CONTENTS

ACCELERATED COMMUNICATION

STANLEY A. THAYER, SHAWN N. MURPHY, AND RICHARD J. MILLER. Widespread Distribution of Dihydropyridine-Sensitive Calcium Channels in the Central Nervous System . 505

ARTICLES


MICHAEL J. OLSON, JEFFREY A. HANLLER, AND RONALD G. THURMAN. Mechanism of Zone-Specific Hepatic Steatosis Caused by Valproate: Inhibition of Ketogenesis in Periportal Regions of the Liver Lobule . 520

L. NORONHA-BLOB, V. C. LOWE, W. J. KINNIER, AND D. C. U’PRICHARD. N-Coupled Receptors in Cultured Neural Hybrid Cells: Cell Specificity for Dibutyryl Cyclic AMP-Induced Down-Regulation But Not Morphological Differentiation . 526

SYLVAIN MELOCHE, HUY ONG, MARC CANTIN, AND ANDRÉ DE LEAN. Molecular Characterization of the Solubilized Atrial Natriuretic Factor Receptor from Bovine Adrenal Zona Glomerulosa . 537


MARSHALL L. MICHENER, JAMES K. GERSE, RAMNATH SEETHARAM, KAM F. FOK, PETER O. OLINS, MARILYN S. MAI, AND PHILIP NEEDLEMAN. Proteolytic Processing of Atriopeptin Prohormone In Vivo and In Vitro . 552

J. F. PUIG AND T. R. TEPHY. Isolation and Purification of Rat Liver Morphine and UDP-Glucuronosyltransferase . 558

JOAN HELLER BROWN AND DAVID GOLDSTEIN. Differences in Muscarinic Receptor Reserve for Inhibition of Adenylate Cyclase and Stimulation of Phosphoinositide Hydrolysis in Chick Heart Cells . 566

S. KOKUBUN, B. PROD’HOM, C. BECKER, H. PORZIG, AND H. REUTER. Studies on Ca Channels in Intact Cardiac Cells: Voltage-Dependent Effects and Cooperative Interactions of Dihydropyridine Enantiomers . 571

MASUMI YAMAKAWA, KIYOSHI EZUMI, MOTO SHIRO, HIROSHI NAKAI, SUSUMU KAMATA, TAKEAKI MATSUI, AND NOBUHIRO HAGA. Relationships of the Molecular Structure of Aldosterone Derivatives with Their Binding Affinity for Mineralocorticoid Receptor . 585


JUAN CARLOS G. MARVIZÓN, MARGARITA GARCÍA CALVO, JESÚS VÁZQUEZ, FEDERICO MAYOR, JR., ANA RUIZ GÓMEZ, FERNANDO VALDIVIEZO, AND JESÚS BENAVIDES. Activation and Inhibition of 3H-Strychnine Binding to the Glycine Receptor by Eccles’ Anions: Modulatory Effects of Cations . 598

DANIEL J. KELLEHER, LECH W. DUDYCZ, GEORGE E. WRIGHT, AND GARY L. JOHNSON. Ability of Guanine Nucleotide Derivatives to Bind and Activate Bovine Transducin . 603

RAYMOND F. KAUFFMAN, V. GAIL CROWE, BARBARA G. UTTERBACK, AND DAVID W. ROBERTSON. LY195115: A Potent, Selective Inhibitor of Cyclic Nucleotide Phosphodiesterase Located in the Sarcoplasmic Reticulum . 609

Continued
CONTENTS (cont’d)

ROBERT S. SHELDON, NANCY J. CANNON, AND HENRY J. DUFF. Binding of [3H]Batrochotoxin A Benzoate to Specific Sites on Rat Cardiac Sodium Channels .......................................................... 617

LOUIS M. LUTTRELL AND ALAN D. ROGOL. Hexose-Independent Activation of Glycogen Synthase and Pyruvate Dehydrogenase by Insulin Is Dissociated in the Mouse BC3H-1 Cell Line .................................................................................. 624

JAMES G. MCCLARNON, DAVID A. SAINT, AND DAVID M. J. QUASTEL. The Actions of Dimethyl Sulfoxide on Neuromuscular Transmission ......................................................... 631

JAMES K. T. WANG, MARK D. JOHNSON, JAMES I. MORGAN, AND SYDNEY SPECTOR. Vitamin D3 Derivatives Inhibit the Differentiation of Friend Erythroleukemia Cells ................................ 639

PAUL A. ANDREWS, MICHAEL P. MURPHY, AND STEPHEN B. HOWELL. Differential Sensitization of Human Ovarian Carcinoma and Mouse L1210 Cells to Cisplatin and Melphalan by Glutathione Depletion .................................. 643

RANDALL G. RICHARDS, OLIVER E. BROWN, MAURA L. GILLISON, AND W. DAVID SEDWICK. Drug Concentration-Dependent DNA Lesions Are Induced by the Lipid-Soluble Antifolat, Piritrexim (BW301U) ........................................... 651

SIMON M. JARVIS. Nitrobenzylthioinosine-Sensitive Nucleoside Transport System: Mechanism of Inhibition by Dipyridamole ................................................................. 659

PAUL R. ORTIZ DE MONTELLANO AND LAWRENCE A. GRAB. Cooxidation of Styrene by Horseradish Peroxidase and Glutathione ......................................................... 666

GEORGE J. KONTOGHIORGHES. Orally Active α-Ketohydroxypyrindine Iron Chelators: Studies in Mice ......................................................................................... 670

D. A. EASTMOND, M. T. SMITH, L. O. RUZO, AND D. ROSS. Metabolic Activation of Phenol by Human Myeloperoxidase and Horseradish Peroxidase .......................... 674

L. L. POULSEN, KATHRYN TAYLOR, DAVID E. WILLIAMS, BETTIE SUE SILER MASTERS, AND D. M. ZIEGLER. Substrate Specificity of the Rabbit Lung Flavin-Containing Monooxygenase for Amines: Oxidation Products of Primary Alkylamines .................................................................................. 680

AUTHOR INDEX FOR VOLUME 30 ........................................................................ 686

SUBJECT INDEX FOR VOLUME 30 .................................................................... 691