

STYLE GUIDE FOR CONTRIBUTORS

Current Protocols in Mouse Biology

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CURRENT PROTOCOLS IN MOUSE BIOLOGY (CPM₀)
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Quick Guide to Article Structure

The standard elements listed below are fully described in the
“Organization of the Manuscript” section of this guide

- Title Page
title, author(s), affiliation, phone/fax/e-mail contacts, 3-7 keywords for indexing
- Abstract
brief overview of the article, does not include references; maximum length 150 words
- Article Introduction
describes content and provides a short description of individual protocols in article
- Strategic Planning (item 5; optional)
procedural options (e.g., protocol selection, vector construction) for complex methods
- Basic Protocol(s)
 - Title
parallel with other titles in article; more specific than article title
 - Introduction
gives context of protocol with regard to article as a whole; summary of procedure
 - Materials
list of solution names and special equipment; cross-references to supporting methods
 - Steps and Annotations
steps in active voice; specific details for novice investigators
 - Tables and/or Figures
to illustrate setup or results; may also be included in other sections
- Alternate and/or Support Protocols
same elements as for Basic Protocol
- Reagents and Solutions
recipes for solutions in all protocols; storage conditions (shelf life & temperature)
- Commentary
 - Background Information
theory, discussion of literature, comparison with other methods, applications, etc.
 - Critical Parameters
points to consider before beginning experiments
 - Troubleshooting
suggestions for commonly encountered problems
 - Anticipated Results
 - Time Considerations
- Literature Cited
follow Current Protocols style for journals/books in this guide
- Key References with Annotations (optional)
- Internet Resources with Annotations (optional)

Style Guide for Contributors

Objectives and Audience

Many subscribers to Current Protocols are trained in the subject covered, but are neither trained nor experienced in a large proportion of the procedures described. Therefore, sufficient detail must be provided to permit duplication of the protocols in any laboratory, whatever the disciplinary background or level of sophistication. For the benefit of the novice experimenter, very specific information should be included where it is important to the success of the protocol. It is preferable to provide too much instructional detail rather than not enough.

Submission of Manuscript

The manuscript should be submitted to Current Protocols via ScholarOne Manuscripts, our electronic manuscript submission system. You will receive instructions on how to use this system in emails from our editorial office.

If you have questions, the address and phone number of the Developmental Editor are listed on the cover page of this guide. Also listed are the addresses and phone numbers of the editorial board members, whom you can contact regarding questions of scientific content or approach.

Role of Contributors

The procedure you provide should be reliable and efficient, and should provide tips and expertise based on your experience. Your name will be listed on the protocol, so the procedure will be associated directly with you.

As a contributor, you are responsible for submitting revisions or corrections to your published protocol to maintain its accuracy and timeliness. If you have improved the methods, contact the assigned editorial board member or the Developmental Editor, and your changes will be scheduled for a future update.

Length of the Manuscript

Current Protocols does not impose strict length requirements on manuscripts. The length of the manuscript should be dictated by the topic presented. If the editors feel that the length of the article is a concern, they will discuss the possibility of dividing the content into multiple articles.

Organization of the Manuscript

Current Protocols uses two types of articles, the overview style and the protocol style. Sample published articles of the protocol style are available at <http://www.currentprotocols.com>. Contact the developmental editor for a sample of an overview article.

Overview style:

An overview article is presented as explanatory text with no protocol steps. It is not meant to be a thorough review of a subject, but rather an introduction to the major concepts; it is a useful format for summaries of key topics. You have a great deal of leeway in designing such an article. Up to four levels of headings can be used.

Protocol style:

The Quick Guide to Article Structure outline on the previous page illustrates the required organization of the standard protocol article. Listed below, corresponding to each element in the outline, are descriptive passages of these elements, *listed in the order in which they should appear in your manuscript*. It is important that you

include all the elements described herein (except those listed as optional). Contact the Developmental Editor with any questions regarding the format or style of your submission.

1. Title Page. Include title of manuscript, all authors' names in the order in which they are to appear in the citation, all affiliations, phone and fax numbers, and an e-mail address for the corresponding author. The article title describes the function of the protocol(s) in your article. Define all abbreviations and avoid the use of words such as “method,” “technique,” “procedure,” and “protocol” in the article title.

2. Abstract. Provide a brief (1 paragraph, less than 150 words) informal summary of your manuscript without references. The abstract will be freely available to the public and may be the only information a reader may have to determine whether to acquire an individual article. Try to explain the importance of the article and its contents as well as possible. Also note that this abstract will be available to indexing services (e.g., PubMed).

3. Keywords. Provide three to seven keywords which best summarize the principal topics of your manuscript. Do not repeat words in the manuscript title or use the word ‘protocol’.

4. Article Introduction. The article introduction should provide only a brief context for the manuscript (why the protocol is performed and/or how it relates to other articles in the category). It should also describe the general approach of the methodology involved and briefly name and compare each of the protocols that are included.

5. Strategic Planning (optional). Occasionally a method is sufficiently complex that a Strategic Planning section is required. This section describes various procedural options (sometime with flow charts), planning, experimental design, choice of reagents or conditions, etc.

6. Basic Protocol Title and Introduction. The basic protocol title is more specific than the article title; it should describe the approach being used and differentiate it from other protocols in the manuscript. Each protocol must have an introduction which describes the purpose, methodology, and output of that protocol.

7. Basic Protocol Materials List. The materials list should consist of the following segments:

- *solutions and reagents*, listed in order of use
- *special equipment* (items not readily available in the laboratory or that require special preparation), also listed in order of use

If not self-descriptive (e.g., 2.5 M CaCl₂), each listing should be accounted for by either a *recipe* (in the Reagents and Solutions section, see below) or a commercial supplier of that item.

List suppliers especially when (1) the particular brand has actually been found to be of superior quality, or (2) the item is difficult to find in the marketplace. Please provide full address, phone/fax numbers and website URLs for inclusion in the **Suppliers Appendix**.

8. Basic Protocol Steps and Annotations. The protocol steps should describe the actions performed, employing **active voice**: e.g., “Connect the outlet of the vacuum flask...” rather than “The outlet of the vacuum flask is connected to...”

When there are more than 10 steps to a protocol, provide **subheadings** to clarify the sequence of steps at each major juncture in the experiment. These, too, should be in the active tense, e.g., “Lyse the cells....”

Within steps, please provide the following parameters:

- For reagent storage conditions: “Store up to (shelf life) at (temperature)”
- For centrifugation: “Centrifuge (duration) at (speed) x g, (temperature)”
- For incubation conditions: “Incubate (time) at (temperature)”

Useful additional information can be included after some protocol steps (as needed) in the form of italicized **annotations**. These may cover special tips for performing a step successfully, descriptions of *why* a step is performed, emphasis regarding crucial parameters, descriptions of expected results (e.g., appearance of solution), alternate ways to perform the step, cautions regarding hazardous materials or other safety conditions, time considerations, storage information, and theoretical asides.

9. Alternate and/or Support Protocols. **Alternate protocols** are included when the basic protocol is inappropriate for certain important applications, or if different materials are widely used in other labs. **Support protocols** should be provided to supplement the basic protocol where necessary (e.g., to describe preparation of a complex reagent used in the basic protocol); it is preferable to list a separate protocol for preparatory techniques, than to combine everything into one extremely long protocol.

- a. Alternate/support protocol title and introductory text (statement of purpose).** Each alternate and support protocol should have a distinguishing title (parallel in construction to the basic protocol) and an introduction describing why the particular protocol is being included in the manuscript (for *alternate protocol*: why it is performed instead of the basic protocol and how the steps differ; for *support protocol*: description of its relation to the protocol it is supporting).
- b. (Additional) Materials.** Alternate and support protocols should each have their own list of materials and special equipment; however, for alternate protocols, materials and special equipment that already appear in a prior materials list(s) in the same article should not be listed again. In such a case the heading should be “Additional Materials (also see Basic Protocol).” For support protocols, either a full Materials list or an abbreviated Additional Materials list may be used.

10. Reagents and Solutions. This section appears after the last protocol and should list recipes for all solutions or other items requiring special preparation. The individual reagent names are organized in *alphabetical order*, with respective recipes usually in list format.

For each ingredient listed in a recipe, provide both quantity *and* final concentration. If concentration is indicated as a percentage, indicate whether (v/v), (w/v), etc. In addition, *always provide storage conditions* (temperature and length of time) for each recipe. For example: “Store up to 1 month at 4°C.” or “Prepare fresh just before use.”

11. Commentary. A commentary section is required and should include each of the following five subsections:

- a. Background Information.** A brief discussion of the theory and applications of the procedure. Some or all of the following elements could be included in this section:
 - why the procedure is performed (historical development, where pertinent);
 - the central advantages (and disadvantages) of the technique (with brief descriptions and references for alternative methods);
 - comparison of basic and alternate protocols or comparison with other methods currently in use;
 - applications of methods;
 - citation of original or useful literature and brief discussion of primary references;
 - biochemistry of reactions.
- b. Critical Parameters.** Information that is critical to the success of the experiment, supplementing or repeating comments in the protocols or annotations.
- c. Troubleshooting.** Discussion of problems that may be encountered in the procedure (including variations from anticipated results) with suggested remedies. Sometimes itemized in a 3-column table of Problem, Possible Cause, and Solution (see below for brief example).

Table X. Troubleshooting Guide for DNA Blotting and Hybridization Analysis

Problem	Possible Cause	Solution
Poor signal	Probe specific activity too low	Check labeling protocol if specific activity is $<10^8$ dpm/ μ g

Spotty background	Particles in the hybridization buffer	Filter the relevant solution(s)
	Agarose dried on the membrane	Rinse membrane in 2× SSC after blotting

Critical Parameters and Troubleshooting are among the most popular features of Current Protocols since readers can avoid common procedural problems based on the experience of experts (you, the author). Remember, the commentary is being pitched to investigators who have never performed the technique.

Optionally, the two preceding sections may be combined into one entitled “Critical Parameters and Troubleshooting.”

- d. Anticipated Results.** A discussion of the yield or other results that can be regularly achieved with this protocol, and/or the range of yields that might result from different applications, experimental conditions, or other departures from the listed protocol.
- e. Time Considerations.** Summary of the time frame for completing the full protocol (may be divided into steps for lengthy or complex procedures), again with a range for predictable departures from the technique. Discuss hands-on time as well as total time, including incubation. Where appropriate, discuss number of samples that can be processed by an experienced investigator in an appropriate amount of time (e.g., "With practice, three 96-well plates can be assayed and scored in one day."). Also, if pertinent, mention convenient stopping points or steps that can be lengthened or abbreviated.

12. Literature Cited. Full references to any literature cited in the article. References in this section should be listed alphabetically according to the following style:

a. Journal article

Baker, R.H. Jr., Suebsaeng, L., Rooney, W., Alecrim, C.C., Dourado, H.V., and Wirth, D.F. 1986. Specific DNA probe for the diagnosis of *P. falciparum* malaria. *Science* 231:1434-1436.

b. Book

Hartmann, R.K., Binderelf, A., Schon, A. and Westhof, E. 2005. Handbook of RNA Biochemistry. John Wiley & Sons, Hoboken, N.J.

c. Chapter in a book

Matthews, B. 1983. Liposome-mediated delivery of DNA to plant protoplast. *In Handbook of Plant Cell Culture, Vol. 1: Techniques for propagation and breeding* (D.A. Evans, W.R. Sharp, P.V. Ammirato, and Y. Yamada, eds.) pp. 520-540. Macmillan, New York.

All references listed in this section must be cited in the article. Entries should include the names of all authors. Citations in the text are according to the style “(Smith, 1989; Jones and Smith, 1992)” or “as described by Ausubel et al. (1991),” where “et al.” is employed for references with three or more authors.

13. Key References with Annotations (Optional). One (or more) key reference may be supplied. These may, but need not necessarily, be drawn from the literature-cited list. A key reference might be a seminal journal article, an elucidating review chapter or paper, or an important book. For each one, provide a one-sentence descriptive annotation, explaining to the reader why this reference is of particular value.

14. Internet Resources with Annotations (Optional). Listing of Web sites, FTP servers, and the like that are of particular interest or utility to the researcher. For each one, provide a one-sentence descriptive annotation signaling to the reader why you consider this resource to be of particular value. For example:

<http://www.bbri.harvard.edu/rasmb/rasmb.html>

Web site for most recent programs and discussion group on analytical ultracentrifugation.

Figures

Appropriate figures illustrate some aspect of the protocol (equipment, flow chart of steps, appearance of gradients, etc.) or expected results. Submit electronic files as supplementary information during the manuscript submission process. See the *Current Protocols Art Guidelines for Authors* that follow for details of acceptable image file formats.

All figures must be cited in the article and accompanied by a detailed figure legend. Figures should be referred to as Figure 1, Figure 2, etc. If previously published, cite the original source(s) and provide a Permission Request Form (see below). Contact the Developmental Editor if you have questions.

Tables

Tables should be self-explanatory and prepared on separate pages at the end of the manuscript. Include a table number, table title, and explanatory footnotes. Cite each table in the text of the manuscript. If previously published, cite the original source(s) and provide a copyright permission form (see below).

Videos/Movies

Current Protocols encourages authors to submit videos/movies that enhance understanding of the procedures described in the protocols. Such a video would illustrate a process involved in carrying out a protocol, particularly if that process requires special skills. For an example, see the videos available at <http://www.currentprotocols.com>.

Videos acceptable for inclusion in an article must meet certain requirements.

- Created in QuickTime or Windows Media Player format
- No larger than 20 MB
- Run time of ideally no more than a few minutes
- Be of suitable quality for web publication

Videos will be used as submitted, if acceptable. We will do no editing. Video files should be submitted with the manuscript, but separate from it.

Each video should be cited within the manuscript at the step the video illustrates. And each video should be listed at the end of the submitted manuscript (after Figure Legends) with (1) an identifying file name, (2) a title for the video, and (3) a video legend describing the content. The title and legend will be used, with the video identification, on the website to help the reader find the appropriate video.

Abbreviations, Measurements, and Mathematical Notation

Current Protocols manuals follow the guidelines of the *American Society for Microbiology Style Manual for Journals and Books* (ASM, Washington, D.C., 1991). Please define all standard abbreviations at their first usage and clearly indicate the accepted style (bold, italics, upper- or lower-case, super- or subscript) for names of organisms, genetic elements, commercial products, etc.

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Please do not hesitate to contact the Developmental Editor or our offices at any time. We would appreciate any suggestions you might offer.

Current Protocols Art Guidelines for Authors

GENERAL REQUIREMENTS

- ❑ Publication quality digital files or high quality hardcopy originals (suitable for scanning) must be provided for all figures.
- ❑ The font used for all labeling in figures should be Helvetica (or a similar sans serif font). All graphs should have axis labels.
- ❑ If the figure requires a key (e.g., “◆ morphine, □ dexamethasone, ● nimesulide”), the key should be part of the figure (not the figure caption).
- ❑ Panel identifiers should be bold Helvetica capital letters (**A**, **B**, **C**, etc.) and should appear in the upper left-hand corner of each panel.

DIGITAL FILES

- ❑ **Preferred formats:** Digital files should be in EPS or TIF format. TIF format with a resolution of 266-300 dpi produces the best results for halftone images; EPS format produces the best results for line art and graphs.
- ❑ **Other acceptable formats:** If you are unable to supply files in a preferred format, we may be able to use files in other formats (e.g., JPG, PhotoShop, Illustrator, and ChemDraw). Please be sure that the files are of print publication quality and to provide us with information about the file format and software version used to create the image.
- ❑ **Screenshots** should be JPG, GIF, or TIF files saved at screen resolution (i.e., 72-96 dpi).
- ❑ **PowerPoint:** If you have created a graph or flowchart in PowerPoint, submit the images as PowerPoint files. However, images created with other software (e.g., Illustrator) should be submitted as TIF, EPS, or the original application format. Importing those images into PowerPoint will significantly reduce their print quality.
- ❑ **PDF and Microsoft Word:** Figures converted to PDF or imported to Microsoft Word will usually produce very poor results and sometimes be unusable by production. These formats can be useful during manuscript review, but for final submission figures should be in one of the formats listed above.

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