

## CONTENTS

ALLEN P. MINTON. The Bivalent Ligand Hypothesis: A Quantitative Model for Hormone Action .....	1
GREGORY J. WASTEK, J. RAPHAEL LOPEZ, AND ELLIOTT RICHELSON. Demonstration of a Muscarinic Receptor-Medicated Cyclic GMP-Dependent Hyperpolarization of the Membrane Potential of Mouse Neuroblastoma Cells Using [ <sup>3</sup> H]Tetraphenylphosphonium .....	15
ELINOR H. CANTOR, LOUISE H. GREENBERG, AND BENJAMIN WEISS. Effect of Long-Term Changes in Sympathetic Nervous Activity on the <i>Beta</i> -Adrenergic Receptor-Adenylate Cyclase Complex of Rat Pineal Gland .....	21
M. J. W. BRENNAN, R. C. CANTRILL, M. OLDFIELD, AND P. KROGSGAARD-LARSEN. Inhibition of $\gamma$ -Aminobutyric Acid Release by $\gamma$ -Aminobutyric Acid Agonist Drugs: Pharmacology of the $\gamma$ -Aminobutyric Acid Receptor .....	27
RONALD P. RUBIN, LYNN E. SINK, AND RICHARD J. FREER. On the Relationship between Formylmethionyl-Leucyl-Phenylalanine Stimulation of Arachidonyl Phosphatidylinositol Turnover and Lysosomal Enzyme Secretion by Rabbit Neutrophils .....	31
ROGER BARBER AND REGINALD W. BUTCHER. The Quantitative Relationship between Intracellular Concentration and Egress of Cyclic AMP from Cultured Cells .....	38
B. H. MOON, V. S. PAI, AND E. W. MAYNERT. Ring Stacking in Solutions of Norepinephrine and the 4:1 Norepinephrine · ATP Complex .....	44
MICHAEL J. PRINGLE, KENNETH B. BROWN, AND KEITH W. MILLER. Can the Lipid Theories of Anesthesia Account for the Cutoff in Anesthetic Potency in Homologous Series of Alcohols? .....	49
S. ALEXANDER STERN AND SHII-PYNG SHIAH. Solubility of Inhalation Anesthetics in Various Media: A New Correlation .....	56
ATSUNOBU YODA AND SHIZUKO YODA. The Interaction of Ouabagenin and (Na <sup>+</sup> + K <sup>+</sup> )-ATPase in the Presence of Na <sup>+</sup> , Mg <sup>2+</sup> , and ATP .....	62
PETER HONERJÄGER, MELCHIOR REITER, AND PETER F. BAKER. Effect of the Cardioactive Drug AR-L 57 on Free Intracellular Calcium and Ouabain-Insensitive Ion Fluxes in the Squid Giant Axon .....	68
MICHAEL M. TAMKUN AND WILLIAM A. CATTERALL. Ion Flux Studies of Voltage-Sensitive Sodium Channels in Synaptic Nerve-Ending Particles .....	78
D. S. ROSENBLATT, V. M. WHITEHEAD, M.-J. VUCHICH, A. POTTIER, N. VERA MATIASZUK, AND DENISE BEAULIEU. Inhibition of Methotrexate Polyglutamate Accumulation in Cultured Human Cells .....	87
DAVID T. VISTICA AND BARBARA P. SCHUETTE. Carrier Mechanism and Specificity Accounting for the Increase in Intracellular Melphalan by the Basic Amino Acids .....	92
JAN M. WOYNAROWSKI AND JERZY KONOPA. Inhibition of DNA Biosynthesis in HeLa Cells by Cytotoxic and Antitumor Sesquiterpene Lactones .....	97
BARBARA KÜHN, ANGEL ALONSO, AND PETER C. HEINRICH. The Effect of D-Galactosamine and Actinomycin D on Polysomes and Messenger RNA Levels in Rat Liver .....	103
MICHAEL R. SALOMON AND HENRY R. BOURNE. Novel S49 Lymphoma Variants with Aberrant Cyclic AMP Metabolism .....	109
ROBERT I. GLAZER AND KATHLEEN D. HARTMAN. Analysis of the Effect of 5-Fluorouracil on the Synthesis and Translation of Polysomal Poly(A)RNA from Ehrlich Ascites Cells .....	117
(continued)	

MOLECULAR PHARMACOLOGY (ISSN 0026-895x) is published bi-monthly by The American Society for Pharmacology and Experimental Therapeutics, 428 East Preston St., Baltimore, MD. 21202. 1981: Volumes 19-20. Price per volume: USA individual rate \$65.00; all other countries \$85.00. USA institutional rate \$130.00; all other countries \$150.00. All correspondence and subscription orders should be addressed to the Business Office, Molecular Pharmacology, P.O. Box 64025, Baltimore, MD. 21264. Send notice of address changes to the Business Office at least 6-8 weeks in advance.

Second Class Postage paid at Baltimore, MD. and at additional mailing offices. POSTMASTER send address changes (Form 3579) to 428 East Preston St., Baltimore, MD. 21202.

Copyright © 1981 by The American Society for Pharmacology and Experimental Therapeutics.

# CONTENTS (cont'd)

ERIK DE CLERCQ, HUBERTINE HEREMANS, JOHAN DESCAMPS, GABRIEL VERHELST, MARC DE LEY, AND ALFONS BILLIAU. Effects of <i>E</i> -5-(2-Bromovinyl)-2'-Deoxyuridine and Other Selective Anti-Herpes Compounds on the Induction of Retrovirus Particles in Mouse BALB/3T3 Cells .....	122
GUNTER FIRNAU, SUDESH SOOD, RICHARD PANTEL, AND STEPHEN GARNETT. Phenol Ionization in Dopa Determines the Site of Methylation by Catechol-O-Methyltransferase. ....	130
MICHAEL W. DUFFEL, J. MICHAEL GRAHAM, AND D. M. ZIEGLER. Changes in Dimethylaniline <i>N</i> -Oxidase Activity of Mouse Liver and Kidney Induced by Steroid Sex Hormones .....	134
SIDNEY D. NELSON, ANTHONY J. FORTE, YASHESH VAISHNAV, JERRY R. MITCHELL, JAMES R. GILLETTE, AND JACK A. HINSON. The Formation of Arylating and Alkylating Metabolites of Phenacetin in Hamsters and Hamster Liver Microsomes .....	140
PATRICIA L. ASHLEY AND BRENDA WALKER GRIFFIN. Involvement of Radical Species in the Oxidation of Aminopyrine and 4-Aminoantipyrine by Cumene Hydroperoxide in Rat Liver Microsomes .....	146
E. M. GOZUKARA, G. BELVEDERE, R. C. ROBINSON, J. DEUTSCH, M. J. COON, F. P. GUENGERICH, AND H. V. GELBOIN. The Effect of Epoxide Hydratase on Benzo[ <i>a</i> ]pyrene Diol Epoxide Hydrolysis and Binding to DNA and Mixed-Function Oxidase Proteins. ....	153
DONALD E. NERLAND, MICHAEL M. IBA, AND GILBERT J. MANNERING. Use of Linoleic Acid Hydroperoxide in the Determination of Absolute Spectra of Membrane-Bound Cytochrome P-450 .....	162
M. NORDQVIST, D. R. THAKKER, K. P. VYAS, H. YAGI, W. LEVIN, D. E. RYAN, P. E. THOMAS, A. H. CONNEY, AND D. M. JERINA. Metabolism of Chrysene and Phenanthrene to Bay-Region Diol Epoxides by Rat Liver Enzymes .....	168
SHORT COMMUNICATIONS	
SANFORD J. SHATTIL, MARGARET McDONOUGH, JUDY TURNBULL, AND PAUL A. INSEL. Characterization of <i>Alpha</i> -Adrenergic Receptors in Human Platelets Using [ <sup>3</sup> H]Clonidine. ....	179
SU-SHU PAN, LESLIE PEDERSEN, AND NICHOLAS R. BACHUR. Comparative Flavoprotein Catalysis of Anthracycline Antibiotic: Reductive Cleavage and Oxygen Consumption ...	184

Copyright © 1981 by The American Society for Pharmacology and Experimental Therapeutics

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 this 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., (21 Congress Street, Salem, Massachusetts 01970), 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-1981 articles are the same as those shown for current articles.