CONTENTS

SHORT COMMUNICATIONS

MICHIHISA MIYAKE AND SHOJI SHIBATA. A Novel Mode of Neurotoxin Action: A Polypeptide Toxin Isolated from Anemonia sulcata Shifts the Voltage Dependence of the Maximal Rate of Rise of Na+ Action Potentials in a Mouse Neuronal Clone 453

MARGARET A. CASCIERI, MARVIN M. GOLDBERG, AND TEHMING LIANG. Biological Activity of Substance P Methyl Ester 457

PAULA H. STERN, YOKO TANAKA, HECTOR F. DELUCA, NOBUO IKEKAWA, AND YOSHIRO KOBAYASHI. Bone Resorptive Activity of Side-Chain Fluoro Derivatives of 25-Hydroxy- and 1α,25-Dihydroxyvitamin D3 in Culture 460

VINCENT HOMBURGER, MARGUERITE LUCAS, ETELKA ROSENBAUM, GÉRARD VASSENT, AND JOËL BOCKAERT. Presence of Both Beta1- and Beta2-Adrenergic Receptors in a Single Cell Type 463/

TOMMASO COSTA, LAURA RUSSELL, CANDACE B. PERT, AND DAVID RODBARD. Halide- and γ-Aminobutyric Acid-Induced Enhancement of Diazepam Receptors in Rat Brain: Reversal by Disulfonic Stilbene Blockers of Anion Channels 470


MARIE-CLAUDE FOURNIE-ZALUSKI, GILLES GACEL, BERNARD MAIGRET, SAMUEL PREMLAT, AND BERNARD P. ROQUES. Structural Requirements for Specific Recognition of μ or δ Opiate Receptors 484

ANWAR-SAAD A. ABD-ELFATTAH AND ADIL E. SHAMOO. Regeneration of a Functionally Active Rat Brain Muscarinic Receptor by d-Penicillamine after Inhibition with Methylmercury and Mercuric Chloride: Evidence for Essential Sulphydryl Groups in Muscarinic Receptor Binding Sites 492

ANTHONY P. YOUNG AND DAVID S. SIGMAN. Allosteric Effects of Volatile Anesthetics on the Membrane-Bound Acetylcholine Receptor Protein. I. Stabilization of the High-Affinity State 498

ANTHONY P. YOUNG, JANIS R. OSHIKI, AND DAVID S. SIGMAN. Allosteric Effects of Volatile Anesthetics on the Membrane-Bound Acetylcholine Receptor Protein. II. Alteration of α-Bungarotoxin Binding Kinetics 506

N. SHAKER, A. T. ELDEFRAWI, E. R. MILLER, AND M. E. ELDEFRAWI. Interaction of Tricyclic Antidepressants with the Ionic Channel of the Acetylcholine Receptor of Torpedo Electric Organ 511

ESAM EL-Fakahany AND ELLIOTT RICHELSON. Phenoxybenzamine and Dibenamine Interactions with Calcium Channel Efferents of the Muscarinic Receptor 519

WILLIAM A. CATTERALL AND JEFFREY COPPERSMITH. High-Affinity Saxitoxin Receptor Sites in the Vertebrate Heart: Evidence for Sites Associated with Autonomic Nerve Endings 526

WILLIAM A. CATTERALL AND JEFFREY COPPERSMITH. Pharmacological Properties of Sodium Channels in Cultured Rat Heart Cells 533

KLUS TURNHEIM, ANTON LUGER, AND MARKUS GRASL. Kinetic Analysis of the Amiloride-Sodium Entry Site Interaction in Rabbit Colon 543

MARTIN WEHLING, ARNOLD SCHWARTZ, KYRA WHITMER, GUNTER GRUPP, INGRID GRUPP, AND EARL T. WALLICK. Interaction of Chlormadinone with the Ouabain Binding Site of Na+,K+-ATPase 551

(continued)
CONTENTS (cont'd)


RONALD L. GOLDBERG, TOMMASO COSTA, WILLIAM H. HABIG, LEONARD D. KOHN, AND M. CAROLYN HARDEGREE. Characterization of Fragment C and Tetanus Toxin Binding to Rat Brain Membranes ................................................. 565

HIROYOSHI HIDAKA, MASAHISA ASANO, AND TOSHI0 TANAKA. Activity-Structure Relationship of Calmodulin Antagonists: Naphthalenesulfonamide Derivatives .................................................. 571

H. HAMBOECK, R. W. FISCHER, E. E. DI IORIO, AND K. H. WINTERHALTER. The Binding of s-Triazine Metabolites to Rodent Hemoglobin Appears Irrelevant to Other Species 579

JAMES G. KENIMER AND MARSHALL NIRENBERG. Desensitization of Adenylate Cyclase to Prostaglandin E1 or 2-Chloroadenosine 585

SAM WEISS AND GEORGE I. DRUMMOND. Dopamine- and Serotonin-Sensitive Adenylate Cyclase in the Gill of Aplysia californica .............. 592

JEAN-PIERRE HENICHART, RAYMOND HOUSSIN, CAROLE GORS, AND FRANÇOIS BAERT. Conformational Analysis of a New Analgesic Triazolinethione: Structural Comparisons with Antipyrine .................................................. 598

LIBBY M. YUNGER AND RICHARD D. CRAMER, III. Measurement and Correlation of Partition Coefficients of Polar Amino Acids ................. 602

S. HANDWERGER, J. BARRETT, S. BARRY, E. MARKOFF, P. ZEITLER, B. CWIKEL, AND M. SIEGEL. Stimulation of Human Placental Lactogen Release by Arachidonic Acid .............. 609

STEVEN J. WHITE AND ROBERT S. JACOBS. Inhibition of Cell Division and of Microtubule Assembly by Elatone, a Halogenated Sesquiterpene ...................... 614

VALENTINE DURUIDE AND GOPI A. TEJWANI. The Effect of Ethanol on the Activities of the Key Gluconeogenic and Glycolytic Enzymes of Rat Liver .................................................. 621

JON-SVERRE SCHANCHE, TONE SCHANCHE, AND PER MAGNE UELAND. Inhibition of Phospholipid Methyltransferase(s) from Rat Liver Plasma Membranes by Analogues of S-Adenosylhomocysteine .................................................. 631

MICHAEL HAMRELL, JOHN LASZLO, OLIVER E. BROWN, AND W. DAVID SEDWICK. Toxicity of Methotrexate and Metoprine in a Dihydrofolate Reductase Gene-Amplified Mouse Cell Line .................................................. 637

HSIN-LI LIN AND ROBERT I. GLAZER. The Comparative Effects of 5-Azacytidine and Dihydro-5-azacytidine on Polysomal RNA in Ehrlich Ascites Cells in Vitro ...................... 644

ZONG-RU GUO, STEPHEN W. DIETRICH, CORWIN HANSCH, BRUCE J. DOLNICK, AND JOSEPH R. BERTINO. A Comparison of the Inhibition of Bovine and Murine Leukemia Dihydrofolate Reductase by 4,6-Diamino-1,2-dihydro-2,2-dimethyl-1-(3-X-phenyl)-s-Triazines .................................................. 649

ROBERT I. GLAZER AND KATHLEEN D. HARTMAN. Cytokinetic and Biochemical Effects of Sangivamycin in Human Colon Carcinoma Cells in Culture ...................... 657

IAIN G. C. ROBERTSON, RICHARD M. PHILPOT, ERROL ZEIGER, AND C. ROLAND WOLF. Specificity of Rabbit Pulmonary Cytochrome P-450 Isozymes in the Activation of Several Aromatic Amines and Aflatoxin B1 .................................................. 662

(continued)
CONTENTS (cont'd)

JORDAN L. HOLTZMAN, DUANE L. CRANKSHAW, FRANCIS J. PETERSON, AND CARL F. POLNASZEK. The Kinetics of the Aerobic Reduction of Nitrofurantoin by NADPH-Cytochrome P-450 (c) Reductase .................................................. 669

DAVID CHOU, CARL F. POLNASZEK, YUL YOST, ILO E. LEPPIK, AND JORDAN L. HOLTZMAN. Application of Spin Labeling to Drug Assays. II. Determination of the Binding of [14C]Phenytoin and Spin-Labeled Phenytoins to Albumin and Human Serum ................................................................. 674

GURMIT SINGH AND KENNETH W. RENTON. Interferon-Mediated Depression of Cytochrome P-450-Dependent Drug Biotransformation ................................................................. 681

DAVID E. MOODY, JACQUELINE L. JAMES, GARY A. CLAWSON, AND EDWARD A. SMUCKLER. Correlations among the Changes in Hepatic Microsomal Components after Intoxication with Alkyl Halides and Other Hepatotoxins .................................................. 685

THOMAS H. HUDSON AND GARY L. JOHNSON. Functional Alterations in Components of Pigeon Erythrocyte Adenylate Cyclase following Desensitization to Isoproterenol .................................................. 694

YASUNORI KANAH, TAKASHI SATO, AND TATSUZO FUJII. The Affinity of Various Phenothiazine Drugs for Membranes of Intact Human Erythrocytes and Their Membrane-Transforming Activity .................................................. 704

THOMAS T. KAWABATA, F. PETER GUENGERICH, AND JEFFREY BARON. An Immunohistochemical Study on the Localization and Distribution of Epoxide Hydrolase within Livers of Untreated Rats .................................................. 709

AUTHOR INDEX FOR VOLUME 20 ................................................................. 715

CUMULATIVE SUBJECT INDEX FOR VOLUMES 19 AND 20 ................................................................. 721