

## CONTENTS

E. M. BROWN, M. F. ATTIE, S. REEN, D. G. GARDNER, J. KEBABIAN AND G. D. AURBACH. Characterization of Dopaminergic Receptors in Dispersed Bovine Parathyroid Cells .....	335
GREGORY A. WEILAND, KENNETH P. MINNEMAN AND PERRY B. MOLINOFF. Thermodynamics of Agonist and Antagonist Interactions with Mammalian $\beta$ -Adrenergic Receptors .....	341
DE-MAW CHUANG, WILLIAM J. KINNIER, LEN FARBER AND ERMINIO COSTA. A Biochemical Study of Receptor Internalization during $\beta$ -Adrenergic Receptor Desensitization in Frog Erythrocytes .....	348
JAMES N. DAVIS, EDWARD OLENDER, WENDY MAURY AND ROBERT MCDANIEL. $\alpha$ -Adrenergic Regulation of Cholinergic Responses in Rat Parotid Acinar Cells .....	356
GEORGES VAUQUELIN AND MICHAEL E. MAGUIRE. Inactivation of $\beta$ -Adrenergic Receptors by <i>N</i> -Ethylmaleimide in S49 Lymphoma Cells. Agonist Induction of Functional Receptor Heterogeneity .....	362
ISAO MORISHIMA, W. JOSEPH THOMPSON, G. ALAN ROBISON AND SAMUEL J. STRADA. Loss and Restoration of Sensitivity to Epinephrine in Cultured BHK Cells: Effect of Inhibitors of RNA and Protein Synthesis .....	370
JOSEPH J. ERDOS AND MICHAEL E. MAGUIRE. Independent Desensitization of $\beta$ -Adrenergic Receptor-Regulated Magnesium Transport and Cyclic AMP Accumulation .....	379
C. E. SPIVAK, B. WITKOP AND E. X. ALBUQUERQUE. Anatoxin-a: A Novel, Potent Agonist at the Nicotinic Receptor .....	384
RÜDIGER SCHULZ, MICHAEL WÜSTER, HEINZ KRENSS, AND ALBERT HERZ. Lack of Cross-Tolerance on Multiple Opiate Receptors in the Mouse Vas Deferens .....	395
RYUNG-SOON (SONG) KIM, FRANK S. LABELLA, HILDA ZUNZA, FEDERIKA ZUNZA, AND JOHN F. TEMPLETON. Progesterone Derivatives that Bind to the Digitalis Receptor: Structure-Activity Relationships .....	402
EDWARD J. PAVLIK AND BENITA S. KATZENELLENBOGEN. The Stability of the Uterine Estrogen Receptor when Complexed with Estrogens or Antiestrogens .....	406
CHARLES E. SPIVAK AND DERMOT B. TAYLOR. Ion Exchange between Agonists and Inorganic Ions at the Acetylcholine Receptor of <i>Torpedo californica</i> .....	413
ANITA KOBER AND INGVAR SJÖHOLM. The Binding Sites on Human Serum Albumin for Some Nonsteroidal Antiinflammatory Drugs .....	421
VINCENT E. GROPPi, JR. AND EDWARD T. BROWING. Norepinephrine-Dependent Protein Phosphorylation in Intact C-6 Glioma Cells. Analysis by Two-Dimensional Gel Electrophoresis .....	427
ILZE DUCIS AND VICTOR DiSTEFANO. Evidence for a Serotonin Uptake System in Isolated Bovine Pinealocyte Suspensions .....	438
ILZE DUCIS AND VICTOR DiSTEFANO. Characterization of Serotonin Uptake in Isolated Bovine Pinealocyte Suspensions .....	447
SHERYL BALDWIN, LEMONT B. KIER AND DONALD SHILLADY. Approximate Molecular Potentials of Mescaline Analogues in a Study of Similarities to 5-Hydroxytryptamine .....	455

(continued)

---

Published bimonthly by Academic Press, Inc., 111 Fifth Avenue, New York, N.Y. 10003

1980: Volumes 17-18. Price per volume: \$65.00 U.S.A.; \$74.50 outside U.S.A.

All prices include postage and handling. -

Information regarding personal subscription rates may be obtained by writing to the Publisher.

All correspondence and subscription orders should be addressed to the office of Publishers

111 Fifth Avenue, New York, N.Y. 10003.

Send notices of change of address to the office of the Publishers at least 6-8 weeks in advance.

Please include both old and new addresses.

Second class postage paid at New York, N.Y. and at additional mailing office.

Copyright © 1980 by The American Society for Pharmacology and Experimental Therapeutics

CONTENTS (cont'd)

ALESSANDRO AGRESTI, FRANCA BUFFONI, JOYCE J. KAUFMAN AND CARLO PETRONGOLO. Structure-Activity Relationships of Eseroline and Morphine: <i>Ab Initio</i> Quantum-Chemical Study of the Electrostatic Potential and of the Interaction Energy with Water .....	461
PER O. SEGLEN AND PAUL B. GORDON. Effects of Lysosomotropic Monoamines, Diamines, Amino Alcohols, and Other Amino Compounds on Protein Degradation and Protein Synthesis in Isolated Rat Hepatocytes .....	468
J. S. CHARNOCK, R. A. GIBSON, E. J. McMURCHIE AND J. K. RAISON. Changes in the Fluidity of Myocardial Membranes during Hibernation: Relationship to Myocardial Adenosinetriphosphatase Activity .....	476
ROBERT I. GLAZER AND KATHLEEN D. HARTMAN. Evidence that the Inhibitory Effect of Adenosine, but Not Cordycepin, on the Methylation of Nuclear RNA is Mediated by S-Adenosylhomocysteine Hydrolase .....	483
JAN M. WOYNAROWSKI AND TERRY A. BEERMAN. Inhibition of DNA Replication in HeLa S <sub>3</sub> Cells by Macromomycin-I, an Antitumor Protein Antibiotic .....	491
SHU-JING C. WEI, BEATRICE P. CHEN AND JERRY M. RICE. Comparative Effects of Methyl- and Ethylnitrosourea on DNA Directing Cell-Free DNA-Dependent Synthesis of $\beta$ -Galactosidase .....	494
RUSSELL T. KAWAHATA, CHARLES A. HOLMBERG, BENNIE I. OSBURN, LINDA F. CHUANG AND RONALD Y. CHUANG. Effect of 6-Mercaptopurine Ribonucleotides on DNA-Dependent RNA Polymerase Activity .....	503
PAUL J. PREIDECKER, KRISHNA C. AGRAWAL, ALAN C. SARTORELLI AND E. COLLEEN MOORE. Effects of the Ferrous Chelate of 4-Methyl-5-Amino-1-Formylisoquinoline Thiosemicarbazone (MAIQ-1) on the Kinetics of Reduction of CDP by Ribonucleotide Reductase of the Novikoff Tumor .....	507
SALVATORE J. CARADONNA AND YUNG-CHI CHENG. The Role of Deoxyuridine Triphosphate Nucleotidohydrolase, Uracil-DNA Glycosylase, and DNA Polymerase $\alpha$ in the Metabolism of FUdR in Human Tumor Cells .....	513
WILLIAM R. GRECO AND MAIRE T. HAKALA. Biochemical Pharmacology of Lipophilic Diaminopyrimidine Antifolates in Mouse and Human Cells <i>in Vitro</i> .....	521
CECILIA SCHELIN, ANDERS TUNEK, BENGT JERSTRÖM AND BENGT JERGIL. Irreversible Binding of Isolated Beno[a]pyrene Metabolites to Specific Rat Liver Microsomal Proteins .....	529
G. B. CORCORAN, J. R. MITCHELL, Y. N. VAISHNAV AND E. C. HORNING. Evidence that Acetaminophen and <i>N</i> -Hydroxyacetaminophen Form a Common Arylating Intermediate, <i>N</i> -Acetyl- <i>p</i> -Benzoquinoneimine .....	536
LELAND W. K. CHUNG AND HAIYEN CHAO. Neonatal Imprinting and Hepatic Cytochrome P-450. I. Comparison of Testosterone Hydroxylation in a Reconstituted System between Neonatally Imprinted and Nonimprinted Rats .....	543
EDWARD BRESNICK, BRUCE HASSUK, PAUL LIBERATOR, WAYNE LEVIN AND PAUL E. THOMAS. Nucleolar Cytochrome P-450 .....	550
C. ROLAND WOLF, WILLARD G. HARRELSON, JR., WOLFGANG M. NASTAINCZYK, RICHARD M. PHILPOT, B. KALYANARAMAN AND RONALD P. MASON. Metabolism of Carbon Tetrachloride in Hepatic Microsomes and Reconstituted Monooxygenase Systems and Its Relationship to Lipid Peroxidation .....	553
JAMES S. FELTON, JEANNE N. KETLEY, WILLIAM B. JAKOBY, ANTERO AITIO, JOHN R. BEND AND DANIEL W. NEBERT. Hepatic Glutathione Transferase Activity Induced by Polycyclic Aromatic Compounds. Lack of Correlation with the Murine <i>Ah</i> Locus .....	559
HENG H. LIEM, URSULA MULLER-EBERHARD AND ERIC F. JOHNSON. Differential Induction by 2,3,7,8-Tetrachlorodibenzo- <i>p</i> -Dioxin of Multiple Forms of Rabbit Microsomal Cytochrome P-450: Evidence for Tissue Specificity .....	565
ALAN POLAND, IVAN MAK, EDWARD GLOVER, RODNEY J. BOATMAN, FRANK H. EBETINO AND ANDREW S. KENDE. 1,4-Bis[2-(3,5-Dichloropyridyloxy)]Benzene, a Potent Phenobarbital-like Inducer of Microsomal Monooxygenase Activity .....	571
M. C. POIRIER, G. M. WILLIAMS AND S. H. YUSPA. Effect of Culture Conditions, Cell Type, and Species of Origin on the Distribution of Acetylated and Deacetylated Deoxyguanosine C-8 Adducts of <i>N</i> -Acetoxy-2-Acetylaminofluorene .....	581
SUZANNE E. PATTON, GERALD M. ROSEN AND ELMER J. RAUCKMAN. Superoxide Production by Purified Hamster Hepatic Nuclei .....	588

(continued)

CONTENTS (cont'd)

EDWARD PEREZ-REYES AND RONALD P. MASON. Electron Spin Resonance Study of the Autoxidation of 6-Aminodopamine .....	594
DERMOT M. F. COOPER, CONSTANTINE LONDOS AND MARTIN RODBELL. Adenosine Receptor-Mediated Inhibition of Rat Cerebral Cortical Adenylate Cyclase by a GTP-Dependent Process .....	598
PAUL R. ORTIZ DE MONTELLANO, KENT L. KUNZE AND BRUCE A. MICO. Destruction of Cytochrome P-450 by Olefins: N-Alkylation of Prosthetic Heme .....	602
RONALD W. HOLZ. Correlation of the Effects of Bretylum, Guanethidine, and N,N-Diisopropyl-N'-Isoamyl-N'-Diethylaminoethylurea (P-286) on the H <sup>+</sup> Electrochemical Gradient across the Chromaffin Granule Membrane and on Chromaffin Granule Function .....	606
AUTHOR INDEX FOR VOLUME 18 .....	611
CUMULATIVE SUBJECT INDEX FOR VOLUMES 17-18 .....	616

---

Copyright © 1980 by The American Society for Pharmacology and Experiment 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-1980 articles are the same as those shown for current articles.

