Polymeric Drugs

Edited by L. GUY DONARUMA and OTTO VOGL

CONTENTS: A. Zallaroni and P. Bonsen, Controlled Chemotherapy Through Macromolecules. N. M. Weinshenker, Polymeric Additives for Food. G. Manecke, Immobilized Enzymes. N. A. Plate, Synthesis and Some Properties of Antithrombogenic Polymers. D. Tirrell et al., Polymers with Ultraviolet Absorbers as Functional Groups. K. Takemoto. Recent Problems Concerning Functional Monomers and Polymers Containing Nucleic Acid Bases. J. Kálal et. al., Synthetic Polymers in Chemotherapy. General Problems. C. M. Samour, Polymeric Drugs in the Chemotherapy of Microbial Infections. G. G. Allan et al., Polymeric Drugs for Plants. J. Burton et al., Solubility and Lipophilicity Relationships in the Design of Renin Inhibitors. E. P. Goldberg, Polymeric Affinity Drugs for Cardiovascular, Cancer, and Urolithiasis Therapy. R. M. Ottenbrite et al., Biological Activity of Polycarboxylic Acid Polymers. H. B. Levy, Polymers as Interferon Inducers. E. H. Schacht et al., Synthesis and Characterization of 2.6-Dichlorobenzaldehyde-Generating Polymers. L. G. Donaruma et al., Potential Structure-Activity Relationships. Indigenous to Polymer Systems (1) 1978. 400 pp.

Cell Surface Carbohydrate Chemistry

Edited by ROBERT E. HARMON

FROM THE PREFACE:

This volume is a permanent record of the Cell Surface Carbohydrate Chemistry Symposium held on September 1 and 2, 1976 in conjunction with the American Chemical Society Centennial Meeting in San Francisco....

"The main objective of this symposium was to bring together carbohydrate chemists and celi biologists who were involved in or interested in studying the oligiosaccharides which make up the glycoproteins and glycolipids found in the cell membranes of normal or neoplastic cells."

1978. 384 pp

SECOND EDITION

Principles of Psychopharmacology

A Textbook for Physicians, Medical Students, and Behavioral Scientists

Editors: WILLIAM G. CLARK and JOSEPH del GIUDICE

SECTION HEADINGS: Introduction. Some Basic Anatomical, Biochemical and Physiological Considerations. Chemistry. Metabolism and Classification of Psychotropic Drugs Pharmacological and Physiological Bases of Psychopharmacology Genetic and Environmental Aspects of Drugs and Behavior. Psychopharmacologic Drug Design and Research Problems with Humans. Toxicology and Adverse Side Effects of Psychotropic Drugs and Their Management. Psychopharmacotherapy Special Problems in Psychopharmacology. General Medical Use of Psychotropic Drugs. Substance Abuse. Epilogue and Foreglimpse.

AP 7832

ACADEMIC PRESS, INC.

A Subsidiary of Harcourt Brace Jovanovich, Publishers 111 FIFTH AVENUE NEW YORK N.Y. 10003 24-28 OVAL ROAD LONDON NW1 7DX



BIOCHEMISTRY INTERNATIONAL



Published for the INTERNATIONAL UNION OF BIOCHEMISTRY by ACADEMIC PRESS

Editor-in-Chief: A. W. LINNANE

Department of Biochemistry, Monash University, Clayton, Victoria, 3168, Australia

EDITORIAL BOARD

G. BERNARDI Institut de Recherche en Biologie Moléculaire, Universite Paris VII, 2 Place Jussieu, F 75221, Paris, France

J. CARBON
Department of Biological
Sciences,
University of California,
Santa Barbara, California
93106, U.S.A.

M. J. CRUMPTON Imperial Cancer Research Fund Laboratories, P.O. Box 123, Lincoln's Inn Fields, London, WC2A 3PX, England

H. M. GOODMAN
Department of Biochemistry
and Biophysics,
University of California,
San Francisco,
California, 94143, U.S.A.

Y. HATEFI
Department of Biochemistry
Scripps Clinic & Research
Foundation,
10666 North Torrey Pines Road,
La Jolla, California 92037, U.S.A.

O. HAYAISHI
Department of Medical
Chemistry,
Kyoto University,
Faculty of Medicine,
Sakyo-ku, Kyoto 606, Japan

N. HILSCHMANN Max-Planck-Institut fur Experimentelle Medizin Abt. Immunchemie, Hermann-Rein-Strasse 3, D-3400, Göttingen, Federal Republic of Germany

U. Z. LITTAUER Department of Neurobiology, Weizmann Institute of Science Rehovot, Israel

R. MONIER Institut de Recherches Scientifique, Sur le Cancer, B.P.8, 94800, Villejuif, France

I. H. PASTAN Laboratory of Molecular Biology, National Cancer Institute, National Institutes of Health, Bethesda, Maryland 20205, U.S.A. R. N. FERHAM Department of Biochemistry, University of Cambridge, Tennis Court Road, Cambridge, CB2 1QW, England

S. E. SEVERIN
Department of Biochemistry
School of Biology,
Moscow State University,
117234, Moscow, B-234, USSR

F. R. WHATLEY
Department of Botany,
University of Oxford,
South Parks Road,
Oxford, OXI 3RA, England

W. J. WHELAN
Department of Biochemistry
University of Miami School
of Medicine,
P.O. Box 016129
Miami, Florida 33101, U.S.A.

H.-G. WITTMANN Max-Planck-Institut fur Molekulare Genetik, D-1000 Berlin 33, (Dahlem) Germany

K. YAGI Institute of Biochemistry, Faculty of Medicine, University of Nagoya Nagoya 466, Japan

Biochemistry International is a new journal for the rapid publication of short communications in the overall area of biochemistry. It will be published by ACADEMIC PRESS on behalf of the International Union of Biochemistry.

Biochemistry International will publish short papers reporting new and significant observations in the field. It is also intended to publish minireviews in topical areas.

For detailed information on preparation of manuscripts please contact any one of the editors or Academic Press.

Publication: Monthly from July 1980
Subscription: Volume 1, 1980 (six issues), \$85.00 ISSN: 0158-5231
Subscriptions are for the calendar year and payable in advance.

AP 7923

Academic Press, Inc.

A Subsidiary of Harcourt Brace Jovanovich, Publishers
NEW YORK SYDNEY LONDON TORONTO SAN FRANCISCO
111 FIFTH AVENUE, NEW YORK, N.Y. 10003/24-28 OVAL ROAD, LONDON NW1 7DX

_

INSTRUCTIONS TO AUTHORS

Molecular Pharmacology will publish the results of investigations that shed significant light on drug action or selective toxicity at the molecular level. The term "drug" is defined broadly, to include chemical agents that selectively modify biological function.

Suitable papers are those which 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 regarded as appropriate for publication.

Specific areas of interest include: stereochemical, electronic, and other parameters of drug architecture; conformational analysis of receptors and their function; drug-enzyme and other interactions between drugs and macromolecules; drug effects upon gene replication and transcription and on protein synthesis; mechanism of action of antibiotics and other growth-inhibitory drugs; induction by drugs of changes in macromolecular structure or allosteric transitions; drug-induced alterations in metabolic pathways; effects of hormones and other drugs on cellular regulatory mechanisms; chemical mutagenesis, carcinogenesis, and teratogenesis; pharmacogenetics, idiosyncrasies, and drug allergies; selective toxicity in a single organism or in different species; drug actions on properties and functions of membranes; mechanisms of drug metabolism; distribution and transport of drug molecules between biological compartments.

"Short Communications" will be considered for rapid publication if their subject matter lies within the scope of the Journal, if they are concise, and if they are considered to be of sufficiently immediate importance to the work of other investigators to justify accelerated publication. They may contain experimental observations, theoretical material, or significant comment upon published investigations.

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. Neither the editors nor the reviewers will have knowledge as to who has paid the charge, and this payment will always be considered entirely voluntary.

Submission of manuscript. Manuscripts are published in English only and should be sent to the Editor, Dr. Norman Kirshner, Department of Pharmacology, Duke University Medical Center, Durham, North Carolina 27710, U.S.A. Manuscripts should be typewritten double spaced with ample margins on one side of the paper, 8½ × 11 inches (ca. 215 × 280 mm). Submit three complete copies of the manuscript and three copies of each figure, plus one original drawing or photograph of each figure. All pages should be numbered consecutively beginning with the title page. Limit your reference listings to the minimal number required to adequately document the manuscript. In most instances 30 references or less should suffice.

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.

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.

Certain conventions must be observed. Chemical and mathematical formulas and abbreviations should follow the Instructions to Authors of the Journal of Biological Chemistry (Vol. 246, pp. 1-8, January 10, 1971). Drugs must be referred to by their genetic or chemical names throughout the text, but may be identified by trade name in parenthesis 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 preceded by authors' names and title of article. For example:

SUMMARY

DAIRMAN, W., AND S. UDENFRIEND. Studies on the mechanism of the L-3,4-dihydroxyphenylalanine-induced decrease in tyrosine hydroxylase activity. *Mol. Pharmacol.* 8: 293–299 (1972).

(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. Bauce and

W. Vale. Forces and structural limitations of binding of thyrotropinreleasing receptor: the pyroglutamic acid moiety. *Mol. Pharmacol.* 13: 606-614 (1977). 2. Sandler, M. Variations in monoamine oxidase activity in some human disease states, in *Monoamine Oxidase and Its Inhibition*. Ciba Foundation Symposium 39. Elsevier, Amsterdam, 327-340 (1976). (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 or 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 three manuscript copies should contain all the figures, but only the original set need be of quality suitable for reproduction.

These should be unmounted glossy photographs (or original Indiaink drawings). Usually figures will be reduced to one column width (3.5 in. or 89 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, for which the printer has type, may be used (\times , \bigcirc , \bigcirc , \square , \square , \triangle , \triangle , \triangle). 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.

Galley proof. The cost of all changes on galley proof, other than printer's errors, will be charged to authors. 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. Authors receive 25 reprints free; information about ordering additional reprints will be mailed with galley proof.