PHARMACOLOGY BIOCHEMISTRY AND BEHAVIOR

Editor-in-Chief

MATTHEW J WAYNER

Division of Life Sciences, The University of Texas at San Antonio, San Antonio, Texas 78285

Editorial Advisory Board

ROBERT L BALSTER, Virginia Commonwealth University, Richmond VA BERNARD BEER, Medical Research Division of American Cyanamid, Pearl River, NY ROBERT J BLANCHARD, University of Hawaii at Manoa, Honolulu, HI ALLAN C COLLINS, University of Colorado at Boulder, Boulder, CO DONALD V COSCINA, Clark Institute of Psychiatry, Toronto, Ontario, Canada JACQUELINE N CRAWLEY, Department of Health & Human Services, Bethesda, MD ADRIAN J DUNN, Louisiana State University, Shreveport, LA BURR EICHELMAN, University of North Carolina at Chapel Hill, Raleigh NC JOHN L FALK, State University of New Jersey, Rutgers New Brunswick NJ SANDRA E FILE, University of London, London, U K WILLIAM J FREED, National Institute of Mental Health, Washington DC RICHARD A GLENNON, Virginia Commonwealth University, Richmond, VA A J GOUDIE, The University of Liverpool, Liverpool, U K M R C GREENWOOD, Vassar College, Poughkeepsie, NY ROLAND R GRIFFITHS, The Johns Hopkins University School of Medicine, Balumore, MD J HANO, Polish Academy of Sciences Krakow, Poland STEPHEN G HOLTZMAN, Emory University School of Medicine, Atlanta, GA AKIRA HORITA, University of Washington, Seattle, WA WALTER A HUNT, Armed Forces Radiobiology Research Institute, Bethesda MD JOSEPH P HUSTON, University of Dusseldorf, Dusseldorf, West Germany CHRIS E JOHANSON, Uniformed Services University of the Health Sciences, Bethesda, MD HAROLD KALANT, University of Toronto, Toronto, Ontario Canada G JEAN KANT, Walter Reed Army Institute of Research, Washington, DC

KATHLEEN M KANTAK, Boston University, Boston, MA
ABBA J KASTIN, Veterans Administration Medical Center New Orleans, LA
GEORGE F KOOB, Research Institute of Scripps Clinic, La Jolla, CA
CONAN KORNETSKY, Boston University Medical Center, Boston, MA
J DAVID LEANDER, Lilly Research Laboratories, Indianapolis, IN
ALLEN'S LEVINE, Veterans Administration Medical Center, Minneapolis, MN
MILLIAM J McBRIDE, Indiana University School of Medicine, Indianapolis, IN
DONALD E McMILLAN University of Arkansas for Medical Sciences, Little
Rock, AR
H MATTHIES, Medizinische Akademie Magdeburg, Magdeburg, DDR
JACK H MENDELSON, Harvard Medical School, Belmont, MA
FATHY'S MESSIHA, University of North Dakota, Grand Forks, ND
LAURENCE R MEYERSON, American Cyanamid Company, Mahwah NJ
LAWRENCE D MIDDAUGH, Medical University of South Carolina, Charleston, SC
ROBERT D MYERS, East Carolina University School of Medicine, Greenville, NC
KIM T NG, LaTrobe University, Bundoora, Victoria, Australia
JAAK PANKSEPP, Bowling Green State University, Bowling Green, OH
JOHN A ROSECRANS, Virginia Commonwealth University, Richmond VA
HERMAN H SAMSON, University of Washington, Seattle, WA
PAUL R SANBERG, University of California, San Diego, La Jolla CA
PHIL SKOLNICK, Department of Health & Human Services, Bethesda, MD
DEREK VAN DER KOOY, University of Toronto, Toronto, Ontario, Canada
JEANNE M WEHNER, University of New York, Buffalo, Buffalo, NY
ALICE M YOUNG, Wayne State University, Detroit, MI
IAN'S ZAGON, M S Hershey Medical Center, Hershey PA

PHARMACOLOGY BIOCHEMISTRY & BEHAVIOR

Editorial Offices

Matthew J Wayner

Division of Life Sciences, The University of Texas at San Antonio, San Antonio, Texas 78285

Publishing, Subscription and Advertising Offices
Pergamon Press, Inc., Fairview Park, Elmsford, NY 10523, USA,
and Pergamon Press plc, Headington Hill Hall, Oxford OX3 0BW, England

Published Monthly

Annual institutional subscription rate (1990) DM1645 00, Two-year institutional subscription rate (1990/91) DM3125 50,

Personal subscription rate for those whose libraries subscribe at the regular rate (1989) DM190 00

Prices are subject to change without notice

Notify 8 weeks in advance of address change with a copy of the subscription mailing label

Back issues of all previously published volumes, in both hard copy and on microform, are available direct from Pergamon Press offices

Pharmacology Biochemistry & Behavior (ISSN 0091-3057) is published monthly by Pergamon Press Second class postage paid at Elmsford, NY, and additional mailing offices

Postmaster Send address changes to Pharmacology Biochemistry & Behavior, Pergamon Press,
Fairview Park, Elmsford, NY 10523

COPYRIGHT © 1989 Pergamon Press plc

It is a condition of publication that manuscripts submitted to this journal have not been published and will not be simultaneously submitted or published elsewhere. By submitting a manuscript, the authors agree that the copyright for their article is transferred to the publisher if and when the article is accepted for publication. The copyright covers the exclusive rights to reproduce and distribute the article including reprints, photographic reproductions, microform or any other reproductions of similar nature and translations. No part of this publication may be reproduced, stored in a retrieval system or transmitted in any form or by any means, electronic electrostatic, magnetic tape, mechanical, photocopying, recording or otherwise without permission in writing from the copyright holder.

Photocopying Information for Users in the USA

The Item-Fee Code for this publication indicates that authorization to photocopy items for internal or personal use is granted by the copyright holder for libraries and other users registered with the Copyright Clearance Center (CCC) Transactional Reporting Service provided the stated fee for copying beyond that permitted by Section 107 or 108 of the United States Copyright Law is paid. The appropriate remittance of \$3.00 per copy per article is paid directly to the Copyright Clearance Center Inc. 27 Congress Street, Salem, MA 01970 Permission for other use. The copyright owner's consent does not extend to copying for general distribution, for promotion, for creating new works, or for resale. Specific written permission must be obtained from the publisher for such copying. Please contact the Subsidiary Rights Manager at either Pergamon Press, Inc. or Pergamon Press plc.

The Item-Fee Code for this publication is 0091-3057/89 \$3 00 + 00

