

STYLE GUIDE FOR CONTRIBUTORS

Current Protocols in Cell Biology

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Quick Guide to Unit Structure

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

- Title Page (item 1)
title, author, affiliation, phone/fax/e-mail contacts, key terms, abstract (in 150 words), disk information
- Unit Title and Unit Introduction (item 2)
gives context in relation to chapter; short description of individual protocols in unit
- Strategic Planning (item 3; optional)
procedural options (e.g., protocol selection, vector construction) for complex methods
- Basic Protocol(s)
 - Title (item 4)
parallel with other titles in unit; more specific than unit title
 - Introduction (item 4)
gives context of protocol with regard to unit as a whole; summary of procedure
 - Materials List (item 5)
solution names and special equipment; cross-references to supporting methods
 - Steps and Annotations (item 6)
steps in active voice; 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 (item 7; optional)
same elements as for Basic Protocol
- Reagents and Solutions (item 8)
recipes for solutions in all protocols; storage conditions (shelf life & temperature)
- Commentary (item 9)
 - 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; see sample at end of this guide
 - Anticipated Results
 - Time Considerations
- Literature Cited (item 10)
follow Current Protocols style for journals/books in this guide
- Key References with Annotations (item 11; optional)
- Internet Resources with Annotations (item 12; optional)

Style Guide for Contributors

Product Information

Current Protocols manuals are 8½ × 11 inch loose-leaf manuals that are regularly updated. The manuals are organized into **chapters**, each in turn containing a number of units. The **unit** is the major component of the manual and the focus of your contribution; it consists of a series of steps—a protocol or several related protocols—plus supporting material such as recipes (for reagents) and commentary. Occasionally, a unit is all “discussion”—explanatory text with no protocol steps.

Objectives and Audience

Many purchasers of Current Protocols are trained in the subject covered, but many 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. Thus, 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 that you provide too much detail that can be edited at the discretion of the editorial board, rather than not enough detail.

Role of Contributors

The procedure that you provide should be reliable and efficient. It is also important that the technique be appropriate for mainstream laboratories, i.e., that the equipment or other materials required for your protocol be widely used or available. Some procedures may require special equipment or special preparation. (These are to be itemized in the materials list of the protocol according to item 5 below). Your name will be listed on the protocol, so that widespread adoption of the procedure will be associated directly with you.

As a contributor, you are responsible for submitting revisions or corrections to your protocol to maintain its accuracy and timeliness. Contact your chapter editor or the Developmental Editor, and your changes will be scheduled for a future supplement. Feedback is solicited from users of the manual with regard to the utility of protocols. Suggestions will be screened and sent to you for your consideration toward revisions.

Organization of the Manuscript

Current Protocols uses two types of units, the discussion style and the protocol style. Sample published units of both styles are available at <http://www.currentprotocols.com>, (see sample units). Please refer to these samples for concrete examples.

Discussion style:

A discussion unit is presented as explanatory text with no protocol steps; it is a useful format for overviews of key topics. You have a great deal of leeway in designing such a unit.

Protocol style:

The outline on the previous page illustrates the required organization of the standard protocol unit. 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), even if your assigned material does not constitute a full unit (e.g., if you are adding a protocol to an existing unit, be sure to provide inserts reflecting this addition to the unit introduction, Reagents and Solutions, Commentary, and Literature Cited). Please feel free to contact the Developmental Editor with any questions regarding the format or style of your submission.

1. Title Page. Include title of manuscript, author's name(s) and affiliation(s), phone and fax numbers, and e-mail address; five or more key terms (for indexing purposes); a formal abstract of up to 150 words describing the unit

and indicating what makes it valuable to readers (to be added as a prepublication announcement to the Current Protocols homepage); and information about accompanying diskette as described below.

This page is not technically part of the unit, but helps us identify your manuscript.

2. Unit Title and Unit Introduction. The unit title succinctly describes the function of the protocol(s) in your unit and should be parallel in construction with the other unit titles of the chapter (refer to the outline of the manual and consult the chapter editor if necessary or see Table of Contents for the book, available at <http://www.currentprotocols.com>). Define all abbreviations and avoid the use of words such as “method,” “technique,” “procedure,” and “protocol” in the unit title.

The first few sentences of the unit introduction provide a context for the unit (why the protocol is performed and/or how it relates to other units in the chapter). Second, when only one protocol is contained in the unit, the unit introduction proceeds to summarize the actual steps of the basic protocol. When multiple protocols are presented in the unit, the second portion of the unit introduction indicates the general approach of the methodology involved and briefly names and compares each of the protocols that are included. Any important topic-specific terminology or abbreviations should also be defined here.

The unit introduction should not be confused with “Background Information” (see item 9 below, “Commentary”), which appears toward the end of a unit; the purpose of the unit introduction is to briefly orient the reader to the protocol steps.

Optional paragraphs that can close the unit introduction are notes or cautionary statements that apply to all the protocols in the unit. For example,

NOTE: *All incubations are performed in a humidified 37°C, 5% CO₂ incubator unless otherwise specified.*

CAUTION: *DMSO is hazardous; see APPENDIX 2A for guidelines on handling, storage, and disposal.*

3. Strategic Planning (optional). Occasionally a protocol is sufficiently complex that a Strategic Planning section is required, either at the end of the unit introduction (when pertinent to several protocols) or prior to the materials list and steps of an individual protocol. This describes in paragraph form various procedural options. The Developmental Editor can provide you with examples of Strategic Planning sections.

4. Basic Protocol Title and Introduction. These are included when the unit has more than one protocol. The basic protocol title is more specific than the unit title; it should describe the approach being used and differentiate the steps from other protocols (alternate and support) in the unit. Please note that the titles of all protocols in the unit should be parallel in construction and need not repeat key words that appear in the unit title.

The basic protocol introduction summarizes the specific approach of that protocol, mentioning important reagents, equipment, etc., that are employed. Occasionally a lead-in statement of context may also be appropriate, although this should not duplicate the contextual description in the unit introduction.

5. Basic Protocol Materials List. The materials list should consist of two to three segments:

- *solutions and reagents*
- *special equipment* (items not readily available in the laboratory or that require special preparation). Standard lab equipment is itemized in an appendix to each CP manual. If your unit is for the initial core volume of a manual, be exhaustive in listing equipment; a list of standard equipment will be generated by the Editorial Board during the book’s development, and your materials list will be edited accordingly.
- where applicable, a third, single run-on entry, “*Additional reagents and equipment for procedure (UNIT X.X);*” this entry is meant to avoid the listing of materials and steps for a procedure that can instead be cross-referenced to another unit by number. Especially for common procedures, please check whether portions of your protocols can be effectively covered by such cross-references; be sure to provide appropriate connecting information (e.g., amount of sample or cells to use). (In the initial core volume of each manual,

contributors will generally not be able to provide this information, although you may refer to the outline and consult the chapter or Developmental Editor if necessary.)

All materials and equipment are to be listed *in order of use* in their respective categories and—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, or a *cross-reference* to a recipe elsewhere in the manual. In addition, recommendations regarding specific suppliers may be noted here (especially if a particular supplier is critical or if the item is difficult to obtain). Give trade names of reagents only if recommending a specific supplier and provide correct name including capital letters, italics, super- or subscripts, and symbols.

List suppliers only 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** (amended yearly).

6. Basic Protocol Steps and Annotations. The protocol steps should describe the actions performed, employing the **active tense** versus the passive: e.g., “Connect the outlet of the vacuum flask...” rather than “The outlet of the vacuum flask is connected to...” Additionally, when there are more than 10 steps to a protocol, provide **sub-headings** to clarify the sequence of steps at each major juncture in the experiment; these headings do not affect the consecutive numbering of the protocol steps, but help organize a long protocol. These, too, should be in the active tense, e.g., “Lyse the cells...”

Useful auxiliary 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.

7. Alternate and/or Support Protocols. **Alternate protocols** are included when the basic protocol you have chosen 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; it is preferable to list a separate protocol for, e.g., preparatory techniques, than to combine everything into one extremely long protocol. (This strategy is also helpful for later cross-referencing of procedures in the manual.) If the procedure is very short, you may employ a textual rather than a step-by-step format for the alternate/support protocols, although it is preferable, for clarity, to itemize steps whenever possible.

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 unit (for *alternate protocol*: why it is performed instead of the basic protocol and how the steps differ; for *support protocol*: description of relation to 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 unit should not be listed again. In such a case the heading should be “Additional Materials.” For support protocols, either a full Materials list or an abbreviated Additional Materials list may be used.

8. Reagents and Solutions. This section should list recipes for all solutions or other items requiring special preparation used in all the protocols in the unit (with the exception of recipes that are cross-referenced to other units in the manual). The individual reagent names are organized in *alphabetical order*, with respective recipes usually in list format. Optionally, sets of similar items may be grouped under one generalized name: e.g., “Standards,” “Dye Solutions.” Additional descriptive text and/or annotations may be included after the ingredient listing of each recipe. Use these options to provide advice or precautionary statements with respect to the handling of chemicals, indications to specific brand-name chemicals proven to be most effective, and similar information.

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 item.

9. Commentary. A complete commentary section should include at least a few sentences of discussion for each of the categories listed below.

a. Background Information. A brief discussion of the theory and applications of your 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 chosen (with brief description 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.

This section is distinct from the unit introduction. The unit introduction is a practical organizational tool while Background Information helps the reader develop an intuitive sense of the experimental design.

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 the problems that may be encountered at any point in the procedure (including variations from anticipated results) with suggested remedies. Sometimes itemized in a 3-column table of Problem, Possible Cause, and Solution.

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

Critical Parameters and Troubleshooting are among the most popular features of Current Protocols. Remember, the commentary is being pitched to investigators who have never performed the technique.

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.

Even the simplest procedures have results, although they might not be quantifiable. This section should always be included, no matter how short it may be.

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. Also, if pertinent, mention convenient stopping points or steps that can be lengthened or abbreviated.

This type of information may also be useful in the annotations to protocol steps.

10. Literature Cited. Full references to any literature cited in the unit. 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

Sambrook, J., Fritsch, E.F., and Maniatis, T. 1989. *Molecular Cloning: A Laboratory Manual*, 2nd ed. Cold Spring Harbor Laboratory, Cold Spring Harbor, N.Y.

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

Government regulations and protocols should be cited as described above at first mention but may thereafter be referred to by number, if applicable: “EPA Method 8080 (EPA, 1992)”; later, “EPA Method 8080.”

11. Key References with Annotation (Optional). One (or more) key reference should be supplied. (These may, but need not necessarily, be drawn from your 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 you consider this reference to be of particular value.

12. Internet Resources with Annotations (Optional). Listing of World Wide 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.

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

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

Figures

If appropriate, submit one or more diagrams to the Developmental Editor, illustrating some aspect of the protocol (equipment, flow chart of steps, appearance of gradients, etc.) or a graph of the expected results. Submit hard copy of all figures. If the figures are computer-generated, please also include the electronic files on diskette and do not embed them in the manuscript document; *see the Guidelines for Current Protocols Illustrations and Photographs that follow for details of acceptable image file formats*. If your figures are sufficiently detailed, we may elect to use the original art but will rework the labels to match our type font and style. Noncomputer-generated sketches will be redrawn electronically by our staff artist. Of course, we will confer with you about these options, and you will be asked to approve the final renderings. *Contact the Developmental Editor if you have questions.*

Photographs, which will print as halftones (glossy prints, not negatives), may be submitted. Be sure to include your name and the figure number on the reverse side of the print.

Halftones and sketches for line drawings should be referred to, e.g., as Figure 1, Figure 2, etc. All figures must be cited in the unit. If previously published, cite the original source(s) and provide a Permission Request Form (see below). Contact the Developmental Editor if you have questions.

IMPORTANT: Include corresponding figure legends at the end of your manuscript.

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 your manuscript and indicate approximate location. If previously published, cite the original source(s) and provide a copyright permission form (see below).

Videos/Movies

Current Protocols is now accepting 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> on the Cell Biology Home Page.

Videos acceptable for inclusion in a unit must meet certain requirements.

- Created in QuickTime or Windows Media Player format
- No larger than 10 MB
- Run time less than 60 seconds
- 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.

Submission of Manuscript

Manuscript should be double-spaced and submitted with CD to the Developmental Editor by the date specified in your letter of agreement. 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.

Be sure to include the following information with the disk: the type of computer (IBM, Mac), the word processing program and version number (e.g., Microsoft Word 6.0, WordPerfect 6.0), and the file name. *Contact our office if you have questions.* Do not embed figures or tables in manuscript files; include them on the disk as separate files.

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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.

ART GUIDELINES FOR AUTHORS CURRENT PROTOCOLS/JOHN WILEY & SONS

GENERAL REQUIREMENTS

- ❑ Line drawings (graphs, charts, etc.) should be submitted as high quality, camera-ready prints (either glossy or from a laser printer). Your artwork will not be redrawn.
- ❑ Halftones (photographs and gels) should be submitted as camera-ready, glossy prints.
- ❑ The FONT used for all labeling in figures should be HELVETICA medium type (or a similar sans serif font).
- ❑ LABELS are generally LOWERCASE, except the X and Y axis labels on graphs, where the first letter should be capitalized. 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 HELVETICA medium type (not bold), capital letters (A, B, C, etc.) and should appear in the upper left-hand corner. They should be 4 POINTS LARGER than the labels.
- ❑ Please note, your FIGURE will be REDUCED TO less than FIVE INCHES wide in order to fit the page. At this size, labels should be approximately 9 points and panel identifiers should be approximately 13 points.

DIGITAL FILES

- ❑ **REQUIRED:** CAMERA-READY HARD COPY MUST BE SUPPLIED FOR ALL ARTWORK even if electronic files are provided.
- ❑ **PREFERRED:** DIGITAL FILES for all figures should be in TIF or EPS format with resolutions of 266-300 dpi.
- ❑ **LESS DESIRABLE, BUT ACCEPTABLE:** We may be able to use files in these less desirable formats: JPG, GIF, and PostScript, and some native applications: PhotoShop, Illustrator, Canvas, and ChemDraw.
- ❑ **NOT ACCEPTABLE:** We cannot accept PowerPoint, BMP, or embedded figures (e.g., figures imported into word processors)! Do **NOT** just use the "save as" function to make this type of file into a TIF or EPS file...this process does not increase the resolution for these low-resolution files or improve the files in any way.
- ❑ **SCREENSHOTS** should have files saved at 72-96 dpi (i.e., the resolution of your screen).

COLOR FIGURES

- ❑ Due to the great expense of color printing, most art with COLOR ORIGINALS WILL APPEAR in BLACK-AND-WHITE in the print version and in color ONLINE.
- ❑ We cannot redraw color art in order to convert different colors into B&W patterns.
- ❑ Only figures which truly require color to be meaningful will be printed in color. Please check with your developmental editor if you believe your figure must be printed in color.
- ❑ Files for figures that will be printed in color must be TIF or EPS files saved as CMYK format (with a resolution of 266-300 dpi).
- ❑ Color camera-ready, glossy copy must be supplied in addition to the electronic file.
- ❑ **Questions?** Please contact your editor or Tom Cannon, Current Protocols Digital Production Manager, 201-748-6110, tcannon@wiley.com

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