Drug Metabolism and Disposition:

the biological fate of chemicals

Editor
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In this Issue:

INSTRUCTIONS TO AUTHORS

Submission of manuscripts. Drug Metabolism and Disposition will review *in vitro* and *in vivo* experimental results that contribute significant and original information on xenobiotic metabolism and disposition. The term xenobiotic includes pharmacologic agents as well as environmental chemicals. Pharmacokinetic and pharmacodynamic manuscripts and those involving mechanisms are invited. Manuscripts concerned with factors which affect the biological fate of chemicals such as genetic, nutritional or hormonal are of interest. Papers addressing toxicological consequences of xenobiotic metabolism are appropriate.

Three copies of each manuscript should be sent to Dr. Vincent G. Zannoni, Editor, *Drug Metabolism and Disposition,* Department of Pharmacology, University of Michigan Medical School, MSI, Ann Arbor, Michigan 48109-0626. FAX number: (313)-763-4450. Submission of a manuscript implies that the material contained therein has not previously been published except as an abstract for a scientific meeting, and that it is not being submitted elsewhere.

All manuscripts received in the editorial office must be accompanied either by a check for $40.00 (in U.S. funds payable to ASPET) or by a validated purchase order form from the author's institution. The review process for submitted manuscripts will be delayed until the manuscript handling fee or purchase order form is received in the Editor's office. If the submission of the manuscript handling fee entails a personal financial hardship to the author(s), the manuscript handling fee will be waived. In that event, the authors should submit a request for waiver of the fee at the time the manuscript is submitted.

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After Acceptance: When an article has been accepted for publication, the final manuscript may be sent to the Editorial Office on diskette. A hard copy *must* accompany the diskette. This will expedite the publication process for Williams & Wilkins.

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Please note, the above is our preference. However, we can accept diskettes created from other commonly used software programs.

When submitting a manuscript on diskette, please include:

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Form and style of manuscript. Manuscripts, in English language only, should be typewritten double-spaced with ample margins, on one side of 8.5 × 11-inch pages. The original typescript and two copies, which may be Xerox or other good reproductions, or *legible* carbon copies, should be sent. All pages should be numbered in sequence, starting with the title page.

A. Full-length papers should be arranged as follows:

1. *Title page,* containing the title of the paper, names of all authors, and the institution(s) where the work was done. The title should have no footnote numbers (see *Footnotes* below). The title should briefly yet explicitly indicate the contents of the paper. Names of chemicals or chemical classes studied, species used, etc., should be included in the title.

2. *Running title* not exceeding 50 total characters and spaces. The name and address of the person to whom editorial correspondence and galley proofs should be sent should appear at the bottom of this page.

3. *Abstract* of not more than 250 words.

4. *Introduction.* A brief summary of the pertinent literature and a statement of the aims of the work.

5. *Materials and Methods.* Species, strains, sexes, and ages or sizes of animals, with Latin names where required for distinction, should be given. Sources and purities of chemicals other than common reagents should be indicated. Equipment used and conditions of use should be specified. When published methods are used, a bibliographic reference is sufficient; minor modifications should be described. When a method has been extensively modified, the entire new procedure should be described. Authors should attempt to describe their work in all cases so that their peers would be able to repeat the experiments. Where conditions for similar experiments vary throughout the work, these may be indicated in legends to figures and tables. Properties and proof of structure must be given for reference compounds used for metabolite identification.

6. *Results.* These should be presented as much as possible in graphic and tabular form. When, however, a table would include only two or three values, it may be preferable to present the data in sentence form in the text. Authors should avoid using several tables describing very similar experiments; these should be combined wherever possible, unless this would result in overcomplicated, unwieldy tables. The same data should normally not be repeated in tables and figures. The text should be used to describe and summarize the data and to draw primary conclusions from them, but not to repeat the numerical data. No extended discussion of the results should be included in this section.

7. *Discussion.* The major conclusions to be drawn from the work should be assembled here, and these should be discussed with respect to the existing body of knowledge in the immediate area. Graphic schema should be used wherever possible to clarify the conclusions. Speculation should be clearly identified as such, and should be germane to the data presented. Questions raised by the work, or those inherent in the experiments, should be discussed.

Although it is normally preferable to separate the Results and Discussion sections, these sections, *e.g.*, when an extended discussion of some of the experiments is required for an understanding of subsequent experiments, may have to be combined occasionally.

8. *Acknowledgments* of technical assistance, gifts of materials, and other aid. Financial support should not be mentioned here, but rather in an unnumbered footnote to the title (see *Footnotes,* below).

9. *References,* numbered in order of citation in the text. Examples of style of references follow:

1. S. S. Lau, G. D. Abrams, and V. G. Zannoni: Metabolic activation and detoxification of bromobenzene leading to cytotoxicity. *J. Pharmacol. Exp. Ther.* **214,** 703–708 (1980).
2. T. C. Butler: The distribution of drugs. In "Fundamentals of Drug Metabolism and Drug Disposition" (B. N. La Du, H. G. Mandel, and E. L. Way, eds.), pp. 44–62. Williams & Wilkins, Baltimore, 1971.

Papers that have actually been accepted for publication may be cited among the references; give authors, journal name, and the words "in press." Work not published or accepted, or personal communications, should be cited by footnote. Where knowledge of unpublished work is crucial to evaluation of a paper, duplicate copies of the pertinent data should be submitted with the manuscript for examination by the referees.

Authors are urged to exercise the utmost care that references are accurate. As a rule, references should not be included that have not been examined personally by the author. When, because of its rarity of language, the primary reference could not be examined, the secondary source should be indicated as well, as follows:

4. K. Maemoto, N. Seike, and M. Hirata, *Kobunshi Kagaku* **15,** 660 (1958); *Chem. Abstr.* **54,** 14775 (1960).

References should be cited in the text by numbers within parentheses. Abbreviations of journal names should be those given in *Index Medicus.*

10. Footnotes, presented in the following order:

(a) Unnumbered footnote giving source of financial support, thesis information, citation of abstracts of meetings where this work was presented, etc., and, in a separate paragraph, the name and full address (with street address or P.O. box where applicable, and zip code number) of person to receive reprint requests.

(b) Numbered footnotes, starting with those (if any) to authors' names. Number footnotes in sequence throughout the text, using superscript numbers.

11. *Tables,* each on a separate page. Tables are to be numbered with arabic numbers. The title should be in italics (or underlined) with only the first word and proper names capitalized. General statements about the table should follow the title in paragraph form. Footnotes to the table should be indicated by italicized lower case superscript letters, starting with *a* for each table. Footnotes should be typed immediately below each table.

12. *Legends for figures.* Figures should be numbered with arabic numbers, followed by the title in italics (or underlined), with only the first word and proper nouns capitalized. The remainder of the explanatory material should be in paragraph form below the title.

13. *Index terms.* A list of index terms which may be used in constructing the annual index should constitute the last typed page of the manuscript.

14. *Figures* should be submitted with the original typescript as unmounted glossy photographic prints no larger than 8 × 10 inches (20 × 25 cm). Xerox or other good reproductions of line prints may accompany the other two copies of the manuscript; in the case of halftone material, three photographic prints should be sent. Letters, numbers, and symbols must be large enough to be readily legible after reduction to single-column size; these should be at least 1.5 mm high after reduction. The style of figures should be uniform throughout the paper. Figures should be simple and uncluttered, so that they are readily understandable after reduction in size. Thus, in line graphs with multiple lines, it is usually preferable to use different symbols for the experimental points for different lines, with the explanation of symbols in the legend, rather than to attempt to label individual lines. Abscissa and ordinate should be clearly labeled with scale, name, and dimensions of quantities expressed.

B. Short Communications. Short Communications should not be divided into the sections appropriate for full papers and should not contain more than 1000 words. However, they are subject to the same review process as are full papers. No abstract is required. The first paragraph should give an introduction to the work. The experiments and results should be described in narrative fashion. A moderate amount of tabular and graphic material may be presented, but the total space allotted to a Communication may not exceed three printed pages. Structural formulae of parent compounds and metabolites should be given;

where possible, these should be general formulae with variable groups identified in a legend.

Title, authors' names and affiliations, footnotes, captions, legends, references, and index terms should follow the forms outlined above for full papers.

C. Reviews. Occasional brief reviews will be published, covering rather limited aspects of a subject in the area of interest of this journal. These may most typically be critical reviews that present the author's view of the current state of the subject, or prospective articles intended to stimulate discussion and research.

D. Letters. Letters to the editor are invited, in which relevant work described in this or other journals is discussed, interesting points raised as suggestions for further work, or new interpretations of existing data made. Where appropriate, authors of papers to which reference is made will be invited to reply. Letters presenting new data will not normally be accepted.

E. National Auxiliary Publications Service (N.A.P.S.). In some cases, results of investigations may be of archival value, but present insufficient new information of general interest to the scientific community in terms of methodology, types of pathway, significant species differences, interrelationships with other pharmacologic or toxicologic properties, etc., to warrant publication in extended form. For deposit with the National Auxiliary Publications Service (N. A. P. S.), the data must be submitted in triplicate with the manuscript. The original copy for the documentary material will be deposited with N. A. P. S. and the accession number will be published.

Abbreviations for units of measurement should be unpunctuated, with no distinction between singular and plural forms. Multiples of units should be indicated as follows: kg, g, mg, μg (not ug, mcg, or γ), ng, pg. Abbreviations to be used for units of measurement are:

Mass: g (gram); mol (mole); eq (equivalent). Do not use M as an abbreviation for mole, as M is used solely as the concentration term molar.

Concentration: M (molar); N (normal); % (percent). In the latter case, the basis of formulation should be indicated as % (w/w), % (w/v), or % (v/v) to signify g/100 g, g/100 ml, or ml/100 ml. The term mg% should not be used. Mixtures should be shown as, for example: acetone/0.5 M KCl/glacial acetic acid, 1:5:2 (v/v).

Length: m (meter); μm (micrometer). Where common usage dictates, Å (Ångstrom) may be used.

Volume: liter should be spelled out, to avoid confusion with the numeral 1. Abbreviate compound words containing the root liter, as ml, μl, etc.

Time: hr (hour); min (minute); sec (second). Days and longer units of time should be spelled out.

Radioactivity: Ci (curie); r (roentgen); cpm or dpm (counts or disintegrations per min).

Electricity: V (volt); amp (ampere); Hz (cycles/sec).

Spectrometry: A_{000} [absorbance (not OD or *E*) at 000 nm (not mμ) wavelength]; ε (molar absorption coefficient, with units M^{-1} cm^{-1}); UV (ultraviolet); IR (infrared); ESR (electron-spin resonance); NMR (nuclear magnetic resonance); δ [chemical shift, with units ppm (parts per million)]; s (singlet); d (doublet); t (triplet); m (multiplet); amu (atomic mass units); *m/z* (mass/charge ratio).

Chromatography: TLC (thin-layer chromatography); R_F (retardation factor); GLC (gas-liquid chromatography); R_T (retention time); GC/MS (coupled gas chromatography-mass spectrometry); HPLC (high-pressure liquid chromatography).

Equilibrium and kinetic constants: K_d (dissociation constant); K_s or K_i (dissociation constant of enzyme-substrate or enzyme-inhibitor complex); K_M (Michaelis constant); V_{max} (maximum initial velocity); *k* (rate constant); pK_a (negative logarithm of acidic dissociation constant); $t_{1/2}$, half-life; AUC, area under the curve of plasma concentrations *vs.* time.

Statistics: *p* (probability of chance observation); *N* (number of experiments); SD (standard deviation of the series); SE (standard error of the mean).

Other abbreviations: °C (degrees of temperature); *g* (acceleration due to gravity, as in 9000*g*); rpm (revolutions per min); LD_{50} and ED_{50} (median lethal and effective doses); iv (intravenous); ip (intraperitoneal); im (intramuscular); sc (subcutaneous); po (peroral); m.p. (melting point); sp.g. (specific gravity).

Drugs and chemicals: The following abbreviations may be used without definition: NAD^+, NADH, $NADP^+$, NADPH, FMN, FAD, ATP *et al.*, RNA, DNA, UDP-glucuronic acid, Tris, EDTA; SKF 525-A; all other abbreviations should be explained in a single footnote at the point of use of the first one. Cytochromes should be named as follows: cytochrome b_5, cytochrome *c*, cytochrome P-450. Generic names of drugs should be used; the trade-name, capitalized, may be given in parentheses after the first use of the generic name. Where no generic name exists, a code number may be used, but the full chemical name of the compound must be given in parentheses following the first use of the number. Trade-names and code numbers should not be used in the title.

The composite character of drugs which are mixtures of stereoisomers must be brought to the attention of the reader. The prefix *rac-*, *e.g. rac*-propranolol, in the case of racemates, and (*Z*/*E*)- or cis/trans- in the case of that type of isomer is obligatory. The implications of the composite nature of the drugs studies for the interpretation of the data measured and the conclusions drawn must be made explicit.

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