<u>DEPARTMENT OF CELL BIOLOGY AND NEUROSCIENCE</u> RESEARCH PROGRESS REPORT

<u>A Progress Report is required for successful completion of the CBN research courses</u>. These reports are read and graded by your research mentor before submission to the Director of Undergraduate Advising. The report and letter grade should be provided before the start of the final exam period.

The progress report should be a detailed summary of your work during the semester. The format of a scientific paper is much different than for an essay or term paper. The outline below addresses the basics of scientific writing. It is expected that throughout the semester the student will work closely with their advisor, who will provide guidelines appropriate for their field of research.

Construct a conservative timeline: Writing should begin early in the semester. Rough drafts of the Introduction and Materials & Methods sections are easy to write while you are doing the literature search on your project and beginning to learn the research techniques. A first draft of the entire paper should be submitted to the research advisor at least one week before the final deadline for submission. The paper should include the sections described below.

REPORT FORMAT:

Title Page: A file with a template for the <u>title page</u> should be the first page. The title should be short, descriptive and refer specifically to your project.

In addition to the title page the report should include the following sections:

Abstract: The Abstract is a summary of the project and emphasizes the results and conclusions. It should be very succinct- approximately 200 words in length- and briefly present the objective, experimental design, summary of results, and significance of the study.

Introduction: This section provides the purpose of the experiments performed in the project and an appropriate literature background. The hypothesis and objectives of the study should be included in the Introduction. You should make predictions based on the possible results of the experiment.

Methods: A concise description of the techniques used in your experiments

Results: This section should contain a concise account of the new information. Illustrate data with graphs, tables, pictures of gels, blots, etc., and include figure legends with appropriate statistical analyses. If you did not obtain usable data, please provide a detailed explanation of the problems you encountered and how you plan to modify and continue your project.

Discussion: The Discussion cannot be well-written until the rest of the paper is in good shape. It should address whether your hypothesis was supported or rejected, how the data compare to work done by others, the biological principles which explain what happened in your study, and what experiments should be done next.

References: Citations to the scientific literature are arranged alphabetically. All references cited in the text must appear in this section, and all items in this section must be cited in the text. The formatting of the references varies among journals so select a style which is appropriate for one of the journals in your field. Regardless of the format you choose, it is important to stay consistent within your paper.

Length of report: Consult with your research mentor as to what he or she expects!! There is no set length, although 10-15 pages (double-spaced) seem reasonable for students registered for 3 or more credits. If you previously submitted a progress report for a similar project in the same lab, then you may reuse relevant sections. For example, you may not need to completely rewrite the background and methods sections. If you are registered for fewer than 3 credit hours, your report could be somewhat shorter in length in accordance with the expectations of your research mentor.

Assessment Rubrics: Also submit the <u>assessment 'rubrics' form</u>. Please provide the assessment form to your research supervisor and have this returned he director of advising with your grade. <u>The submission of the research report, letter grade and completed assessment rubrics is required for the successful completion of the CBN research courses.</u>

Please contact the director of advising if you have any questions:

Sidney Auerbach, Ph.D.
Department of Cell Biology & Neuroscience
D410 Nelson Biology Labs
Auerbach@biology.rutgers.edu