

CARE Scholars

Progress Report

Research Paper

***DUE in the URC/CARE office:
The First Monday after Finals***

A Research Paper summarizing your work in the lab will serve as your progress report for CARE Scholars. This Research Paper will be added to each quarter you are a CARE Scholar. As a result, by the time you graduate you will have written a thesis that describes all aspects of your research experience. The format will be much like a traditional scientific paper with defined Introduction, Methods, Results, Discussion and References sections. The text must be clear and concise; all unusual terms must be defined. All sources must be cited. For this first submission, all papers must contain at least two references to scientific reviews in your field of study.

In writing your research paper, think about your audience. Your job is to give sufficient background to allow any reader to understand the field. You also need to clearly explain the hypothesis you have tested as well as the approach you have taken and the conclusions you have made. Dr. Hasson will be evaluating your paper for both scholarly content and for clarity. Keep in mind that this paper is not the final version. Each quarter your paper will be revised and added to. Therefore your paper will likely not tell the whole story.

Assignment:

- Write a research report in the format of a journal article that summarizes the work you have done during your time in the lab. There is no page limit.
- Prepare professional quality figures. Each figure should include a descriptive figure legend.
- Annotate your research report with in-text citations and attach a complete reference list.

Please follow the following format for your paper:

Page 1. Title page.

The format is as follows.

The Title of the Paper, Centrally Located on the Page

Your full name
Your faculty's name
Your faculty's department
CARE Scholars, Quarter Year
The date

Page 2. Abstract (250 words max.)

The abstract should include a brief intro, a description of the hypothesis or question tested, the approach used, the results seen and the conclusions of the work. **Please place a word count at the bottom of the abstract. WORD COUNT:** _____

Text of the paper.

The text of the paper has four parts: Introduction, Materials & Methods, Results & Discussion. There is no page limit however **it is expected that the text will be at least 6 pages long if this is your first quarter as a Scholar.** It will be longer if you have done research for a longer period of time as each quarter you will be adding to these four sections.

Introduction: The introduction should provide sufficient background information such that a scientifically literate reader can understand and appreciate the experiments to be described. It must include references to reviews (2 minimum). It will likely include common abbreviations that will be used throughout the document. It should end with the specific aims of your project. In other words, the introduction should lead up to the question you are addressing in your work. You can include a figure in your introduction if you choose.

Materials & Methods: Materials and/or subjects utilized in the study as well as the procedures undertaken to complete the work. The methods should be described in sufficient detail such that they could be repeated by a competent researcher. Illustrations and/or tables may be helpful in describing complex equipment or elaborate procedures. Please include information on experimental protocols used, the sources of unique reagents (antibodies etc), names of constructs you used or created, and references to published methods. You do NOT need to include common methods such as cloning steps, or sequencing. When in doubt: include the method and we can always shorten it later.

Results: The results section should describe the rationale for each experiment, the results obtained, and the conclusions derived from each experiment. Results should be organized into figures and tables with descriptive captions. The captions, although brief, should tell the reader the method used, explain any abbreviations included in the figure, and should end with a statement as to the conclusion of the figure. It is a good idea to try to lead the reader through the thought processes that led you from experiment to experiment.

Figures: All figures must have a title and also an accompanying figure legend. Each figure should be on a separate page which includes the title and legend. Place the figures at the END of your document. Do not try to incorporate the figures into your text. Be sure to make reference to your figures (e.g. As shown in Figure 2,). If you get your idea for your figure from another paper, cite this paper in the figure legend e.g. This figure is a modified version of Figure 3 appearing in Jones et al., (1999). There is no figure limit.

Discussion:

The first paragraph: The first paragraph of the discussion should reiterate the key points of your research and the major conclusion(s).

The body of the discussion: This section should relate the conclusions derived from the results section to current understanding of the scientific problems being investigated in your field. Therefore, references to other papers in your field should be included here. The discussion is also

where you can bring in your own model. You can include a figure in your discussion if you choose.

The last paragraphs: At the end of this section you should discuss the significance of your results - i.e. does the data support the hypotheses you set out to test? If not, here is your chance to discuss this situation.

The last paragraph of your discussion is where you state what you plan to do next. What new questions have arisen from your work? For new researchers such as yourselves, this may be the major component of your discussion. It is here that you look ahead to the next quarter and present your future plans, much as you did in the 2nd paragraph of the extended abstract. For example: If your research has led you to investigate a new specific question or has led you to try a new approach, state clearly the hypothesis or question you are testing and how your previous work led you to this question. Explain how you will answer that question including the approach used. Feel free to speculate on your expected conclusion. You will have an opportunity next quarter to discuss whether your expectations were correct.

Reference List.

References should be **placed in alphabetical order by the first author's last name. DO NOT NUMBER THE REFERENCES.** The format we will be using is that used by the journal, *Cell*.

Citations should be included in the document text as follows: For a single author: (Author, Year). For a reference with two authors: (Author1 and Author2, year). For a reference with 3 or more authors: (Author1 et al., year). Abstracts of work presented at meetings should not be cited. Please use the following style for references. Be sure to include full page numbers. **Note how the volume number is in italics.**

Journal Article: (*List all authors in order of appearance*)

Aschenbrenner, L., Naccache, S.N., and Hasson, T. (2004) Uncoated endocytic vesicles require the unconventional myosin, Myo6, for rapid transport through actin barriers. *Mol Biol Cell*. *15*, 2253-2263.

Article in a book:

Sorenson, P.W. and Caprio, J.C. (1998) Chemoreception. In the *Physiology of Fishes*, D.H. Evans, ed. (Boca Raton, FL: CRC Press), pp. 375-405.

An entire book:

Cowan, W.M., Jessel, T.M. and Zipursky, S.L. (1997) *Molecular and Cellular Approaches to Neural Development* (New York: Oxford University Press).

EndNote: Utilization of the program, **EndNote**, makes the insertion of citations into your document easy and is highly recommended. Dr. Hasson has a copy of the program if your faculty advisor does not. To set up EndNote to use the *Cell* format for references go to "Edit > Output Styles > Open Style Manager". Highlight the output style "Cell," and click the "Edit" button.

For instruction on how to use EndNote, including instructions on how to "open a new or existing library," "navigate a library," "sort a library," "edit EndNote options," "add new references manually," "add references directly from PubMed using Connect," and "import data using text files", please visit the following tutorials and slide shows/movies.

- i. <http://www.lib.berkeley.edu/OPTO/enote6.html>
- ii. http://www.lib.berkeley.edu/BIOS/end_import.html
- iii. <http://library.ucsc.edu/science/endnote/>

- iv. <http://library.ucr.edu/?view=help/bibsoftware/index.html%20>
- v. <http://www.endnote.com/support/helpdocs/>

General submission criteria (VERY IMPORTANT)

- Please place your **name in the header in the upper right hand corner** of all pages of your paper **except the title page**.
- If you submit your research paper via email, **the filename must include your last name** (i.e. JosieBruinResearchPaperSummer07.doc).
- All papers must be typed using a **12pt font**. Preferred font: Times New Roman or similar
- Papers should be **double-spaced** with **1” margins** on all sides.
- All pages **must be numbered**. Place the page number in the **bottom center** of the page.

Before you turn in any piece of writing, make sure that it adheres to all of the above criteria.

Late paper policy

All Research Papers must be turned in or emailed to the URC/CARE office, 2121 LSB by 5pm on the due date. All research papers turned into the office must be **signed or email approved by your faculty mentor**, to let us know that your mentor read your paper and discussed it with you.

Because of the nature of this assignment, **late papers will not be accepted**.

Where to email your research paper

Email your paper to: carefs@lifesci.ucla.edu. Don't forget to include your name as part of the title of the document (i.e. JosieBruinResearchPaperSummer07.doc).

Evaluation process

Part of this program entails learning the basics of scientific writing so that you can communicate your research to other scientists. Your submitted research report will be critically reviewed and evaluated by Dr. Hasson and you will be informed by the start of the next quarter whether it needs to be revised to continue in the program. You will be able to pick up your report with its commentary the first week of the next quarter.

If your report is accepted, then you will automatically be eligible to be a CARE Scholar if you continue to work on the same research project the following quarter. You will only have to fill out a short form due the first Monday of 2nd week of the next quarter and there will be no other proposal due.