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 the fields of cancer research and cancer-related biomedical science. The Editors will be happy to consider manuscripts from any country in the world that contain material falling within the Journal’s publication scope. Only those papers that report results of novel and timely studies and that meet high standards of scientific quality will be accepted. Such papers will be published within about three months after acceptance. Journal policy requires that a single handling charge of $50 be assessed for all manuscripts, regardless of the number of resubmissions required, to defray the expenses incurred in review.

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. Editorial decisions, forwarded from the Editorial Office to authors, are rendered as promptly as possible consistent with thoroughness of review. Authors are urged to read carefully and follow these instructions to keep the time and expense involved in processing manuscripts to a minimum.

Contributions must be submitted in triplicate (i.e., the original typescript and two clear copies, with at least two sets of original illustrations) to Dr. Sidney Weinhouse, 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. 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 If the manuscript contains any quoted information conveyed by either personal communication or release of unpublished experimental data, the covering letter should state specifically that authorization to use this material has been given.

Payment of the $50 handling charge should not accompany the manuscript but will be requested by invoice at the time of receipt at the Editorial Office. Editorial review will not be delayed because of this handling charge.

The Editorial Office cannot accept charges for collect telephone calls from authors.

Revised Manuscripts

Revised manuscripts should be submitted in triplicate, with 2 sets of original illustrations. A covering letter in duplicate must accompany all revised manuscripts to indicate exactly what alterations have been made in response to the reviewers’ comments. A satisfactory rebuttal is required if authors have not complied with certain of the recommendations.

Categories of Publication

The types of manuscripts accepted are as follows. (1) Papers containing results of original experimental, clinical, or statistical studies that are timely and sufficiently well documented to be acceptable to the critical reader. (2) Concise reviews on subjects of importance to cancer researchers. Such articles are given particularly stringent editorial evaluation before acceptance. (3) Brief Communications of unusual timeliness and significance. These papers are given especially rigid and rapid review and, if deemed acceptable, are published one month earlier than regular papers. These are not to be confused with short papers, which undergo the same review mechanism as regular articles. (4) Letters to the Editor which deal with issues of importance to cancer researchers. If experimental data are included, these should be the minimal amount required for adequate understanding. (5) Brief reports of meetings and proceedings of symposia related to cancer research. (6) Announcements of future meetings of interest to readers, courses in cancer-related biomedical science, or the availability of fellowships, as well as listing of relevant books and other publications. Announcements should be submitted at least 4 months prior to the expected month of issue.

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, grammatical, idiomatic English; papers that do not adhere to these requirements will be returned to the author without review, since the Editorial Office does not have the facilities to convert manuscripts to acceptable English standards. Investigators not fluent in the English language can avoid long delays in publication by conferring with colleagues knowledgeable in written English expression in the preparation of their manuscripts.


Data must be presented concisely and clearly. 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 by the author in the National Auxiliary Publications Service, c/o Microfiche Publications, 440 Park Avenue South, New York, N. Y. 10016, with a footnote in the manuscript to indicate where this material
can be obtained. Such data should be submitted for review along with the manuscript and will be returned to the author upon acceptance.

It is important that authors edit their typescripts to eliminate unnecessary words and phrases and to detect typographical errors, inconsistencies in the use of tenses, or misleading, ambiguous phrases. Laboratory slang as well as abbreviations not consistent with internationally accepted guidelines should be avoided.

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 subsidiary 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 equations 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.

Title. Tities 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. Use of the expression "Studies on . . ." in titles should be avoided, since it is imprecise and not sufficiently informative. Titles in the form of declarative sentences are not acceptable. Chemical formulas or abbreviations should not be used. Subtities, whether set off by Roman numerals or punctuation, are not permitted, as these present difficulties for indexers. If the paper is one of a series, a footnote to this effect may be included.

Authors and Their Affiliations. Authors are urged to include their full names, complete with first and middle names or initials. This request is made in accordance with the recommendation of the IUB Commission of Editors of Biochemical Journals because confusion often arises when authors are identified by surname 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 which institution each author is affiliated.

Running Title. A brief running title should be provided, not to exceed 50 characters.

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). 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.

Summary. The Summary, to appear at the beginning of the paper, should be concise, yet indicative of the content of the paper. As Summaries are often photocopied directly by abstract journals, they should recapitulate in abstract form the purpose of the study and the experimental technique, results, and interpretations of the data. The inclusion of data on 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 is recommended. Vague, general statements such as "The significance of the results is discussed," or "Some physical properties were studied," are uninformative and not acceptable. The use of abbreviations should be limited; if they are needed to keep the Summary short (200-word maximum), they must be properly identified so as to make this section independent of the text.

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 but merely cited in appropriate references. Only new and significant modifications of previously published procedures need detailed exposition. The sources of special chemicals or preparations used should be given with their locations [city and state (country if foreign)].

Results. This section should include only statements warranted by previous knowledge and the present observations. Only data necessary for the understanding of the experimental work should be included; it is not necessary to reiterate what is presented in the tables and illustrations.

The Results and Discussion sections may be combined if, by so doing, space is saved or the logical sequence of the material is improved. The decision to combine must therefore be made on an individual basis. Authors should bear in mind, however, that many readers prefer to be presented with just the results so that they can draw their own conclusions and then compare them with the author's interpretations in the Discussion.

Discussion. The Discussion should interpret the results without repeating information already stated in the Results section. Speculation is permissible, but it must be founded on solid ground and be subject to test. Authors should keep this section brief.

References. Any recent issue of the Journal can serve as a model for style of references. It is important that the references be typed in double-spaced form to ensure accurate copy editing. References should 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, their use is preferred to the citation of many separate references (an exception to this rule would be if the manuscript being prepared is a Review).

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, which appear annually in numbered sequence, should be cited as journals rather than books, thus omitting the names of publishers and editors. Chemical 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. References to papers in preparation or submitted for publication should be cited in a footnote, not in the References section; unpublished data or personal communications should be given in parenthetical form in the text. The names of all authors should be given. Material conveyed by “personal communication” may be used only if permission for its publication and verification of the wording of the citation have been obtained.

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

Tables. Tables should ordinarily be constructed to fit within a single journal column (8.9 cm or 3½ inches). If the data require it, however, a table may extend to two columns. Large masses of individual values should be avoided; instead, these 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; tables without such information are not acceptable.

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.

Every table must have a descriptive title and an explanatory paragraph that clearly gives the experimental details for proper 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 (a, b, c, etc.).

All units of measurement and concentration should be clearly designated. Exponential terminology is discouraged (the term mM is preferable to $10^{-3}$ M). If exponents are absolutely unavoidable 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., $10^3 \times$ concentration (M). This will prevent confusion as to whether the quantity should be multiplied or divided to obtain the correct value.

Charts. Line-cut illustrations (graphs and drawings) are to be designated charts. Flow diagrams and complex biochemical structures should be professionally prepared (not simply typewritten) and considered charts. Electrophoretic patterns presented as line-cut drawings are also included in this category; otherwise, they are considered figures.

Graphs should be used sparingly and only when a specific point needs illustration. Straight-line functions such as relationships between concentration and absorbance, or Line-weaver-Burk plots when these are linear, should instead be described in a few lines in the text. To conserve space each chart should include those curves that may appropriately appear together.

The use of exponents for labeling coordinates in charts is considered ambiguous and should, if at all possible, be avoided. If exponents must be used, the quantity expressed should be preceded by the power of 10 by which its value has been multiplied, e.g., $10^3 \times$ concentration (M). The form “Concentration (M × 10$^{-3}$)” is not acceptable. If powers of 10 are used, the legend should designate how the quantity is to be calculated (whether multiplied or divided) to give the correct value.

Preparation of charts. Charts must be drawn with professional instruments and may be on Bristol board, tracing paper or cloth, or coordinate paper printed in light blue. Please do not mount on heavy cardboard. Clear, glossy prints are acceptable in lieu of original drawings, provided that all parts of the chart are in focus. X-ray films or Polaroid photographs are not acceptable. If original drawings are submitted, an overall size of not more than 21.6 × 28 cm ($8^{1/2}$ × 11 inches) is required.

Except for especially complicated drawings showing large amounts of data, all charts will be reduced to one column width (8.9 cm or 3½ inches) or less. It is the responsibility of the author to see that the abscissas, ordinates, lines, and especially the symbols are sufficiently large so that when the charts are reduced to the size of a single column, the letters and numbers will be at least 1.5 mm high and the smallest part of the illustration will be discernible. In original charts, this can be accomplished by having the minimum height for lower-case letters 5 mm; numerals and upper-case letters 6 mm; and symbols within the drawings 5 mm. The thickness of ruled lines on charts is also vital for clear presentation of the data. Size recommendations for lines are as follows: #1 Leroy for graph grids, bonds, and arrows; #2 Leroy for graph borders or reference lines; and #5 Leroy for graph curves or emphasis lines.

Points of observation should be denoted with different symbols rather than with different types of lines; their significance can be explained directly in the body of the chart or in the legend. Only those common symbols for which the printer has type (X, O, ●, □, ■, △, ▲, ◇) should be used.
Instructions for Authors

Charts should be ruled off on all four sides close to the area occupied by the curve, and abscissas and ordinates should be clearly marked with appropriate units. Explanations of the coordinates should not extend beyond the respective lines. If a chart contains a left- and a right-hand ordinate, explanation of the left ordinate should read in the upward direction and that of the right ordinate should read downward. Titles printed outside the confines of the charts only waste space and should not be used; all of this information can easily be included in the legend.

Each chart should be labeled in pencil on the reverse side with Arabic numerals and the first author’s name.

Chart legends. Legends are required for all charts. They should briefly describe the data shown; details in the text need not be repeated. Each legend should adequately identify all units, abbreviations, mathematical expressions, abscissas, ordinates, and symbols.

Figures. Because halftone illustrations (photomicrographs and photographs) are expensive to reproduce, only those photographs that are absolutely essential to the clarity of the presentation can be accepted.

Photographed electrophoretic patterns should be submitted as small as possible to avoid the need for returning them to the author for reduction.

Color photographs are discouraged and will be published only if they are indispensable. If after careful evaluation these are accepted by the Editors, the complete expense of reproducing such photographs will be charged to the author. Current estimates for color reproduction can be obtained by corresponding with the Editor.

Preparation of plates. Photographs should be mounted on “plates” of white cardboard; the overall dimensions of photographs on a given plate should not exceed 18.4 x 22.4 cm (71/4 x 9 inches). All photographs should be correctly exposed, sharply focused, and submitted on glossy white paper.

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 Journal reproduction. The back of the plate should indicate how much it can be reduced in size if published. For review purposes, an additional glossy photograph is requested.

Considerable space may be saved by suitably 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 unequivocally.

Toning (thin white lines) between the photographs should be uniform. 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. Wax-based lettering such as PRES-TYPE or LETTRA-SET is discouraged because of its tendency to crumble and adhere to vinyl overlays. Tissue overlays on plates are a necessary protection for figures. The first author’s name should be given in pencil 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.

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. It is therefore the policy of this Journal, which publishes material on several subspecialities of cancer research, to limit their use to an absolute minimum. Short terms need 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. In the Summary, abbreviations for terms mentioned many times in that section can be used, but only if clearly identified.

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 Summary.

Avoid using abbreviations that form recognizable words, such as EAT and MOPS, or those that repeat standard abbreviations.

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

NAD*, NADH  nicotinamide adenine dinucleotide and its reduced form
NADP+, NADPH nicotinamide adenine dinucleotide phosphate and its reduced form
(DPN+, TPN+, and their reduced forms are not acceptable.)
CoA, acyl-CoA coenzyme A and its acyl derivatives (e.g., acetyl)
AMP, GMP, IMP, UMP, CMP, TMP the 5'-phosphates of ribosyladenine, guanine, hypoxanthine, uracil, cytosine, and thymine
ADP, etc. the 5'(pyro)diphosphates of adenine, etc.
ATP, etc. the 5'(pyro)triphosphates of adenine, etc.
dAMP, dGMP, dIMP the 5'-phosphates of 2'-deoxyribosyladenine, etc.
RNA, DNA ribonucleic acid, deoxyribonucleic acid
RNase, DNase ribonuclease, deoxyribonuclease
mRNA messenger RNA
nRNA nuclear RNA
rRNA ribosomal RNA
tRNA transfer RNA (sRNA is not recommended for RNA preparations that accept amino acids.)
P1, PP, Tris orthophosphate, pyrophosphate
EDTA tris(hydroxymethyl)aminomethane
POPOP 1,4-bis[2-(5-phenyloxazoyl)]benzene
PPO 2,5-diphenyloxazole
DEAE, TEAE diethylaminoethyl, triethylaminoethyl
UV, IR ultraviolet light, infrared
RBC, WBC red blood cell(s), white blood cells(s)

Other Standard Abbreviations

Units of Concentration

<table>
<thead>
<tr>
<th>Unit</th>
<th>Abbreviation</th>
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<tbody>
<tr>
<td>molar (mole/liter)</td>
<td>M*</td>
</tr>
<tr>
<td>millimolar (mmole/liter)</td>
<td>mm (preferred to (10^{-3}) M)</td>
</tr>
<tr>
<td>micromolar ((\mu)mole/liter)</td>
<td>(\mu)M (preferred to (10^{-6}) M)</td>
</tr>
<tr>
<td>nanomolar</td>
<td>nM (not (\mu)M)</td>
</tr>
<tr>
<td>picomolar</td>
<td>pM (not (\mu)M)</td>
</tr>
</tbody>
</table>

The expression mg % should be avoided; weight concentrations should be given as g per ml, g per 100 ml, g per liter, etc.

Units of Length, Area, Volume, Mass, Time

(The abbreviations below are correct for both singular and plural forms of each term.)

<table>
<thead>
<tr>
<th>Unit</th>
<th>Abbreviation</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>(\mu)m (not (\mu))</td>
</tr>
<tr>
<td>nanometer (not millimicron)</td>
<td>nM (not (\mu)M)</td>
</tr>
<tr>
<td>picometer (not micromicron)</td>
<td>pM (not (\mu)M)</td>
</tr>
</tbody>
</table>

Angstrom (0.1 nm) \(\AA\)

meter not abbreviated
milliliter ml (use instead of cc or cm³)
microliter \(\mu\)l (not \(\lambda\))
gram g
milligram mg
microgram \(\mu\)g (not \(\gamma\))
kilogram kg
hour hr
minute min
second sec
counts per minute cpm
disintegrations per minute dpm
revolutions per minute rpm
Curie Ci
Svedberg unit S
mole not abbreviated

Physical and Chemical Units

<table>
<thead>
<tr>
<th>Unit</th>
<th>Abbreviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>retardation factor</td>
<td>(R_F)</td>
</tr>
<tr>
<td>acceleration of gravity</td>
<td>g</td>
</tr>
<tr>
<td>sedimentation coefficient</td>
<td>s</td>
</tr>
<tr>
<td>in water at 20°</td>
<td>(s_{20,\text{w}})</td>
</tr>
<tr>
<td>degree Celsius (Centigrade)</td>
<td>° (not °C)</td>
</tr>
<tr>
<td>degree Kelvin (absolute temperature)</td>
<td>°K</td>
</tr>
<tr>
<td>diffusion coefficient</td>
<td>D</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Unit</th>
<th>Abbreviation</th>
</tr>
</thead>
</table>
equilibrium constant K       |
inhibition constant \(K_i\)   |
Michaelis constant \(K_m\)   |
maximum velocity \(V_{\text{max}}\) |
absorbance \(A\) (not O.D.)  |
probability \(p\)            |
roentgen \(R\)               |
standard deviation \(S.D.\)  |
standard error \(S.E.\)      |
logarithm (Briggsian) log    |
logarithm (natural) \(\ln\)   |

in chemical compounds
ortho o
meta m
para \(p\)
secondary sec
tertiary tert

routes of administration
intramuscular i.m.
intrapерitoneal i.p.
intravenous i.v.
oral p.o.
subcutaneous s.c.

Terminology

Approved terms and abbreviations for chemical substances have been published in Collected Tentative Rules and Recommendations of the Commission on Biochemical Nomenclature IUPAC-IUB. The Second Edition (1975) is available for $3 (to accompany order) from the American Society of Biological Chemists, Inc., 9650 Rockville Pike, Bethesda, Maryland 20014. Individual listings have appeared in many journals as follows:

15. for α-amino acids, Biochemistry, 14: 449–462, 1975

The following are from sources other than the Commission on Biochemical Nomenclature:

Isotopically Labeled Compounds. A radioactive nuclide is indicated by its mass number as a superscript to the left of the symbol (15P); 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 [14C]thymidine, [α-14C]leucine, L-[methyl-14C]methionine, [3H]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]glycolic acid. 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, iodo[14C]acetic acid, 1-amino[14C]methylcyclopentanol, α-naphthal[14C]onic acid, 2-acetamido[1-131I]iodofluorene, fructose 1,6-[131I]bisphosphate, 17β-[3H]estradiol. Terms such as "[14C]-labeled albumin" should not be contracted to "[14C]albumin" (since native albumin does not contain iodine), and "[14C]-labeled amino acids" should similarly not be written as "[14C]amino acids" (since there is no carbon in the amino group).

When isotopes of more than one element are introduced, their symbols should be arranged in alphabetical order, e.g., [3-14C; 2,3-D; 15N]serine. Deuterium and tritium may be designated as 2H and 3H or as D and T, respectively.

When not sufficiently distinguished by the foregoing means, the positions of isotopic labeling are indicated by Arabic numerals, Greek letters, or prefixes in italics, as appropriate; these are to be placed within square brackets to appear before the symbol of the element concerned and are attached to it by a hyphen. Examples of this style are [1-14C]alanine, L-[2-14C]leucine or L-[α-14C]leucine, [carboxyl-14C]leucine, [2,3-14C]maleic anhydride, [3,4,14C, 35S]methionine, L-[methyl-14C]methionine. The symbol indicating configuration always precedes the bracketed isotope, and a hypothesis is used to separate it from the brackets, e.g., D-[14C]-glucose; L-[1-14C]leucine. The same rules apply when the labeled compound is designated by a standard abbreviation or symbol other than the atomic symbol, e.g., [α-32P]ATP, [32P]CMP, or [123I]dUrd. 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, 14NO2, H218O, 132P1, 131I-labeled, H-ligands, 14C-steroids.

Enzymes. Authors should use the Recommended (trivial) Name given by the IUB Commission on Enzyme Nomenclature Recommendations (1972) of the International Union of Pure and Applied Chemistry and the International Union of Biochemistry (Elsevier Publishing Company, Amsterdam, 1973). In some cases the Systematic Name or the reaction catalyzed should also be included. It is strongly recommended that the Enzyme Commission number be stated at first mention.

For information on isozyme nomenclature, consult the "Collected Tentative Rules ..." mentioned above or the specific listing published in the Journal of Biological Chemistry (reference above).

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, H1a, H2A, H2B, H3, and H4, rather than F1, Fl, F2a, F2b, F3, and F2a1, respectively.


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 AMA Drug Evaluations (Second Edition, 1973), The United States Pharmacopeia (USP, Nineteenth Revision, 1975), National Formulary (NF, Fourteenth Edition, 1975), 1st Supplement of USP XIX and NF XIV (1975), and USAN and the USP Dictionary of Drug Names (1975). In addition, the Council on Drugs reports in The Journal (New Names) drug names adopted by the USAN (United States Adopted Names) Council. These monographs include both the generic and proprietary names for the new-
est drugs, usually prior to their publication elsewhere.

Tumors. Tumors used in experimental investigations should be clearly described and identified in acceptable terminology. If these tumors are well known and have been identified in previous publications, extended descriptions and photomicrographs are unnecessary.

General. The composition of all solutions and buffers should be specified in sufficient detail so that the concentration of each component can be determined. The word "saline" should be replaced by "NaCl solution," along with the exact concentration. Inexact terms such as "physiological saline" or "phosphate-buffered saline" are not permitted; exact contents and concentrations should be given. Decimals are preferred to fractions; the form 0.01, not .01, is required in text, tables, and charts.

Ionic charge should be designated by a superscript immediately following the chemical symbol, e.g., Mg²⁺, S⁻.

Advice on biochemical nomenclature is readily available from Dr. Waldo E. Cohn, Director, NAS-NRC Office of Biochemical Nomenclature, Biology Division, Oak Ridge National Laboratory, Box Y, Oak Ridge, Tennessee 37380.

Alterations in Proof

To expedite publication of accepted articles, the Journal provides authors in the U.S. and Canada with page proofs only. Authors residing outside the U.S. and Canada will receive galley proofs only; their page proofs will be read in the Editorial Office. Extensive alterations in proof require revised pagination, thus leading to sharply increased costs and delays in publication. Such alterations will necessarily be charged to the authors. We therefore urge our contributors to proofread and edit their manuscripts carefully before submission. The Editors retain the right to question minor stylistic alterations and major alterations that might affect the scientific content of the paper. The authors may or may not be contacted, depending on the nature of the alteration. If authors make an inordinate number of corrections in page proof, or if proof is not returned to the Editorial Office within 48 hours of receipt, it may be necessary to reschedule the paper for a subsequent issue.

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AUTHOR INDEX
January 1977

Adams, J. B., 278
Adamson, R. H., 285
Alley, C. D., 95
Asselin, J., 76

Barile, R., 253
Barkla, D. H., 262
Baroncelli, S., 253
Bartsch, H., 253
Bases, R., 323
Beneke, J. S., 42
Bennett, L. L., Jr., 182
Berenblum, I., 1
Bern, H. A., 67
Bertino, J. R., 327
Beug, H., 59
Biddlecome, S. M., 157
Boone, C. W., 37
Borek, E., 285
Bourke, R. S., 157
Boutwell, R. K., 128
Bradley, C. J., 64
Bronzetti, G., 253
Brown, J. M., 145
Bühring, U., 299
Burholt, D. R., 22

Cammellini, A., 253
Carmel, R. J., 145
Caron, M. G., 76
Chandra, D. P., 278
Chang, C-c., 188
Chen, H. J., 64
Chu, E. H. Y., 188
Clarkson, J. M., 200
Corbett, T. H., 209
Corsi, C., 253
Countryman, P. L., 52
Cox, R., 222
Craven, P., 15
Crawford, E., 52

de Gaetano, G., 272
DeRubertis, F. R., 15
Donati, M. B., 272
Douglas, C. J., 239
Durie, B. G. M., 214

Economou, G. C., 37
Elequim, F., 323
Evans, J. T., 134

Fausto, N., 118
Fink, D., 59
Förslach, E., 299
Freudenthal, R. I., 244
Frezza, D., 253

Garattini, S., 272
Garro, A. J., 329
Gehrke, C. W., 285
Ghossein, N., 323
Goss, P., 152
Grab, D. J., 32
Graf, T., 59
Greene, R. F., 118
Greengard, O., 231
Gupta, V. S., 327
 Gutmann, H. R., 111
 Guttenplan, J. B., 329

Hagemann, R. F., 22
Hauschka, T. S., 134
Heddle, J. A., 52
Herzfeld, A., 231
Hsu, K. C., 323
Humphrey, R. M., 200
Hundley, S. G., 244

Irving, C. C., 222, 239
Janis, M., 323
Jones, L. A., 67

Kaltenbach, M. L., 226
Kelly, P. A., 76
Kimelberg, H. K., 157
Kobayashi, S., 106
Krementz, E. T., 293
Krueger, J. G., 320
Kuchino, Y., 206

Labrie, F., 76
Lakings, D. B., 285

Leong, S. P. L., 293
Leporini, C., 253
Leshar, S., 22
Levey, G. S., 28
Liebeskind, D., 323
Lin, J-K., 172
Lindquist, C. A., 327
Liwack, G., 8
Longmore, J., 285
Loprieno, N., 253

Maass, H., 258
Malekia-Giganti, D., 111
Matsumoto, K., 106
McGuire, W. L., 106
Medina, D., 317
Meites, J., 64
Mendex, L., 323
Miller, E. C., 172
Miller, J. A., 172

Mittelman, A., 134
Montesano, R., 310
Mower, R. C., 320
Mrochek, J. E., 285

Nelson, J. A., 182
Neri, R., 253
Nishimura, S., 206
Noble, R. L., 82
Nomura, Y., 106

Oda, T., 137
Ohl, V. S., 8
Orvoine, R. H., 102

Paolini, N. S., 134
Parsons, P. G., 152
Pearson, G. R., 42
Poggi, A., 272
Polentarutti, N., 272

Raynaud, J-P., 76
Rogers, A. E., 194
Rose, L. M., 182
Rosellini, D., 253
Rosenblum, M. G., 47
Rossi, A. M., 253

Roszell, J. A., 239
Rovere, L. E., 28
Royer-Pokora, B., 59
Russell, D. H., 47, 214
Rydell, R. E., 111

Salmon, S. E., 214
Sani, B. P., 209
Sawicki, W. L., 327
Schenken, L. L., 22
Schulte-Hermann, R., 166
Segal, R. A., 320
Seidman, J. M., 102
Seki, S., 137
Shimkin, M. B., 305
Shin, Y. S., 299
Shows, T. B., 134
Slaga, T. J., 128
Smith, G. J., 8
Snodgrass, M. J., 95
Spratt, J. A., 226
Spratt, J. S., Jr., 226
Sproul, E. E., 134
Sternberg, S. S., 32
Stoner, G. D., 305
Sugano, H., 106
Sutherland, C. M., 293
Swenson, D. H., 172

Takatani, O., 106
Takeichi, N., 37
Theiss, J. C., 305
Tomatis, L., 310
Trams, G., 258
Trosko, J. E., 188
Tutton, P. J. M., 262

Vesely, D. L., 28
Waalkes, T. P., 285

Yasuda, T., 206
Yotti, L. P., 188

Zedek, M. S., 32
Zwillin, B. S., 250
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