



### GENERAL INFORMATION

Publishing data in scientific journals is the accepted means for dissemination of information in science. Publications are important to investigators since they reflect the extent of their scholarly activities, are needed for their promotion and are required for obtaining grants. They are also the sole accepted method for dissemination of information important to other investigators the public. Therefore, "Frontiers in Bioscience" considers all publications as important communications. Attempts will be made to post the manuscript on-line after it has been accepted for publication. Scientists who read a given manuscript can express their opinion, criticism and suggestion for the improvement of material published in FBS. These comments will be posted in the "Letter to editor" section of the journal. Authors can respond and if necessary can revise a manuscript that has already been accepted for publication.

### TYPES OF COMMUNICATIONS

Manuscripts describing recent and important advances in the fields of biology or medicine will be considered for publication in the Frontiers in Bioscience. Manuscripts will be published in one of the following platforms.

- Research articles in basic and clinical sciences
- Technical notes and protocols
- Reviews in basic and clinical sciences
- Multimedia medicine on line (Videos, sounds and images, VRML)
- Databases
- Proceedings of National and International Conferences
- Lectures

The research articles, reviews and technical notes contain the title, abstract, introduction, materials and methods, result, discussion, acknowledgment, references, legends to figures, tables and figures. If necessary, the result and discussion sections may be combined. However, the data submitted for publication in multimedia medicine

on line or technical protocols may merely contain the title (including the name of the authors), a very brief introduction, method, and discussion section, legends (for figures, videos or sounds) and only pertinent references. In the method section of the technical protocols, sequential steps involved with each step should be represented by a number. In the method section, the method as how the video, sound, image or VRML was obtained should be included. For reagents the information about the manufacturer should be provided. The intention of technical protocols and video, sound and image gallery is to provide the basic information that allows the reader to interpret the presented data. Therefore, it is important to be succinct and if warranted, to eliminate the introduction, discussion and references.

### ETHICAL STANDARDS

Publication of a scientific article represents the means through which the contribution of the scientists is recognized. Along with this recognition, the authors of a scientific article bear the responsibility to make certain that their contribution is original, reproducible, and clearly and honestly represented. It is not always possible to detect erroneous nature of a set of data by the peer review process. Therefore, it is vital that all authors carefully review the accuracy of the data that they present. The authors of a manuscript are obligated to:

- Refrain from plagiarism (total or partial submission of the work of others)
- Refrain from fabricating (falsifying) data
- Refrain from dishonesty (altering or suppressing information)
- Refrain from submitting information previously published or under consideration for publication in another journal
- Describe the work accurately.
- Provide the details necessary for the duplication of the data by other investigators.
- Include all the data even if they do not support a given hypothesis.

- Cite all the relevant contribution of other investigators and references that allow interpretation of the results.
- Include the source of all the materials that are used.
- Make available all products that they generate such as protein, DNA, clone, cell or other types of material that they describe to other investigators. This should be done with the spirit that the data that are published can be duplicated and that other ideas can be tested.
- Abide by the rules set in the ***Declaration Of Helsinki And Recommendation For Conduct Of Clinical Research***.
- Use laboratory animals for the research according to the ***Rules And Regulations Of NIH And Their Institution***.
- Use of recombinant DNA for the research according to the Rules and Regulations Of NIH and the Institution.

## **REPRODUCIBILITY OF RESULTS AND STATISTICAL ANALYSIS**

Submission of data for publication is an indication that the authors are confident that the data are reproducible. Appropriate statistical analysis should be used to determine that the findings are significant. The term "significant" should be used only if such determination has been made. The probability of the significance should be stated. When reporting a new assay, the following data should be listed.

- Within-assay variability
- Between-assay variability
- Slope of the dose-response curve
- Mid-range of assay
- Sensitivity. Least detectable concentration
- Specificity
- Parallelism of the standard and the unknown on recovery
- Comparison with another method for the detection of the compound

## **AUTHORSHIP**

All individuals that are listed as authors should have participated in the following aspects of the work and should be able to take public responsibility for the reported data.

- Participation in the conception and planning of the work.
- Participation in the analysis of the data.
- Participation in preparation and reporting of the data.

The order of authorship should be based on the joint decision of the authors. Participation solely in providing funds for the work, supervision of the staff involved in acquisition of data, collection of samples, collection of data, or providing materials should not be a basis for authorship. These types of contributions should be listed in the acknowledgment section of the manuscript.

## **PREPARATION OF THE MANUSCRIPT**

The manuscript should be prepared in Flawless American English and in accordance with the "Uniform Requirements for Manuscripts Submitted to Biomedical Journals". The requirements are described in detail in :

- Annals of Internal Medicine 108, 258-265, 1988
- British Medical Journal 296, 401-405, 1988

Correctness of the manuscript in regard to clarity, conciseness, grammar, spelling and typing errors is the responsibility of the authors. Contributors whose native language is not English are encouraged to obtain the help of their colleagues or professional editors proficient in Scientific English who can correct such errors.

An original manuscript should be organized as follows:

- Title page
- Table of contents
- Abstract
- Introduction
- Materials and Methods
- Results
- Discussion
- Acknowledgments
- References
- Key words
- Corresponding author's address, Tel, Fax & E-mail
- Running title
- Figure legends
- Tables
- Figures to be submitted as files named fig1.jpg, fig2.jpg etc

In technical notes and protocols, the results and discussion may be combined into one section. In a manuscript in the multimedia medicine on line, if necessary,

various sections may be shortened or deleted.

The review articles in basic and clinical science should be organized as follows:

- Title page
- Table of contents
- Abstract
- Introduction
- Remaining sections of the manuscript with subsections
- Perspective
- Acknowledgments
- References
- Key words
- Corresponding author's address, Tel, Fax & E-mail
- Running title
- Figure legends
- Tables
- Figures to be submitted as files named fig1.jpg, fig2.jpg etc

## **TITLE PAGE**

This page should include: Title, Full names of authors (do not abbreviate names), affiliations, and table of contents. Title should be concise.

Reviews should be organized as sections and subsections. Please do not provide materials and methods section. Number various sections of the reviews in the following style:

1. Section 1
2. Section 2
  - 2.1. Subsection 2.1
    - 2.1.1. Subsection of subsection 2.1.1

Page numbers should not be included in the table of contents. The table of contents should be italicized. Throughout the text, the title should be bold and capped with a double space after the title. The subtitles should be with small letter and bold. Only a single hard return should be inserted after subtitles (see example below).

## **1. TITLE**

Text

### **1.1. Subtitle**

Text

Titles and subtitles are not ended with a period. The titles and subtitles are left justified.

## **ABSTRACT**

Abstract should be concise and should not exceed 200 words. Abstract should state the background that led to the present series of experiments, the study design, the methods used, the data obtained and the conclusions drawn based on the findings. If a review, the abstract should be a succinct summary of the paper.

## **INTRODUCTION**

Introduction should make the reader familiar with the area of investigation, should cite the relevant and pertinent work of others and the concepts that led to the present series of studies.

## **MATERIALS AND METHODS**

The source of the materials used with the appropriate references should be listed. The methods should be thorough so that other investigators can duplicate the work. When the standard deviations or statistical analysis are not reported, it is assumed that the investigators have been able to sufficiently reproduce the data presented in the results section.

## **RESULTS**

Results should be presented with clarity and conciseness. Data should be expressed in Systeme International (SI) units throughout the text. Metric units should be added in parentheses. A complete listing of the SI units and guides to preparation of SI units may be found in the:

- Powsner ER: SI quantities and units for American Medicine. JAMA 252, 1737-1741, 1984
- Council for scientific affairs. SI units for clinical laboratory data. JAMA 253, 2552-2554, 1985
- Powsner ER: The SI for American Medicine. AJDC 140, 97-98, 1986
- SI units for reporting of laboratory data. Arch Pathol Lab Med 109, 1054, 1985
- Young DS: SI units for clinical laboratory. JAMA 240, 1618-1621, 1978
- The SI units are here. JAMA 255, 2329-2339, 1986

Temperature should be expressed in degrees Celsius and the time of day by using 24 hour clock (e.g. 0200 h, 2300 h).

## DISCUSSION

In this section, the data that were generated should be analyzed in the light of the available published reports. Attempts should be made not to reiterate the results in the discussion section.

## ACKNOWLEDGMENT

Acknowledge the following: source of support; the personnel who contributed to the technical aspects of the project and to the preparation of the manuscript; those who contributed reagents for use in the project or reviewed or typed the manuscript.

## REFERENCES

References should be listed as they appear below. Sequentially number the references throughout the text. Please conform the references to the following format (italicize the name of the journal):

V. M. Bolotina, S. Najibi, J. J. Palacino, P. J. Pagano and R. A. Cohen: Nitric oxide directly activates calcium-dependent potassium channels in vascular smooth muscle. *Nature* 368, 850-853 (1994)

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## REFERENCES: LINKING BY DOI

CrossRef (<http://www.crossref.org>) is the official DOI (digital object identifier) registration agency for scholarly and professional publications which allows connection of references for ease of retrieval. CrossRef operates a cross-publisher citation linking system that allows a researcher to click on a reference citation on one publisher's platform and link directly

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Clow GD, McKay CP, Simmons Jr. GM, and Wharton RA, Jr. 1988. Climatological observations and predicted sublimation rates at Lake Hoare, Antarctica. *Journal of Climate* 1:715-728.10.1175/1520-0442(1988)001<0715:COAPSR>2.0.CO;2

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To include the FBS style of references into the EndNote program, please do the following:

1. Open the Endnote program
2. Click the Style Folder within Endnote
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With this done, the format of Frontiers of Bioscience will become a part of the style format selection choices in the EndNote Program.

## TABLES

Throughout the text, refer to each table by sequential "English" number such as (**Table 1**). Place the citation in red font

within parenthesis. Place each table on a separate page at the end of the manuscript. Present data in a real table with columns, rows and cells. Separation of text by setting up "Tab" does not create a real table. Tables set in such a manner will not be converted properly to HTML for on line presentation. In a real table, each variable resides in a cell. Consult the "Help" section of your word processor for finding out how to create a table. For each table, provide a title. Keep the number of columns to a minimum. The table should fit into an 8x11 inch page set up in the "portrait" mode. Tables should be included at the end of the document as indicated above and should be sequentially numbered using English numbers such as Table 1, Table 2, etc. References in table should be referred to by their numbers. Footnotes or other notes should be referred to by numbers and not text.

## **FIGURE LEGENDS**

Throughout the text refer to each figure by sequential "English" numbers such as (Figure 1). Place the citation in red font within parenthesis. Place each figure on a separate page at the end of the manuscript. In the figure legend section, provide a title for each figure followed by the legend. Type the figure legends in sequence listed in the text.

## **RUNNING TITLE AND KEY WORDS**

In the last page of the manuscript, provide a running title, no more than 40 characters. Key words should define the discipline, tissue, cell, gene, gene signaling, molecule and technique. For correspondence, please include the name, address, telephone number, fax number and E-mail address of the corresponding author.

## **FIGURES**

Each figure can be up to a full page (8x11 inches). However, figures that are 1/4 to 1/6 of a page are preferable. All figures should be submitted electronically as .jpg or

.gif files. Figures that can not be sent to the editorial office electronically, can be submitted on floppy disk. The files should have a professional quality suitable for publication.

## **VIDEOS AND SOUNDS**

Provide a title for each video or sound. If sending by mail, type the legends to the videos or sounds in sequence listed in the text on a sheet of paper. Videos and sounds should be brief. We encourage the authors to submit their figures electronically as .mpg files. Remember that the longer the video or the sound, the longer it will be the download time. So, use the shortest video or sound segments that demonstrate the data.

## **GENERAL FORMATTING INSTRUCTIONS**

All manuscripts should be formatted according to the instruction provided at: <http://www.bioscience.org/guides/format.htm>

## **GENE NOMENCLATURE**

The HUGO Gene Nomenclature Committee is responsible for approving and implementing unique human gene symbols and names, and works closely with the Mouse Genome Database and other organism databases. Considerable efforts are made to approve symbols acceptable to workers in the field, but sometimes it is not possible to use exactly what has previously appeared in the literature. In such cases the previously used symbols are listed as aliases for the approved nomenclature in the Human Gene Nomenclature Database (Genew) [<http://www.gene.ucl.ac.uk/cgi-bin/nomenclature/searchgenes.pl>] and LocusLink, to allow retrieval of all the information available for each gene.

Approved human gene symbols should be obtained prior to submission from Dr Sue Povey, HUGO gene Nomenclature Committee (HGNC), University College



London, Wolfson House, 4 Stephenson Way, London, NW1 2HE; Tel: 44-20-7679-7410; Fax: 44-20-7387-3496, E-mail: nome@galton.ucl.ac.uk; [http://www.geneucl.ac.uk/nomenclature/].

Approved mouse nomenclature should be obtained prior to submission from Lois Maltais, The Jackson Laboratory, Bar Harbor, Maine 04609-0800; Tel: 01-207-288-6429; Fax: 01-207-288-6132, E-mail: nomen@informatics.jax.org; [http://www.informatics.jax.org/mgihome/nomen/].

## **MANUSCRIPT SUBMISSION**

Manuscripts that are ready for submission should be scientifically sound, and without errors in English or spelling errors. They also should follow the FBS style of formatting. Detailed instruction for formatting documents is available at <http://www.bioscience.org/forms.htm>. Document should be pasted into the necessary word template available at <http://www.bioscience.org/forms.htm>.

Properly formatted manuscripts should be submitted as E-mail attachment or by electronic submission at <http://www.bioscience.org/submit/submit.asp>. Figures should be sent as separate files named according to the following format: fig1.jpg, fig2.jpg, etc. Tables should be inserted at the end of the manuscript and not sent as separate files. If invited, the name of managing editor should be provided when submitting an invited article.

When a manuscript is submitted, the corresponding author will get a response within a few days regarding the suitability of the manuscript for publication in the "Frontiers in Bioscience".

## **REVIEW PROCESS**

Once the manuscript has been received, it will be designated an accession

number. Please refer to the accession number in all correspondence to the editorial office. The manuscript will be peer reviewed by experts. The manuscript will be published if the manuscript gets a high priority. Every attempt will be made to keep the duration of the review to a minimum.

## **RESPONSIBILITIES OF THE REVIEWERS**

Peer review is the means through which manuscripts are accepted for publication in scientific journals. Therefore, the reviewers have the following responsibilities:

- The peer review should be performed by experts.
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- The content of manuscript should not be disclosed to others.

The purpose of the review is to provide information that is useful to the authors. The review process may reveal errors or potential problems associated with the performance of the experiments, and presentation or interpretation of data. Therefore, the main value of the review process is to offer strategies to correct or improve the data or the content of the manuscript. Reviewer should point out as how to improve the presentation or interpretation of the data. All comments should be constructive and should not contain language that causes the authors to become frustrated, depressed or angry. Work that is submitted to be published is the outcome of hard work and labor and should not, by any means, be ridiculed. The reviewers can report their decisions within the on-line reviewer E-mail box or via E-mail. Otherwise it is recommended that the evaluation form be sent via fax to the editorial office and the original copy along with all the figure sets be sent back to the to the editorial office. Money and labor are invested in generation of glossy

figures, therefore, such materials should be immediately returned to the editorial office after the reviewing.

## **PROOFS AND REPRINTS**

Once the manuscript has been accepted, the galley of the manuscript will be submitted electronically as an E-mail attachment to the corresponding author. The galley should be corrected and returned to the editorial office within 48 hours.

## **MANUSCRIPT PROCESSING FEE**

Certain fees apply for the preparation of various formats and layouts such as those prepared for creation of reprints, for creation of the Portable Document Format (PDF), and for HTML coding of the document. For additional information, please contact the editorial office.

The authors may present a video summary of their findings as a lecture and express their views of the future directions of their research.

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● Manuscripts are published prior to the date of their citation in indexing services generally before Jan 1, May 1 and Sept 1 of each year. The *Express Open Access* (<http://www.bioscience.org/current/inpress.htm>) will make it possible for each manuscript to be published and be available as open access, 7 days after acceptance. Once cited by MEDLINE, each manuscript is identified by the specific number assigned by PubMed (PubMed number) or UID (such as 9159189). CrossRef assigns digital object identifier (DOI) to enhance retrieval of each document. A manuscript with the following citation:

**[Frontiers in Bioscience 10, 1-11, January 1, 2006]**

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## **CITATION OF FRONTIERS IN BIOSCIENCE BY INDEXING SERVICES**

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PO Box 160  
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## **EDITORIAL OFFICE**

**S Tabibzadeh, MD  
Frontiers in Bioscience  
PO Box 160  
Searingtown, NY 11507-0160**

Tel: 516-484-2831  
E-mail: [fbs@bioscience.org](mailto:fbs@bioscience.org)  
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