

CONTENTS OF VOLUME 14

NUMBER 1, JANUARY 1978

TO GEORGE I. DRUMMOND: AN APPRECIATION	1
ALAIN ENJALBERT, SYLVIE BOURGOIN, MICHEL HAMON, JOËLLE ADRIEN, AND JOËL BOCKAERT. Postsynaptic Serotonin-Sensitive Adenylate Cyclase in the Central Nervous System. I. Development and Distribution of Serotonin and Dopamine-Sensitive Adenylate Cyclases in Rat and Guinea Pig Brain	2
ALAIN ENJALBERT, MICHEL HAMON, SYLVIE BOURGOIN, AND JOËL BOCK- AERT. Postsynaptic Serotonin-Sensitive Adenylate Cyclase in the Central Nervous System. II. Comparison with Dopamine- and Isoproterenol-Sensitive Adenylate Cyclases in Rat Brain	11
MARIE-FRANÇOISE VESIN, LIEN DO KHAC, AND SIMONE HARBON. Modulation of Intracellular Adenosine Cyclic 3',5'-Monophosphate and Contractility of Rat Uterus by Prostaglandins and Polyunsaturated Fatty Acids	24
DAVID A. GREENBERG AND SOLOMON H. SNYDER. Pharmacological Properties of [³ H]Dihydroergokryptine Binding Sites Associated with <i>Alpha</i> Noradrenergic Receptors in Rat Brain Membranes	38
GILLES M. B. FILLION, JEAN-CLAUDE ROUSSELLE, MARIE-PAULE FILLION, DOMI- NIQUE M. BEAUDOIN, MICHEL R. GOINY, JEAN-MICHEL DENIAU, AND JOSEPH J. JACOB. High-Affinity Binding of [³ H]5-Hydroxytryptamine to Brain Syn- aptosomal Membranes: Comparison with [³ H]Lysergic Acid Diethylamide Binding	50
T. W. MITTAG, A. TORMAY, AND T. MASSA. Heterogeneity of Acetylcholine Re- ceptors in Denervated Muscle: Interactions of Receptors with Immunoglobulin from Patients with Myasthenia Gravis	60
RABI SIMANTOV, STEVEN R. CHILDERS, AND SOLOMON H. SNYDER. [³ H]Opiate Binding: Anomalous Properties in Kidney and Liver Membranes	69
ROBERT E. HRUSKA, ANTE PADJEN, RUBIN BRESSLER, AND HENRY I. YAMA- MURA. Taurine: Sodium-Dependent, High-Affinity Transport into Rat Brain Synaptosomes	77
THOMAS HONEYMAN, PHILIP MERRIAM, AND FREDERIC S. FAY. The Effects of Isoproterenol on Adenosine Cyclic 3',5'-Monophosphate and Contractility in Isolated Smooth Muscle Cells	86
MICHEL HAMON, SYLVIE BOURGOIN, F. HÉRY, AND G. SIMONNET. Activation of Tryptophan Hydroxylase by Adenosine Triphosphate, Magnesium, and Cal- cium	99
D. L. GARRISON, E. X. ALBUQUERQUE, J. E. WARNICK, J. W. DALY, AND B. WITKOP. Antagonism of Carbamylcholine-Induced Depolarization by Ba- trachotoxin and Veratridine	111
VIRENDRA K. SHARMA AND SHAILESH P. BANERJEE. Specific [³ H]Ouabain Binding to Rat Heart and Skeletal Muscle: Effects of Thyroidectomy	122
EFRAÍN TORO-GOYCO, M. B. RODRÍGUEZ, AND A. M. PRESTON. On the Action of Δ^9 -Tetrahydrocannabinol as an Inhibitor of Sodium- and Potassium-Dependent Adenosine Triphosphatase	130
MASARU KUREBE. Interaction of Dibucaine and Calcium Ion on a Calcium Pump Reconstituted from Defined Components of Intestinal Brush Border	138
RUTH E. BILLINGS AND ROBERT E. MCMAHON. Microsomal Biphenyl Hydroxyl- ation: the Formation of 3-Hydroxybiphenyl and Biphenyl Catechol	145
PETER KÖHLER AND ROLAND BACHMANN. The Effects of the Antiparasitic Drugs Levamisole, Thiabendazole, Praziquantel, and Chloroquine on Mitochondrial Electron Transport of Muscle Tissue from <i>Ascaris suum</i>	155
JEROME A. ROTH. Inhibition of Human Brain Type B Monoamine Oxidase by Tricyclic Psychoactive Drugs	164
EVA KIRSTEN, MANOHAR L. SHARMA, AND ERNEST KUN. Molecular Toxicology of (-)- <i>erythro</i> -Fluorocitrate: Selective Inhibition of Citrate Transport in Mito- chondria and the Binding of Fluorocitrate to Mitochondrial Proteins	172
ROBERT A. NEWMAN AND KENNETH R. CUTRONEO. Glucocorticoids Selectively Decrease the Synthesis of Hydroxylated Collagen Peptides	185

This One



SHWU-TEN-FNY5

PAUL P. TROTTA, MARY P. AHLAND, GEORGE F. BROWN, AND M. EARL BALIS. Studies on the Effects of Infusion of Enzyme Inhibitors on Mouse Adenosine Deaminase	199
D. S. ROSENBLATT, V. M. WHITEHEAD, M. M. DUPONT, M.-J. VUCHICH, AND N. VERA. Synthesis of Methotrexate Polyglutamates in Cultured Human Cells	210

SHORT COMMUNICATIONS

ELEANOR ROGAN AND ERCOLE CAVALIERI. Differences between Nuclear and Microsomal Cytochrome P-450 in Uninduced and Induced Rat Liver	215
ELENA BUSSOLATI, RENATA BIDOGLIA, AND NICA BORGESSE. The Inhibitory Effect of Aurintricarboxylic Acid on the Attachment of Ribosomes to Microsomal Membranes <i>in Vitro</i>	220
ERRATUM	225
ANNOUNCEMENT	226

NUMBER 2, MARCH 1978

MARGUERITE LUCAS, JACQUES HANOUNE, AND JOËL BOCKAERT. Chemical Modification of the <i>Beta</i> Adrenergic Receptors Coupled with Adenylate Cyclase by Disulfide Bridge-Reducing Agents	227
EVA H. HU AND J. CRAIG VENTER. Adenosine Cyclic 3',5'-Monophosphate Concentrations during the Positive Inotropic Response of Cat Cardiac Muscle to Polymeric Immobilized Isoproterenol	237
MICHAEL R. HANLEY AND L. L. IVERSEN. Muscarinic Cholinergic Receptors in Rat Corpus Striatum and Regulation of Guanosine Cyclic 3',5'-Monophosphate	246
HANNS MÖHLER AND TOSHIKAZU OKADA. Properties of γ -Aminobutyric Acid Receptor Binding with (+)-[³ H]Bicuculline Methiodide in Rat Cerebellum	256
MICHAEL A. GORDON, DONALD E. CARPENTER, AND IRWIN B. WILSON. The Turnover Numbers of Acetylcholinesterase Forms	266
VITOLIS E. VENGRIS, PAULA M. PITHA, LYLE L. SENSENBRENNER, AND JOSEF PITHA. Polymeric Drugs: Direct Compared with Indirect Inhibition of Leukemia Virus Replication in Mice	271
DAN B. DAHLE, T. D. GRIFFITHS, AND J. G. CARPENTER. Inhibition of Deoxyribonucleic Acid Synthesis and Replicon Elongation in Mammalian Cells Exposed to Methyl Methanesulfonate	278
S. T. CROOKE, V. H. DUVERNAY, L. GALVAN, AND A. W. PRESTAYKO. Structure-Activity Relationships of Anthracyclines Relative to Effects on Macromolecular Syntheses	290
HORTENCIA ROSEMOND-HORNBECK AND M. G. NAIR. Transport and Inhibitory Activity of New Folate Analogues in HeLa Cells	299
OLAVI PELKONAN, ALAN R. BOOBIS, HARUHIKO YAGI, DONALD M. JERINA, AND DANIEL W. NEBERT. Tentative Identification of Benzo[<i>a</i>]pyrene Metabolite-Nucleoside Complexes Produced <i>in Vitro</i> by Mouse Liver Microsomes	306
ALEXANDER MILLER, III, MARILYN C. HENDERSON, AND DONALD R. BUHLER. Cytochrome P-450-Mediated Covalent Binding of Hexachlorophene to Rat Tissue Proteins	323
HERMAN MEISNER AND KENNETH NEET. Competitive Binding of Long-Chain Free Fatty Acids, Octanoate, and Chlorophenoxyisobutyrate to Albumin	337
W. D. LUST, H. J. KUPFERBERG, W. D. YONEKAWA, J. K. PENRY, J. V. PASSONNEAU, AND A. B. WHEATON. Changes in Brain Metabolites Induced by Convulsants or Electroshock: Effects of Anticonvulsant Agents	347
PAULA H. STERN, EARL M. NESS, AND HECTOR F. DELUCA. Responses of Fetal Rat Bones to <i>Solanum malacoxylon in Vitro</i> : a Possible Explanation of Previous Paradoxical Results	357

SHORT COMMUNICATIONS

ROBERT A. LIPPER, SUSAN M. MACHKOVECH, JOHN C. DRACH, AND WILLIAM I. HIGUCHI. Inhibition of Drug Metabolism by a Prodrug: 9- β -D-Arabinofuranosyladenine 5'-Valerate as an Inhibitor of Adenosine Deaminase	366
--	-----

LINDA JOY PIKE AND ROBERT J. LEFKOWITZ. Agonist-Specific Alterations in Receptor Binding Affinity Associated with Solubilization of Turkey Erythrocyte Membrane <i>Beta</i> Adrenergic Receptors	370
ROBERT J. LEFKOWITZ, DEBRA MULLIKIN, AND LEWIS T. WILLIAMS. A Desensitized State of the <i>Beta</i> Adrenergic Receptor Not Associated with High-Affinity Agonist Occupancy	376

NUMBER 3, MAY 1978

RICHARD W. OLSEN, MAHARAJ K. TICKU, AND THOMAS MILLER. Dihydropicrotoxinin Binding to Crayfish Muscle Sites Possibly Related to γ -Aminobutyric Acid Receptor-Ionophores	381
MAHARAJ K. TICKU, MATT BAN, AND RICHARD W. OLSEN. Binding of [3 H] α -Dihydropicrotoxinin, a γ -Aminobutyric Acid Synaptic Antagonist, to Rat Brain Membranes	391
STEPHEN J. PEROUTKA, DAVID A. GREENBERG, DAVID C. U'PRICHARD, AND SOLOMON H. SNYDER. Regional Variations in <i>Alpha</i> Adrenergic Receptor Interactions of [3 H]Dihydroergokryptine in Calf Brain: Implications for a Two-Site Model of <i>Alpha</i> Receptor Function	403
LOUISE E. LEDUC, GARLAND R. MARSHALL, AND PHILIP NEEDLEMAN. Differentiation of Bradykinin Receptors and of Kininases with Conformational Analogues of Bradykinin	413
ERIK DE CLERCQ, JOHAN DESCAMPS, GUANG-FU HUANG, AND PAUL F. TORRENCE. 5-Nitro-2'-deoxyuridine and 5-Nitro-2'-deoxyuridine 5'-Monophosphate: Antiviral Activity and Inhibition of Thymidylate Synthetase <i>in Vivo</i>	422
CRAIG V. BYUS, GARY R. KLIMPEL, DAVID O. LUCAS, AND DIANE HADDOCK RUSSELL. Ornithine Decarboxylase Induction in Mitogen-Stimulated Lymphocytes is Related to the Specific Activation of Type I Adenosine Cyclic 3',5'-Monophosphate-Dependent Protein Kinase	431
B. I. SAHAI SRIVASTAVA, RICHARD A. DICIOCCIO, K. L. RINEHART, JR., AND L. H. LI. Preferential Inhibition of Terminal Deoxynucleotidyltransferase Activity among Deoxyribonucleic Acid Polymerase Activities of Leukemic and Normal Cells by Geldanamycin, Streptoal C, Streptovarone, and Dapmavarone	442
REIKO NATSUKI, ROBERT HITZEMANN, AND HORACE LOH. Effects of Morphine on the Incorporation of [14 C]Serine into Phospholipid via the Base-Exchange Reaction	448
JEROME S. PUSKIN AND THEA MARTIN. Effects of Anesthetics on Divalent Cation Binding and Fluidity of Phosphatidylserine Vesicles	454
C. J. MASTRANGELO, J. R. TRUDELL, H. N. EDMUNDS, AND E. N. COHEN. Effect of Clinical Concentrations of Halothane on Phospholipid-Cholesterol Membrane Fluidity	463
R. C. BHALLA, R. C. WEBB, D. SINGH, T. ASHLEY, AND T. BROCK. Calcium Fluxes, Calcium Binding, and Adenosine Cyclic 3',5'-Monophosphate-Dependent Protein Kinase Activity in the Aorta of Spontaneously Hypertensive and Kyoto Wistar Normotensive Rats	468
ROLAND D. CIARANELLO. Regulation of Phenylethanolamine <i>N</i> -Methyltransferase Synthesis and Degradation. I. Regulation by Rat Adrenal Glucocorticoids	478
ROLAND D. CIARANELLO, DONA L. WONG, AND DAVID M. BERENBEIM. Regulation of Phenylethanolamine <i>N</i> -Methyltransferase Synthesis and Degradation. II. Control of the Thermal Stability of the Enzyme by an Endogenous Stabilizing Factor	490
D. R. THAKKER, H. YAGI, R. E. LEHR, W. LEVIN, M. BUENING, A. Y. H. LU, R. L. CHANG, A. W. WOOD, A. H. CONNEY, AND D. M. JERINA. Metabolism of <i>trans</i> -9,10-Dihydroxy-9,10-dihydrobenzo[<i>a</i>]pyrene Occurs Primarily by Arylhydroxylation Rather than Formation of a Diol Epoxide	502
M. ADLER, E. X. ALBUQUERQUE, AND F. J. LEBEDA. Kinetic Analysis of End Plate Currents Altered by Atropine and Scopolamine	514

NUMBER 4, JULY 1978

ALLYN C. HOWLETT, PAMELA M. VAN ARSDALE, AND ALFRED G. GILMAN. Efficiency of Coupling between the <i>Beta</i> Adrenergic Receptor and Adenylate Cyclase	531
---	-----

BIE SHUNG TSAI AND ROBERT J. LEFKOWITZ. Agonist-Specific Effects of Monovalent and Divalent Cations on Adenylate Cyclase-Coupled <i>Alpha</i> Adrenergic Receptors in Rabbit Platelets	540
PAUL A. INSEL AND LLOYD M. STOOLMAN. Radioligand Binding to <i>Beta</i> Adrenergic Receptors of Intact Cultured S49 Cells	549
J. CRAIG VENTER. Cardiac Sites of Catecholamine Action: Diffusion Models for Soluble and Immobilized Catecholamine Action on Isolated Cat Papillary Muscles	562
ROBERTS S. ARONSTAM, LEO G. ABOOD, AND WAYNE HOSS. Influence of Sulfhydryl Reagents and Heavy Metals on the Functional State of the Muscarinic Acetylcholine Receptor in Rat Brain	575
VINA SPIEHLER, ALAN S. FAIRHURST, AND LOWELL O. RANDALL. The Interaction of Phenoxybenzamine with the Mouse Brain Opiate Receptor	587
TOMAS DE PAULIS, DIANA KELDER, AND SVANTE B. ROSS. On the Topology of the Norepinephrine Transport Carrier in Rat Hypothalamus. The Site of Action of Tricyclic Uptake Inhibitors	596
T. P. KENAKIN AND J. W. BLACK. The Pharmacological Classification of Practolol and Chloropractolol	607
ATSUNOBU YODA AND SHIZUKO YODA. Influence of pH on the Interaction of Cardiotonic Steroids with Sodium- and Potassium-Dependent Adenosine Triphosphatase	624
DOYLE G. GRAHAM. Oxidative Pathways for Catecholamines in the Genesis of Neuromelanin and Cytotoxic Quinones	633
DOYLE G. GRAHAM, SYLVIA M. TIFFANY, WILLIAM R. BELL, JR., AND WILLIAM F. GUTKNECHT. Autoxidation versus Covalent Binding of Quinones as the Mechanism of Toxicity of Dopamine, 6-Hydroxydopamine, and Related Compounds toward C1300 Neuroblastoma Cells <i>in Vitro</i>	644
RYUICHI KATO, KAZUhide IWASAKI, AND HIDEYO NOGUCHI. Reduction of Tertiary Amine <i>N</i> -Oxides by Cytochrome P-450. Mechanism of the Stimulatory Effect of Flavins and Methyl Viologen	654
RONALD P. MASON, FRANCIS J. PETERSON, AND JORDAN L. HOLTZMAN. Inhibition of Azoreductase by Oxygen. The Role of the Azo Anion Free Radical Metabolite in the Reduction of Oxygen to Superoxide	665
KENNETH W. RENTON, LAUREL B. DELORIA, AND GILBERT J. MANNERING. Effects of Polyribonucleosinic acid-polyribocytidylic acid and a Mouse Interferon Preparation on Cytochrome P-450-Dependent Monooxygenase Systems in Cultures of Primary Mouse Hepatocytes	672
HERMAN A. J. SCHUT, PETER J. WIRTH, AND SNORRI S. THORGEIRSSON. Mutagenic Activation of <i>N</i> -Hydroxy-2-acetylaminofluorene in the <i>Salmonella</i> Test System: the Role of Deacetylation by Liver and Kidney Fractions from Mouse and Rat	682
MARIO BRUFANI, LUCIANO CELLAI, SILVIO CERRINI, WALTER FEDELI, AND ALESSANDRO VACIAGO. Structure-Activity Relationships in the Ansamycins: the Crystal Structure of Tolypomycinone	693
AMRAN SAMUNI AND AMATZYA Y. MEYER. Conformation Patterns in Penicillins and the Penicillin-Penicillinase Interaction	704
DEMETRIUS TSERNOGLOU, GREGORY A. PETSKO, AND RICHARD A. HUDSON. Structure and Function of Snake Venom Curarimimetic Neurotoxins	710

SHORT COMMUNICATION

PETER W. F. FISCHER, JANET K. STEPHENS, AND G. S. MARKS. Effect of Varying the Insulin Glucagon Ratio on Porphyrin Biosynthesis in Chick Embryo Liver Cells	717
ANNOUNCEMENT	722

NUMBER 5, SEPTEMBER 1978

N. J. M. BIRDSALL, A. S. V. BURGEN, AND E. C. HULME. The Binding of Agonists to Brain Muscarinic Receptors	723
E. C. HULME, N. J. M. BIRDSALL, A. S. V. BURGEN, AND P. MEHTA. The Binding of Antagonists to Brain Muscarinic Receptors	737

WOLFGANG BURGERMEISTER, WILLIAM L. KLEIN, MARSHALL NIRENBERG, AND BERNHARD WITKOP. Comparative Binding Studies with Cholinergic Ligands and Histriocotoxin at Muscarinic Receptors of Neural Cell Lines	751
GREGORY J. WASTEK AND HENRY I. YAMAMURA. Biochemical Characterization of the Muscarinic Cholinergic Receptor in Human Brain: Alterations in Huntington's Disease	768
S. CHERKEZ, H. YELLIN, Y. KASHMAN, B. YAAVETZ, AND M. SOKOLOVSKY. Structure-Activity Relationship in a New Series of Atropine Analogs. II. The Effect of an Asymmetric N-Substituent on the Antimuscarinic Activity	781
MING-CHENG TSAI, NABIL A. MANSOUR, AMIRA T. ELDEFRAWI, MOHYEE E. ELDEFRAWI, AND EDSON X. ALBUQUERQUE. Mechanism of Action of Amantadine on Neuromuscular Transmission	787
JOHN K. NORTHUP AND TAG E. MANSOUR. Adenylate Cyclase from <i>Fasciola hepatica</i> . 1. Ligand Specificity of Adenylate Cyclase-Coupled Serotonin Receptors	804
JOHN K. NORTHUP AND TAG E. MANSOUR. Adenylate Cyclase from <i>Fasciola hepatica</i> . 2. Role of Guanine Nucleotides in Coupling Adenylate Cyclase and Serotonin Receptors	820
HANSUELI SCHMASSMANN AND FRANZ OESCH. Trans-stilbene Oxide: A Selective Inducer of Rat Liver Epoxide Hydratase	834
HÅKAN BERGSTRAND, BRITTA LUNDQUIST, AND ANNIKA SCHURMANN. Rat Mast Cell High Affinity Cyclic Nucleotide Phosphodiesterases: Separation and Inhibitory Effects of Two Antiallergic Agents	848
PETER C. WILL AND WILLIAM D. NOTEBOOM. Methadone Uptake by L5178Y Mouse Leukemic Cells	856
THEODORE A. SLOTKIN, FREDERIC J. SEIDLER, WILLIAM L. WHITMORE, MARIA SALVAGGIO, AND CHRISTOPHER LAU. Ionic and Nucleotide Cofactor Requirements for Uptake of [³ H]Norepinephrine by Rat Brain Synaptic Vesicle Preparations	868
I. BIHLER AND P. C. SAWH. Effects of Benzodiazepines on the Transport of Sugars and Ions in Rat Skeletal Muscle <i>in Vitro</i>	879
LAMBERT H. M. JANSSEN AND MARIANNE T. VAN WILGENBURG. Experimental Observation of Ionic Forces in Drug-Protein Interactions as Illustrated by the Binding of Sulfaethidole by Human Serum Albumin	884
KIRK T. KITCHIN AND JAMES S. WOODS. 2,3,7,8-Tetrachlorodibenzo- <i>p</i> -Dioxin Induction of Aryl Hydrocarbon Hydroxylase in Female Rat Liver. Evidence for <i>De Novo</i> Synthesis of Cytochrome P-448	890
JAMES S. WOODS. Alterations in Hepatic Heme Biosynthetic Capability and Mixed Function Oxidase Activity during Ethionine Exposure in Rats	900
F. PROVERBIO AND F. A. RAWLINS. Increment in Sodium and Potassium Dependent Adenosine Triphosphatase of Brain Microsomal Fraction from Rats Treated with the Cholesterol Biosynthesis Inhibitor AY 9944	911
ANDERS TUNEK, KARL L. PLATT, PHILIP BENTLEY, AND FRANZ OESCH. Microsomal Metabolism of Benzene to Species Irreversibly Binding to Microsomal Protein and Effects of Modifications of This Metabolism	920
LEWIS R. MANDEL, JOSHUA ROKACH, C. STANLEY ROONEY, AND EDWARD J. CRAGOE, JR. Inhibition of Dimethyltryptamine Biosynthesis by N,N'-Bis-(3-methyl-2-thiazolidinylidene)Succinamide (I) and 2-Imino-3-Methylthiazolidine (II)	930
IRENE B. GLOWINSKI, HAROLD E. RADTKE, AND WENDELL W. WEBER. Genetic Variation in N-Acetylation of Carcinogenic Arylamines by Human and Rabbit Liver	940
KEITH W. MILLER, MICHAEL W. WILSON, AND RAYMOND A. SMITH. Pressure Resolves Two Sites of Action of Inert Gases	950
ANNOUNCEMENT	960

NUMBER 6, NOVEMBER 1978

ANNOUNCEMENT	iii
KWEN-JEN CHANG, RICHARD J. MILLER, AND PEDRO CUATRECASAS. Interaction of Enkephalin with Opiate Receptors in Intact Cultured Cells	961
J. M. Palacios, M. Garbarg, G. Barbin, and J. C. Schwartz. Pharmacological	

Characterization of Histamine Receptors Mediating the Stimulation of Cyclic AMP Accumulation in Slices from Guinea-Pig Hippocampus	971
D. L. NELSON, A. HERBET, S. BOURGOIN, J. GLOWINSKI, AND M. HAMON. Characteristics of Central 5-HT Receptors and Their Adaptive Changes following Intracerebral 5,7-Dihydroxytryptamine Administration in the Rat	983
E. L. RUGG, D. B. BARNETT, AND S. R. NAHORSKI. Coexistence of β_1 and β_2 Adrenoceptors in Mammalian Lung: Evidence from Direct Binding Studies	996
DANIEL BUTLEN, GILLES GUILLON, RABARY M. RAJERISON, SERGE JARD, WILBUR H. SAWYER, AND MAURICE MANNING. Structural Requirements for Activation of Vasopressin-sensitive Adenylate Cyclase, Hormone Binding, and Antidiuretic Actions: Effects of Highly Potent Analogues and Competitive Inhibitors	1006
YORAM ORON, JOAN KELLOGG, AND JOSEPH LARNER. α Adrenergic and Cholinergic-Muscarinic Regulation of Adenosine Cyclic 3',5'-Monophosphate Levels in the Rat Parotid	1018
JEFFREY F. HARPER AND GARY BROOKER. Amylase Secretion from the Rat Parotid: Refractoriness to Muscarinic and Adrenergic Agonists	1031
JAMES W. PUTNEY, JR., CYNTHIA M. VANDEWALLE, AND BARBARA A. LESLIE. Receptor Control of Calcium Influx in Parotid Acinar Cells	1046
J. M. SAEZ, F. HAOUR, G. P. E. TELL, D. GALLET, AND P. SANCHEZ. Human Chorionic Gonadotropin-Induced Leydig Cell Refractoriness to Gonadotropin Stimulation	1054
COLIN DUNCAN AND KENNETH J. BROADLEY. Correlation between cAMP Production in Guinea-Pig Left and Right Atria and Their Inotropic and Chronotropic Responses to Orciprenaline at Different Temperatures	1063
KARL H. JAKOBS, WILHELM SAUR, AND GÜNTER SCHULTZ. Metal and Metal-ATP Interactions with Human Platelet Adenylate Cyclase: Effects of α Adrenergic Inhibition	1073
JOHN C. LAWRENCE, JR., AND JOSEPH LARNER. Effects of Insulin, Methoxamine, and Calcium on Glycogen Synthase in Rat Adipocytes	1079
BARBARA B. KITCHELL, ELMER J. RAUCKMAN, AND GERALD M. ROSEN. The Effect of Temperature on Mixed Function Amine Oxidase Intrinsic Fluorescence and Oxidative Activity	1092
J. JÄRVISALO, A. H. GIBBS, AND F. DE MATTEIS. Accelerated Conversion of Heme to Bile Pigments Caused in the Liver by Carbon Disulfide and Other Sulfur-containing Chemicals.	1099
W. LEVIN, P. E. THOMAS, D. KORZENIOWSKI, H. SEIFRIED, D. M. JERINA, AND A. Y. H. LU. Liver Microsomal Epoxide Hydrase: Activation, Inhibition, and Immunological Properties of the Purified Enzyme	1107
DAVID KESSEL AND R. STANLEY MCELHINNEY. Effect of Dithiocarbamates on Some Biological and Biophysical Properties of Leukemia L1210 Cell Membranes	1121
MICHEL LEGRAVEREND AND ROBERT I. GLAZER. Inhibition of the Phosphorylation of Nonhistone Chromosomal Proteins by Cordycepin and Xylosyladenine in L1210 Cells <i>in Vitro</i>	1130
DAVID T. VISTICA, JANE N. TOAL, AND MARCO RABINOVITZ. Amino Acid Conferred Protection against Melphalan: Interference with Leucine Protection of Melphalan Cytotoxicity by the Basic Amino Acids in Cultured Murine L1210 Leukemia Cells	1136
D. S. ROSENBLATT, V. M. WHITEHEAD, N. VERA, A. POTTIER, M. DUPONT, AND M.-J. VUCHICH. Prolonged Inhibition of DNA Synthesis Associated with the Accumulation of Methotrexate Polyglutamates by Cultured Human Cells	1143
ERICH WEISS AND PETER C. HEINRICH. The Effect of Inhibitors of Transcription and Translation on Chromosomal Proteins	1148
EDWARD A. SAUSVILLE AND SUSAN B. HORWITZ. Inhibition of SV40 DNA Synthesis by Camptothecin and Neocarzinostatin	1156
BRIAN McNELIS AND KENNETH R. CUTRONEO. A Selective Decrease of Collagen Peptide Synthesis by Dermal Polysomes Isolated from Glucocorticoid-Treated Newborn Rats	1167
JULIE L. EISEMAN AND ALVITO P. ALVARES. Alterations Induced in Heme Pathway Enzymes and Monooxygenases by Gold	1176
RYAN HUXTABLE, DAVID CIARAMITARO, AND DOUGLAS EISENSTEIN. The Effect of a Pytrolizidine Alkaloid, Monocrotaline, and a Pyrrole, Dehydroretronecine, on the Biochemical Functions of the Pulmonary Endothelium	1189

VIRENDRA K. SHARMA AND SHAILESH P. BANERJEE. Denervation of Cat Fast- and Slow-Skeletal Muscles: Effect on Ouabain Binding	1204
P. MICHAEL IUVONE, C. L. GALLI, AND N. H. NEFF. Retinal Tyrosine Hydroxylase: Comparison of Short-term and Long-term Stimulation by Light	1212
AUTHOR INDEX FOR VOLUME 14	1220
SUBJECT INDEX FOR VOLUME 14	1229