

INSTRUCTIONS TO AUTHORS

Molecular Pharmacology will publish the results of investigations that contribute significant new information on drug action or selective toxicity at the molecular level. The term "drug" is defined broadly to include chemicals that selectively modify biological function.

Suitable papers are those that describe applications of the methods of biochemistry, biophysics, genetics, and molecular biology to problems in pharmacology or toxicology. Also suitable are reports of fundamental investigations which, although not concerned directly with drugs, nevertheless provide an immediate basis for further study of the molecular mechanism of drug action. Observations of phenomena that shed no light upon underlying molecular interactions are not appropriate for publication. Comparative studies, such as those involving drug-receptor or drug-enzyme interactions that already have been well characterized in other types of cells or tissues, also are inappropriate for publication unless they contribute significant new insight into mechanisms.

Specific areas of interest include: identification and characterization of receptors for hormones, growth factors, neurotransmitters, toxins, and other drugs; analysis of receptor response pathways; drug effects on metabolic pathways, biosynthesis and degradation of macromolecules, and cellular regulatory mechanisms; analysis of drug-receptor and drug-enzyme interactions; effects of drugs on structure and properties of macromolecules and membranes; relationships between drug structure and activity; molecular mechanisms of drug metabolism; distribution and transport between biological compartments; molecular mechanisms of chemical mutagenesis, carcinogenesis, and teratogenesis; and molecular mechanisms of selective toxicity, drug allergy, and pharmacogenetics.

Page charges. Authors will be billed at the rate of \$30.00 per page after the paper has been published. It is expected that the page charge will be paid if funds are available for that purpose from the author's institution or from the sponsor of this research. Payment of the charge is not a condition for publication. In case of personal financial hardship, page charges will be waived. Neither the editors nor the reviewers will have knowledge as to who has paid the charge, and this payment always will be considered entirely voluntary.

Submission of manuscript. Manuscripts are published in English only and should be sent to **Dr. William A. Catterall, Editor, *Molecular Pharmacology*, Department of Pharmacology, SJ-30, University of Washington, Seattle, Washington 98195, U. S. A.**

The expenses associated with the review of manuscripts submitted to *Molecular Pharmacology* and other ASPET-sponsored journals that are devoted to publishing original research articles have escalated dramatically in recent years because of ever-increasing costs of postage, supplies, and other office expenses, and the growing number of manuscripts submitted for publication. Thus, it has become necessary for ASPET to follow the example of several other scientific societies which have instituted uniform manuscript handling fees. *Therefore, all manuscripts must be accompanied either by a check for \$30 (in U. S. funds drawn on a U. S. bank payable to ASPET) or by a validated purchase order from the authors' institution.* The review process for submitted manuscripts will be delayed until the manuscript handling fee or purchase order is received in the Editor's office. If submission of the manuscript handling fee entails a personal financial hardship to the author(s), the fee will be waived. In that event, the author(s) should submit a request for waiver of the fee when the manuscript is submitted.

Manuscripts should be typewritten double-spaced with ample margins on one side of the paper, 8½ × 11 inches (ca. 215 × 280 mm). Submit four complete copies of the manuscript and four copies of each figure, plus one original drawing or photograph of each figure. Each half-tone figure requires four original drawings or photographs. All pages should be numbered consecutively beginning with the title page. Limit your reference listings to the minimal number required to document the manuscript adequately. In most instances 30 references or fewer should suffice.

Under usual circumstances reviewers will be instructed to return only their comments to the editorial office and to destroy manuscripts after a final decision on their acceptability has been made.

Original drawings and single copies of manuscripts not accepted for publication will be returned to the authors upon request.

It is understood that the manuscripts and the results they contain will not have been published previously and are not being submitted elsewhere. Manuscripts are accepted for review with the understanding that all persons listed as authors have given their approval for the submission of the paper; further, that any person cited as a source of personal communications has approved such citation. Written authorization may be required at the Editor's discretion. Articles and any other material published in *Molecular Pharmacology* represent the opinions of the author(s) and should not be construed to reflect the opinions of the Editor(s) and the Publisher. If and when a manuscript is published, it will become the sole property of the Journal.

Authors submitting a manuscript do so on the understanding that if it is accepted for publication, copyright in the article, including the right to reproduce the article in all forms and media, shall be assigned exclusively to the Society for Pharmacology and Experimental Therapeutics. No reasonable request by the author for permission to reproduce any of his or her contributions to the journal will be refused.

Accelerated Communications. In order to provide a mechanism for rapid publication of novel experimental findings of unusual and timely significance, manuscripts will be accepted for consideration as Accelerated Communications. Accelerated Communications are not intended for publication of preliminary results. Manuscripts submitted under this category should present novel results that are clearly documented and should make a conceptual advance in their field. They will be reviewed by the same criteria applied to regular papers in *Molecular Pharmacology*. The manuscript should be accompanied by a transmittal letter briefly outlining the significance of the work and providing a list of at least three scientists who would be appropriate reviewers.

Accelerated Communications will be reviewed as rapidly as possible with the aim of reaching an editorial decision within four weeks of receipt of the manuscript. It is expected that Accelerated Communications which are accepted will be published in essentially the form submitted. Manuscripts accepted without revision will be published within four to five months of initial receipt. Manuscripts accepted with a requirement for minor revisions will be published two or three months following receipt of a suitably revised version.

All manuscripts that require major revisions or that do not fit the criteria for Accelerated Communications will be returned to authors for revision and further consideration as a regular paper. Such manuscripts will retain the original submission date if revised versions are received in a timely manner.

Accelerated Communications may be submitted in the same style as regular manuscripts. Results and Discussion may be combined at the discretion of the authors. Manuscripts must not exceed five printed pages in the journal. This corresponds approximately to 25 double-spaced typewritten pages (1-inch margins) including all components of the manuscript and counting each figure as a page of typewritten text. Manuscripts that are judged to be too long will be considered as regular papers.

Organization and style of manuscripts. The policy of the Journal is to allow authors maximum freedom in organizing and presenting their material, and in expressing their ideas, provided only that clarity and conciseness are achieved. For most manuscripts, the most suitable format is: (1) Summary, (2) Introduction, (3) Materials and Methods, (4) Results, and (5) Discussion.

Certain conventions must be observed. Chemical and mathematical formulas and abbreviations should follow the *Instructions to Authors of the Journal of Biological Chemistry* (Vol. 261, pp. 1-11, January 10, 1986). Drugs must be referred to by their generic or chemical names throughout the text, but may be identified by trade name in parentheses or a footnote. The systematic name and number given by the Commission on Enzymes of the International Union of Biochemistry should be included for each enzyme of importance in a paper, at the point in the Summary or Introduction where the enzyme is first mentioned. The use of abbreviations should be minimized and abbreviations avoided in the Summary. All essential abbreviations should be defined in a single footnote when first introduced. Abbreviations of journal names should conform to the style of *Biological Abstracts*. References to papers that have been accepted for publication, but have not appeared, should be cited like other references with the abbreviated name of the journal followed by the words "in press." Copies of such papers should be sent whenever the findings described in them have a direct bearing on the paper being submitted for publication. "Personal Communications" and "Unpublished Observations" should be cited in footnotes to the text and should not be included in the reference list.

A manuscript should include the following, in the order listed: (1) Title. Numbered footnotes to the title should be avoided; acknowledgment of financial support should be given in an unnumbered footnote to the title. (2) Names of authors, their laboratory and institution. (3) A running title, not exceeding 60 characters and spaces. (4) Summary. (5) Text. Footnotes should be referred to by superscript numbers and references by numbers in parentheses. (6) References, numbered according to order of citation in the text,

including title and complete pagination. Examples: 1. Goren, J. H., L. G. Baucke, and W. Vale. Forces and structural limitations of binding of thyrotropin-releasing receptor: the pyroglutamic acid moiety. *Mol. Pharmacol.* 13:606-614 (1977). 2. Chernow, B., and J. T. O'Brien. Overview of catecholamines in selected endocrine systems, in *Norepinephrine* (M. G. Ziegler and C. R. Lake, eds.). Williams and Wilkins, Baltimore, 439-449 (1984). 3. Snedecor, G. W., and W. G. Cochran. *Statistical Methods*. Iowa State University Press, Ames (1967). (7) Footnotes, numbered according to order of appearance in the text. (8) Tables. (9) Figures. (10) Legends to figures. (11) Name and address of person to receive galley proof.

Tables. These should be numbered with arabic numerals and designed to fit the single-column width of the full-page width. Every table should have an explanatory title and sufficient experimental detail in a paragraph following the title to be intelligible without references to the text (unless the procedure is given in the Methods section, or under another table or figure). Footnotes to tables should appear beneath the tables themselves and should be designated by lower-case italic superscript letters, *a*, *b*, *c*, etc.

Figures. These should be numbered with arabic numerals. Each of the four manuscript copies should contain all of the figures. Only the original set need be of quality suitable for reproduction except in the case of half-tones, which require four sets of photographs or original drawings. These should be unmounted glossy photographs (or original India-ink drawings). Usually figures will be reduced to one column width (85 mm) and all numbers *after* such reduction should be at least 1.5 mm high. The figures must be ready, in all respects, for direct reproduction: no lettering or other art work will be done by the publisher. If symbols are not explained on the face of the figure, only standard characters, of which the printer has type, may be used ($\times$, $\circ$, $\bullet$, $\square$, $\blacksquare$, $\triangle$, $\blacktriangle$, $\odot$). The back of each photograph should bear its number, and the legend TOP at the appropriate edge. The list of legends for the figures should give captions and sufficient experimental detail, as required for tables.

Page proof. Authors will be billed for substantial changes in page proof. The Editors are very much interested in having accepted contributions appear in the earliest possible issue of the Journal, and therefore request that galley proof be returned within 24 hours after its receipt. In exceptional cases, a "Note added in proof" may be attached and will be published if the Editor approves.

Reprints and page charges. An order form for reprints as well as information on the estimation of page charges will be mailed with galley proof. Please direct questions on reprints, page charges, or other business matters to Kay Croker, Executive Officer, American Society for Pharmacology and Experimental Therapeutics, 9650 Rockville Pike, Bethesda, Md. 20814. Telephone (301)530-7060.

Leading Pharmacology Journals

Publications of the American Society for Pharmacology and Experimental Therapeutics, Inc.

THE JOURNAL OF PHARMACOLOGY AND EXPERIMENTAL THERAPEUTICS

Editor: **Eva King Killam, PhD**

JPET is respected the world over as one of the leading research journals in the field of pharmacology. Readers find broad coverage of all aspects of the interactions of chemicals with biological systems, including autonomic, behavioral, cardiovascular, cellular, clinical, developmental, gastrointestinal, immuno-, neuro-, pulmonary, and renal pharmacology, as well as analgesics, drug abuse, metabolism and disposition, chemotherapy, and toxicology. **Monthly**

DRUG METABOLISM AND DISPOSITION

The Biological Fate of Chemicals

Editor: **Vincent G. Zannoni, PhD**

DRUG METABOLISM AND DISPOSITION publishes *in vitro* and *in vivo* experimental results that bring readers significant and original information on xenobiotic metabolism and disposition, including metabolism of all pharmacologic agents or drugs and environmental chemicals, reactants, and preservatives. The areas covered are • pharmacokinetics, pharmacodynamics, and mechanisms • genetic, nutritional, or hormonal factors affecting the biological fate of chemicals • toxicological consequences of xenobiotic metabolism. **Bimonthly**

PHARMACOLOGICAL REVIEWS

Editor: **James A. Bain, PhD**

PHARMACOLOGICAL REVIEWS is a showcase for important review articles in your field, featuring longer papers on topics of high current interest. The areas covered in review papers have included biochemical and cellular pharmacology, drug metabolism and disposition, renal pharmacology, neuropharmacology, behavioral pharmacology, clinical pharmacology, and toxicology. No library serving the pharmacologic community should be without a subscription. **Quarterly**

MOLECULAR PHARMACOLOGY

Editor: **William A. Catterall, PhD**

The papers published in **MOLECULAR PHARMACOLOGY** are on the cutting edge of research on drug action and selective toxicity at the molecular level. Original applications of biochemistry, biophysics, genetics, and molecular biology are juxtaposed with innovative pharmacologic research to elucidate basic problems in pharmacology and toxicology, including such areas as molecular mechanisms involved in drug receptor-effector coupling, xenobiotic metabolism, and antibiotic and anticancer drug action. **Monthly**

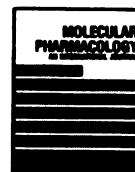


Order free by phone. Call 1-800-638-6423 from anywhere in the U.S. except AK. MD residents, call 528-4105 collect.



Williams & Wilkins

P.O. Box 23291
Baltimore, Maryland 21203
266 Fulham Road
London SW10 9EL England



YES! Enter my subscriptions to the following:

Avoid future rate increases and ensure uninterrupted service—enter your multiyear subscriptions today!

THE JOURNAL OF PHARMACOLOGY AND EXPERIMENTAL THERAPEUTICS (monthly)

☐ Individual: \$140/yr ☐ Institutions: \$220/yr
(Please add \$30.00 outside the U.S.)
☐ New Subscription ☐ Renewal ☐ 3 yrs ☐ 2 yrs ☐ 1 yr

DRUG METABOLISM AND DISPOSITION (bimonthly)

☐ Individual: \$60/yr ☐ Institutions: \$95/yr
(Please add \$10.00 outside the U.S.)
☐ New Subscription ☐ Renewal ☐ 3 yrs ☐ 2 yrs ☐ 1 yr

MOLECULAR PHARMACOLOGY (monthly)

☐ Individual: \$75/yr ☐ Institutions: \$165/yr
(Please add \$15.00 outside the U.S.)
☐ New Subscription ☐ Renewal ☐ 3 yrs ☐ 2 yrs ☐ 1 yr

PHARMACOLOGICAL REVIEWS (quarterly)

☐ Individual: \$35/yr ☐ Institutions: \$70/yr ☐ In-training: \$25/yr
(Please add \$10.00 outside the U.S.)
☐ New Subscription ☐ Renewal ☐ 3 yrs ☐ 2 yrs ☐ 1 yr

Payment options:

☐ Check enclosed ☐ Bill me
☐ VISA ☐ MasterCard ☐ American Express

card # _____

signature/P.O.# _____

MD residents, please add 5% sales tax. Subscriptions from outside the US and Canada must be prepaid, in US dollars only. Rates valid for orders received before October 31, 1988.

Please allow 10 weeks for delivery of your first issue. Surface mail delivery to countries outside the US may take up to 16 weeks. Airmail rates available upon request. *Residents, fellows, interns, and students*, when requesting the in-training rate (to which you are entitled for 3 years), please specify training status and institution.

Rates subject to change without notice.

name _____

address _____

city state zip _____

Williams & Wilkins

P.O. Box 23291
Baltimore, Maryland 21203

266 Fulham Road
London SW10 9EL, England

ASPETAD 1033 88



Newsworthy and timely
articles in your field

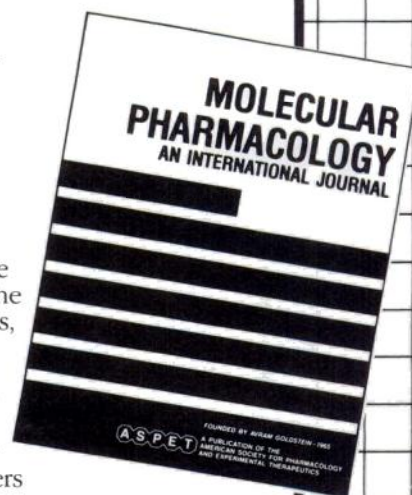
MOLECULAR PHARMACOLOGY

Editor: **William A. Catterall, PhD**, University of Washington, Seattle, Washington

Is your special interest receptors and neurotransmitters... drug metabolism... antibiotic and anticancer drug actions... or other areas related to the molecular basis of drug action? If so, you should be subscribing to **MOLECULAR PHARMACOLOGY**.

The editor's and editorial board's high standards ensure that the papers you read in **MOLECULAR PHARMACOLOGY** are on the cutting edge of research on drug action and selective toxicity at the molecular level. Original applications of biochemistry, biophysics, genetics, and molecular biology are juxtaposed with innovative pharmacologic research to elucidate basic problems in pharmacology and toxicology, including such areas as molecular mechanisms involved in drug receptor-effector coupling, xenobiotic metabolism, and antibiotic and anticancer drug action. Start your subscription today to ensure access to the most newsworthy papers in your field.

Monthly



YES! Enter my subscription:

Avoid future rate increases and ensure uninterrupted service—enter your multiyear subscription today!

Molecular Pharmacology (bimonthly)

☐ Individual: \$75/yr ☐ Institutions: \$165/yr

(Please add \$15.00 outside the U.S.)

☐ New Subscription ☐ Renewal ☐ 3 yrs ☐ 2 yrs ☐ 1 yr

name _____

address _____

city state zip _____

Payment options:

☐ Check enclosed ☐ VISA

☐ Bill me

☐ MasterCard

☐ American Express

card # _____

signature/P.O.# _____

MD residents, please add 5% sales tax. Subscriptions from outside the US and Canada must be prepaid, in US dollars only. Rates valid for orders received before October 31, 1988.

Please allow 10 weeks for delivery of your first issue. Surface mail delivery to countries outside the US may take up to 16 weeks. Airmail rates available upon request. *Residents, fellows, interns, and students*, when requesting the in-training rate (to which you are entitled for 3 years), please specify training status and institution.

Rates subject to change without notice.

Williams & Wilkins

P.O. Box 23291
Baltimore, Maryland 21203

266 Fulham Road
London SW10 9EL, England

MOLAD 1064 88



INFORMATION TO SUBSCRIBERS

MOLECULAR PHARMACOLOGY is published monthly, two volumes a year, beginning in January & July. Instructions to Authors will be found in every issue.

Correspondence concerning business matters should be addressed to Williams & Wilkins, 428 East Preston St., Baltimore, Maryland 21202 U.S.A.

Correspondence regarding editorial matters should be addressed to the Editor, Dr. William A. Catterall, Department of Pharmacology, SJ-30, University of Washington, Seattle, WA 98195.

Annual Subscription Rates—U. S. A. AND POSSESSIONS: personal, \$75.00; institutional, \$165.00, single copy, \$16.00. FOREIGN: personal, \$90.00; institutional, \$180.00; single copy, \$19.00. JAPAN: personal, \$123.00; institutional, \$213.00 (includes air freight). (Prices subject to change.) Institutional (multiple reader) rate applies to libraries, schools, hospitals, clinics, group practices, and federal, commercial, and private institutions and organizations. Foreign subscribers who wish to have issues sent by air mail may inquire of the publisher for the additional cost.

Japanese Yen price is available from our sole agent: USACO Corporation, 13-12 Shimbashi 1-Chome, Minato-Ku, Tokyo 105, Japan, telephone 03-502-6471. Subscriptions in South Korea are available only through our sole agent in Korea: Korea-America Medical Books Co., Ltd. (KAMBOOK), 209 Yun kun-dong, Chongro-ku, Seoul, Korea (telephone: 745-3151; telex: K25211 KAMBC; FAX: 745-3153). All subscriptions to South Korea will be shipped by air freight after January 1, 1988. There is an air freight surcharge of \$12.00 over the regular subscription rate for this journal in South Korea to partially compensate for air freight costs.

Change of address: Publisher must be notified 60 days in advance. Journals undeliverable because of incorrect address will be destroyed. Duplicates can be obtained (if available) from the publisher at the regular price of single issues.

New subscriptions and renewals are entered to begin with the January or July issue.

To avoid a break in your series, subscriptions should be renewed promptly. The publisher cannot guarantee to supply back issues on belated renewals.

Reprints of individual articles are available *only* from authors.

Microfilm. For availability, inquire of Williams & Wilkins.

Williams & Wilkins, Baltimore, MD. 21202 U. S. A.