INSTRUCTIONS FOR AUTHORS

Cancer Research is the official organ of the American Association for Cancer Research, Inc., and is devoted to the publication of significant, original research in all the subfields of cancer research, including: biochemistry and physiology; chemical and physical carcinogenesis and mutagenesis; clinical investigations; endocrinology; epidemiology and biostatistics; immunology; molecular and cell biology; preclinical pharmacology and experimental therapeutics; radiobiology; and virology. Clinical investigations and epidemiological studies are published in a separate section from papers in the basic sciences.

Only those papers that report results of novel and timely studies and that meet high standards of scientific quality will be accepted. Papers are subjected to stringent review and are published within about three months of acceptance.

CATEGORIES OF PUBLICATIONS

The following types of manuscripts are published: (1) Papers containing results of original experimental, clinical, or statistical studies that are sufficiently well documented to be acceptable to the critical reader. (2) Concise reviews on subjects of importance to cancer researchers. Authors of unsolicited reviews should submit an outline of the proposed article for approval by the Editorial Board. If submission of the complete article is encouraged, the review will be given particularly stringent editorial evaluation before acceptance. (3) Perspectives in Cancer Research, which are invited articles analyzing either very active or undeveloped areas of research and presenting fresh insights and personal viewpoints on where research in that area may or should be heading. (4) Letters to the Editor, which deal with matters of importance to cancer researchers. If experimental data are included, these should be kept to the minimum required for adequate understanding. Included under this category are commentaries on manuscripts published in the Journal. If accepted, replies by the authors are invited for simultaneous publication. (5) Brief reports of meetings, symposia, and conferences related to cancer research. (6) Proceedings of symposia, published as external supplements to the Journal (Cancer Research Supplements), the full expenses of which are assumed by the sponsoring agency. These proceedings are published at the discretion of the Editor and do not undergo the usual review process.

EDITORIAL POLICY

When a manuscript is received for consideration, the Editors assume that no similar paper, other than an abstract or preliminary report, has been or will be submitted for publication elsewhere. The Editors assume that all authors listed on a manuscript have agreed to its submission. Submission of a manuscript implies acceptance of the strict policy of the journal that under no circumstances will the identities of the editors and reviewers be revealed.

Typically, the scientific review of a manuscript is handled by an Associate Editor who selects two investigators in the field as referees. The reviewers’ critiques and the Associate Editor’s recommended decision are then approved by the Editor. Editorial decisions, forwarded from the Editorial Office to authors, are rendered as promptly as possible, consistent with thoroughness of review; the review process usually takes an average of 8–10 weeks. If there is a marked discrepancy in the opinions of the reviewers, the Editor may send the paper to other reviewers for additional comments. In this case, more time may be needed to finalize the review process.

The Editorial Office cannot accept collect telephone calls from authors.

SUBMISSION OF MANUSCRPTS

Contributions must be submitted in quadruplicate (with at least two sets of original illustrations) to Dr. Peter N. Magee, Editor, Cancer Research Editorial Office, Fels Research Institute, Temple University School of Medicine, Philadelphia, Pa. 19140 (Telephone: 215-221-4720). Papers should be submitted only by an author, preferably the senior author, who should indicate in a covering letter the exact address to which all related correspondence should be sent and a telephone number at which the author can be reached. Contributors may indicate in the covering letter if they wish their papers to appear in the Clinical Investigations section; however, the final decision to placement within the journal will be made at the discretion of the Editors. The original plus a photocopy of this letter are required.

If the manuscript contains any quoted information conveyed by either personal communication or release of unpublished experimental data, the covering letter should state specifically that authorization to use this material has been given.

A single manuscript processing fee of $60 is assessed for all manuscripts, regardless of the number of resubmissions required; this income is used to defray expenses incurred in review. Payment of this processing fee may accompany the manuscript. An invoice will be mailed with the acknowledgment of receipt of the manuscript to the Editorial Office if payment has not already been made. As a courtesy to authors editorial review will not be delayed for receipt of payment. Authors are requested to fulfill their own institutional obligations with respect to purchase orders and call numbers so that payment of the manuscript handling charge can be expedited.

Revised manuscripts should be submitted in quadruplicate, with two sets of original illustrations. A covering letter in duplicate must accompany all revised manuscripts and indicate clearly what alterations have been made in response to the reviewers’ comments. Satisfactory reasons should be given for noncompliance with any of the recommendations of the Editors. Revised manuscripts may undergo another review by an Associate Editor and/or referees, particularly if the original submission required extensive changes.

If a new author has been added or an author has been deleted since the original submission, it is the responsibility of the corresponding author to ensure that the authors involved are aware of and agree to the changes in authorship. Cancer Research accepts no responsibility for such changes.

FORMAT AND STYLE

Papers should conform strictly to Journal style. A recent issue of Cancer Research will provide authors with assistance in the proper arrangement of papers. Manuscripts are to be written in clear, grammatically correct English. Papers that are not in good idiomatic English will be returned to the author without review. Laboratory slang as well as terminology and abbreviations not consistent with internationally accepted guidelines should be avoided.


Data must be presented concisely. Large masses of data of peripheral significance to the main thesis of the investigation will not be published in Cancer Research but may be deposited with the National Auxiliary Publications Service, c/o Microfiche Publications, P.O. Box 3513, Grand Central Station, New York, N. Y. 10017. The manuscript should contain a footnote that indicates how this ancillary material can be obtained. Such data should be submitted for review along with the manuscript.

The manuscript should be typed on 21.6- x 28-cm (8½- x 11-inch) paper with double spacing throughout, allowing for ample margins. Consecutive numbering of all pages is requested, with the title page as page 1. The typescript should be arranged in the following order: (a) title, (b) author(s) and complete name(s) and location(s) of institution(s) or laboratory(ies), (c) running title, (d) footnotes, (e) text, (f) tables, (g) legends for all illustrations (charts and figures), (h) illustrations, and (i) other material. Numbered and lettered sections in the text should be avoided. The appropriate location for each table and illustration should be indicated by marginal notes. Simple chemical formulas or mathematical expressions should be presented in a form that allows their reproduction in single horizontal lines of type; more complicated mathematical formulas or chemical structures difficult to set in type should be provided in the form of India ink drawings or glossy photographs for camera-ready reproduction.
Instructions for Authors

Title. Titles should be brief but informative, and limited if possible to about 100 characters. It is important for literature retrieval to include in the title the key words necessary to identify the nature of the subject matter, including, if applicable, the species of animal on which the work is done. Use of expressions such as "Studies on..." or "Observations of..." should be avoided, since they are not sufficiently informative. Chemical abbreviations should not be used. Titles in the form of declarative or interrogative sentences are not acceptable. Also, do not use Roman or Arabic numerals to designate that the paper is one in a series (see section below on Footnotes).

Authors and Their Affiliations. Authors are urged to include their full names, complete with first and middle names or initials. Confusion often arises in references when authors are identified by surnames and initials only. Authors' academic degrees should not be included. The full names of institutions and subsidiary laboratories should be given, together with a useful address (including postal number). If several authors and institutions are listed on a paper, it should be clearly indicated with which department and institution each author is affiliated.

Running Title. A brief running title should be provided, not to exceed 50 characters. Running titles in the form of declarative or interrogative sentences are not acceptable.

Footnotes. Lengthy footnotes are discouraged since the same information can in most instances be presented more effectively in the text. Footnotes to the title page and text are to be designated consecutively with superscript Arabic numerals. A footnote to the title should contain information on financial support, including the source(s) and number(s) of the grant(s). If the paper is one of a series, a footnote to this effect may be included. Authors should also include a footnote designating to whom reprint requests should be addressed. An all-inclusive abbreviation footnote should contain a definition for every nonstandard abbreviation used in the paper.

For footnotes to tables, see section on Tables below.

Abstract. The abstract, to appear at the beginning of the paper, should be concise, yet indicative of the content of the paper. As abstracts are often copied directly by the secondary services, they should recapitulate in abbreviated form the purpose of the study and the experimental technique, results, and interpretations of the data. Data such as the number of test subjects and controls; strains of animals or viruses, drug dosages and routes of administration, tumor yields and latent periods, length of observation period, and magnitude of activity should be included. Vague, general statements such as "The significance of the results is discussed," or "Some physical properties were studied," are uninformative and not acceptable. All important terms relevant to the content of the paper should be defined or, if they are needed, they must be properly identified so as to make the abstract independent of the text. Authors may wish to keep in mind that "Medline," a computerized monthly bibliography prepared by the National Library of Medicine, includes only those abstracts. Instead, these should be averaged and an appropriate designation of the dispersion such as standard deviation or standard error included.

Introduction. It is not necessary to include all of the background literature in this section. Brief reference to the most pertinent papers generally suffices to acquaint the reader with the findings of others in the field and with the problem or question to which the author's particular investigation is being addressed.

Materials and Methods. Explanation of the experimental methods should be brief but adequate for repetition by qualified investigators. Procedures that have been published previously should not be described in detail but merely cited in appropriate references. Only new and significant modifications of previously published procedures need complete exposition. The sources of special chemicals or preparations used should be given along with their locations (city and state (country if foreign)).

This Journal endorses the principles embodied in the Declaration of Helsinki and expects that all investigations involving humans will have been performed in accordance with these principles. For animal experimentalists, this Journal, it is expected that the Guiding Principles in the Care and Use of Animals approved by the American Physiological Society will have been observed.

Results. This section should include a concise textual description of the data presented in tables, charts, and figures. Excessive elaboration of data already given in tables and illustrations should be avoided. The Results and Discussion sections may be combined if, by so doing, space is saved or the logical sequence of the material is improved.

Discussion. In this section, the data should be interpreted concisely without repeating material already presented in the Results section. Speculation is permissible, but it must be well founded.

References. Examples of the two most common types of Journal references are:


References should be typed in double-spaced form to ensure accurate copy editing. They must be arranged in alphabetical order and should include all authors' names (with initials). The bibliography should be limited to only those citations essential to the author's presentation. When comprehensive review articles are available, they are preferred to many separate references.

Before submission of the paper authors should verify the accuracy of all references and should check that all references have been cited in the text.

Journal articles and serial compendia. The complete title, journal, volume number, inclusive pages, and year should be given. Serial compendia, such as Advances in Cancer Research and the Annual Review of Biochemistry, should be cited as journals rather than books, thus omitting the names of publishers and editors. Biological Abstracts should be consulted for abbreviations of journals and serials.

Books and chapter citations. Citation of a specific chapter or article in a book should carry the author(s) of the chapter, its title, editor(s) of the book, book title, edition, volume, inclusive pages of the chapter, location and name of the publisher, and year. For references to complete books, give all of the above information that is pertinent.

Papers in press and unpublished material. Papers in press may be listed among the references with the journal name and tentative year of publication. Papers in preparation or submitted for publication should be cited in a footnote, not in the References section. This rule also applies to unpublished data or personal communications. The names of all authors should be given, along with manuscript titles if possible.

Addenda. Data acquired after acceptance of the paper, by the authors themselves or by others, cannot be added to the text. An addendum may be added in proof upon approval by the Editor. Addenda should be kept extremely brief. The full expense of printing an addendum will be charged to the author.

Tables. Tables should be constructed so that when typeset, they will fit within a single Journal column (8.9 cm or 3½ inches). Tabular material should not duplicate data already presented in the charts. Unnecessary columns of data that can easily be derived from the rest of the results in the table should not be included. Large groups of individual values should be replaced by a single table, and, instead of these, the data should be averaged and an appropriate designation of the dispersion such as standard deviation or standard error included.

Authors are obliged to indicate the significance of their observations by appropriate statistical analysis.

Every table must have a descriptive title and an explanatory paragraph that clearly gives the experimental details for understanding by the reader without reference to the text. Each column must carry an appropriate heading and, if numerical measurements are given, these units should be added to the column heading. Tables should be numbered with Arabic numerals and table footnotes should be indicated with superscript italic letters (i.e., etc.).

All units of measurement and concentration should be clearly designated. Exponential terminology is discouraged (the term m is preferable to 10^-3 m). If exponentials are absolutely unavailable in column headings, the quantity expressed should be preceded, not followed, by the power of 10 by which its value has been multiplied, i.e., 10^-3 x (mol) (m). This will prevent confusion as to whether the quantity should be multiplied or divided to obtain the correct value.

Biological abstracts (e.g., line-cut illustrations, diagrams, and drawings) are to be designated charts. Flow diagrams and complex biochemical structures should be prepared professionally (not simply typewritten) and considered charts.

Graphs should be used sparingly and only when a salient point needs illustration. Straight-line functions such as relationships between concen-
Karyotypes should be presented in the form of cardboard plates onto which chromosome sections from an original photomicrograph are pasted. This "original" is needed for clear reproduction. The back of the plate should indicate how much it can be reduced in size if published. For review purposes, two additional glossy photographs are requested.

Considerable space may be saved by cropping figures so that 4 to 6 photographs can be presented on one plate. Plates with only single photographs are not acceptable and will be returned for cropping or reduction unless the authors can justify their necessity. The contrast of photographs on a plate should be consistent for better clarity of reproduction. Photographs should be buttressed together, tooing (thin white lines) between the photographs will be added by the printer.

Figure numbers, in Arabic numerals, should appear in India ink directly on the photographs and, if possible, should be in the lower right-hand corner of each photograph. These numbers should be no larger than ¼ inch. Wax-based lettering such as PERS-TYPE or LETRASET is discouraged because of its tendency to crumble and adhere to vinyl overlays. Photomicrographs should have internal scale markers. Symbols, arrows, or letters used in photomicrographs should contrast with the background.

Tissue overlays on plates are a necessary protection for figures. Indicate on overlays the important areas of the photographs that must be reproduced with greatest fidelity. The top of the figure and the first author's name should be given in pencil on an adhesive label on the reverse side of each plate.

Figure legends. An appropriate legend for each figure, including stains and magnifications where applicable, is required. Any abbreviations or reference points on a figure should be explained in the legend. All attempts will be made to place legends under the plates to which they refer. To facilitate proper layout, authors should keep their plates to 7¼ x 9½ inches.

ABBREVIATIONS

Abbreviations are in general a hindrance to readers in fields other than that of the author(s), to abstractors, and to scientists in foreign countries. Authors should limit their use to an absolute minimum. Single words should not be abbreviated, e.g., daunomycin, folate, vincristine. Abbreviations are not to be used in titles, but running titles may carry abbreviations for purposes of brevity. Abstracts may contain abbreviations for terms mentioned many times in that section but their identification is mandatory.

Authors should follow the recommendations of the IUPAC-IUB Commission on Biochemical Nomenclature (see section below on Terminology). All nonstandard abbreviations should be identified in an inclusive abbreviation footnote to the first such abbreviation after the Abstract. Abbreviations that form recognizable words, such as EAT and MOPS, are discouraged.

Standard Abbreviations. Authors may use, without definition, the abbreviations in the following lists.

- **NAD**, **NADH**
- **NADP**, **NADPH**
- **CoA**, **acetyl-CoA**
- **AMP**, **GMP**, **IMP**, **UMP**, **CMP**, **TMP**
- **ADP**, **AMP**
- **dAMP**, **dGMP**, **dIMP**
- **RNA**, **DNA**
Instructions for Authors

<table>
<thead>
<tr>
<th>Term</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>RNase, DNase</td>
<td>ribonuclease, deoxyribonuclease</td>
</tr>
<tr>
<td>mRNA, m</td>
<td>messenger RNA</td>
</tr>
<tr>
<td>nRNA, n</td>
<td>nuclear RNA</td>
</tr>
<tr>
<td>rRNA, r</td>
<td>ribosomal RNA</td>
</tr>
<tr>
<td>tRNA, t</td>
<td>transfer RNA (sRNA is not recommended for RNA preparations that accept amino acids)</td>
</tr>
<tr>
<td>P, PP, Pₐ</td>
<td>orthophosphate, pyrophosphate</td>
</tr>
<tr>
<td>Tris</td>
<td>tris(hydroxymethyl)aminomethane</td>
</tr>
<tr>
<td>EDTA</td>
<td>ethylenediaminetetraacetate</td>
</tr>
<tr>
<td>POPOP</td>
<td>1,4-bis[2-(5-phenyloxazo]yl]benzene</td>
</tr>
<tr>
<td>DEAE, TEAE</td>
<td>diethylaminoethyl, triethylaminoethyl</td>
</tr>
<tr>
<td>UV, IR</td>
<td>ultraviolet, infrared</td>
</tr>
<tr>
<td>RBC, WBC</td>
<td>red blood cell(s), white blood cell(s)</td>
</tr>
</tbody>
</table>

Units of Concentration

- molar (moles/liter)
- millimolar (millimoles/liter)
- micromolar (micromoles/liter)
- nanomolar (nanomoles/liter)
- picomolar (picomoles/liter)

Depth of diffusion

- Svedberg unit S
- absorbance A (not O.D.)

Physical and Chemical Units

- retardation factor Rᵣ
- acceleration of gravity g
- sedimentation coefficient s
- sedimentation coefficient in water at 20°C S₂₀,ₙ
- degree Celsius (Centigrade) °C
- degree Kelvin °K
- diffusion coefficient D
- equilibrium constant K
- inhibition constant Kᵢ
- Michaels constant Kₘ
- maximum velocity Vₘₚ

Others

- mole mol
- Curie Ci
- equivalent eq

UNITS OF MEASURE

<table>
<thead>
<tr>
<th>Unit</th>
<th>Symbol</th>
</tr>
</thead>
<tbody>
<tr>
<td>meter</td>
<td>m</td>
</tr>
<tr>
<td>centimeter</td>
<td>cm</td>
</tr>
<tr>
<td>square centimeter</td>
<td>sq cm</td>
</tr>
<tr>
<td>millimeter</td>
<td>mm</td>
</tr>
<tr>
<td>micrometer (not micron)</td>
<td>μm (not μ)</td>
</tr>
<tr>
<td>nanometer (not millimicron)</td>
<td>nm (not μm)</td>
</tr>
<tr>
<td>picometer (not micromicron)</td>
<td>pm (not μm)</td>
</tr>
<tr>
<td>Angstrom (0.1 nm)</td>
<td>Å</td>
</tr>
<tr>
<td>liter</td>
<td>l</td>
</tr>
<tr>
<td>milliliter</td>
<td>ml</td>
</tr>
<tr>
<td>microliter</td>
<td>μl</td>
</tr>
<tr>
<td>gram</td>
<td>g</td>
</tr>
<tr>
<td>milligram</td>
<td>mg</td>
</tr>
<tr>
<td>microgram</td>
<td>μg (not γ)</td>
</tr>
<tr>
<td>kilogram</td>
<td>kg</td>
</tr>
<tr>
<td>hour</td>
<td>hr</td>
</tr>
<tr>
<td>minute</td>
<td>min</td>
</tr>
<tr>
<td>second</td>
<td>sec</td>
</tr>
</tbody>
</table>

Physical and Chemical Units

- retardation factor Rᵣ
- acceleration of gravity g
- sedimentation coefficient s
- sedimentation coefficient in water at 20°C S₂₀,ₙ
- degree Celsius (Centigrade) °C
- degree Kelvin °K
- diffusion coefficient D
- equilibrium constant K
- inhibition constant Kᵢ
- Michaels constant Kₘ
- maximum velocity Vₘₚ

Others

- mole mol
- Curie Ci
- equivalent eq

TERMINOLOGY

Approved terms and abbreviations for chemical substances have been published in Biochemical Nomenclature and Related Documents, International Union of Biochemistry, Third Edition, 1978. This volume is available from: The Biochemical Society, 7 Warwick Court, London WC1R 5DP, United Kingdom. Included are all recommendations issued by the IUPAC-IUB Commission on Biochemical Nomenclature in the following areas: general abbreviations and symbols; abbreviations and symbols for chemical names of special interest in biological chemistry; stereochemistry; natural products and related compounds; isotopically labelled and modified compounds; biochemical equilibrium data; α-amino acids; symbols for amino-acid derivatives and peptides; synthetic modifications of natural peptides; synthetic polypeptides or polymerized amino acids; amino-acid sequences; conformation of polypeptide chains; peptide hormones; human immunoglobulins, multiple forms of enzymes; nucleic acids, polynucleotides, and their constituents; lipids; steroids; quinones with isorenid side chains; carotenoids; tocochromans and related compounds; carbohydrates; cyclopropanes; phosphorus-containing compounds of importance in biochemistry; folic acids and related compounds; vitamins B-6 and related compounds; corrinoids.

Isotopically Labeled Compounds. A radioactive nuclide is indicated by its mass number as a superscript to the left of the symbol (⁶¹P); when written out, it should correspond to the spoken word (phosphorus-32).

In an isotopically labeled compound, the isotopic prefix should be placed in square brackets and immediately precede the name (word) to which it refers, as in [¹³C]thymidine, [α-¹³C]leucine, L-[methyl-¹⁴C]methionine, [¹⁴H]-3-hydroxykynurenine. When more than one position in a substance is labeled by means of the same isotope and the positions are not indicated, the number of labeled atoms is added as a subscript to the right of the element, as in [¹⁴C]glycine. The symbol U indicates uniform labeling and G, general labeling, e.g., [U-¹⁴C]glucose (where the ¹⁴C is uniformly distributed among all six positions) and [G-¹⁴C]glucose (where the ¹⁴C is distributed among all six positions, but not necessarily uniformly).

The isotopic prefix precedes that part of the name to which it refers, as in sodium [¹⁴C]formate, iod[¹⁴C]acetic acid, 1-amin[¹⁴C]methylcylooctanol, α-naphth[¹⁴C]pic acid, 2-acetamido-7-[¹³¹I]iodofluorene.

426
fructose 1,6-[1-3H]bisphosphate, 17β-estradiol. Terms such as '131I-labeled albumin' should not be contracted to '131I-albumin' (since native albumin does not contain iodine), and [3H]-labeled amino acids should similarly not be written as 'l3H]amino acids' (since there is no carbon in the amino group).

When more than one element are introduced, their symbols should be arranged in alphabetical order, e.g., [1,2-14C] 3H-leucine, [2-14C]leucine or [α-14C]leucine, [3-14C]leucine, [2,3-14C]maeleic anhydride, [3,4-14C, 35S] methionine, l-[methyl-14C]methionine. The symbol indicating configuration always precedes the bracketed isotope, and a hyphen is used to separate it from the brackets, e.g., d-[14C]glucose, l-[14C]leucine.

The same rules apply when the labeled compound is designated by a standard abbreviation or symbol other than the atomic symbol, e.g., l-[α-32P]ATP, l-[32P]Pi, l-[14C]iodide. The square brackets are not to be used, however, with atomic symbols, or when the isotopic symbol is attached to a word that is not a specific chemical name, abbreviation, or symbol. Proper usage here is: 14CO2, 18O2, 18H2SO4, 32P1, 131I-labeled, 3H-ligands, 14C-steroids.


For information on isozyme nomenclature, consult Biochemical Nomenclature and Related Documents (page 113), mentioned previously, or J. Biol. Chem., 252: 5939-5941, 1977.

Histones. Histone nomenclature should conform to the following system proposed at a Ciba conference held on April 4-5, 1974, in London: the six histone fractions are to be labeled H1, H1*, H2A, H2B, H3, and H4, rather than F1, F1*, F2a2, F2b, F3, and F2a1, respectively.

Interferon Assays. When reporting the calibration of interferon assays, authors should state the name, identifying number, and assigned potency of the international standard used to calibrate their assay, along with the observed geometric mean titer of the standard, the standard deviation of that value, the number of titrations performed to obtain that value, and the technical details of the assay.


Drugs. Generic names of drugs are preferred; a proprietary name may be used only after the first mention of the generic name and should be avoided in titles unless both names can easily be listed. If a foreign proprietary name is used, the name of the comparable U.S. product should be given. When there is no generic name for a drug, authors should give the chemical name or formula or a description of the active ingredients.

Authors should refer to the formally adopted generic names listed in USAN and the USP Dictionary of Drug Names (1982). In addition, the
<table>
<thead>
<tr>
<th>Name</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Van Cauwenberge, R. M-L.</td>
<td>297</td>
</tr>
<tr>
<td>Vande Woude, G. F.</td>
<td>1</td>
</tr>
<tr>
<td>Viola, M. V.</td>
<td>209</td>
</tr>
<tr>
<td>Wahba, G.</td>
<td>178</td>
</tr>
<tr>
<td>Walaszek, Z.</td>
<td>401</td>
</tr>
<tr>
<td>Wallgren, A.</td>
<td>394</td>
</tr>
<tr>
<td>Wang, Y-c.</td>
<td>35</td>
</tr>
<tr>
<td>Ward, J. F.</td>
<td>59</td>
</tr>
<tr>
<td>Watt, H. J.</td>
<td>383</td>
</tr>
<tr>
<td>Webb, T. E.</td>
<td>401</td>
</tr>
<tr>
<td>Wedlund, P. J.</td>
<td>379</td>
</tr>
<tr>
<td>Welsch, C. W.</td>
<td>186</td>
</tr>
<tr>
<td>Wepsic, H. T.</td>
<td>20</td>
</tr>
<tr>
<td>Wetherell, N. T.</td>
<td>415</td>
</tr>
<tr>
<td>Wick, D. G.</td>
<td>215</td>
</tr>
<tr>
<td>Wiels, J.</td>
<td>129</td>
</tr>
<tr>
<td>Wilkinson, G. R.</td>
<td>379</td>
</tr>
<tr>
<td>Williamson, B.</td>
<td>83</td>
</tr>
<tr>
<td>Wolff, S. N.</td>
<td>379</td>
</tr>
<tr>
<td>Wong, A.</td>
<td>184</td>
</tr>
<tr>
<td>Woolley, P. V.</td>
<td>149</td>
</tr>
<tr>
<td>Yagoda, A.</td>
<td>352</td>
</tr>
<tr>
<td>Yamaguchi, T.</td>
<td>345</td>
</tr>
<tr>
<td>Yamamoto, H.</td>
<td>339</td>
</tr>
<tr>
<td>Yamamoto, M.</td>
<td>345</td>
</tr>
<tr>
<td>Yamamura, Y.</td>
<td>20</td>
</tr>
<tr>
<td>Yang, C. S.</td>
<td>134</td>
</tr>
<tr>
<td>Yaswen, P.</td>
<td>324, 332</td>
</tr>
<tr>
<td>Yen-Lieberman, B.</td>
<td>305</td>
</tr>
<tr>
<td>Young, C. W.</td>
<td>102</td>
</tr>
<tr>
<td>Ziegler, R. G.</td>
<td>363</td>
</tr>
<tr>
<td>Zweibaum, A.</td>
<td>154</td>
</tr>
</tbody>
</table>
Instructions for Authors

material in reviews, books, or subsequent papers, upon written request to the Editor. It is understood in conveying copyright that the authors have not published this material elsewhere, either whole or in part (except in abbreviated form as a preliminary communication), and that they have neither concluded previous negotiations nor initiated pending negotiations for copyright of this material.

When a manuscript has been written by two or more authors, one of them will be designated senior author and will negotiate copyright transfer in the name of the authors.

The federal government has determined that it has a nonexclusive right to publish or republish material developed from work performed under federal grant-supported projects. Therefore, copyrights for such works are subject to this restriction. Since the federal government does not recognize private copyright for work performed by its employees as part of their official duties, the Journal will accept papers from government laboratories without copyright transfer, provided that the authors abide by the same provisions required of other authors.

Appropriate forms for transfer of copyright will be sent routinely with acknowledgment of receipt of manuscripts. They may also be requested from the Cancer Research Editorial Office. The Journal will not accept a paper unless the form is properly filled out and signed.

- Articles the work and publication of which are subsidized totally by the federal government are understood to be in the public domain and may be copied without restriction or payment of a fee. Copies of the remaining articles in Cancer Research may be made for personal or internal use, provided that the copier pays a per-copy fee of $2.00 through the Copyright Clearance Center, Inc. This Center is a nonprofit organization through which individuals and institutions may reimburse a copyright owner for photocopying of journal articles beyond what is defined as "fair use" in Sections 107 and 108 of the Copyright Revision Act of 1978. The appearance of the fee code 0008-5472/84/0044-0000$02.00 on the back of the title page of each issue indicates that Cancer Research, as copyright owner, has consented to this procedure.

Those who wish to photocopy Cancer Research articles may report the number they have made together with the fee code to: Copyright Clearance Center, Inc., 21 Congress St., Salem, Mass. 01970. Remittances may be sent to the Center at the time of reporting or the Center will bill the user on a monthly basis. Deposit accounts and prepayment plans may also be arranged.

Articles from any issue of Cancer Research dating from 1973 may be photocopied under the same conditions and at the same fee. If there is no fee code, as in issues prior to June 1978, the user should report the title of the Journal, the month of the issue, and the initial page number of the article, together with a statement of the number of copies made. If an article published after June 1978 and prior to August 1983 does not carry a fee code, it is understood to be in the public domain and may be copied without restriction or payment of a fee.

REPRODUCTION PERMISSION

Reproduction permission will usually be granted by Cancer Research, Inc., owner of the copyright, for legitimate purposes. Requests for reproduction of published material, along with a brief description of intended use, should be made by writing to the Editor. A stamped, self-addressed envelope must be enclosed with such requests. Third parties should obtain the approval of the authors before corresponding with the Editor.

ADVERTISEMENTS

Advertisement insertion orders and copy must be received 60 days prior to the month of issue in which the advertisement is to be published. The Journal is mailed on or about the 20th of the month preceding the month of issue. Inquiries regarding advertising should be directed to: Donald H. Nichols, Vice President, Journal Sales, Waverly Press, Inc., 428 East Preston St., Baltimore, Maryland 21202. Telephone: 301-528-4280.

SUBSCRIPTIONS AND BUSINESS INQUIRIES

All subscriptions and business matters are handled by the publisher, Waverly Press, Inc., 428 East Preston Street, Baltimore, Maryland 21202. Telephone: 301-528-4000. Subscriptions are payable in advance to the publisher. The regular annual subscription price of Cancer Research for members of the American Association for Cancer Research, Inc. is $50. Individuals who are not members of the Association may subscribe to the Journal at the rate of $100 for domestic subscribers per annual volume. The domestic institutional subscription rate is $175 per annual volume. Corresponding members, nonmembers and institutions outside the United States and Canada should add $30 to these rates to cover the cost of postage.

The publisher should be notified of changes of address 60 days in advance; subscribers should give both their old and new addresses. Members of the American Association for Cancer Research should also inform the Executive Director, Margaret Foti, Temple University School of Medicine, West Building, Room 301, Philadelphia, Pa. 19140 of their changes of address.

No responsibility is accepted by the Editors, by Cancer Research, Inc., by the American Association for Cancer Research, Inc., or by the publishers of Cancer Research for opinions expressed by the contributors or for the content of advertisements.
AMERICAN ASSOCIATION FOR CANCER RESEARCH, INC.

SEVENTY-FIFTH ANNUAL MEETING
The Sheraton Centre, Toronto, Ontario, Canada
May 9-12, 1984

ADVANCE REGISTRATION FORM
(please print or type)

NAME: ____________________________
Last: ____________________________ First: ____________________________ Middle Initial: ____________________________

AFFILIATION: ____________________________

ADDRESS: ____________________________________________
__________________________________________
City: ____________________________ State or Province: ____________________________ Postal Code: ____________________________

Country: ____________________________ Telephone: ____________________________

IN THE EVENT OF ILLNESS OR INJURY PLEASE NOTIFY ____________________________

ADDRESS: ____________________________________________
__________________________________________

RELATIONSHIP: ____________________________ TELEPHONE: ____________________________

REGISTRATION FEES

☐ Members US$40.00 C$48.00 ☐ AACR Proceedings US$15.00 C$18.00
☐ Nonmembers 50.00 60.00 (nonmembers and students only)
☐ Students 20.00 24.00 Total Enclosed: US$________ C$________

Check Issued by: ____________________________ Check #: ____________________________

Checks should be payable to AACR, Inc. and must accompany this form. All fees must be paid in U.S. or Canadian currency. Purchase orders will not be accepted as payment.

(Students must enclose a statement, signed by the registrar, dean, or department head of their university or college on official letterhead, confirming their status.) Special student rates are available only to predoctoral students. Postdoctoral fellows, hospital residents, and interns do not qualify as students.

Mail all advance registration forms with applicable fees to the AACR Office, Temple University School of Medicine, West Building, Room 301, Broad and Tioga Streets, Philadelphia, PA 19140. Receipts will be sent to you as the forms are processed. AACR members will receive copies of the Program and Proceedings prior to the meeting. Nonmember and student advance registrants will also receive the Program and (if they have purchased it) the Proceedings at that time. Please note that nonmember and student registration fees do not include the Proceedings.

REFUND POLICY

The deadline for advance registration is March 26, 1984. Full refunds will be granted on written request prior to April 30, 1984. Receipts must be returned to the AACR Office with the refund request. No refunds will be granted after April 30, 1984.
This publication is available in microform.

University Microfilms International

Please send additional information for _____________________________
(name of publication)

Name _____________________________

Institution _____________________________

Street _____________________________

City _____________________________

State ________ Zip _____________

300 North Zeeb Road
Dept. P.R.
Ann Arbor, Mi. 48106
U.S.A.

30-32 Mortimer Street
Dept. P.R.
London WIN 7RA
England
The National Cancer Institute and the American Cancer Society will cosponsor the fifth National Cancer Communications Conference, to be held February 15 through 17, 1984, at the Shoreham Hotel, Washington, D. C. The conference is designed to provide a common framework in the state-of-the-art in cancer communication, to establish a unified basis for developing cancer information and education programs, to foster ties among all cancer-concerned organizations, and to improve program planning and coordination.

Speakers will provide updates on the progress of cancer research, approaches for establishing effective public information and education on cancer, information on new communications technology, and a focus on emerging trends in cancer communications. Participants will have the opportunity to meet with people from their own geographic region in order to share mutual concerns and create a network of resources and programs. Manufacturers of new communications equipment will be invited to display their products and to provide instruction in their use.

For registration details and further information, write to:

Nancy McCormick-Pickett, Special Assistant
Office of Cancer Communications
Building 31, Room 4B39
Bethesda, Maryland 20205