding of 1-Chloro-2,2,2-Trifluoroethyl
Radical to Phospholipids, 710

Tseng, Ben Y. See Ingraham and Goulian, 211

Tseng, Wen-Cheng, Derse, David, Cheng, Yung-Chi, Brockman, R. Wallace, and Bennett, L. Lee, Jr. In Vitro Biological Activity of 9-β-D-Arabinofuranosyl-2-Fluoroadenine and the Biochemical Actions of Its Triphosphate on DNA Polymerases and Ribonucleotide Reductase from HeLa Cells, 474

U

Uchida, Tsutomu, Ito, Hideki, Baum, Bruce J., Roth, George S., Filburn, Charles R., and Sacktor, Bertram. Alpha₁-Adrenergic Stimulation of Phosphatidylinositol-Phosphatidic Acid Turnover in Rat Parotid Cells, 128

Ueland, Per M., Aarbakke, Jarle, and Bessesen, Atle. Characterization of S-Adenosylhomocysteine Binding to Isolated Rat Hepatocytes and Purified Rat Liver Plasma Membranes: Effect of Analogues of S-Adenosylhomocysteine, 108

Ui, Michio. See Yamazaki and Katada, 648 U'Prichard, David C. See Kahn and Mitrius, 17

V

Vaciago, Alessandro. See Brufani, Cellai, Cerrini. Fedeli, and Segre, 394

Van Nueten, J. M. See Leysen, Niemegeers, and Laduron, 301 Vatsis, Kostas P. See Novak, 701

Vercruysse, Antoine. See Maes, Engelborghs, Hoebeke, and Maras, 100

Verhelst, G. See De Clercq, Balzarini, Descamps, Huang, Torrence, Bergstrom, Jones, Serafinowski, and Walker, 217

Vuchich, M.-J. See Rosenblatt, Whitehead, Matiaszuk, Pottier, and Beaulieu, 718 W

Waelbroeck, M.

Robberecht, P., Chatelain, P., and Christophe, J. Rat Cardiac Muscarinic Receptors. I. Effects of Guanine Nucleotides on High- and Low-Affinity Binding Sites, 581

See Robberecht, Claeys, Huu, Chatelain, and Christophe, 589

Walker, R. T. See De Clercq, Balzarini, Descamps, Huang, Torrence, Bergstrom, Jones, Serafinowski, and Verhelst, 217

Wang, Ann L. See Tew, 729

Wardell, Jonathan W. See Rudolph and Baird, 503

Warnick, Jordan E. See Aguayo, Maayani, Glick, Weinstein, and Albuquerque, 637

Washtien, Wendy L. Thymidylate Synthetase Levels as a Factor in 5-Fluorodeoxyuridine and Methotrexate Cytotoxicity in Gastrointestinal Tumor Cells, 723

Weinstein, Harel. See Aguayo, Warnick, Maayani, Glick, and Albuquerque, 637

Weiss, Benjamin. See Sellinger-Barnette, 86

Wermuth, C. G. See Carpy, Leger, Leclerc, Decker, and Rouot, 400

Westfall, Thomas C. See Rothman, 538, 548

Whitehead, V. M. See Rosenblatt, Matiaszuk, Pottier, Vuchich, and Beaulieu, 718 Wolke, Richard E. See Stegeman, Woodin, Klotz, and Orme-Johnson, 517

Wollert, Uwe. See Fehske, Schläfer, and Müller, 387

Woodin, Bruce R. See Stegeman, Klotz, Wolke, and Orme-Johnson, 517

Y

Yamazaki, Satoshi, Katada, Toshiaki, and Ui, Michio. Alpha₂-Adrenergic Inhibition of Insulin Secretion via Interference with Cyclic AMP Generation in Rat Pancreatic Islets, 648

Yoffe, Joan R.

and Borchardt, Ronald T. Characterization of Serotonin Uptake in Cultured Neuroblastoma Cells: Difference between Differentiated and Nondifferentiated Cells, 362

and Borchardt, Ronald T. Characterization of Serotonin Uptake in Cultured Pheochromocytoma Cells: Comparison with Norepinephrine Uptake, 368

Z

Zajac, J. M. See Kouakou, Moisand, and Meunier, 564

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 this 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 always will 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, $8\frac{1}{2} \times 11$ 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 fewer 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 other material published in *Molecular Pharmacology* 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.

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 Society for Pharmacology and Experimental Therapeutics. No reasonable request by the author for permission to reproduce any of his or her contributions to the journal will be refused.

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. 256, pp. 1-11, January 10, 1981). Drugs must be referred to by their generic or chemical names throughout the text, but may be identified by trade name in parentheses or a footnote. The systematic name and number given by the Commission on Enzymes of the International Union of Biochemistry 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. (5) Text. Footnotes should be referred to by superscript numbers and references by numbers in parentheses. (6) References, numbered according to order of citation in the text, including title and complete pagination. Examples: 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). 2. Sandler, M. Variations in monoamine oxidase activity in some human disease states, in Monoamine Oxidase and Its Inhibition. Ciba Foundation Symposium 39. Elsevier, Amsterdam, 327-340 (1976). (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 of 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 (85 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 $(\times, \bigcirc, \bullet, \square, \square, \triangle, \triangle, \bullet)$. 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.

Reprints and page charges. An order form for reprints as well as information on the estimation of page charges will be mailed with galley proof. Please direct questions on reprints, page charges, or other business matters to Kay Croker, Executive Officer, American Society for Pharmacology and Experimental Therapeutics, 9650 Rockville Pike, Bethesda, Md. 20814. Telephone (301)530-7060.