

## CONTENTS

HARVEY J. MOTULSKY AND LAWRENCE C. MAHAN. The Kinetics of Competitive Radioligand Binding Predicted by the Law of Mass Action .....	+ 1
KEITH A. WREGGETT AND PHILIP SEEMAN. Agonist High- and Low-Affinity States of the D <sub>2</sub> -Dopamine Receptor in Calf Brain: Partial Conversion by Guanine Nucleotide ....	10
MARK E. GOLDMAN AND JOHN W. KEBABIAN. Apomorphine Enantiomers: Interactions with D-1 and D-2 Dopamine Receptors .....	18
W. J. WOJCIK AND N. H. NEFF. $\gamma$ -Aminobutyric Acid B Receptors Are Negatively Coupled to Adenylate Cyclase in Brain, and in the Cerebellum These Receptors May Be Associated with Granule Cells .....	24
STEPHEN L. NISHIMURA, LAWRENCE D. RECHT, AND GAVRIL W. PASTERNAK. Biochemical Characterization of High-Affinity <sup>3</sup> H-Opioid Binding: Further Evidence for $\mu_1$ Sites .....	29
E. CASTANAS, P. GIRAUD, Y. AUDIGIER, R. DRISSI, F. BOUDOUQUESQUE, B. CONTE-DEVOLX, AND C. OLIVER. Adrenal Medullary Opiate Receptors: Pharmacological Characterization in Bovine Adrenal Medulla and a Human Pheochromocytoma .....	38
FREDERICK J. EHLERT AND DONALD J. JENDEN. Comparison of the Muscarinic Receptor Binding Activity of Some Tertiary Amines and Their Quaternary Ammonium Analogues .....	46
P. MICHAEL CONN, DELORIS C. ROGERS, AND SALLIE G. SEAY. Biphasic Regulation of the Gonadotropin-Releasing Hormone Receptor by Microaggregation and Intracellular Ca <sup>2+</sup> Levels .....	51
KENNETH P. MINNEMAN AND PETER W. ABEL. "Spare" $\alpha_1$ -Adrenergic Receptors and the Potency of Agonists in Rat Vas Deferens .....	56
NINA MOHELL, MICHAEL WALLACE, AND JOHN N. FAIN. $\alpha_1$ -Adrenergic Stimulation of Phosphatidylinositol Turnover and Respiration of Brown Fat Cells .....	64
ERIK DAHLBERG, ARNE THALÉN, RALPH BRATTSAND, JAN-ÅKE GUSTAFSSON, ULF JOHANSSON, KARIN ROEMPKE, AND TÖNU SAARTOK. Correlation between Chemical Structure, Receptor Binding, and Biological Activity of Some Novel, Highly Active, 16 $\alpha$ ,17 $\alpha$ -Acetal-Substituted Glucocorticoids .....	70
WILLIAM S. MELLON. Dye-Ligand Interactions with 1,25-Dihydroxyvitamin D <sub>3</sub> -Receptor Complexes from Chicken Intestine .....	79
WILLIAM S. MELLON. Specificity of Dye-Ligand Interaction with the Polynucleotide Binding Domain of 1,25-Dihydroxyvitamin D <sub>3</sub> -Receptor Complexes of Chicken Intestinal Cytosol .....	86
GARY J. PASCUZZO, AKINORI AKAIKE, MOHAMMED A. MALEQUE, KAI-PING SHAW, ROBERT S. ARONSTAM, DANIEL L. RICKETT, AND EDSON X. ALBUQUERQUE. The Nature of the Interactions of Pyridostigmine with the Nicotinic Acetylcholine Receptor-Ionic Channel Complex. I. Agonist, Desensitizing, and Binding Properties .....	92
AKINORI AKAIKE, STEPHEN R. IKEDA, NEVILLE BROOKES, GARY J. PASCUZZO, DANIEL L. RICKETT, AND EDSON X. ALBUQUERQUE. The Nature of the Interactions of Pyridostigmine with the Nicotinic Acetylcholine Receptor-Ionic Channel Complex. II. Patch Clamp Studies .....	102
DANIEL SCHERMAN AND JEAN-PIERRE HENRY. Reserpine Binding to Bovine Chromaffin Granule Membranes: Characterization and Comparison with Dihydrotetrabenazine Binding .....	113
TAKAHIKO MORI, NORIHIRO MATUBAYASHI, AND ISSAKU UEDA. Membrane Expansion and Inhalation Anesthetics: Mean Excess Volume Hypothesis .....	123

*Continued*

MOLECULAR PHARMACOLOGY (ISSN 0026-895x) is published bi-monthly by The American Society for Pharmacology and Experimental Therapeutics, 428 East Preston Street, Baltimore, MD 21202. 1984: Volumes 25-26. Price per volume: USA individual rate \$75.00; all other countries, surface mail \$90.00. USA institutional rate \$165.00; all other countries, surface mail \$180.00. All subscription orders should be addressed to Molecular Pharmacology, Williams & Wilkins Co., 428 East Preston Street, Baltimore, MD 21202. Send notice of address changes 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 Street, Baltimore, MD 21202.

Copyright © 1984 by The American Society for Pharmacology and Experimental Therapeutics.

# CONTENTS (*cont'd*)

P. VIGNE, C. FRELIN, E. J. CRAGOE, JR., AND M. LAZDUNSKI. Structure-Activity Relationships of Amiloride and Certain of Its Analogues in Relation to the Blockade of the Na <sup>+</sup> /H <sup>+</sup> Exchange System .....	131
BENT HONORÉ AND ROLF BRODERSEN. Albumin Binding of Anti-Inflammatory Drugs: Utility of a Site-Oriented versus a Stoichiometric Analysis .....	137
GERALD M. ROSEN, ELMER J. RAUCKMAN, SHARON P. ELLINGTON, DAVID C. DAHLIN, JAMES L. CHRISTIE, AND SIDNEY D. NELSON. Reduction and Glutathione Conjugation Reactions of <i>N</i> -Acetyl- <i>p</i> -Benzoquinone Imine and Two Dimethylated Analogues .....	151
STEVEN A. BELINSKY, TAKAKATSU MATSUMURA, FREDERICK C. KAUFFMAN, AND RONALD G. THURMAN. Rates of Allyl Alcohol Metabolism in Periportal and Pericentral Regions of the Liver Lobule .....	158
TRENT D. BUCKMAN, MARY S. SUTPHIN, AND SAMUEL EIDUSON. Proteases as Probes of Mitochondrial Monoamine Oxidase Topography <i>in Situ</i> .....	165
WENDY L. WASHTIEN. Increased Levels of Thymidylate Synthetase in Cells Exposed to 5-Fluorouracil .....	171
J. WILLIAM LOWN, CHRISTOPHER C. HANSTOCK, ROGER D. BRADLEY, AND DOUGLAS G. SCRABA. Interactions of the Antitumor Agents Mitoxantrone and Bisantrone with Deoxyribonucleic Acids Studied by Electron Microscopy .....	178
JOYCE A. GOLDSTEIN AND PATRICIA LINKO. Differential Induction of Two 2,3,7,8-Tetracholordibenzo- <i>p</i> -dioxin-Inducible Forms of Cytochrome P-450 in Extrahepatic versus Hepatic Tissues .....	185
ERRATA .....	192

---

Copyright © 1984 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-1984 articles are the same as those shown for current articles.